

## Supplementary Online Material

### SGA Analysis: Robotic Manipulation of Yeast Arrays

The robotic manipulation of deletion mutant array (DMA) and SGA screens were carried out as described (**S1**). We conducted each SGA screen three times and scored the resultant double mutants for synthetic genetic interactions by both visual inspection and computer-based image analysis. The computer-based scoring generated an estimate of relative growth rates from the area of individual colonies, as measured from digital images of the growth plates. A comparison of a set of mutant measurements to wild-type control measurements enabled t-statistics and p-values to be calculated (**S2**). For each screen, we generated both an unbiased set of putative interactions and a biased set of putative interactions. The unbiased set included double mutants that appeared to form a relatively small colony by the computer-based system, i.e. scored at a t-value of -7.0 or less, and those that were scored repeatedly by visual inspection. The biased set included double mutants that were either scored above a t-value of -7.0 or scored only once by visual inspection but were also related functionally to multiple genes within the unbiased set. To represent gene function, we assigned each gene a GO functional annotation from a defined subset (Table S8). The putative synthetic genetic interactions were confirmed by random spore and/or tetrad analysis. Sporulated cultures from SGA screens were stored at 4°C for the confirmation. Tetrad dissections were carried out on synthetic dextrose (SD/MSG) complete medium. We dissected tetrads for interactions that appeared to be inconclusive in the random spore assay.

### SGA Analysis: Media

The media used in the SGA analysis were described previously (**S1**). Because ammonium sulfate impedes the function of G418 and clonNAT, synthetic medium containing these antibiotics was made with monosodium glutamic acid (MSG) as a nitrogen source; for selection of *MAT $\alpha$*  meiotic progeny, the medium lacked histidine (selects for expression of *MFA1pr-HIS3*) and contained canavanine (selects for *can1 $\Delta$* ) [20g/L agar, 20g/L glucose, 1.7g/L yeast nitrogen base w/o ammonium sulphate and amino acids (Difco), 1g/L monosodium glutamic acid, 2g/L amino acid drop-out lacking histidine and arginine]. Filtered-sterilized solutions of canavanine (50mg/l; Sigma), clonNAT (100mg/l; Werner Bioagents), and G418 (200mg/l; Invitrogen Life Technologies) were added to autoclaved medium as indicated. Solid medium contained 2% agar. (SD/MSG) – His/Arg + canavanine; (SD/MSG) – His/Arg + canavanine/clonNAT; (SD/MSG) – His/Arg + canavanine/G418; (SD/MSG) – His/Arg + canavanine/clonNAT/G418 were used for random spore analysis. Synthetic dextrose (SD/MSG) complete medium was used for tetrad analysis.

### SGA Analysis: Starting Strains and Reporters

All strains are derivatives of BY4741 (*MAT $\alpha$  ura3 $\Delta$ 0 leu2 $\Delta$ 0 his3 $\Delta$ 1 met15 $\Delta$ 0*) or BY4742 (*MAT $\alpha$  ura3 $\Delta$ 0 leu2 $\Delta$ 0 his3 $\Delta$ 1 lys2 $\Delta$ 0*) (**S3**). Four different starting strains were used in the SGA screens, Y2454 (*MAT $\alpha$  mfa1 $\Delta$ ::MFA1pr-HIS3 can1 $\Delta$  ura3 $\Delta$ 0 leu2 $\Delta$ 0 his3 $\Delta$ 1 lys2 $\Delta$ 0*), Y3068 (*MAT $\alpha$  can1 $\Delta$ ::MFA1pr-HIS3 ura3 $\Delta$ 0 leu2 $\Delta$ 0 his3 $\Delta$ 1 lys2 $\Delta$ 0*), Y3084 (*MAT $\alpha$  can1 $\Delta$ ::MFA1pr-HIS3 mfa1 $\Delta$ ::MFA1pr-LEU2 ura3 $\Delta$ 0 leu2 $\Delta$ 0 his3 $\Delta$ 1 lys2 $\Delta$ 0*), the construction of which was described previously (**S1**), and Y3656 (*MAT $\alpha$*

*can1Δ::MFA1pr-HIS3::MFα1pr-LEU2 ura3Δ0 leu2Δ0 his3Δ1 lys2Δ0*). In Y2454, *HIS3* was integrated at the *MFA1* locus such that it is regulated by the *MFA1* promoter (pr), *mfa1Δ::MFA1pr-HIS3*. In Y3068, *MFA1pr-HIS3* was integrated at the *CAN1* locus, *can1Δ::MFA1pr-HIS3*. In Y3084, *MFA1pr-HIS3* was integrated at the *CAN1* locus, *can1Δ::MFA1pr-HIS3* and *MFα1pr-LEU2* was integrated at the *MFα1* locus. In Y3656, *MFA1pr-HIS3* was integrated 5' to *MFα1pr-LEU2* at the *CAN1* locus.

To create Y2823 (*MATα mfa1Δ::MFα1pr-LEU2 his3Δ1 leu2Δ0 ura3Δ0 lys2Δ0*) and Y3084, the *MFα1* open reading frame was replaced by the *LEU2* gene, via integration of a PCR product generated with primers (5' - CAAACAAGAAGATTACAAACTATCAATTCATACACAATATAAACGATTAAA AGAATGTCTGCCCTAAGAAGATCGC-3') and (5' - TACAGTGGGAACAAAGTCGACTTTGTTACATCTACACTGTTGTTATCAGTCGG GCTTAAGCAAGGATTTTCTTAACTTC-3'), which anneal to *LEU2* and contained *MFα1* sequences (underlined), with pRS315 plasmid as the template (**S4**), and transformed in BY4742 and Y3068 respectively.

The construction of Y3656 involved three steps. First, to create Y3598 (*MATα can1Δ::MFA1pr-HIS3::MFα1pr-LEU2 his3Δ1 leu2Δ0 ura3Δ0 met15Δ0*) which carries *can1Δ::MFA1pr-HIS3::MFα1pr-LEU2*, *MFA1pr-HIS3::MFα1pr-LEU2* was integrated at the *CAN1* locus. Second, Y3598 was crossed to BY4742 to create Y3611 (*MATα/α can1Δ::MFA1pr-HIS3::MFα1pr-LEU2/CAN1 his3Δ1/ his3Δ1 leu2Δ0/ leu2Δ0 ura3Δ0/ ura3Δ0 met15Δ0/MET15 lys2Δ0/LYS2*). Third, the resulting *MATα/α* diploids were sporulated and spore progeny with the appropriate markers were recovered.

The construction of Y3598 involved four steps. First, a 455-bp fragment containing the upstream sequence of *CAN1* was amplified from yeast genomic DNA with primers (5' -TAGGGCGAACTTGAAGAATAACC-3') and (5' - GCCACGTTGCACACTATCCTGTGCTATGCCTTTTTTTTTTTTTTTGTT-3'), which contained a 21-bp sequence (underlined) from the 5' end of *MFA1pr-HIS3*. Second, *MFA1pr-HIS3* was amplified from genomic DNA obtained from Y2420 (*MATα mfa1Δ::MFA1pr-HIS3 ura3Δ0 leu2Δ0 his3Δ1 met15Δ0*) with primers (5' - CAGGATAGTGTGCAACGTGGC-3') and (5' - CTCATTGAATCTTTGCATTCAGAGCGTCTACATAAGAACACCTTTGGTGG-3') which contained a 27-bp sequence (underlined) from the 5' end of the *MFα1pr-LEU2*. Third, *MFα1pr-LEU2* was amplified from genomic DNA obtained from Y2823 with primers (5' -ACGCTCTGAATGCAAAGATTCAATGAG-3') and (5' - ATCAAAGGTAATAAAACGTTCATATTTAAGCAAGGATTTTCTTAACTTC-3') which contained a 24-bp sequence (underlined) from the 5' end of the *CAN1* downstream sequence. Fourth, a 300-bp fragment containing the *CAN1* downstream sequence was amplified from yeast genomic DNA with primers (5' - ATATGACGTTTTATTACCTTTGAT-3') and (5' - ACGAAAATGAGTAAAATTATCTT-3'). Finally, the set of PCR products above was used as a template to generate a fused product with primers (5' - TAGGGCGAACTTGAAGAATAACC-3') and (5' - ACGAAAATGAGTAAAATTATCTT-3'). BY4741 transformants carrying *can1Δ::MFA1pr-HIS3::MFα1pr-LEU2* were selected on synthetic medium lacking histidine.

### SGA Analysis: Yeast Strains

The construction of query strains Y2613 (*bni1Δ::URA3*), Y2927 (*bni1Δ::natR*), Y3029 (*arc40-40::URA3*), Y3121 (*nbp2Δ::natR*), Y3122 (*bbc1Δ::natR*), Y3181 (*arp2-33::URA3*), Y3304 (*bim1Δ::natR*), Y3310 (*sgs1Δ::natR*), Y3334 (*rad27Δ::natR*) was described previously (**SI**). Construction of the following query strains was described previously: Y2928 (*cla4Δ::natR*) (**S5**), Y4121 (*cdc42-118::natR*) (**S6**), Y4490 (*set2Δ::natR*) (**S7**), Y4521 (*elg1Δ::natR*) (**S8**), and *pho85Δ::natR* (**S9**).

The temperature-sensitive (t.s.) query strains carrying *cdc7-1::URA3*, *cdc8-2::URA3*, *dbf4::URA3*, *cdc45-1::natR*, *cdc2-1::natR*, and *scc1-73::URA3* were constructed by PCR-based integration of the t.s. alleles into Y2454 as described previously (**SI**). The t.s. query strain carrying *myo2-14::LEU2* was constructed by PCR-based integration in Y3068. PCR-based deletion was used to create the following strains in starting strain Y2454: *rvs161Δ::natR*, *rvs167Δ::natR*, *slt2Δ::natR*, *ycr030cΔ::natR*, *ygr221cΔ::natR*, *yhr149cΔ::natR*, and *gyp1Δ::natR*. PCR-based deletion was used to create the following strains in starting strain Y3656: *dep1Δ::natR*, *cti6Δ::natR*, and *om45Δ::natR*.

We used a switcher/replica-plating method (**SI**) to create the following query strains with the SGA starting strain Y3084: *rad9Δ::natR*, *ydr063wΔ::natR*, *gim3Δ::natR*, *elp2Δ::natR*, *pac10Δ::natR*, *rad24Δ::natR*, *yke2Δ::natR*, *rad52Δ::natR*, *yor271cΔ::natR*, *ddc1Δ::natR*, *pol32Δ::natR*, *mms4Δ::natR*, *ybr094wΔ::natR*, *mus81Δ::natR*, *cdc73Δ::natR*, *bni4Δ::natR*, *num1Δ::natR*, *ypt6Δ::natR*, *nip100Δ::natR*, *bik1Δ::natR*, *arp6Δ::natR*, *kar3Δ::natR*, *kar9Δ::natR*, *gim4Δ::natR*, *ric1Δ::natR*, *ase1Δ::natR*, *elp4Δ::natR*, *alg6Δ::natR*, *alg8Δ::natR*, *chs1Δ::natR*, *chs5Δ::natR*, *chs7Δ::natR*, *cne1Δ::natR*, *cts1Δ::natR*, *cwh41Δ::natR*, *die2Δ::natR*, *fks1Δ::natR*, *fks3Δ::natR*, *gas1Δ::natR*, *gsc2Δ::natR*, *hkr1Δ::natR*, *hoc1Δ::natR*, *hog1Δ::natR*, *knh1Δ::natR*, *kre1Δ::natR*, *kre11Δ::natR*, *kre6Δ::natR*, *ktr2Δ::natR*, *ktr3Δ::natR*, *lag2Δ::natR*, *mid2Δ::natR*, *mnl1Δ::natR*, *mns1Δ::natR*, *rot2Δ::natR*, *skn1Δ::natR*, *skt5Δ::natR*, *smi1Δ::natR*, *yur1Δ::natR*.

We used the switcher/replica-plating method (**SI**) to create the following strains with the SGA starting strain Y3656: *jnm1Δ::natR*, *arp1Δ::natR*, *shs1Δ::natR*, *smy1Δ::natR*, *cin8Δ::natR*, *bfa1Δ::natR*, *ctf8Δ::natR*, *cin2Δ::natR*, *yor022cΔ::natR*, *ycl039wΔ::natR*, *ydr128wΔ::natR*, *tub3Δ::natR*, *dyn2Δ::natR*, *dyn1Δ::natR*, *mrc1Δ::natR*, *pac1Δ::natR*, *dcc1Δ::natR*, *hst1Δ::natR*, *esc2Δ::natR*, *hst3Δ::natR*, *rad50Δ::natR*, *rad61Δ::natR*, *rtt107Δ::natR*, *mlc2Δ::natR*, *clb4Δ::natR*, *ras2Δ::natR*, *gim5Δ::natR*, *pxl1Δ::natR*, *mad2Δ::natR*, *ctf4Δ::natR*, *tof1Δ::natR*, *ydr332wΔ::natR*, *lia1Δ::natR*, *kip3Δ::natR*, *csm3Δ::natR*, *elg1Δ::natR*, *cin4Δ::natR*, *top1Δ::natR*, *cin1Δ::natR*, *pac2Δ::natR*, *rrm3Δ::natR*, *rbl2Δ::natR*, *pac11Δ::natR*, *kip2Δ::natR*, *ypl225wΔ::natR*, *ctf18Δ::natR*, *chl1Δ::natR*, *arl3Δ::natR*, *hpr5Δ::natR*, *elp1Δ::natR*, *arl1Δ::natR*, *ymr299cΔ::natR*, *sap30Δ::natR*, *swf1Δ::natR*, *ykl151cΔ::natR*, *yil103wΔ::natR*, *yer156cΔ::natR*, *ydl038cΔ::natR*, *ynl087wΔ::natR*, *bph1Δ::natR*, *chs3Δ::natR*, *chs6Δ::natR*, *ecm15Δ::natR*, *erv29Δ::natR*, *hlr1Δ::natR*, *kre2Δ::natR*, *kre9Δ::natR*, *las21Δ::natR*, *lre1Δ::natR*, *svp26Δ::natR*, *ykl037wΔ::natR*, *ylr057wΔ::natR*.

The double-mutant query strain *bni1Δ::URA3 bim1Δ::natR* was constructed in two steps. First, Y2613 (*MATα bni1Δ::URA3*) was crossed to a *MATa bim1Δ::natR* strain. Second, the resulting *MATa/α* diploids were sporulated, and spore progeny with the appropriate markers were recovered. The double-mutant query strain *bni1Δ::URA3 kre1Δ::natR* was constructed using the switcher/replica-plating method (S1).

### **SGA Analysis: Random Spore Analysis**

Spores were inoculated in 3ml of liquid haploid selection medium [synthetic dextrose (SD) medium lacking histidine and arginine but containing canavanine :SD - His/Arg + canavanine] and incubated at 30°C for 2 days. The germinated *MATa* spore progeny were diluted in sterile ddH<sub>2</sub>O and plated out on medium which selects for the query-gene mutation [(SD/MSG) – His/Arg + canavanine/clonNAT], the DMA mutation [(SD/MSG) – His/Arg + canavanine/G418], or both the query-gene and DMA mutations [(SD/MSG) – His/Arg + canavanine/clonNAT/G418], then incubated at 30°C for ~2 days. Colony growth under the three conditions was compared and the double mutants were scored as synthetic sick (SS), synthetic lethal (SL) or no interaction (No).

Alternatively, spores were resuspended in sterile ddH<sub>2</sub>O and plated out on the haploid selection medium [SD-His/Arg + canavanine] and medium selecting for the query-gene mutation, the DMA mutation, and both the query-gene and DMA mutations, then incubated at 30°C for ~2 days. Colony growth under the four conditions was compared and double mutants were scored as synthetic sick (SS), synthetic lethal (SL) or no interaction (No).

### **SGA Analysis: Spot Assay Version of Random Spore Analysis**

We applied a spot assay version of the random spore analysis procedure when examining neighborhood topology of *SGS1*, *RAD27* and *BIM1*. First, spores were inoculated into liquid haploid selection medium [SD-His/Arg + canavanine] and incubated at 30°C for ~2 days in a 96-well format. Second, the germinated *MATa* spore progeny were diluted to 10<sup>-2</sup>, 10<sup>-4</sup>, and 10<sup>-6</sup> in sterile ddH<sub>2</sub>O and 2μl for each dilution was spotted onto medium selecting for the query-gene mutation, the DMA mutation, and both the query-gene and DMA mutations, as described above, then incubated at 30°C for ~2 days. Cell growth under the three conditions was compared; double mutants were scored “Yes” for those that exhibited a synthetic genetic interaction or “No” for those that did not show an enhanced growth defect over the single mutants (Fig. S7).

### **Network Visualization Programs**

Network figures were created with either the Cytoscape network layout program (S10) using manual alterations to remove node overlap and to cluster the nodes by cellular role, or the Osprey program (version 0.9.10) using a spokes layout. We colored the nodes according to our set of defined GO annotations (Table S8).

### **Two-dimensional Hierarchical Agglomerative Clustering**

The Hierarchical Agglomerative clustering method was performed on the data. To determine the distance between nodes (i.e. clusters, sub-clusters, and individual interactions) we used Average Linkage, wherein the distance between the averages of the

points in each node was the distance between two nodes. The distance metric is called the Binary metric and is defined as below.

The Binary Metric:

NOTE: in the Binary metric, two items are considered to match if both are either zero or non-zero. This metric ignores magnitude, thus the name “Binary”.

Let X and Y be two distinct queries, and let  $X_i$  and  $Y_i$  be individual experiment results for X and Y respectively.

Let A be the set of all experiments in which  $X_i$  and  $Y_i$  do not match and  $Y_i$  is non-zero.

Let B be the set of all experiments in which  $X_i$  and  $Y_i$  do not match and  $X_i$  is non-zero.

Let C be the set of all experiments in which  $X_i$  and  $Y_i$  do match and are non-zero.

Let D be the set of all experiments in which  $X_i$  and  $Y_i$  do match and zero.

Thus,  $A_i$ ,  $B_i$ ,  $C_i$  and  $D_i$  are as follows:

|       | $A_i$ | $B_i$ | $C_i$ | $D_i$ |
|-------|-------|-------|-------|-------|
| $X_i$ | 0     | 1     | 1     | 0     |
| $Y_i$ | 1     | 0     | 1     | 0     |

The distance between the result vectors for X and Y is:

$$(|A| + |B|) / (|A| + |B| + |C|)$$

### Analysis of the Potential for False Negative Interactions

Because of the huge number of interactions involved, it is not feasible to confirm all putative interactions by tetrad or random spore analysis; therefore, the true number of false negative interactions is not known. In an effort to better understand the statistical properties of the raw SGA results, we developed a computer-based quantitative system to describe the growth rate of all colonies from measurements of colony area from digital images of growth plates. Synthetic lethal or sick interactions were scored based on calibration variables such as the growth of colonies and the values of t-statistics and p-values, which were calculated by comparison to a set of wild-type control measurements. The number of false negative interactions can be estimated as a function of the calibration variable (Fig. S1 and S2).

Complete SGA screens include the genes in both bait and prey lists, thus should provide a symmetric matrix of data. The following table shows the possible cases of reciprocal crosses between baits and preys.

|   | A | B | C |
|---|---|---|---|
| A |   | + | + |
| B | + |   | - |
| C |   | - |   |

A true positive exists when both hits (A,B) and (B,A) are confirmed positive and a false negative exists when (A,C) is confirmed positive but (C,A) is not (or the reverse case). In the SGA experiment, 104 screens are present where the bait gene was found as a hit in any other screen. In an effort to examine the false negative rate of this large subset of the SGA data set, we counted the number of false negative cases and compared that to the total. There are 990 interactions found in both directions, which include both cases of (bait, prey) and (prey, bait) and 266 without reciprocal interactions. This means another 266 hits were missed as false negatives, assuming that all these hits are true positives. In other terms,  $990+266=1256$

interactions were seen out of an expected number of  $990+266+266=1522$  true positives, suggesting a false negative rate of about 17%.

### **Network Density**

We compared the network density (ratio of number of interactions to number of nodes) of the SGA network and the protein interaction network. The SGA technique has an average of 34.4 interactions per screen. There is a maximum of 146 interactions and a minimum of 1 interaction per SGA screen. After examining various protein interaction datasets (see Table S2), we decided to use the TAP and HMS-PCI datasets as a comparison because they are the most recent published large-scale interaction mapping experiments for yeast. We determined that the density of the SGA network is ~4 times more than the protein interaction network ( $34.4/8 \approx 4$ ). This is likely to be a low estimate, since the SGA screens are expected to have a certain false negative rate and the protein interactions screens are known to have a large false-positive rate.

### **Abandoned Screens**

Approximately 20% of the screens we attempted did not appear to yield any interactions and were aborted after the first SGA screen. The criteria we used for determining if a SGA screen is worth pursuing included the number of putative interactions scored (>50 interactions) and common functionality among the putative interactions identified. The screens aborted after the first SGA screen involved query mutations in *BPH1*, *ELP1*, *ELP2*, *ELP4*, *FKS3*, *HLR1*, *KRE2*, *KTR2*, *LAG2*, *MLC2*, *OM45*, *PXL1*, *RAD61*, *YCL039w*, *YCR030c*, *YDL038c*, *YDR063w*, *YDR128w*, *YER156c*, *YGR221c*, *YHR149c*, *YIL103w*, *YKL151c*, *YNL087w*, *YOR022c*, *YOR271c*, *YPL225w*.

### **Pre-processing the Genetic Interactions Network for Computational Analysis**

The analysis shown in Table S3, analysis of “genetically connected” GO attributes, and the analysis of degree distribution and characteristic path length, used the following protocol for pre-processing the genetic network: 1) ORFs corresponding to the same SGDID were merged, with an interaction to one or both of the merged gene objects treated subsequently as an interaction with the merged gene; 2) ORFs that were listed as “deleted” in SGD were removed from the genetic interaction network, which did not require removal of any genetic interactions but did affect which pairs were considered SGA-tested; 3) all gene pairs containing query genes that were tested by a single SGA screen but subsequently abandoned for lack of hits were considered tested and non-interacting.

For the analysis shown in Table S3 and the search for “genetically connected” GO functional attributes, each of which might be affected by an increased sensitivity of SGA to detect functionally-related genes, we applied two additional pre-processing steps: 1) a gene pair was considered non-interacting if confirmation of the interaction was attempted on the basis of gene function and if this gene pair would otherwise have been deemed non-interacting; and 2) any SGA gene not tested against all query genes was removed from the network, along with any interactions connected to that SGA gene.

### **Gene-Pair Characteristics and Their Data Sources**

### **Common Regulator**

Pairs of genes whose upstream regions bind a common transcription factor were collected from a high-throughput data set in which DNA bound by a query transcription factor was hybridized to an array of upstream sequences (**S11**). Genes whose upstream regions yielded p-values  $< 0.001$  were considered bound by the associated transcription factor.

### **Conserved Gene Neighborhood**

Pairs of genes that are next to each other in at least 2 of 42 genomes were collected from von Mering *et al.* (**S12**).

### **Co-occurrence of Genes**

Pairs of genes whose orthologs have correlated appearance across 42 sequenced genomes were collected from von Mering *et al.* (**S12**).

### **Gene Fusion**

Gene pairs each contained genes that were orthologous to separate domains of a common gene in another species. Gene fusions were detected by the presence of a gene in more than one Cluster of Orthologous Genes (COG) and were collected (**S13**).

### **mRNA Co-expression**

Pairs of genes with correlated mRNA expression were collected from two data sets, 1) mRNA expression in the yeast mitotic cell cycle measured at 17 time-points in synchronized yeast cultures (**S14**) and 2) the Rosetta compendium of mRNA expression profiles drawn from a variety of growth conditions and strain backgrounds (**S15**). For each gene, all mRNA levels were converted to log-ratios and standardized to a common mean and variance. We computed the Pearson correlation coefficient between all gene pairs to measure the similarity in expression profiles. We considered gene pairs with positive ( $>0.7$ ) and negative correlations ( $<0.7$ ) in their mRNA expression profiles.

### **Mutual Clustering Coefficient**

Pairs of genes with a high mutual clustering coefficient (MCC), a measure of neighborhood cohesiveness around an edge (or pair of vertices) in a graph of physical protein interactions, were collected. The MCC is the negative log of the probability (p-value) of obtaining a number of common neighbors between two vertices greater than or equal to the observed number by chance, under the null hypothesis that the neighborhoods are independent and given the neighborhood sizes of the two vertices and the total number of proteins in the organism (**S16**). We computed MCC for a network including yeast-two-hybrid (Y2H) interactions reported by Uetz *et al.* (**S17**) and the high-confidence Y2H interactions reported by Ito *et al.* (**S18**). MCC thresholds of  $>0$  and  $\geq 3$  were used to create categories of gene pairs with high MCC.

### **Physical Interaction: APMS**

Pairs of proteins detected to interact by tandem affinity purification (TAP) (**S19**), by high-throughput mass spectrometric protein complex identification (HMS-PCI) (**S20**), or by both methods. These methods were based on affinity purification followed by mass spectroscopy (APMS).

**Physical Interaction: HMS-PCI**

Pairs of proteins were detected to physically interact by high-throughput mass spectrometric protein complex identification (HMS-PCI) (S20). Two data sets were constructed based on the filtered data obtained from <http://www.mdsp.com/yeast/>. The “spoke” (S21) interactions included interactions between a query protein, or bait, and proteins that complexed with it. The “matrix” (S21) interactions included all pairwise interactions represented in a purified complex obtained when using a single bait.

**Physical Interaction: Same MIPS Complex (annotated in the literature)**

Gene pairs were generated from complexes reported in the MIPS catalog of complexes (S12).

**Physical Interaction: TAP**

Protein pairs were detected to physically interact by the tandem affinity purification (TAP) and mass spectrometry experiments of Gavin *et al.* (S19). We collected two datasets based upon all purifications, excluding proteins that appeared in more than 3.5% of the purifications. The “spoke” (S21) interactions included interactions between a query protein, or bait, and all proteins that complexed with it. The “matrix” (S21) interactions included all pairwise interactions represented in a purified complex obtained when using a single bait.

**Physical Interaction: Yeast-Two-Hybrid (YTH)**

Interacting gene pairs were assembled from previous high-throughput yeast-two-hybrid results. These consisted of two independent yeast-two-hybrid data sets, described by Ito (S18) and Uetz (S17), respectively. The Ito and Uetz data sets were obtained from <http://genome.c.kanazawa-u.ac.jp/Y2H/> and <http://depts.washington.edu/sfields/yplm/data/index.html>, respectively.

**Protein Sequence Homology**

Yeast mRNAs were collected (July 2002) from RefSeq (S22) translated, and BLASTed (S23) against each other. Pairs with E-values below  $10^{-3}$  were considered homologous.

**Same GO Annotation**

Pairs in which both genes are annotated with identical specific Gene Ontology (GO) terms were collected from the Gene Ontology (S24). A GO term was considered specific if  $\leq 200$  genes were annotated with it.

**Same GO Annotation (filtered)**

“Same GO annotation” analysis was repeated, restricting analysis to gene pairs that could have had this characteristic *a priori* (i.e. eliminating pairs in which one or both genes lack an annotation for any specific GO term).

**Similar GO Annotation**

Pairs in which both genes are annotated with a pair of specific “similar GO” terms were collected from the Gene Ontology (S24). Similarity between two GO terms was



objectively defined by the overlap in annotated genes, described below for the map between GO terms.

#### **Similar GO Annotation (filtered)**

“Similar GO annotation” analysis was repeated, restricting analysis to gene pairs that could have had this characteristic *a priori* (i.e. eliminating pairs in which one or both genes lacks an annotation for any specific similar GO terms).

#### **Same MIPS Protein Class**

Pairs of genes belonging to the same protein class (typically describing biochemical activity or structural role) were collected from the MIPS database (**S13**) in January 2003, excluding non-specific categories (i.e., those with names including the word “other” and those that contained more than 200 genes).

#### **Same Mutant Phenotype**

Pairs of genes annotated with the same mutant phenotype were collected from the MIPS database in January 2003, excluding non-specific phenotype categories, (e.g. categories with names including the word “other” and categories with more than 200 genes, or those at the least specific level of the hierarchy).

#### **Same Predicted Protein Complex**

Pairs were comprised of genes whose protein products were predicted to be in the same complex by a program called MCODE (**S25**).

#### **Finding Specific GO Attributes Frequently Connected by Genetic Interaction**

We considered 756 Gene Ontology (GO) (**S26**) attributes for which there are at least 10 and at most 80 annotated genes according to GO annotation by the Saccharomyces Genome Database (SGD). We used GO attribute association files as of Feb 19, 2003. Counts of annotated genes include upward-propagated associations. In other words, if a gene is associated with an attribute by SGD, then we propagate this association to all of the attribute's ancestors in the GO directed acyclic graph (DAG). A gene pair was said to be GO attribute-connected if both genes have the attribute, and genetically connected if a genetic interaction has been detected by SGA analysis. For each GO attribute examined, we tested the significance of association between genetic connection and GO attribute connection among the set of gene pairs that have been tested by SGA analysis (subject to the pre-processing steps above). Significance of the overlap between GO attribute-connected and genetically connected gene pairs was assessed by first calculating a P-value by a one-tailed Fisher's Exact Test (which uses a cumulative hypergeometric distribution). We accounted for multiple hypothesis testing using a resampling approach. Specifically, we treated the Fisher's Exact Test P-value as a test statistic and obtained the empirical distribution of this test statistic from randomly permuted assignment of genetic interaction to gene pairs. The reported P-value is calculated from this empirical distribution. More details on this approach have been described elsewhere (**S27**).

### **Finding Pairs of GO Attributes that are Significantly Connected by Genetic Interaction**

We considered all 285,390 Gene Ontology (GO) (S26) pairs of the 756 GO attributes selected above. Here, a gene pair was said to connect a GO attribute pair (A, B) if one gene is annotated with attribute A, the other gene is annotated with attribute B, and if neither attribute A nor B are annotated to both genes. For each GO attribute pair, significance of association between genetic connection and GO attribute connection was assessed among SGA-tested gene pairs and corrected for multiple hypothesis testing as described above.

### **Network View of Genetically Connected Functions**

Figure 1 of the manuscript was created using the Cytoscape network layout program (S10). For ease of visualization, the significance threshold of linked GO attributes was chosen to be ( $P < 0.002$ ) as this created a manageable number of nodes and edges in the network. The layout was hand edited slightly to make the clusters more aesthetically pleasing (rounder), but the clustering was not affected. This was tested by determining the average path length from all the GO terms in one clustered group of functional categories to any GO term in another clustered group of functional categories. The average path lengths between combinations of the four clusters depicted in Figure 1 matched the network layout and were Green to red: 1.6; Blue to green: 2.2; Cyan to green: 2.5; Cyan to blue: 1.6; Cyan to red: 1.9; Blue to red: 1.4 where Green is DNA Synthesis, Recombination, Meiosis, DNA Repair; Red is Mitosis, Chromosome or Chromatin Structure; Cyan is Vesicular Transport and Blue is Cell Polarity, Cell Wall Maintenance, Cytokinesis. The categories of Transcription, Signaling and Other were ignored for this path length calculation because they were deemed unrelated to the main categories of interest above.

### **Clustering GO Attributes for Display in a Matrix of Connected Functions**

We developed a simplified representation of the matrix of functions that are connected by genetic interaction (Fig. S9 and S10). In this matrix, we only considered the subset of GO attributes for which significant genetic interaction enrichment was determined above. For ease of visualization, we clustered GO attributes using the Fisher's Exact test P-value measuring the significance of overlap between the "function neighborhoods" as a proximity measure. Here, two GO attributes were defined as neighbors if gene pairs connecting these GO attributes interact genetically, significantly more often than by chance (see above). Clustering was accomplished by agglomerative hierarchical clustering with complete linkage. Clusters were not joined if the complete linkage proximity measure was above a threshold P-value corresponding to the case in which two GO attributes have exactly one GO attribute neighbor each, and this neighbor is the same for both nodes. Clusters and their component attributes are listed in Table S7. The matrix of connected functions and expanded views were produced using Mathematica (Wolfram Research).

### **Defining Similar Pairs of GO Terms by Overlap in Assigned Gene Sets**

We defined whether two GO attributes, A and B, were similar in the sense of being assigned to overlapping sets of genes. This is equivalent to a test of association between

two binary variables “Gene is annotated with GO attribute A?” and “Gene is annotated with GO attribute B?”. We used a Log Odds Ratio (LOD score (defined in (S27)) as a measure of the strength of association between these two variables, and Fisher’s Exact Test P-value as a measure of significance of association. We defined as similar any pair of GO attributes for which  $P < 1.75E-7$  (equivalent to an experiment-wise error rate of  $P < 0.05$  according to a conservative Bonferroni correction) and  $LOD > 3$ .

#### **YMR299c: Construction of GFP-TUB1 Strains**

*GFP-TUB1* was integrated in deletion mutants *dyn1Δ::kanR*, *arp1Δ::kanR*, *ymr299cΔ::kanR* and BY4741 yeast strains individually by transforming the *XbaI* digested pAFS125 plasmid (S28). Ura<sup>+</sup> transformants were selected and confirmed by fluorescence microscopy and PCR.

#### **YMR299c: Construction of YMR299c-3GFP Strain**

We constructed the *YMR299c-3xGFP* integration vector to integrate three tandem copies of GFP at the 3’ end of *YMR299c* locus as described in (S29). The final plasmid which contained a fragment of *YMR299c* fused with a triple GlyAla linker, triple GFP, and a nourseothricin resistant marker (S30) was linearize by *AccI* in the middle of the *YMR299c* fragment and transformed to BY4741. Transformants were grown on YPD plates containing nourseothricin (clonNAT) (100 ug/ml) and nourseothricin resistant strains were selected and confirmed for proper targeting by PCR.

#### **YMR299c: Fluorescence Microscopy**

For nuclear migration analysis, cells were fixed with methanol/acetic acid (3:1) at room temperature for 30min, washed twice in PBS and then stained with DAPI (1ug/ml) for 30min, then further washed with PBS three times before mounting.

For analysis of microtubule phenotypes, cells expressing GFP-TUB1 were observed under a confocal fluorescence microscope with a 100x objective and using a live cell imaging system (UltraVIEW™; PerkinElmer).

Immunofluorescence of microtubules was performed as described (S31). Microtubules were stained with anti- $\alpha$  tubulin YOL1/34 at 1:100 dilution and goat anti-rat conjugated with rhodamine at a dilution of 1:200. Double-label immunofluorescence was carried out with rabbit anti-GFP at 1:100 dilution and goat anti-rabbit conjugated with fluorescein at a dilution of 1:100. Single images were collected under a conventional fluorescence microscope with a 100x objective and a CCD detector using Openlab (Improvision), and then processed using the Metamorph Imaging System (Universal Imaging Corp., West Chester, PA).

**The number of common neighbors between two genes in the SGA network correlates with a known protein-protein interaction between the protein products of those genes.** While the predictive performance of this measure could be much improved (Fig. S5), the accuracy of the method was high when considering gene pairs with 50 common neighbors or more (Fig. S6). Given that very few gene pairs reached this threshold, we expect that the prediction performance will improve as the data set grows.

#### **Degree Distribution Analysis**

Since the synthetic genetic network examined here was derived from relatively few query genes tested against many array genes, the largest observable degree for array-only genes (genes in the array not also used as query genes) is much lower than that of query genes. Therefore, pooling the observed degrees of all genes would not be appropriate, and we chose to examine the degree distributions of array-only and query genes separately. The degree distribution of array-only genes fits a power-law distribution quite well, as shown in Fig. 4A in the manuscript. The degree distribution of query genes (Fig. S11) does not approximate a power-law distribution, nor does it approximate the expected degree distribution of any common network topology. Although there is little bias in the query degree distribution due to restricted observation (most potential partners of query genes were tested), this is a much smaller set than the array-only genes and furthermore was selected non-randomly so that its degree distribution may not be representative. A bias towards high-degree query genes might explain the much smaller fraction of nodes with low degree than expected in a scale-free graph. We should caution that the observed array gene distribution is also not free from bias. For instance, if an array gene interacts with at least one of the query genes, it is more likely to have a similar function and is therefore more likely to connect with other functionally-related query genes. Despite these caveats, our analysis provides support for a power-law distribution in synthetic genetic networks.

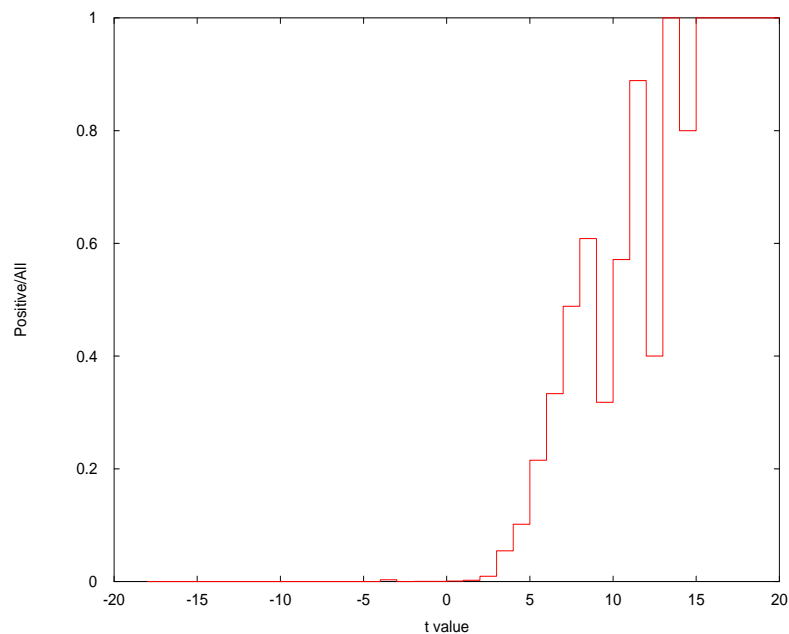
### **Characteristic Path Length Analysis**

The characteristic path length of the SGA network is the average distance between two nodes (number of edges in the shortest path between the two nodes). We computed the characteristic path length of a random graph for two types of random graph: graphs with the same degree distribution, and Erdős-Rényi random graphs with the same degree distribution were constructed as previously described (S32). We generated 1000 instances of each type. Random graphs with the same degree distribution as the SGA network had characteristic path length  $3.2 \pm 0.01$ . Erdős-Rényi random graphs SGA network had characteristic path length  $3.6 \pm 0.01$ . From this we conclude that the characteristic path length of the SGA network is not significantly different than for a random graph, one of the two properties of a small-world network.

### **Population Biology of Synthetic Genetic Interactions**

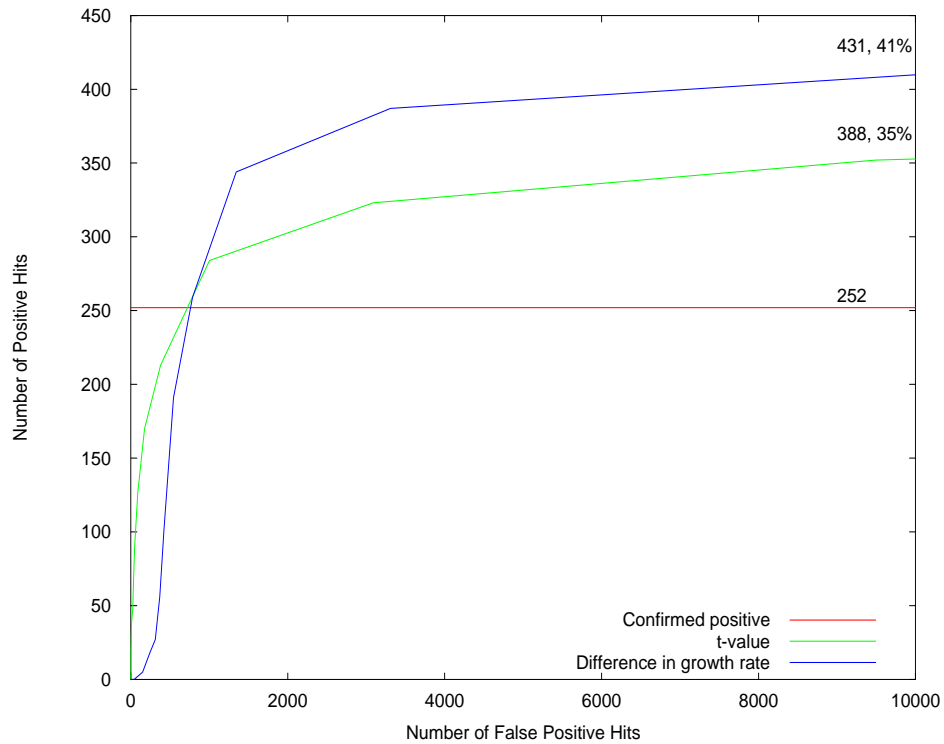
The frequency of a carrier with a mutant in a given query gene and mutant in a second locus giving a synthetic combination in gamete 1 =  $10^{-3}$ . The frequency of a carrier with a mutant in the same query gene and second locus giving a synthetic combination in gamete 2 =  $10^{-3}$ . Thus the probability of this synthetic combination in a diploid zygote formed from gametes in such a population is  $10^{-3} \times 10^{-3} = 10^{-6}$ . We have taken the number of genes that, when mutant, give a synthetic combination with a given query gene to be 30. Thus, the probability of a synthetic combination with a given query gene is  $10^{-6} \times 30 = 3 \times 10^{-5}$ . The probability of no synthetic combination at this query locus =  $1 - (3 \times 10^{-5})$ . The probability of no synthetic combination at any query locus =  $[1 - (3 \times 10^{-5})]^L$ , where L is number of loci viable when null. For example, if  $L = 2500$ , then the probability of no synthetic combination at any query locus is  $\exp(-(3 \times 10^{-5})L) = 0.93$ . Thus, the probability of at least one synthetic combination = 0.07. For the cases in the paper where we take 10% and 50 % of L as the number of viable nulls that can

participate in synthetic interactions, these number come to 0.75% and 3.7 % respectively, which have been rounded up to 0.8% and 4.0% in the text.



**Figure S1**

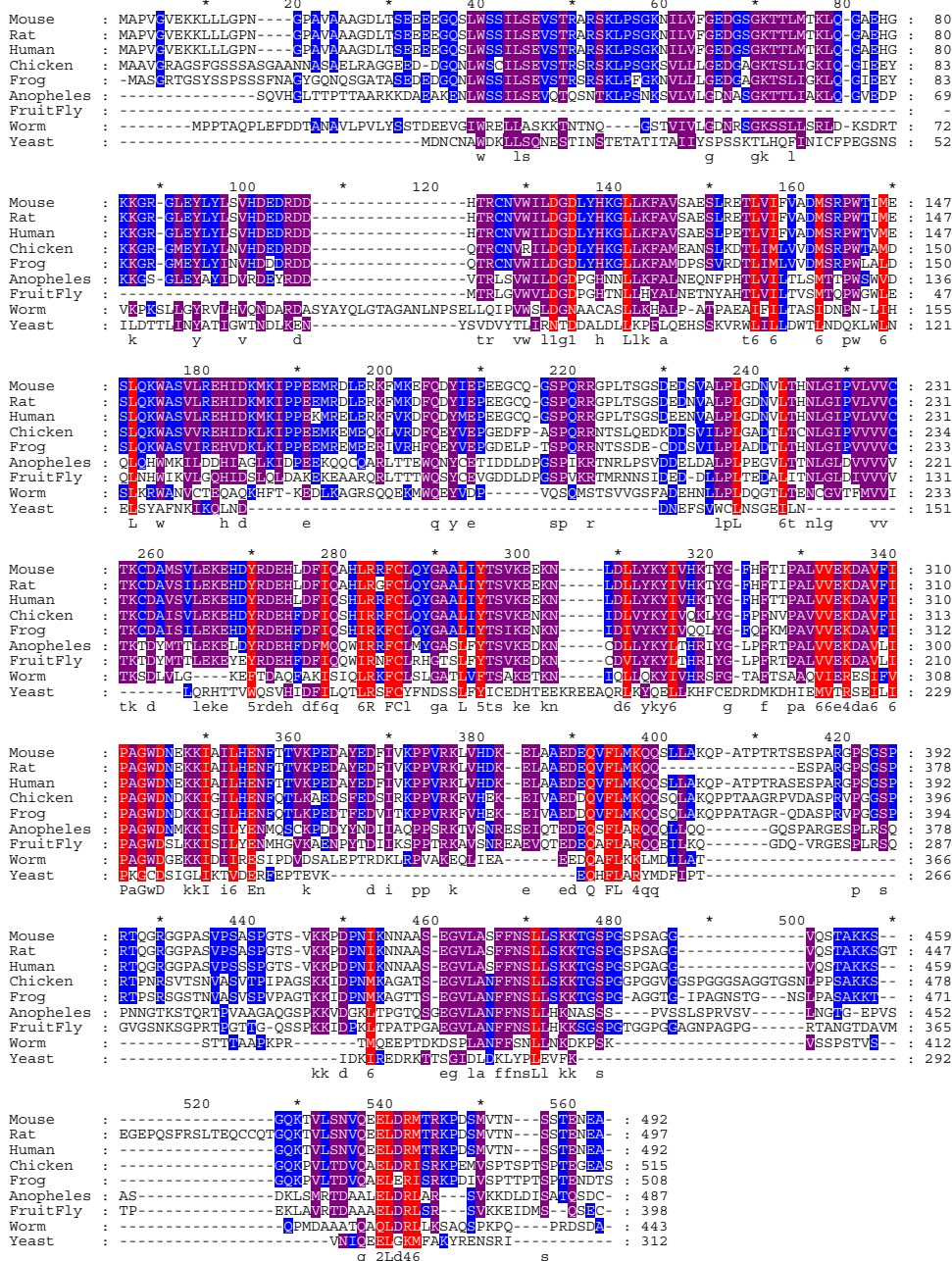
The ratio of confirmed positives to all hits within the interval of the value of t-statistics for 10 screens, including *BNI4*, *KRE1*, *APP1*, *CLB4*, *ARP1*, *JNM1*, *DYN1*, *CSM3*, *CTF18* and *CHL1*. Similar distributions can be obtained with regard to other calibration variables. Based on the knowledge of the confirmed positive rate, the possible number of false negative interactions can be estimated conservatively for hits that were not examined by the confirmation procedure. For example, among all 130 putative interactions within the interval 5~6 of the t-value, 28 positives and 30 negatives are scored. Of the other 72 putative interactions not examined, the chance for a positive score is estimated conservatively 28/130, i.e. about 16 true hits might be missed within the interval.



**Figure S2**

The detection of possible positive interactions with regard to the number of false positive interactions. From these 10 screens, 252 putative interactions confirmed positive out of the total 46418 interactions. The total number of possible positive interactions was estimated to be 388 and 431 for the calibration variables of t-value and difference in growth rate, respectively, as shown in Fig. S1, which suggests a false negative rate in the range of 35% to 41%.

## Sequence Alignment of Ymr299c



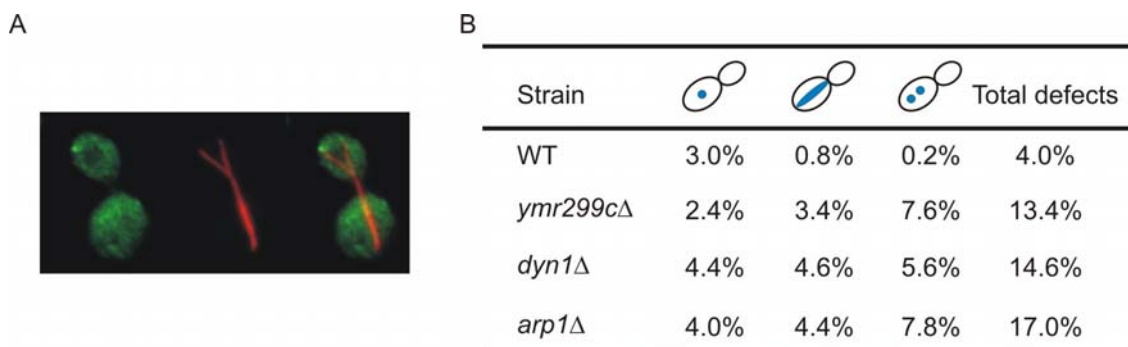
**Figure S3.**

Multiple sequence alignment of Ymr299c showing conservation across eukaryotes for the dynein light intermediate chain protein. Alignment was constructed using ClustalX 1.83 and subsequently colored using GeneDoc. Numbers above the alignment indicate the sequence position. Letters under the alignment show the consensus motif, with lower and upper case letters showing medium and high levels of conservation, respectively, and numbers indicating conserved similar residues (i.e. 1=DN similarity group, 2=EQ, 3=ST, 4=KR, 5= FYW, 6=LIVM). Zoom in (250%) see more detail. The following protein database records from NCBI's Entrez system were used in the alignment:



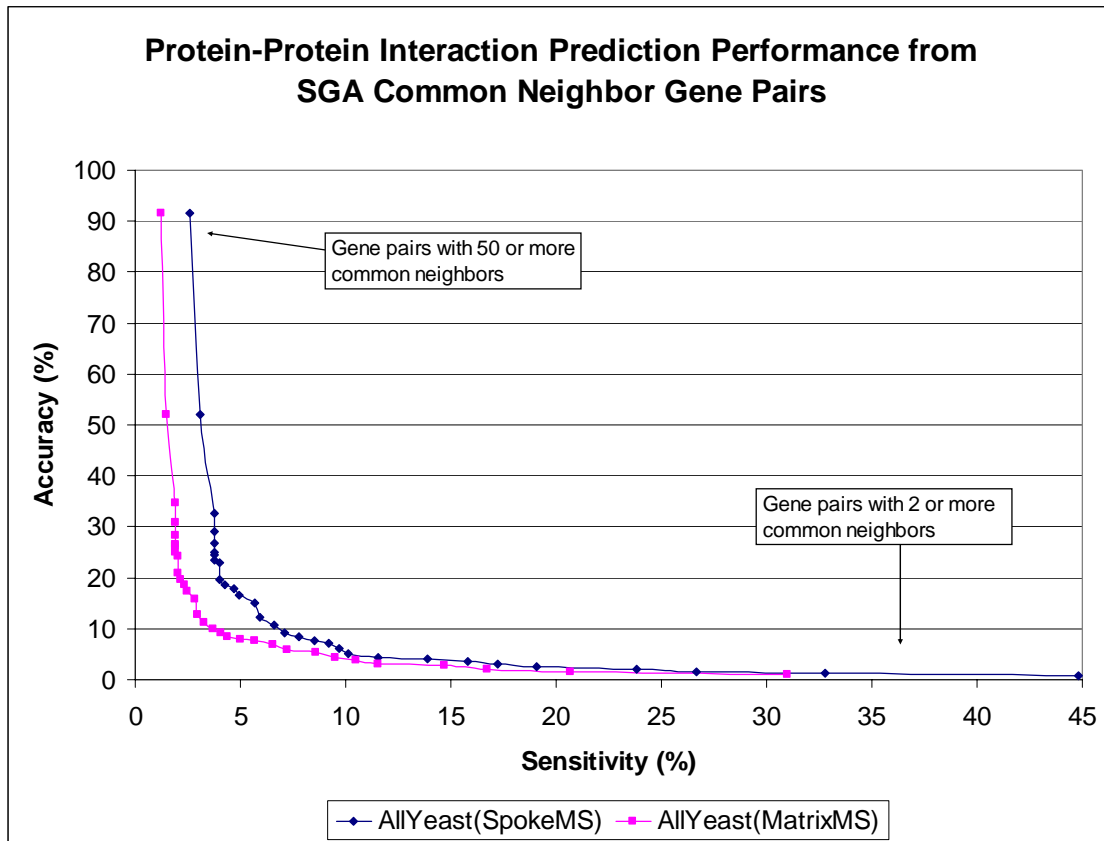
Mouse (gi|23633509) similar to Dynein light intermediate chain 2  
 Rat (gi|13591938) dynein light intermediate chain  
 Human (gi|5453634) dynein, cytoplasmic, light intermediate polypeptide 2  
 Chicken (gi|2494217) Dynein light chain A  
 Frog (gi|28280005) similar to cytoplasmic dynein light-intermediate chain  
 Anopheles Anopheles gambiae (gi|31204625)  
 FruitFly (gi|24641230)  
 Worm (gi|25151901) cytoplasmic Dynein Light chain, Intermediate type  
 Yeast: (gi|6323957) Ymr299cp

### Localization of Ymr299c and Microtubules



**Figure S4.**

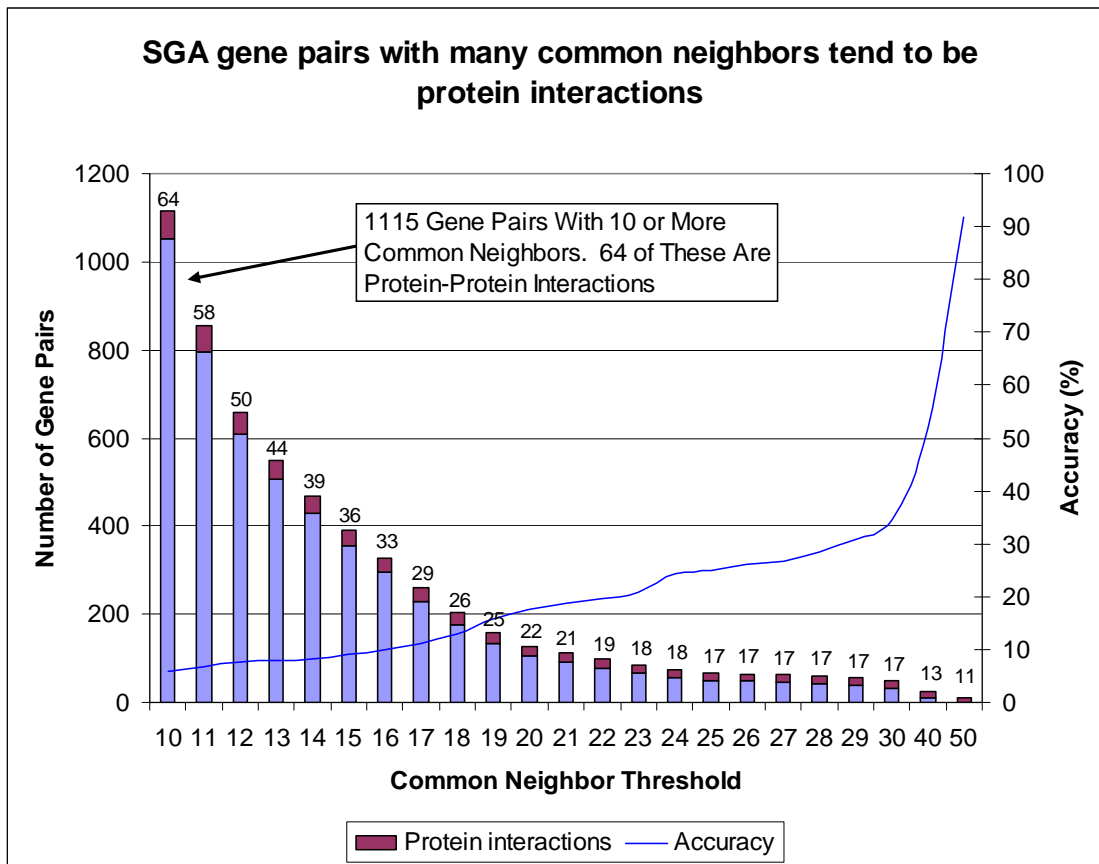
- A. Immunofluorescence of both microtubules and Ymr299c showed that Ymr299c localized to motile cortical dots and colocalized to the tips of cytoplasmic microtubules. Microtubules were stained with anti- $\alpha$  tubulin YO L1/34 at 1:100 dilution and goat anti-rat conjugated with rhodamine at a dilution of 1:200; and rabbit anti-GFP at 1:100 dilution and goat anti-rabbit conjugated with fluorescein at a dilution of 1:100.
- B. The percentage of nuclear positioning defects in cells. Wild-type and mutant strains *ymr299cΔ*, *dyn1Δ*, and *arp1Δ* were fixed, stained with DAPI, and then scored for nuclear position. The position and phenotype of nuclear DNA was visualized by DAPI staining, and scored for abnormal morphology corresponding to the phenotypes schematically depicted. The first column shows the percentage of cells with the nucleus failed to position at the bud neck; the second column shows the percentage of cells with anaphase occurring in the mother cell; and the third column shows the percentage of cells with both nuclei in the mother cell. The total percentage of defects is the sum of percentage of cells with abnormal phenotypes.  $n = 500$  cells for each strain.



**Figure S5.**

**Prediction Performance of Common Neighbor Protein-Protein Interaction Measure**

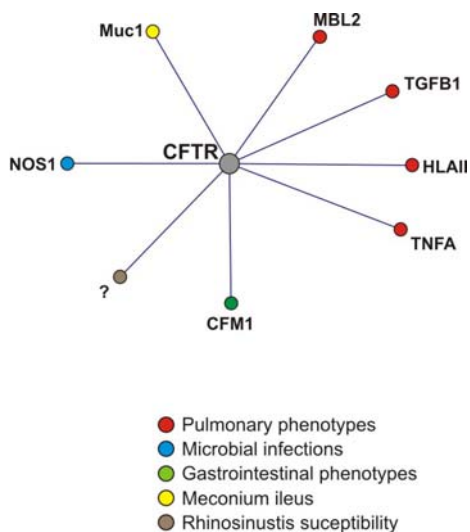
Accuracy (sometimes called specificity) is the ratio of true protein-protein interactions to total predicted interactions (if a predicted interaction occurs between genes with many common neighbors). Sensitivity is the ratio of true protein-protein interactions to the total number of protein interactions that could be predicted, in this case the number of protein interactions among any of the 649 genes in the above 1 common neighbor network (443 possible protein interactions). AllYeast(SpokeMS) is a set of 15,143 protein-protein interactions including large-scale mass spectrometry study copurifications represented using the spoke model (bait connected to hits). AllYeast(MatrixMS) contains 52,345 protein-protein interactions including the mass spectrometry copurifications represented using the matrix model (all copurified proteins interconnected) (S21).



**Figure S6. Protein-Protein Interaction Prediction Accuracy Grows with the Number of Neighbors Shared by SGA Gene Pairs.** The number of gene pairs with at least the given number of common neighbors (common neighbor threshold) is shown (Dark Purple + Light Purple) along with the number of known protein-protein interactions that overlap (Dark Purple). The number of gene pairs at a common neighbor threshold that don't overlap with known protein-protein interactions is shown as well (Light Purple). The accuracy of the protein-protein interaction measure is superimposed (Blue line).

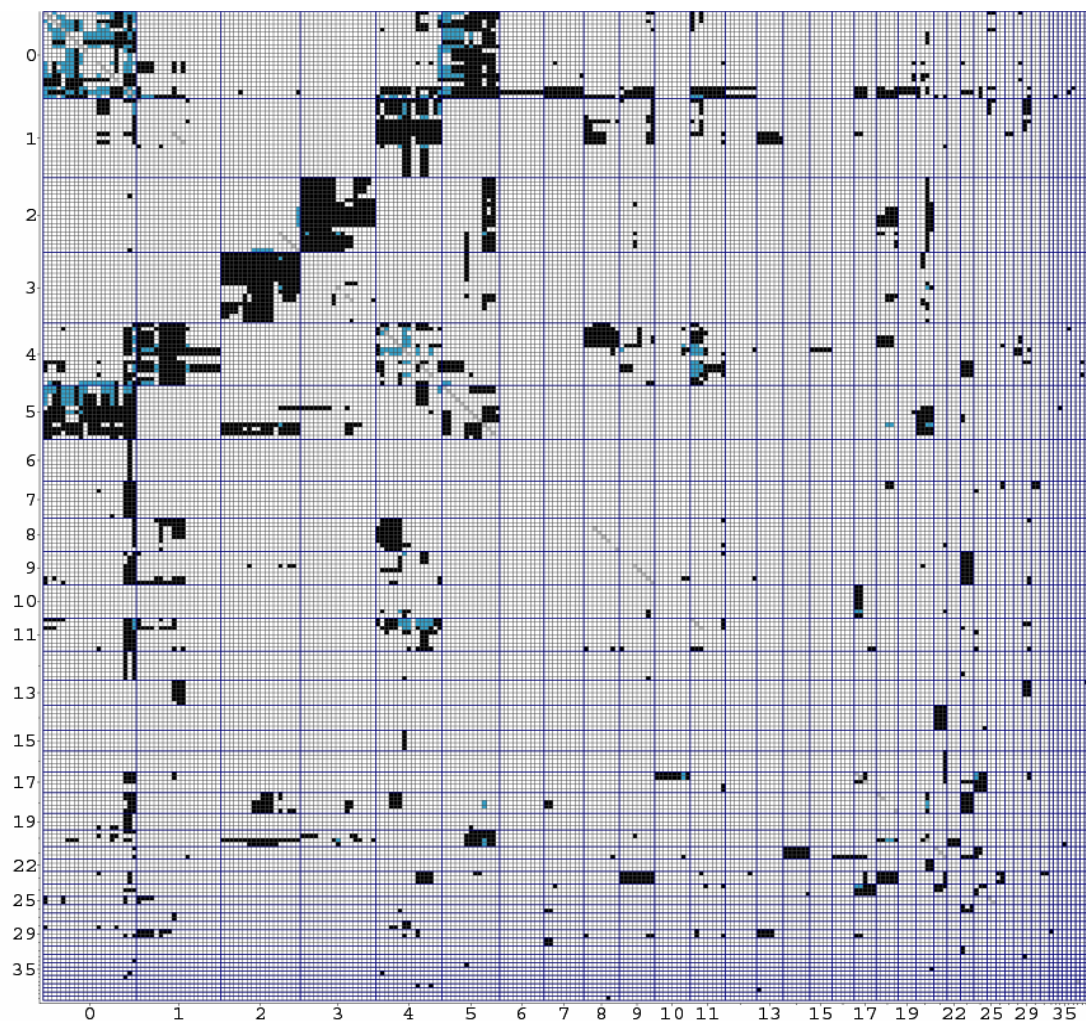


**Figure S7.** Examples of the spot assay version of random spore analysis: *MATa* meiotic progeny derived from sporulation of heterozygous diploids, *MATa/α dcc1Δ::natR/+ bim1Δ::kanR/+* or *MATa/α dcc1Δ::natR/+ bni1Δ::kanR/+*, spotted on to medium [SD/(MSG) – His/Arg + canavanine] containing the antibiotics as indicated. The cultures were incubated at 30°C for ~2 days. Cell growth under the three conditions was compared and scored. The *MATa dcc1Δ::natR bim1Δ::kanR* double mutant was scored as having a synthetic genetic interaction (Yes), whereas the *MATa dcc1Δ::natR bni1Δ::kanR* double mutant was not (No).



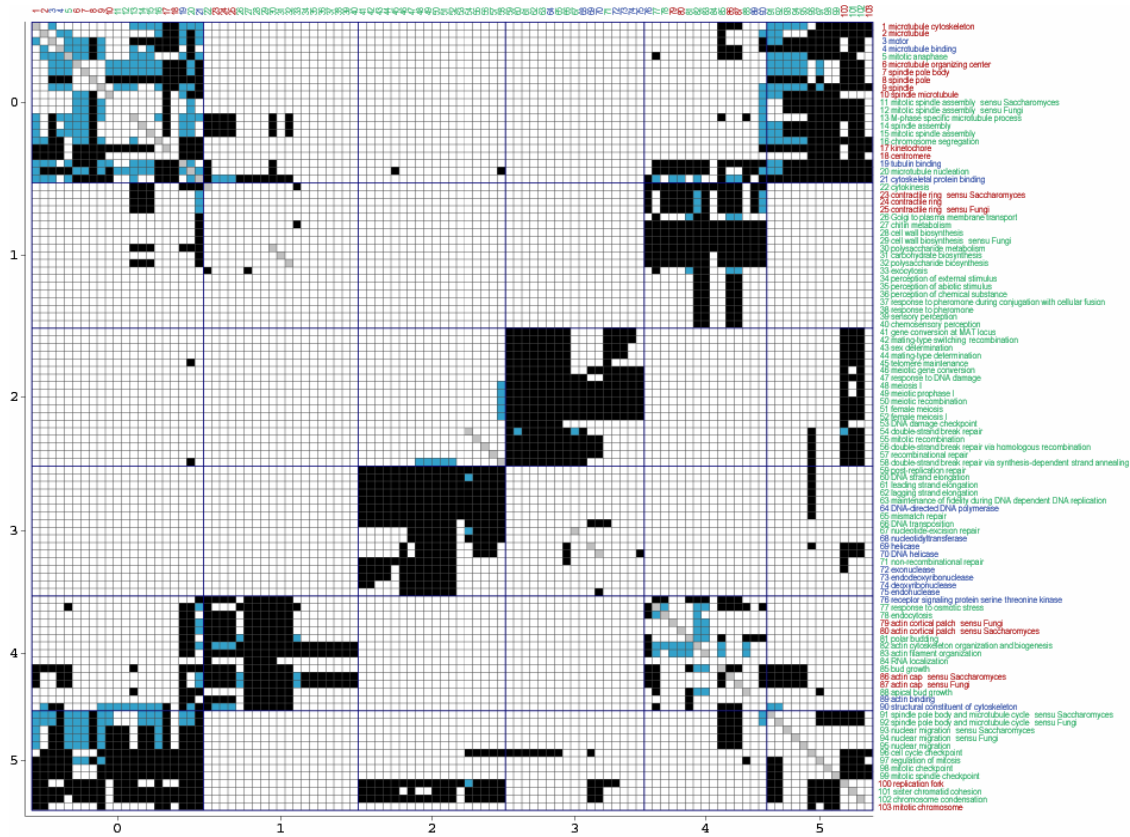
**Figure S8.**

The complexity of genetic interactions with the gene *CFTR*, mutations in this gene cause the cystic fibrosis phenotype (S34).



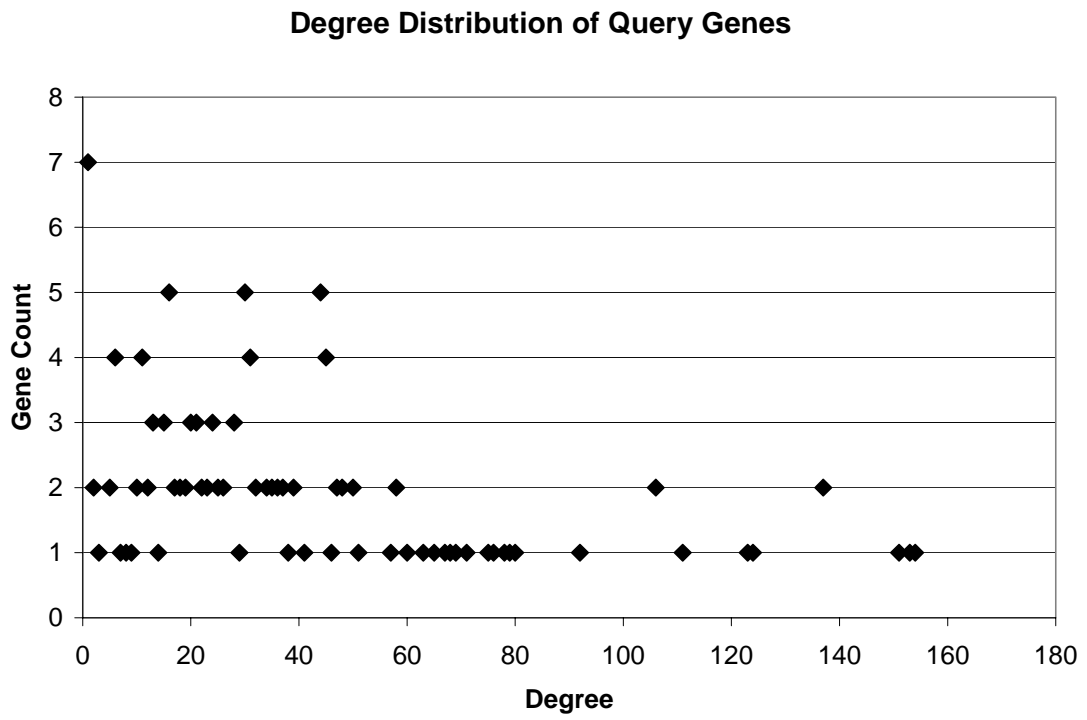
**Figure S9.**

**A matrix of connections between gene functions based on synthetic genetic interaction.** Colored cells in this matrix represent pairs of GO attributes that are associated with genetic interactions more than would be expected by chance ( $P < 0.05$ ); we say that the attributes in such pairs are “genetically connected”. P-values have been corrected for multiple hypothesis testing by resampling (S27), so that it would be unlikely (1 chance in 20) to find any filled cells in this table if synthetic interaction and GO annotation were unrelated. Each grey cell (always along the diagonal) represents a GO attribute for which genetic interactions between genes each with that attribute are surprisingly abundant ( $P < 0.05$  with multiple hypothesis correction). Each black cell indicates a pair of genetically-connected GO attributes; each blue cell indicates a pair of genetically-connected attributes that are also similar in the sense that there is significant overlap in the sets of genes associated with each attribute (described further below). We define the “neighbor set” of a GO attribute as the set of GO attributes that are “genetically connected” to it; GO attributes were clustered according to the degree of overlap of their neighbor sets (cluster numbers are shown along the axes). Clusters and their component attributes are listed in Table S7.



**Figure S10.**

**A subregion of the matrix of connections between gene functions based on synthetic genetic interaction.** The coloring of the cells is as described for Fig. S9. GO attribute names are colored according to Molecular Function (blue), Biological Process (green), and Cellular Component (red) branches of the Gene Ontology. Clusters and their component attributes are listed in Table S7.



**Figure S11.**  
The degree distribution of query genes.



**Table S1.** A table summarizing all the synthetic lethal/fitness interactions. [see pages 37 to 111]

**Table S2** summarizes the average number of interactions/protein in various protein interaction datasets

| Dataset (S21)  | Average number of interactions/protein |
|--|--|
| TAP (spoke)  | 7.5                                    |
| HMS-PCI (spoke)  | 8.5                                    |
| TAP and HMS-PCI combination (spoke)  | 8.0                                    |
| TAP and HMS-PCI combination (spoke) reduced to only cases where MS bait matched an SGA query (34 occurrences)* | 7.4                                    |
| Ito and Uetz Y2H screens reduced to only cases where MS bait matched an SGA query                              | 1.5                                    |
| All known yeast protein-protein interactions (SGA queries only)  | 6.8                                    |
| Estimated yeast interactome size (S33)   | 3-5                                    |

\*Average number of non-redundant SGA interactions for these 34 queries that matched either a bait in TAP or HMS-PCI: 31.7

**Table S3.** Association between synthetic genetic interaction (S) and other gene- or protein-pair characteristics. Among gene pairs tested by SGA, columns 2-5 show the numbers of gene pairs with both S and a given query characteristic C; the number with only S; with only C; and with neither. The remaining columns show “P(C|S),” the probability that a gene pair possesses the query characteristic, given that it is S; “Odds,” the ratio of P(C|S) to P(C|not S); “P(S|C),” the probability that a gene pair is S, given that it possesses the query characteristic; and “P-value,” the significance of overlap between S and C, as computed by Fisher's Exact Test. Significance of association (indicated by shading) required a P-value of < 0.002, established by the conservative Dunn-Sidak correction to yield an experiment-wise error rate < 0.05.

| Query Characteristic                                      | S+C | S only | C only | Neither | P(C S) | Odds | P(S C) | P-value |
|---|-----|--------|--------|---------|--------|------|--------|---------|
| Similar GO annotation                                     | 813 | 2247   | 26166  | 698133  | 0.27   | 7    | 0.03   | <2E-322 |
| Same MIPS mutant phenotype                                | 456 | 2604   | 9311   | 714988  | 0.15   | 12   | 0.05   | 9E-316  |
| Same GO annotation  | 418 | 2642   | 8153   | 716146  | 0.14   | 12   | 0.05   | 5E-296  |
| Similar GO annotation (filtered)                          | 813 | 1519   | 26166  | 296196  | 0.35   | 4    | 0.03   | 1E-286  |
| Same GO annotation (filtered)                             | 418 | 1914   | 8153   | 314209  | 0.18   | 7    | 0.05   | 2E-211  |
| Same subcellular localization                             | 125 | 2935   | 3488   | 720811  | 0.04   | 8    | 0.03   | 2E-70   |
| Physical interaction: same MIPS complex                   | 88  | 2972   | 1439   | 722860  | 0.03   | 14   | 0.06   | 4E-68   |
| Physical interaction                                      | 104 | 2956   | 2579   | 721720  | 0.03   | 10   | 0.04   | 2E-63   |
| Physical interaction: same MIPS complex (no subcomplexes) | 24  | 3036   | 162    | 724137  | 8E-03  | 35   | 0.13   | 5E-28   |
| Sequence homology (BLAST E-value < 1E-3)                  | 47  | 3013   | 1771   | 722528  | 0.02   | 6    | 0.03   | 4E-22   |
| Same predicted complex (using MCODE)                      | 28  | 3032   | 904    | 723395  | 9E-03  | 7    | 0.03   | 2E-15   |
| Correlated mRNA expression (Cho, CC > 0.7)                | 59  | 3001   | 6169   | 718130  | 0.02   | 2    | 9E-03  | 2E-08   |
| Physical interaction: APMS (TAP or HMS-PCI)               | 17  | 3043   | 1029   | 723270  | 6E-03  | 4    | 0.02   | 4E-06   |
| Physical interaction: HMS-PCI                             | 11  | 3049   | 697    | 723602  | 4E-03  | 4    | 0.02   | 3E-04   |
| mRNA coexpression   | 74  | 2986   | 11669  | 712630  | 0.02   | 1.5  | 6E-03  | 6E-04   |
| Physical interaction: TAP                                 | 6   | 3054   | 345    | 723954  | 2E-03  | 4    | 0.02   | 4E-03   |
| Physical interaction: Y2H U APMS "spoke"                  | 5   | 3055   | 290    | 724009  | 2E-03  | 4    | 0.02   | 9E-03   |
| Physical interaction: Y2H: Ito3+, Uetz                    | 2   | 3058   | 61     | 724238  | 7E-04  | 8    | 0.03   | 0.03    |
| Common upstream regulator (P ≤ 0.001)                     | 41  | 3019   | 7118   | 717181  | 0.01   | 1.4  | 6E-03  | 0.03    |
| Physical interaction: Y2H Ito3+                           | 1   | 3059   | 21     | 724278  | 3E-04  | 11   | 0.05   | 0.09    |
| Physical interaction: Y2H Uetz                            | 1   | 3059   | 47     | 724252  | 3E-04  | 5    | 0.02   | 0.18    |





|         |         |     |     |     |
|---------|---------|-----|-----|-----|
|         | YGR228W | SL  | SL  | N/D |
|         | YLL049W | SS  | SL  | N/D |
|         | YMR299C | SL  | SL  | N/D |
| YPT6    | YLR262C | SS  | SS  | No  |
| PCL1    | YNL289W | SS  | No  | No  |
| SWE1    | YJL187C | SS  | No  | No  |
| SWI4    | YER111C | SL  | No  | No  |
| BEM2    | YER155C | SL  | No  | No  |
| BEM4    | YPL161C | SL  | No  | No  |
| BUD6    | YLR319C | SS  | No  | No  |
| ELM1    | YKL048C | SS  | No  | No  |
| GIN4    | YDR507C | SL  | No  | No  |
| NAP1    | YKR048C | SS  | No  | No  |
| SLA1    | YBL007C | SS  | No  | No  |
| ATS1    | YAL020C | SL  | No  | No  |
| CHS5    | YLR330W | SS  | No  | No  |
| BCK1    | YJL095W | SL  | No  | No  |
| CHS3    | YBR023C | SL  | No  | No  |
| SKT5    | YBL061C | SS  | No  | No  |
| SLT2    | YHR030C | SL  | No  | No  |
| BNI4    | YNL233W | SL  | No  | No  |
| BNR1    | YIL159W | SL  | No  | No  |
| PIN4    | YBL051C | SL  | No  | No  |
| TIP41   | YPR040W | SS  | No  | No  |
| BBC1    | YJL020C | SS  | No  | No  |
| TUS1    | YLR425W | SL  | No  | No  |
|         | YBL062W | SS  | No  | No  |
|         | YKR047W | SS  | No  | No  |
|         | YNL119W | SS  | No  | No  |
| DRS2    | YAL026C | SL  | No  | No  |
| SNC2    | YOR327C | SL  | No  | No  |
| VPS28   | YPL065W | SL  | No  | No  |
| MDM20   | YOL076W | SS  | N/D | N/D |
| BCK1    | YJL095W | SL  | N/D | N/D |
| ERG2    | YMR202W | SS  | N/D | N/D |
| ERG3    | YLR056W | SS  | N/D | N/D |
| VPS67   | YKR020W | SS  | N/D | N/D |
| YBL062W | YBL062W | SS  | N/D | N/D |
| YOR322C | YOR322C | SS  | N/D | N/D |
|         | YNL201C | No  | SS  | No  |
| ARP6    | YLR085C | No  | SS  | No  |
| TUB3    | YML124C | No  | SL  | No  |
| GIM3    | YNL153C | No  | SL  | No  |
| GIM4    | YEL003W | No  | SL  | No  |
| GIM5    | YML094W | No  | SL  | No  |
| PAC10   | YGR078C | No  | SL  | No  |
| CIN1    | YOR349W | No  | SL  | No  |
| CHL1    | YPL008W | No  | SL  | No  |
| CHL4    | YDR254W | No  | SL  | No  |
| IML3    | YBR107C | No  | SL  | No  |
| CTF3    | YLR381W | No  | SL  | No  |
| CTF19   | YPL018W | No  | SL  | No  |
| MCM16   | YPR046W | No  | SL  | No  |
| MCM21   | YDR318W | No  | SL  | No  |
| MCM22   | YJR135C | No  | SL  | No  |
| NKP1    | YDR383C | No  | SS  | No  |
| NKP2    | YLR315W | No  | SS  | No  |
| CTF4    | YPR135W | No  | SL  | No  |
| CTF8    | YHR191C | No  | SL  | No  |
| CTF18   | YMR078C | N/D | SL  | N/D |
| DCC1    | YCL016C | No  | SL  | No  |
| HTZ1    | YOL012C | No  | SL  | No  |
| SAP30   | YMR263W | No  | SL  | No  |
| SLK19   | YOR195W | No  | SL  | No  |
| MMS1    | YPR164W | No  | SL  | No  |
| MRC1    | YCL060C | No  | SL  | No  |

|        |           |        |    |     |
|--------|-----------|--------|----|-----|
| MRE11  | YMR224C   | No     | SL | No  |
| RAD52  | YML032C   | No     | SS | No  |
| RAD54  | YGL163C   | No     | SL | No  |
| RAD61  | YDR014W   | N/D    | SL | N/D |
| TOF1   | YNL273W   | Linked | SL | No  |
| DEP1   | YAL013W   | No     | SL | No  |
| INP52  | YNL106C   | No     | SL | No  |
| CSM3   | YMR048W   | No     | SL | No  |
| MCK1   | YNL307C   | No     | SL | No  |
| BIK1   | YCL029C   | No     | SL | No  |
| CIN8   | YEL061C   | No     | SS | No  |
| KIP2   | YPL155C   | No     | SL | No  |
| KIP3   | YGL216W   | No     | SL | No  |
| MAD1   | YGL086W   | No     | SL | No  |
| MAD2   | YJL030W   | No     | SL | No  |
| MAD3   | YJL013C   | No     | SL | No  |
| BUB1   | YGR188C   | No     | SL | No  |
| BUB2   | YMR055C   | No     | SL | No  |
| BUB3   | YOR026W   | No     | SL | No  |
| BFA1   | YJR053W   | No     | SL | No  |
| MSN5   | YDR335W   | No     | SS | No  |
| PHO23  | YNL097C   | No     | SL | No  |
| KEM1   | YGL173C   | No     | SL | No  |
| PPZ1   | YML016C   | No     | SL | No  |
| AOR1   | YBR231C   | No     | SL | No  |
| IPK1   | YDR315C   | N/D    | SL | N/D |
| LSM1   | YJL124C   | N/D    | SL | N/D |
| IES2   | YNL215W   | No     | SS | No  |
| KTI12  | YKL110C   | No     | SS | No  |
| RTT103 | YDR289C   | No     | SS | No  |
| RXT2   | YBR095C   | No     | SL | No  |
| VID21  | YDR359C   | No     | SL | No  |
|        | YDR360W   | No     | SL | No  |
|        | YGL211W   | No     | SS | No  |
|        | YGL217C   | No     | SL | No  |
|        | YML094C-A | No     | SL | No  |
|        | YNL136W   | No     | SS | No  |
|        | YNL170W   | No     | SL | No  |
|        | YPL017C   | No     | SL | No  |
| BRE5   | YNR051C   | N/D    | SL | N/D |
| VAC14  | YLR386W   | No     | SL | No  |
| YTA7   | YGR270W   | No     | SL | No  |

**Table S6.** A table summarizing the genetic interactions identified in the *BNI1 KRE1* triple mutant screen. The “Genetic Interaction – Gene Name” column indicates the gene identified as an interactor in the *BNI1 KRE1* triple mutant screen. The “Genetic Interaction – Systematic Name” column indicates the systematic (ORF) name that corresponds to the interactor gene. The “BNI1” column contains the double-mutant phenotype between *bni1Δ::URA3* and *xxxΔ::kanR* as confirmed by tetrad analysis. The “KRE1” column contains the double-mutant phenotype between *kre1Δ::natR* and *xxxΔ::kanR* as confirmed by tetrad analysis. The “BNI1 KRE1” column contains the triple-mutant phenotype between *bni1Δ::URA3 kre1Δ::natR* and *xxxΔ::kanR* as confirmed by tetrad analysis. “SS” refers to a synthetic sick interaction; “SL” refers to a synthetic lethal interaction; “No” refers to an interaction that was tested but showed no SS or SL phenotype ; “N/D” refers to test not done.

| Genetic Interaction - Gene Name | Genetic Interaction - Systematic Name | BNI1 | KRE1 | BNI1 KRE1 |
|---------------------------------|---------------------------------------|------|------|-----------|
| SWI4                            | YER111C                               | No   | No   | SS        |
| BUD19                           | YJL188C                               | No   | No   | SS        |
| CAP1                            | YKL007W                               | No   | No   | SL        |

|        |         |             |             |     |
|--------|---------|-------------|-------------|-----|
| CAP2   | YIL034C | No          | No          | SL  |
| CHS6   | YJL099W | No          | No          | SS  |
| ALG5   | YPL227C | No          | No          | SS  |
| ALG6   | YOR002W | No          | No          | SS  |
| ALG8   | YOR067C | No          | No          | SS  |
| MNN2   | YBR015C | No          | No          | SS  |
| YPT31  | YER031C | No          | No          | SS  |
| SYS1   | YJL004C | No          | No          | SL  |
| ARL1   | YBR164C | No          | No          | SL  |
| ARL3   | YPL051W | No          | No          | SS  |
| APM1   | YPL259C | No          | No          | SS  |
| AGE2   | YIL044C | No          | No          | SS  |
| GTR1   | YML121W | No          | No          | SS  |
| ELM1   | YKL048C | slightly SS | No          | SS  |
| MMR1   | YLR190W | No          | SS          | SL  |
| OST3   | YOR085W | No          | slightly SS | SS  |
| INP53  | YOR109W | No          | slightly SS | SS  |
| COG5   | YNL051W | No          | slightly SS | SS  |
| COG7   | YGL005C | No          | slightly SS | SS  |
| COG8   | YML071C | No          | slightly SS | SS  |
| VAC7   | YNL054W | No          | SS          | SL  |
| ERG2   | YMR202W | SS          | SS          | SL  |
| ERG3   | YLR056W | SS          | SS          | SL  |
| ERG5   | YMR015C | No          | slightly SS | SS  |
|        | YFR043C | No          | SS          | SL  |
|        | YGR228W | No          | SS          | SL  |
| BEM2   | YER155C | SL          | SS          | N/D |
| CHS3   | YBR023C | SS          | SS          | No  |
| SKT5   | YBL061C | SS          | SS          | No  |
| CHS5   | YLR330W | SS          | SS          | No  |
| SLT2   | YHR030C | SL          | SL          | N/D |
| BCK1   | YJL095W | SL          | SS          | N/D |
| SMI1   | YGR229C | SL          | SL          | N/D |
| DRS2   | YAL026C | SL          | SS          | N/D |
| FAB1   | YFR019W | SL          | SL          | N/D |
| NBP2   | YDR162C | SS          | SS          | No  |
| VPS67  | YKR020W | SS          | SS          | No  |
|        | YBL062W | SS          | SS          | No  |
| BBC1   | YJL020C | SS          | No          | No  |
| BEM1   | YBR200W | SL          | No          | No  |
| BEM4   | YPL161C | SS          | No          | No  |
| BNI4   | YNL233W | SS          | No          | No  |
| BNR1   | YIL159W | SL          | No          | No  |
| BUD6   | YLR319C | SS          | No          | No  |
| CHS7   | YHR142W | SS          | No          | No  |
| CLA4   | YNL298W | SL          | No          | No  |
| ASE1   | YOR058C | SL          | No          | No  |
| NUM1   | YDR150W | SL          | No          | No  |
| PAC1   | YOR269W | SL          | No          | No  |
| DYN1   | YKR054C | SL          | No          | No  |
| PAC11  | YDR488C | SL          | No          | No  |
|        | YMR299C | SL          | No          | No  |
| ARP1   | YHR129C | SL          | No          | No  |
| JNM1   | YMR294W | SL          | No          | No  |
| NIP100 | YPL174C | SL          | No          | No  |
| PCL1   | YNL289W | SS          | No          | No  |
| SWE1   | YJL187C | SS          | No          | No  |
| TUS1   | YLR425W | SS          | No          | No  |
| YKE2   | YLR200W | SS          | No          | No  |
|        | YDR149C | SL          | No          | No  |
|        | YOR322C | SS          | No          | No  |
| ATS1   | YAL020C | SL          | N/D         | N/D |
| CYK3   | YDL117W | SS          | N/D         | N/D |
| DYN2   | YDR424C | SS          | N/D         | N/D |
| ELP2   | YGR200C | SL          | N/D         | N/D |
| ELP3   | YPL086C | SS          | N/D         | N/D |

|         |           |     |     |     |
|---------|-----------|-----|-----|-----|
| ELP4    | YPL101W   | SL  | N/D | N/D |
| ELP6    | YMR312W   | SL  | N/D | N/D |
| GIN4    | YDR507C   | SL  | N/D | N/D |
| KRE24   | YPL102C   | SL  | N/D | N/D |
| MDM20   | YOL076W   | SS  | N/D | N/D |
| MTM1    | YLR190W   | SS  | N/D | N/D |
| NAP1    | YKR048C   | SS  | N/D | N/D |
| PIN4    | YBL051C   | SL  | N/D | N/D |
| SAC3    | YDR159W   | SS  | N/D | N/D |
| SHS1    | YDL225W   | SL  | N/D | N/D |
| SLA1    | YBL007C   | SS  | N/D | N/D |
| SNC2    | YOR327C   | SL  | N/D | N/D |
| TIP41   | YPR040W   | SS  | N/D | N/D |
| UBA4    | YHR111W   | SS  | N/D | N/D |
| VID22   | YLR373C   | SL  | N/D | N/D |
| VPS28   | YPL065W   | SL  | N/D | N/D |
| YKR047W | YKR047W   | SS  | N/D | N/D |
| YLL049W | YLL049W   | SS  | N/D | N/D |
| YNL119W | YNL119W   | SS  | N/D | N/D |
| YPT6    | YLR262C   | SS  | N/D | N/D |
| CNB1    | YKL190W   | No  | SS  | No  |
| CNE1    | YAL058W   | No  | SL  | No  |
| CWH41   | YGL027C   | No  | SL  | No  |
| DFG5    | YMR238W   | No  | SL  | No  |
| ERD1    | YDR414C   | No  | SL  | No  |
| GAS1    | YMR307W   | No  | SL  | No  |
| GUP1    | YGL084C   | No  | SL  | No  |
| HOC1    | YJR075W   | No  | SL  | No  |
| HUR1    | YGL168W   | No  | SL  | No  |
| ILM1    | YJR118C   | No  | SL  | No  |
| KEX1    | YGL203C   | No  | SL  | No  |
| KEX2    | YNL238W   | No  | SL  | No  |
| KRE11   | YGR166W   | No  | SL  | No  |
| MNN11   | YJL183W   | No  | SL  | No  |
| PER1    | YCR044C   | No  | SS  | No  |
| RHK1    | YBL082C   | No  | SS  | No  |
| ROT2    | YBR229C   | No  | SL  | No  |
| SAC7    | YDR389W   | No  | SL  | No  |
| STE24   | YJR117W   | No  | SS  | No  |
| YUR1    | YJL139C   | No  | SS  | No  |
|         | YAL053W   | No  | SL  | No  |
|         | YAL056C-A | No  | SL  | No  |
|         | YBL083C   | No  | SS  | No  |
| COG6    | YNL041C   | No  | SS  | No  |
| GOS1    | YHL031C   | No  | SL  | No  |
| PMR1    | YGL167C   | No  | SL  | No  |
| SEC66   | YBR171W   | No  | SS  | No  |
| MNN10   | YDR245W   | No  | SL  | No  |
| PMT2    | YAL023C   | No  | SL  | No  |
|         | YKL077W   | No  | SS  | No  |
| BUD14   | YAR014C   | N/D | SS  | N/D |
| ERG28   | YER044C   | N/D | SL  | N/D |
| KRE20   | YAL058C-A | N/D | SL  | N/D |
| KRE9    | YJL174W   | N/D | SL  | N/D |
| OPI3    | YJR073C   | N/D | SS  | N/D |
| PTC1    | YDL006W   | N/D | SS  | N/D |
| SAC6    | YDR129C   | N/D | SS  | N/D |
| SHE4    | YOR035C   | N/D | SL  | N/D |
| TOM37   | YMR060C   | N/D | SS  | N/D |
| MNN11   | YJL183W   | N/D | SL  | N/D |

**Table S7.** A table of GO attribute clusters identified in Fig. S9 and their component attributes.

0  
0015630 C microtubule cytoskeleton

|         |   |   |
|---------|---|---|
| 0005874 | C | microtubule   |
| 0003774 | F | motor   |
| 0008017 | F | microtubule binding   |
| 0000090 | P | mitotic anaphase  |
| 0005815 | C | microtubule organizing center                                       |
| 0005816 | C | spindle pole body   |
| 0030615 | C | spindle pole  |
| 0005819 | C | spindle   |
| 0005876 | C | spindle microtubule   |
| 0000071 | P | mitotic spindle assembly (sensu Saccharomyces)                      |
| 0030472 | P | mitotic spindle assembly (sensu Fungi)                              |
| 0000072 | P | M-phase specific microtubule process                                |
| 0007051 | P | spindle assembly  |
| 0007052 | P | mitotic spindle assembly  |
| 0007059 | P | chromosome segregation  |
| 0005699 | C | kinetochore   |
| 0005698 | C | centromere  |
| 0015631 | F | tubulin binding   |
| 0007020 | P | microtubule nucleation  |
| 0008092 | F | cytoskeletal protein binding  |
| 1       |   |   |
| 0016288 | P | cytokinesis   |
| 0000142 | C | contractile ring (sensu Saccharomyces)                              |
| 0005826 | C | contractile ring  |
| 0030480 | C | contractile ring (sensu Fungi)                                      |
| 0006893 | P | Golgi to plasma membrane transport                                  |
| 0006030 | P | chitin metabolism   |
| 0042546 | P | cell wall biosynthesis  |
| 0009272 | P | cell wall biosynthesis (sensu Fungi)                                |
| 0005976 | P | polysaccharide metabolism   |
| 0016051 | P | carbohydrate biosynthesis   |
| 0000271 | P | polysaccharide biosynthesis   |
| 0006887 | P | exocytosis  |
| 0009581 | P | perception of external stimulus                                     |
| 0009582 | P | perception of abiotic stimulus                                      |
| 0009593 | P | perception of chemical substance                                    |
| 0000749 | P | response to pheromone during conjugation with cellular fusion       |
| 0019236 | P | response to pheromone   |
| 0007600 | P | sensory perception  |
| 0007606 | P | chemosensory perception   |
| 2       |   |   |
| 0007534 | P | gene conversion at MAT locus  |
| 0007533 | P | mating-type switching/recombination                                 |
| 0007530 | P | sex determination   |
| 0007531 | P | mating-type determination   |
| 0000723 | P | telomere maintenance  |
| 0006311 | P | meiotic gene conversion   |
| 0006974 | P | response to DNA damage  |
| 0007127 | P | meiosis I   |
| 0007128 | P | meiotic prophase I  |
| 0007131 | P | meiotic recombination   |
| 0007143 | P | female meiosis  |
| 0007144 | P | female meiosis I  |
| 0000077 | P | DNA damage checkpoint   |
| 0006302 | P | double-strand break repair  |
| 0006312 | P | mitotic recombination   |
| 0000724 | P | double-strand break repair via homologous recombination             |
| 0000725 | P | recombinational repair  |
| 0045003 | P | double-strand break repair via synthesis-dependent strand annealing |
| 3       |   |   |
| 0006301 | P | post-replication repair   |
| 0006271 | P | DNA strand elongation   |

- 0006272 P leading strand elongation
  - 0006273 P lagging strand elongation
  - 0045005 P maintenance of fidelity during DNA dependent DNA replication
  - 0003887 F DNA-directed DNA polymerase
  - 0006298 P mismatch repair
  - 0006313 P DNA transposition
  - 0006289 P nucleotide-excision repair
  - 0016779 F nucleotidyltransferase
  - 0004386 F helicase
  - 0003678 F DNA helicase
  - 0000726 P non-recombinational repair
  - 0004527 F exonuclease
  - 0004520 F endodeoxyribonuclease
  - 0004536 F deoxyribonuclease
  - 0004519 F endonuclease
- 4
- 0004702 F receptor signaling protein serine/threonine kinase
  - 0006970 P response to osmotic stress
  - 0006897 P endocytosis
  - 0030479 C actin cortical patch (sensu Fungi)
  - 0005857 C actin cortical patch (sensu Saccharomyces)
  - 0007121 P polar budding
  - 0030036 P actin cytoskeleton organization and biogenesis
  - 0007015 P actin filament organization
  - 0006403 P RNA localization
  - 0007117 P bud growth
  - 0000143 C actin cap (sensu Saccharomyces)
  - 0030478 C actin cap (sensu Fungi)
  - 0007118 P apical bud growth
  - 0003779 F actin binding
  - 0005200 F structural constituent of cytoskeleton
- 5
- 0007102 P spindle pole body and microtubule cycle (sensu Saccharomyces)
  - 0030471 P spindle pole body and microtubule cycle (sensu Fungi)
  - 0000065 P nuclear migration (sensu Saccharomyces)
  - 0030473 P nuclear migration (sensu Fungi)
  - 0007097 P nuclear migration
  - 0000075 P cell cycle checkpoint
  - 0007088 P regulation of mitosis
  - 0007093 P mitotic checkpoint
  - 0007094 P mitotic spindle checkpoint
  - 0005657 C replication fork
  - 0007062 P sister chromatid cohesion
  - 0030261 P chromosome condensation
  - 0005708 C mitotic chromosome
- 6
- 0008483 F transaminase
  - 0008415 F acyltransferase
  - 0006612 P protein-membrane targeting
  - 0016746 F transferase, transferring acyl groups
  - 0016747 F transferase, transferring groups other than amino-acyl groups
  - 0040020 P regulation of meiosis
  - 0016769 F transferase, transferring nitrogenous groups
  - 0016407 F acetyltransferase
  - 0004540 F ribonuclease
  - 0004402 F histone acetyltransferase
- 7
- 0016570 P histone modification
  - 0016569 P covalent chromatin modification
  - 0005096 F GTPase activator
  - 0006613 P co-translational membrane targeting

0006614 P SRP-dependent, co-translational membrane targeting  
 0006616 P SRP-dependent, co-translational membrane targeting, translocation  
 0006476 P protein amino acid deacetylation  
 0016485 P protein processing  
 0005643 C nuclear pore

8

0005795 C Golgi stack  
 0000030 F mannosyltransferase  
 0006486 P protein amino acid glycosylation  
 0009100 P glycoprotein metabolism  
 0009101 P glycoprotein biosynthesis  
 0016758 F transferase, transferring hexosyl groups  
 0006888 P ER to Golgi transport  
 0006487 P N-linked glycosylation

9

0007119 P isotropic bud growth  
 0007125 P invasive growth  
 0007149 P colony morphology  
 0006348 P chromatin silencing at telomere  
 0000118 C histone deacetylase complex  
 0004407 F histone deacetylase  
 0007264 P small GTPase mediated signal transduction  
 0007266 P Rho protein signal transduction

10

0007034 P vacuolar transport  
 0007035 P vacuolar acidification  
 0006896 P Golgi to vacuole transport  
 0016023 C cytoplasmic vesicle  
 0016471 C hydrogen-translocating V-type ATPase complex  
 0030117 C membrane coat  
 0006892 P post Golgi transport  
 0005977 P glycogen metabolism

11

0005933 C bud  
 0005935 C bud neck  
 0005934 C bud tip  
 0008047 F enzyme activator  
 0007124 P pseudohyphal growth  
 0040007 P growth  
 0007150 P growth pattern  
 0005057 F receptor signaling protein

12

0003767 F co-chaperone  
 0000079 P regulation of CDK activity  
 0016538 F cyclin-dependent protein kinase, regulator  
 0019887 F protein kinase regulator  
 0003754 F chaperone  
 0000011 P vacuole inheritance  
 0004693 F cyclin-dependent protein kinase

13

0007031 P peroxisome organization and biogenesis  
 0004298 F threonine endopeptidase  
 0004299 F proteasome endopeptidase  
 0005837 C 26S proteasome  
 0005839 C 20S core proteasome  
 0008054 P cyclin catabolism

14

0006906 P non-selective vesicle fusion



0005478 F intracellular transporter  
 0005484 F SNAP receptor  
 0005485 F v-SNARE  
 0016194 P non-selective vesicle exocytosis  
 0005768 C endosome

15

0042244 P spore wall assembly  
 0006112 P energy reserve metabolism  
 0030476 P spore wall assembly (sensu Fungi)  
 0007152 P spore wall assembly (sensu Saccharomyces)  
 0016052 P carbohydrate catabolism

16

0007030 P Golgi organization and biogenesis  
 0008080 F N-acetyltransferase  
 0000042 P protein-Golgi targeting  
 0016410 F N-acyltransferase  
 0045053 P Golgi retention

17

0007032 P endosome organization and biogenesis  
 0016197 P endosome transport  
 0006623 P protein-vacuolar targeting  
 0003925 F small monomeric GTPase  
 0005625 C soluble fraction

18

0016440 P transcriptional gene silencing  
 0016458 P gene silencing  
 0030466 P chromatin silencing at silent mating type cassettes (sensu Fungi)  
 0006347 P chromatin silencing at HML and HMR (sensu Saccharomyces)  
 0006342 P chromatin silencing

19

0016896 F exoribonuclease, producing 5'-phosphomonoesters  
 0004532 F exoribonuclease  
 0005635 C nuclear membrane  
 0006944 P membrane fusion

20

0000070 P mitotic chromosome segregation  
 0005711 C meiotic chromosome  
 0006261 P DNA dependent DNA replication  
 0006270 P DNA replication initiation

21

0005525 F GTP binding  
 0003924 F GTPase  
 0019001 F guanyl nucleotide binding

22

0008134 F transcription factor binding  
 0000082 P G1/S transition of mitotic cell cycle  
 0003712 F transcription cofactor

23

0016944 F Pol II transcription elongation factor  
 0003711 F transcription elongation factor  
 0008023 C transcription elongation factor complex

24

0006891 P intra-Golgi transport  
 0005083 F small GTPase regulatory/interacting protein  
 0005085 F guanyl-nucleotide exchange factor

25  
0005936 C shmoo  
0005937 C shmoo tip

26  
0016571 P histone methylation  
0000183 P chromatin silencing at ribosomal DNA (rDNA)

27  
0000209 P polyubiquitination  
0006513 P monoubiquitination

28  
0000272 P polysaccharide catabolism  
0006457 P protein folding

29  
0009250 P glucan biosynthesis  
0006073 P glucan metabolism

30  
0006643 P membrane lipid metabolism  
0006644 P phospholipid metabolism

31  
0016278 F lysine N-methyltransferase  
0016279 F protein-lysine N-methyltransferase

32  
0005777 C peroxisome

33  
0015662 F P-type ATPase

34  
0006267 P pre-replicative complex formation and maintenance

35  
0003714 F transcription co-repressor

36  
0000147 P actin cortical patch assembly

37  
0000086 P G2/M transition of mitotic cell cycle

38  
0004576 F oligosaccharyl transferase

39  
0000131 C incipient bud site

40  
0009277 C cell wall (sensu Fungi)

41  
0006368 P RNA elongation from Pol II promoter

42  
0003899 F DNA-directed RNA polymerase

**Table S8.** A defined subset of GO functional annotations used to assign a general function to each gene in the genetic interaction dataset of Table S1.

| <b>Simplified GO Functional Role</b>             |
|--|
| Aging  |
| Amino-acid metabolism                            |
| Carbohydrate metabolism                          |
| Cell cycle control                               |
| Cell growth and/or maintenance                   |
| Cell polarity                                    |
| Cell stress                                      |
| Cell structure                                   |
| Cell wall organization and biogenesis            |
| Chromatin/chromosome structure                   |
| Cytokinesis                                      |
| Differentiation                                  |
| DNA repair                                       |
| DNA replication                                  |
| Endocytosis                                      |
| Energy generation                                |
| ER organization and biogenesis                   |
| Glycogen metabolism                              |
| Lipid metabolism                                 |
| Mating response                                  |
| Meiosis  |
| Metabolism                                       |
| Mitochondrion organization and biogenesis        |
| Mitosis  |
| Nuclear-cytoplasmic transport                    |
| Other metabolism                                 |
| Peroxisome organization and biogenesis           |
| Phosphate metabolism                             |
| Pol I transcription                              |
| Pol II transcription                             |
| Protein degradation                              |
| Protein folding                                  |
| Protein modification                             |
| Protein synthesis                                |
| Protein targeting                                |
| Protein translocation                            |
| Recombination                                    |
| Ribosomal large subunit assembly and maintenance |
| Ribosomal large subunit nucleus export           |
| RNA metabolism                                   |
| RNA processing                                   |
| RNA splicing                                     |
| RNA turnover                                     |
| Signal transduction                              |
| Small molecule transport                         |
| Transport  |
| tRNA methylation                                 |
| Unknown  |
| Vacuolar organization and biogenesis             |
| Vesicular transport                              |

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The "Query Gene" column indicates the gene used as query in a SGA screen.

The "Genetic Interaction - Gene Name" column indicates the gene identified as an interactor with a particular query.

The "Genetic Interaction - Systematic Name" column indicates the systematic (ORF) name that corresponds to the interactor gene.

The "Score" column is defined as follows:

An interaction scored three times in the three runs by visual inspection received a score of "3".

An interaction scored twice in the three runs by visual inspection received a score of "2".

An interaction scored by the computer-based image analysis but not visual inspection received a score of "1".

For interactions that scored once in the three runs by visual inspection, confirmation was attempted only for those gene pairs with related functions. Such confirmed interactions received a score of "0".

The "RSA" column identifies an interaction that was confirmed by random spore analysis.

The "Tetrad" column identifies an interaction confirmed by tetrad analysis.

"SS" refers to a synthetic sick interaction.

"SL" refers to a synthetic lethal interaction.

The "Functional Role" column indicates the assigned GO functional annotation from our defined subset of annotations.

All the interactions are identified in this study unless otherwise stated.

References: Genetic Interactions that have been previously described.

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| Query Gene | Genetic Interaction - Gene Name | Genetic Interaction - Systematic Name | Score | RSA | Tetrad | Functional Role                       | Reference  |
|------------|---------------------------------|---------------------------------------|-------|-----|--------|---------------------------------------|------------|
| BNI1       | PCL1                            | YNL289W                               | 3     |     | SS     | Cell cycle control                    | Tong, 2001 |
| BNI1       | SWE1                            | YJL187C                               | 0     |     | SS     | Cell cycle control                    | Tong, 2001 |
| BNI1       | SWI4                            | YER111C                               | 0     |     | SL     | Cell cycle control                    |            |
| BNI1       | BBC1                            | YJL020C                               | 2     |     | SS     | Cell polarity                         | Tong, 2001 |
| BNI1       | BEM1                            | YBR200W                               | 3     |     | SL     | Cell polarity                         | Tong, 2001 |
| BNI1       | BEM2                            | YER155C                               | 3     |     | SL     | Cell polarity                         | Tong, 2001 |
| BNI1       | BEM4                            | YPL161C                               | 3     |     | SS     | Cell polarity                         | Tong, 2001 |
| BNI1       | BUD6                            | YLR319C                               | 3     |     | SS     | Cell polarity                         | Tong, 2001 |
| BNI1       | CLA4                            | YNL298W                               | 3     |     | SL     | Cell polarity                         | Tong, 2001 |
| BNI1       | ELM1                            | YKL048C                               | 3     |     | SS     | Cell polarity                         | Tong, 2001 |
| BNI1       | GIN4                            | YDR507C                               | 2     |     | SL     | Cell polarity                         | Tong, 2001 |
| BNI1       | NAP1                            | YKR048C                               | 3     |     | SS     | Cell polarity                         | Tong, 2001 |
| BNI1       | NBP2                            | YDR162C                               | 3     |     | SS     | Cell polarity                         | Tong, 2001 |
| BNI1       | SLA1                            | YBL007C                               | 3     |     | SS     | Cell polarity                         | Tong, 2001 |
| BNI1       | ATS1                            | YAL020C                               | 0     |     | SL     | Cell structure                        | Tong, 2001 |
| BNI1       | SAC3                            | YDR159W                               | 0     |     | SS     | Cell structure                        |            |
| BNI1       | YKE2                            | YLR200W                               | 3     |     | SS     | Cell structure                        | Tong, 2001 |
| BNI1       | BCK1                            | YJL095W                               | 3     |     | SL     | Cell wall organization and biogenesis | Tong, 2001 |
| BNI1       | CHS3                            | YBR023C                               | 3     |     | SS     | Cell wall organization and biogenesis | Tong, 2001 |
| BNI1       | CHS5                            | YLR330W                               | 3     |     | SS     | Cell wall organization and biogenesis | Tong, 2001 |
| BNI1       | CHS7                            | YHR142W                               | 3     |     | SS     | Cell wall organization and biogenesis | Tong, 2001 |
| BNI1       | SKT5                            | YBL061C                               | 3     |     | SS     | Cell wall organization and biogenesis | Tong, 2001 |
| BNI1       | SLT2                            | YHR030C                               | 3     |     | SL     | Cell wall organization and biogenesis | Tong, 2001 |
| BNI1       | SMI1                            | YGR229C                               | 3     |     | SL     | Cell wall organization and biogenesis | Tong, 2001 |
| BNI1       | BNI4                            | YNL233W                               | 3     |     | SS     | Cytokinesis                           | Tong, 2001 |
| BNI1       | BNR1                            | YIL159W                               | 3     |     | SL     | Cytokinesis                           | Tong, 2001 |
| BNI1       | CYK3                            | YDL117W                               | 3     |     | SS     | Cytokinesis                           | Tong, 2001 |
| BNI1       | SHS1                            | YDL225W                               | 2     |     | SL     | Cytokinesis                           | Tong, 2001 |
| BNI1       | ERG2                            | YMR202W                               | 0     |     | SS     | Lipid metabolism                      |            |

|      |           |           |   |    |   |            |
|------|-----------|-----------|---|----|---|------------|
| BNI1 | ERG3      | YLR056W   | 0 | SS | Lipid metabolism                          |            |
| BNI1 | FAB1      | YFR019W   | 3 | SL | Lipid metabolism                          | Tong, 2001 |
| BNI1 | MDM20     | YOL076W   | 0 | SS | Mitochondrion organization and biogenesis |            |
| BNI1 | ARP1      | YHR129C   | 3 | SL | Mitosis                                   | Tong, 2001 |
| BNI1 | ASE1      | YOR058C   | 2 | SL | Mitosis                                   | Tong, 2001 |
| BNI1 | DYN1      | YKR054C   | 3 | SL | Mitosis                                   | Tong, 2001 |
| BNI1 | DYN2      | YDR424C   | 3 | SS | Mitosis                                   | Tong, 2001 |
| BNI1 | JNM1      | YMR294W   | 3 | SL | Mitosis                                   | Tong, 2001 |
| BNI1 | NIP100    | YPL174C   | 3 | SL | Mitosis                                   | Tong, 2001 |
| BNI1 | NUM1      | YDR150W   | 3 | SL | Mitosis                                   | Tong, 2001 |
| BNI1 | PAC1      | YOR269W   | 3 | SL | Mitosis                                   | Tong, 2001 |
| BNI1 | PAC11     | YDR488C   | 2 | SL | Mitosis                                   | Tong, 2001 |
| BNI1 | ELP2      | YGR200C   | 3 | SL | Pol II transcription                      | Tong, 2001 |
| BNI1 | ELP3      | YPL086C   | 3 | SS | Pol II transcription                      | Tong, 2001 |
| BNI1 | ELP4      | YPL101W   | 0 | SL | Pol II transcription                      |            |
| BNI1 | ELP6      | YMR312W   | 0 | SL | Pol II transcription                      |            |
| BNI1 | UBA4      | YHR111W   | 3 | SS | Protein modification                      | Tong, 2001 |
| BNI1 | PIN4      | YBL051C   | 3 | SL | RNA processing                            | Tong, 2001 |
| BNI1 | TIP41     | YPR040W   | 0 | SS | Signal transduction                       |            |
| BNI1 | KRE24     | YPL102C   | 0 | SL | Unknown                                   |            |
| BNI1 | MMR1      | YLR190W   | 3 | SS | Unknown                                   | Tong, 2001 |
| BNI1 | TUS1      | YLR425W   | 3 | SS | Unknown                                   | Tong, 2001 |
| BNI1 | YBL062W   | YBL062W   | 3 | SS | Unknown                                   | Tong, 2001 |
| BNI1 | YDR149C   | YDR149C   | 3 | SL | Unknown                                   | Tong, 2001 |
| BNI1 | YGR228W   | YGR228W   | 0 | SL | Unknown                                   |            |
| BNI1 | YKR047W   | YKR047W   | 3 | SS | Unknown                                   | Tong, 2001 |
| BNI1 | YLL049W   | YLL049W   | 0 | SS | Unknown                                   |            |
| BNI1 | YMR299C   | YMR299C   | 3 | SL | Mitosis                                   | Tong, 2001 |
| BNI1 | YNL119W   | YNL119W   | 3 | SS | Unknown                                   | Tong, 2001 |
| BNI1 | YOR322C   | YOR322C   | 0 | SS | Unknown                                   |            |
| BNI1 | VID22     | YLR373C   | 0 | SL | Vacuolar organization and biogenesis      |            |
| BNI1 | VPS67     | YKR020W   | 0 | SS | Vacuolar organization and biogenesis      |            |
| BNI1 | DRS2      | YAL026C   | 3 | SL | Vesicular transport                       | Tong, 2001 |
| BNI1 | SNC2      | YOR327C   | 3 | SL | Vesicular transport                       | Tong, 2001 |
| BNI1 | VPS28     | YPL065W   | 3 | SL | Vesicular transport                       | Tong, 2001 |
| BNI1 | YPT6      | YLR262C   | 3 | SS | Vesicular transport                       | Tong, 2001 |
| BBC1 | CAP1      | YKL007W   | 3 | SS | Cell structure                            | Tong, 2001 |
| BBC1 | CAP2      | YIL034C   | 3 | SS | Cell structure                            | Tong, 2001 |
| BBC1 | PAC10     | YGR078C   | 3 | SS | Cell structure                            | Tong, 2001 |
| BBC1 | GIM3      | YNL153C   | 3 | SL | Cell structure                            | Tong, 2001 |
| BBC1 | GIM5      | YML094W   | 3 | SL | Cell structure                            | Tong, 2001 |
| BBC1 | SAC6      | YDR129C   | 3 | SL | Cell structure                            | Tong, 2001 |
| BBC1 | BEM1      | YBR200W   | 3 | SL | Cell polarity                             | Tong, 2001 |
| BBC1 | BEM4      | YPL161C   | 3 | SL | Cell polarity                             | Tong, 2001 |
| BBC1 | BNI1      | YNL271C   | 3 | SS | Cell polarity                             | Tong, 2001 |
| BBC1 | SLA1      | YBL007C   | 3 | SS | Cell polarity                             | Tong, 2001 |
| BBC1 | CHS5      | YLR330W   | 3 | SS | Cell wall organization and biogenesis     | Tong, 2001 |
| BBC1 | RAS2      | YNL098C   | 3 | SL | Signal transduction                       | Tong, 2001 |
| BBC1 | ELP2      | YGR200C   | 3 | SL | Pol II transcription                      | Tong, 2001 |
| BBC1 | ELP3      | YPL086C   | 0 | SS | Pol II transcription                      | Tong, 2001 |
| BBC1 | SDS3      | YIL084C   | 2 | SL | Chromatin/chromosome structure            | Tong, 2001 |
| BBC1 | YLR235C   | YLR235C   | 3 | SL | Unknown                                   | Tong, 2001 |
| BBC1 | YML095C-A | YML095C-A | 2 | SL | Unknown                                   | Tong, 2001 |
| NBP2 | BIM1      | YER016W   | 3 | SL | Mitosis                                   | Tong, 2001 |
| NBP2 | CIN2      | YPL241C   | 3 | SS | Cell structure                            | Tong, 2001 |
| NBP2 | KAR9      | YPL269W   | 3 | SL | Mitosis                                   | Tong, 2001 |
| NBP2 | KIP3      | YGL216W   | 3 | SL | Mitosis                                   | Tong, 2001 |
| NBP2 | PAC10     | YGR078C   | 3 | SS | Cell structure                            | Tong, 2001 |
| NBP2 | GIM5      | YML094W   | 3 | SL | Cell structure                            | Tong, 2001 |
| NBP2 | CAP1      | YKL007W   | 3 | SS | Cell structure                            | Tong, 2001 |
| NBP2 | CAP2      | YIL034C   | 2 | SS | Cell structure                            | Tong, 2001 |

|      |           |           |   |    |                                       |            |
|------|-----------|-----------|---|----|---------------------------------------|------------|
| NBP2 | BNI1      | YNL271C   | 3 | SS | Cell polarity                         | Tong, 2001 |
| NBP2 | FAB1      | YFR019W   | 3 | SL | Lipid metabolism                      | Tong, 2001 |
| NBP2 | SMI1      | YGR229C   | 3 | SS | Cell wall organization and biogenesis | Tong, 2001 |
| NBP2 | VAM7      | YGL212W   | 3 | SS | Vacuolar organization and biogenesis  | Tong, 2001 |
| NBP2 | VPS29     | YHR012W   | 3 | SS | Vesicular transport                   | Tong, 2001 |
| NBP2 | RPL16A    | YIL133C   | 3 | SS | Protein synthesis                     | Tong, 2001 |
| NBP2 | RPS18B    | YML026C   | 3 | SS | Protein synthesis                     | Tong, 2001 |
| NBP2 | RPS23A    | YGR118W   | 3 | SS | Protein synthesis                     | Tong, 2001 |
| NBP2 | CPR6      | YLR216C   | 3 | SS | Protein folding                       | Tong, 2001 |
| NBP2 | FPR1      | YNL135C   | 3 | SS | Protein folding                       | Tong, 2001 |
| NBP2 | CLB4      | YLR210W   | 3 | SS | Cell cycle control                    | Tong, 2001 |
| NBP2 | RTT109    | YLL002W   | 3 | SS | DNA repair                            | Tong, 2001 |
| NBP2 | RTG2      | YGL252C   | 2 | SS | Carbohydrate metabolism               | Tong, 2001 |
| NBP2 | RTG3      | YBL103C   | 3 | SS | Pol II transcription                  | Tong, 2001 |
| NBP2 | MON1      | YGL124C   | 3 | SS | Unknown                               | Tong, 2001 |
| NBP2 | YDL063C   | YDL063C   | 3 | SS | Unknown                               | Tong, 2001 |
| NBP2 | YGL211W   | YGL211W   | 2 | SS | Unknown                               | Tong, 2001 |
| NBP2 | YGL217C   | YGL217C   | 3 | SL | Unknown                               | Tong, 2001 |
| NBP2 | YML095C-A | YML095C-A | 0 | SL | Unknown                               | Tong, 2001 |
| BIM1 | DEP1      | YAL013W   | 1 | SL | Lipid metabolism                      |            |
| BIM1 | RXT2      | YBR095C   | 0 | SL | Unknown                               | Tong, 2001 |
| BIM1 | IML3      | YBR107C   | 2 | SL | Chromatin/chromosome structure        | Tong, 2001 |
| BIM1 | BEM1      | YBR200W   | 2 | SL | Cell polarity                         | Tong, 2001 |
| BIM1 | AOR1      | YBR231C   | 0 | SL | Unknown                               | Tong, 2001 |
| BIM1 | DCC1      | YCL016C   | 2 | SL | Chromatin/chromosome structure        | Tong, 2001 |
| BIM1 | BIK1      | YCL029C   | 2 | SL | Mitosis                               | Tong, 2001 |
| BIM1 | MRC1      | YCL060C   | 2 | SL | DNA repair                            | Tong, 2001 |
| BIM1 | CYK3      | YDL117W   | 3 | SS | Cytokinesis                           |            |
| BIM1 | SHS1      | YDL225W   | 1 | SS | Cytokinesis                           |            |
| BIM1 | RAD61     | YDR014W   | 1 | SL | Unknown                               |            |
| BIM1 | YDR149C   | YDR149C   | 1 | SL | Unknown                               | Tong, 2001 |
| BIM1 | NUM1      | YDR150W   | 0 | SL | Mitosis                               | Tong, 2001 |
| BIM1 | SAC3      | YDR159W   | 0 | SL | Cell structure                        |            |
| BIM1 | NBP2      | YDR162C   | 2 | SS | Cell polarity                         | Tong, 2001 |
| BIM1 | CHL4      | YDR254W   | 2 | SL | Chromatin/chromosome structure        | Tong, 2001 |
| BIM1 | RTT103    | YDR289C   | 0 | SS | Unknown                               | Tong, 2001 |
| BIM1 | IPK1      | YDR315C   | 0 | SL | Lipid metabolism                      |            |
| BIM1 | MCM21     | YDR318W   | 1 | SL | Chromatin/chromosome structure        | Tong, 2001 |
| BIM1 | MSN5      | YDR335W   | 0 | SS | Nuclear-cytoplasmic transport         |            |
| BIM1 | VID21     | YDR359C   | 0 | SL | Unknown                               |            |
| BIM1 | YDR360W   | YDR360W   | 1 | SL | Unknown                               |            |
| BIM1 | NKP1      | YDR383C   | 0 | SS | Chromatin/chromosome structure        |            |
| BIM1 | DYN2      | YDR424C   | 1 | SL | Mitosis                               |            |
| BIM1 | PAC11     | YDR488C   | 0 | SL | Mitosis                               | Tong, 2001 |
| BIM1 | GIM4      | YEL003W   | 1 | SL | Cell structure                        | Tong, 2001 |
| BIM1 | CIN8      | YEL061C   | 0 | SS | Mitosis                               |            |
| BIM1 | FAB1      | YFR019W   | 0 | SL | Lipid metabolism                      | Tong, 2001 |
| BIM1 | MAD1      | YGL086W   | 3 | SL | Mitosis                               | Tong, 2001 |
| BIM1 | RAD54     | YGL163C   | 1 | SL | DNA repair                            | Tong, 2001 |
| BIM1 | KEM1      | YGL173C   | 1 | SL | RNA processing                        | Tong, 2001 |
| BIM1 | YGL211W   | YGL211W   | 1 | SS | Unknown                               | Tong, 2001 |
| BIM1 | KIP3      | YGL216W   | 1 | SL | Mitosis                               | Tong, 2001 |
| BIM1 | YGL217C   | YGL217C   | 0 | SL | Unknown                               | Tong, 2001 |
| BIM1 | PAC10     | YGR078C   | 0 | SL | Cell structure                        |            |
| BIM1 | BUB1      | YGR188C   | 0 | SL | Mitosis                               | Tong, 2001 |
| BIM1 | ELP2      | YGR200C   | 3 | SL | Pol II transcription                  | Tong, 2001 |
| BIM1 | YGR228W   | YGR228W   | 0 | SL | Unknown                               |            |
| BIM1 | SMI1      | YGR229C   | 3 | SL | Cell wall organization and biogenesis | Tong, 2001 |
| BIM1 | YTA7      | YGR270W   | 0 | SL | Vacuolar organization and biogenesis  | Tong, 2001 |
| BIM1 | UBA4      | YHR111W   | 0 | SS | Unknown                               |            |
| BIM1 | ARP1      | YHR129C   | 0 | SL | Mitosis                               | Tong, 2001 |

|       |           |           |   |    |                                       |            |
|-------|-----------|-----------|---|----|---------------------------------------|------------|
| BIM1  | CTF8      | YHR191C   | 0 | SL | Chromatin/chromosome structure        | Tong, 2001 |
| BIM1  | MAD3      | YJL013C   | 3 | SL | Mitosis                               | Tong, 2001 |
| BIM1  | MAD2      | YJL030W   | 3 | SL | Mitosis                               | Tong, 2001 |
| BIM1  | LSM1      | YJL124C   | 1 | SL | RNA turnover                          |            |
| BIM1  | BFA1      | YJR053W   | 2 | SL | Mitosis                               | Tong, 2001 |
| BIM1  | MCM22     | YJR135C   | 3 | SL | Chromatin/chromosome structure        | Tong, 2001 |
| BIM1  | ELM1      | YKL048C   | 0 | SL | Cell polarity                         |            |
| BIM1  | KTI12     | YKL110C   | 1 | SS | Unknown                               |            |
| BIM1  | DYN1      | YKR054C   | 2 | SL | Mitosis                               | Tong, 2001 |
| BIM1  | YLL049W   | YLL049W   | 1 | SL | Unknown                               |            |
| BIM1  | ARP6      | YLR085C   | 0 | SS | Cell structure                        | Tong, 2001 |
| BIM1  | MMR1      | YLR190W   | 0 | SS | Unknown                               |            |
| BIM1  | YKE2      | YLR200W   | 0 | SL | Cell structure                        |            |
| BIM1  | YPT6      | YLR262C   | 0 | SS | Vesicular transport                   |            |
| BIM1  | NKP2      | YLR315W   | 0 | SS | Chromatin/chromosome structure        |            |
| BIM1  | VID22     | YLR373C   | 0 | SL | Vacuolar organization and biogenesis  | Tong, 2001 |
| BIM1  | CTF3      | YLR381W   | 3 | SL | Chromatin/chromosome structure        | Tong, 2001 |
| BIM1  | IKI3      | YLR384C   | 1 | SS | Pol II transcription                  |            |
| BIM1  | VAC14     | YLR386W   | 0 | SL | Vacuolar organization and biogenesis  | Tong, 2001 |
| BIM1  | PPZ1      | YML016C   | 0 | SL | Signal transduction                   | Tong, 2001 |
| BIM1  | RAD52     | YML032C   | 0 | SS | DNA repair                            |            |
| BIM1  | YML094C-A | YML094C-A | 0 | SL | Unknown                               | Tong, 2001 |
| BIM1  | GIM5      | YML094W   | 1 | SL | Cell structure                        | Tong, 2001 |
| BIM1  | TUB3      | YML124C   | 0 | SL | Cell structure                        |            |
| BIM1  | CSM3      | YMR048W   | 1 | SL | Meiosis                               | Tong, 2001 |
| BIM1  | BUB2      | YMR055C   | 3 | SL | Mitosis                               | Tong, 2001 |
| BIM1  | CTF18     | YMR078C   | 0 | SL | Chromatin/chromosome structure        |            |
| BIM1  | MRE11     | YMR224C   | 0 | SL | DNA repair                            |            |
| BIM1  | SAP30     | YMR263W   | 0 | SL | Chromatin/chromosome structure        | Tong, 2001 |
| BIM1  | JNM1      | YMR294W   | 2 | SL | Mitosis                               | Tong, 2001 |
| BIM1  | YMR299C   | YMR299C   | 1 | SL | Mitosis                               |            |
| BIM1  | ELP6      | YMR312W   | 1 | SL | Pol II transcription                  |            |
| BIM1  | PHO23     | YNL097C   | 0 | SL | Phosphate metabolism                  | Tong, 2001 |
| BIM1  | INP52     | YNL106C   | 1 | SL | Lipid metabolism                      | Tong, 2001 |
| BIM1  | YNL136W   | YNL136W   | 1 | SS | Unknown                               |            |
| BIM1  | GIM3      | YNL153C   | 2 | SL | Cell structure                        | Tong, 2001 |
| BIM1  | YNL170W   | YNL170W   | 2 | SL | Unknown                               | Tong, 2001 |
| BIM1  | YNL201C   | YNL201C   | 1 | SS | Carbohydrate metabolism               |            |
| BIM1  | IES2      | YNL215W   | 0 | SS | Unknown                               | Tong, 2001 |
| BIM1  | TOF1      | YNL273W   | 3 | SL | DNA repair                            |            |
| BIM1  | CLA4      | YNL298W   | 2 | SL | Cell polarity                         |            |
| BIM1  | MCK1      | YNL307C   | 0 | SL | Meiosis                               | Tong, 2001 |
| BIM1  | BRE5      | YNR051C   | 0 | SL | Unknown                               |            |
| BIM1  | HTZ1      | YOL012C   | 0 | SL | Chromatin/chromosome structure        |            |
| BIM1  | BUB3      | YOR026W   | 0 | SL | Mitosis                               | Tong, 2001 |
| BIM1  | ASE1      | YOR058C   | 1 | SL | Mitosis                               | Tong, 2001 |
| BIM1  | SLK19     | YOR195W   | 3 | SL | Chromatin/chromosome structure        | Tong, 2001 |
| BIM1  | PAC1      | YOR269W   | 2 | SL | Mitosis                               | Tong, 2001 |
| BIM1  | CIN1      | YOR349W   | 0 | SL | Cell structure                        |            |
| BIM1  | CHL1      | YPL008W   | 2 | SL | Chromatin/chromosome structure        |            |
| BIM1  | YPL017C   | YPL017C   | 3 | SL | Unknown                               | Tong, 2001 |
| BIM1  | CTF19     | YPL018W   | 3 | SL | Chromatin/chromosome structure        | Tong, 2001 |
| BIM1  | ELP3      | YPL086C   | 2 | SS | Pol II transcription                  |            |
| BIM1  | ELP4      | YPL101W   | 2 | SL | Pol II transcription                  |            |
| BIM1  | KRE24     | YPL102C   | 2 | SL | Unknown                               |            |
| BIM1  | KIP2      | YPL155C   | 2 | SL | Mitosis                               |            |
| BIM1  | NIP100    | YPL174C   | 1 | SL | Mitosis                               |            |
| BIM1  | MCM16     | YPR046W   | 3 | SL | Chromatin/chromosome structure        |            |
| BIM1  | CTF4      | YPR135W   | 0 | SL | Chromatin/chromosome structure        |            |
| BIM1  | MMS1      | YPR164W   | 0 | SL | DNA repair                            |            |
| ARC40 | BCK1      | YJL095W   | 2 | SL | Cell wall organization and biogenesis | Tong, 2001 |



|       |         |         |   |    |                                       |            |
|-------|---------|---------|---|----|---------------------------------------|------------|
| ARC40 | BNI4    | YNL233W | 3 | SS | Cytokinesis                           | Tong, 2001 |
| ARC40 | CHS3    | YBR023C | 3 | SL | Cell wall organization and biogenesis | Tong, 2001 |
| ARC40 | SKT5    | YBL061C | 3 | SS | Cell wall organization and biogenesis | Tong, 2001 |
| ARC40 | CHS5    | YLR330W | 3 | SS | Cell wall organization and biogenesis | Tong, 2001 |
| ARC40 | CHS6    | YJL099W | 0 | SL | Cell wall organization and biogenesis | Tong, 2001 |
| ARC40 | CHS7    | YHR142W | 3 | SS | Cell wall organization and biogenesis | Tong, 2001 |
| ARC40 | HOC1    | YJR075W | 2 | SL | Cell wall organization and biogenesis | Tong, 2001 |
| ARC40 | KRE1    | YNL322C | 3 | SL | Cell wall organization and biogenesis | Tong, 2001 |
| ARC40 | SLT2    | YHR030C | 3 | SL | Cell wall organization and biogenesis | Tong, 2001 |
| ARC40 | SPF1    | YEL031W | 3 | SS | Small molecule transport              | Tong, 2001 |
| ARC40 | RMD7    | YER083C | 0 | SS | Cell wall organization and biogenesis | Tong, 2001 |
| ARC40 | ARC18   | YLR370C | 0 | SL | Cell polarity                         | Tong, 2001 |
| ARC40 | BEM1    | YBR200W | 3 | SL | Cell polarity                         | Tong, 2001 |
| ARC40 | BEM2    | YER155C | 3 | SL | Cell polarity                         | Tong, 2001 |
| ARC40 | CLA4    | YNL298W | 3 | SL | Cell polarity                         | Tong, 2001 |
| ARC40 | MYO5    | YMR109W | 2 | SS | Cell polarity                         | Tong, 2001 |
| ARC40 | PEA2    | YER149C | 0 | SS | Cell polarity                         | Tong, 2001 |
| ARC40 | VRP1    | YLR337C | 3 | SL | Cell polarity                         | Tong, 2001 |
| ARC40 | YKE2    | YLR200W | 3 | SS | Cell structure                        | Tong, 2001 |
| ARC40 | GIM3    | YNL153C | 3 | SL | Cell structure                        | Tong, 2001 |
| ARC40 | GIM4    | YEL003W | 3 | SL | Cell structure                        | Tong, 2001 |
| ARC40 | SAC6    | YDR129C | 3 | SL | Cell structure                        | Tong, 2001 |
| ARC40 | GLO3    | YER122C | 3 | SL | Vesicular transport                   | Tong, 2001 |
| ARC40 | SAP155  | YFR040W | 3 | SS | Cell cycle control                    | Tong, 2001 |
| ARC40 | SEC66   | YBR171W | 2 | SL | Vesicular transport                   | Tong, 2001 |
| ARC40 | ILM1    | YJR118C | 2 | SL | Energy generation                     | Tong, 2001 |
| ARC40 | MNN11   | YJL183W | 3 | SL | Protein modification                  | Tong, 2001 |
| ARC40 | STE24   | YJR117W | 3 | SS | Protein modification                  | Tong, 2001 |
| ARC40 | CIK1    | YMR198W | 0 | SS | Mitosis                               | Tong, 2001 |
| ARC40 | RIM101  | YHL027W | 3 | SS | Meiosis                               | Tong, 2001 |
| ARC40 | RUD3    | YOR216C | 3 | SL | Vesicular transport                   | Tong, 2001 |
| ARC40 | SEC22   | YLR268W | 3 | SL | Vesicular transport                   | Tong, 2001 |
| ARC40 | TFP3    | YPL234C | 2 | SL | Vacuolar organization and biogenesis  | Tong, 2001 |
| ARC40 | CPR7    | YJR032W | 3 | SS | Protein folding                       | Tong, 2001 |
| ARC40 | SHE4    | YOR035C | 3 | SL | Differentiation                       | Tong, 2001 |
| ARC40 | SUM1    | YDR310C | 2 | SS | Chromatin/chromosome structure        | Tong, 2001 |
| ARC40 | YBL062W | YBL062W | 0 | SS | Unknown                               | Tong, 2001 |
| ARC40 | YLR111W | YLR111W | 2 | SS | Unknown                               | Tong, 2001 |
| ARP2  | BCK1    | YJL095W | 3 | SL | Cell wall organization and biogenesis | Tong, 2001 |
| ARP2  | BNI4    | YNL233W | 3 | SS | Cytokinesis                           | Tong, 2001 |
| ARP2  | CHS3    | YBR023C | 3 | SL | Cell wall organization and biogenesis | Tong, 2001 |
| ARP2  | SKT5    | YBL061C | 3 | SS | Cell wall organization and biogenesis | Tong, 2001 |
| ARP2  | CHS5    | YLR330W | 0 | SS | Cell wall organization and biogenesis | Tong, 2001 |
| ARP2  | CHS6    | YJL099W | 3 | SL | Cell wall organization and biogenesis | Tong, 2001 |
| ARP2  | CHS7    | YHR142W | 3 | SS | Cell wall organization and biogenesis | Tong, 2001 |
| ARP2  | HOC1    | YJR075W | 0 | SL | Cell wall organization and biogenesis | Tong, 2001 |
| ARP2  | KRE1    | YNL322C | 3 | SL | Cell wall organization and biogenesis | Tong, 2001 |
| ARP2  | SLT2    | YHR030C | 3 | SL | Cell wall organization and biogenesis | Tong, 2001 |
| ARP2  | SPF1    | YEL031W | 3 | SS | Small molecule transport              | Tong, 2001 |
| ARP2  | RMD7    | YER083C | 3 | SL | Cell wall organization and biogenesis | Tong, 2001 |
| ARP2  | BEM1    | YBR200W | 2 | SL | Cell polarity                         | Tong, 2001 |
| ARP2  | BEM2    | YER155C | 3 | SL | Cell polarity                         | Tong, 2001 |
| ARP2  | CLA4    | YNL298W | 3 | SL | Cell polarity                         | Tong, 2001 |
| ARP2  | PEA2    | YER149C | 3 | SS | Cell polarity                         | Tong, 2001 |
| ARP2  | PRK1    | YIL095W | 2 | SS | Cell polarity                         | Tong, 2001 |
| ARP2  | RGD1    | YBR260C | 2 | SS | Cell polarity                         | Tong, 2001 |
| ARP2  | RVS161  | YCR009C | 3 | SL | Cell polarity                         | Tong, 2001 |
| ARP2  | RVS167  | YDR388W | 2 | SS | Cell polarity                         | Tong, 2001 |
| ARP2  | VRP1    | YLR337C | 2 | SL | Cell polarity                         | Tong, 2001 |
| ARP2  | YKE2    | YLR200W | 2 | SS | Cell structure                        | Tong, 2001 |
| ARP2  | PAC10   | YGR078C | 0 | SS | Cell structure                        | Tong, 2001 |

|       |         |         |   |    |                                |            |
|-------|---------|---------|---|----|--------------------------------|------------|
| ARP2  | GIM3    | YNL153C | 3 | SL | Cell structure                 | Tong, 2001 |
| ARP2  | GIM4    | YEL003W | 3 | SL | Cell structure                 | Tong, 2001 |
| ARP2  | SAC6    | YDR129C | 0 | SL | Cell structure                 | Tong, 2001 |
| ARP2  | SAC7    | YDR389W | 0 | SS | Cell structure                 | Tong, 2001 |
| ARP2  | ILM1    | YJR118C | 3 | SL | Energy generation              | Tong, 2001 |
| ARP2  | SAP155  | YFR040W | 0 | SS | Cell cycle control             | Tong, 2001 |
| ARP2  | SEC66   | YBR171W | 3 | SL | Vesicular transport            | Tong, 2001 |
| ARP2  | MNN11   | YJL183W | 3 | SL | Protein modification           | Tong, 2001 |
| ARP2  | STE24   | YJR117W | 3 | SS | Protein modification           | Tong, 2001 |
| ARP2  | BTS1    | YPL069C | 3 | SL | Protein modification           | Tong, 2001 |
| ARP2  | RUD3    | YOR216C | 0 | SL | Vesicular transport            | Tong, 2001 |
| ARP2  | CPR7    | YJR032W | 3 | SS | Protein folding                | Tong, 2001 |
| ARP2  | SHE4    | YOR035C | 3 | SL | Differentiation                | Tong, 2001 |
| ARP2  | SUM1    | YDR310C | 3 | SS | Chromatin/chromosome structure | Tong, 2001 |
| ARP2  | SRO9    | YCL037C | 0 | SL | Protein synthesis              | Tong, 2001 |
| ARP2  | UTH1    | YKR042W | 0 | SS | Aging                          | Tong, 2001 |
| ARP2  | DEP1    | YAL013W | 2 | SL | Lipid metabolism               | Tong, 2001 |
| ARP2  | YBL062W | YBL062W | 3 | SS | Unknown                        | Tong, 2001 |
| ARP2  | YDR018C | YDR018C | 0 | SL | Unknown                        | Tong, 2001 |
| ARP2  | YGL250W | YGL250W | 3 | SS | Unknown                        | Tong, 2001 |
| ARP2  | YLR111W | YLR111W | 3 | SS | Unknown                        | Tong, 2001 |
| SGS1  | MMS4    | YBR098W | 3 | SL | DNA repair                     | Tong, 2001 |
| SGS1  | MUS81   | YDR386W | 3 | SL | DNA repair                     | Tong, 2001 |
| SGS1  | SAE2    | YGL175C | 3 | SL | DNA repair                     | Tong, 2001 |
| SGS1  | RAD50   | YNL250W | 3 | SL | DNA repair                     | Tong, 2001 |
| SGS1  | HPR5    | YJL092W | 3 | SL | DNA repair                     | Tong, 2001 |
| SGS1  | ASF1    | YJL115W | 3 | SS | Chromatin/chromosome structure | Tong, 2001 |
| SGS1  | RAD27   | YKL113C | 2 | SL | DNA repair                     | Tong, 2001 |
| SGS1  | SLX1    | YBR228W | 3 | SL | DNA repair                     | Tong, 2001 |
| SGS1  | SLX4    | YLR135W | 2 | SL | DNA repair                     | Tong, 2001 |
| SGS1  | WSS1    | YHR134W | 3 | SL | DNA repair                     | Tong, 2001 |
| SGS1  | POL32   | YJR043C | 3 | SL | DNA replication                | Tong, 2001 |
| SGS1  | RNR1    | YER070W | 0 | SL | DNA replication                | Tong, 2001 |
| SGS1  | RRM3    | YHR031C | 3 | SL | DNA replication                | Tong, 2001 |
| SGS1  | MGS1    | YNL218W | 3 | SS | DNA replication                | Tong, 2001 |
| SGS1  | CSM3    | YMR048W | 2 | SL | Meiosis                        | Tong, 2001 |
| SGS1  | ESC2    | YDR363W | 0 | SS | Chromatin/chromosome structure | Tong, 2001 |
| SGS1  | RTT107  | YHR154W | 3 | SS | Chromatin/chromosome structure | Tong, 2001 |
| SGS1  | TOP1    | YOL006C | 0 | SS | Chromatin/chromosome structure | Tong, 2001 |
| SGS1  | SWE1    | YJL187C | 0 | SS | Cell cycle control             | Tong, 2001 |
| SGS1  | PUB1    | YNL016W | 2 | SS | RNA processing                 | Tong, 2001 |
| SGS1  | RPL24A  | YGL031C | 3 | SS | Protein synthesis              | Tong, 2001 |
| SGS1  | SIS2    | YKR072C | 2 | SS | Cell stress                    | Tong, 2001 |
| SGS1  | SOD1    | YJR104C | 3 | SL | Cell stress                    | Tong, 2001 |
| SGS1  | YBR094W | YBR094W | 3 | SL | Unknown                        | Tong, 2001 |
| SGS1  | CTF18   | YMR078C | 0 | SL | Chromatin/chromosome structure | Tong, 2001 |
| RAD27 | MMS4    | YBR098W | 0 | SS | DNA repair                     | Tong, 2001 |
| RAD27 | MUS81   | YDR386W | 3 | SL | DNA repair                     | Tong, 2001 |
| RAD27 | SAE2    | YGL175C | 3 | SL | DNA repair                     | Tong, 2001 |
| RAD27 | RAD50   | YNL250W | 0 | SL | DNA repair                     | Tong, 2001 |
| RAD27 | HPR5    | YJL092W | 3 | SL | DNA repair                     | Tong, 2001 |
| RAD27 | DDC1    | YPL194W | 3 | SS | DNA repair                     | Tong, 2001 |
| RAD27 | CAC2    | YML102W | 3 | SS | Chromatin/chromosome structure | Tong, 2001 |
| RAD27 | EXO1    | YOR033C | 3 | SS | DNA repair                     | Tong, 2001 |
| RAD27 | MRE11   | YMR224C | 0 | SL | DNA repair                     | Tong, 2001 |
| RAD27 | RAD9    | YDR217C | 3 | SL | DNA repair                     | Tong, 2001 |
| RAD27 | RAD17   | YOR368W | 3 | SS | DNA repair                     | Tong, 2001 |
| RAD27 | RAD24   | YER173W | 3 | SS | DNA repair                     | Tong, 2001 |
| RAD27 | RAD51   | YER095W | 3 | SL | DNA repair                     | Tong, 2001 |
| RAD27 | RAD52   | YML032C | 3 | SL | DNA repair                     | Tong, 2001 |
| RAD27 | RAD54   | YGL163C | 0 | SL | DNA repair                     | Tong, 2001 |

|       |         |           |   |    |   |                |
|-------|---------|-----------|---|----|---|----------------|
| RAD27 | RAD55   | YDR076W   | 3 | SL | DNA repair                                | Tong, 2001     |
| RAD27 | RAD57   | YDR004W   | 3 | SL | DNA repair                                | Tong, 2001     |
| RAD27 | SGS1    | YMR190C   | 0 | SL | DNA repair                                | Tong, 2001     |
| RAD27 | XRS2    | YDR369C   | 3 | SL | DNA repair                                | Tong, 2001     |
| RAD27 | CTF4    | YPR135W   | 0 | SS | Chromatin/chromosome structure            | Tong, 2001     |
| RAD27 | RPL27A  | YHR010W   | 3 | SL | Protein synthesis                         | Tong, 2001     |
| RAD27 | RPS30B  | YOR182C   | 0 | SS | Protein synthesis                         | Tong, 2001     |
| RAD27 | DOC1    | YGL240W   | 0 | SL | Cell cycle control                        | Tong, 2001     |
| RAD27 | ESC2    | YDR363W   | 0 | SS | Chromatin/chromosome structure            | Tong, 2001     |
| RAD27 | HST1    | YOL068C   | 0 | SS | Chromatin/chromosome structure            | Tong, 2001     |
| RAD27 | HPC2    | YBR215W   | 0 | SS | Pol II transcription                      | Tong, 2001     |
| RAD27 | CSM3    | YMR048W   | 3 | SL | Meiosis                                   | Tong, 2001     |
| RAD27 | LYS7    | YMR038C   | 0 | SL | Amino-acid metabolism                     | Tong, 2001     |
| RAD27 | SIS2    | YKR072C   | 3 | SS | Cell stress                               | Tong, 2001     |
| RAD27 | SOD1    | YJR104C   | 3 | SL | Cell stress                               | Tong, 2001     |
| RAD27 | YDJ1    | YNL064C   | 0 | SL | Mitochondrion organization and biogenesis | Tong, 2001     |
| RAD27 | HST3    | YOR025W   | 3 | SS | Chromatin/chromosome structure            | Tong, 2001     |
| RAD27 | FYV11   | YFL023W   | 3 | SL | Unknown                                   | Tong, 2001     |
| RAD27 | YLR352W | YLR352W   | 0 | SS | Unknown                                   | Tong, 2001     |
| RAD27 | YNL171C | YNL171C   | 0 | SL | Unknown                                   | Tong, 2001     |
| RAD27 | YPR116W | YPR116W   | 0 | SL | Unknown                                   | Tong, 2001     |
| RAD27 | CTF18   | YMR078C   | 0 | SS | Chromatin/chromosome structure            | Tong, 2001     |
| CLA4  | EDE1    | YBL047C   | 3 | SL | Vesicular transport                       | Goehring, 2003 |
| CLA4  | SKT5    | YBL061C   | 3 | SL | Cell wall organization and biogenesis     | Goehring, 2003 |
| CLA4  | YBL062W | YBL062W   | 3 | SL | Unknown                                   | Goehring, 2003 |
| CLA4  | RPL23A  | YBL087C   | 3 | SS | Protein synthesis                         | Goehring, 2003 |
| CLA4  | CHS3    | YBR023C   | 3 | SL | Cell wall organization and biogenesis     | Goehring, 2003 |
| CLA4  | RPL19A  | YBR084C-A | 3 | SL | Protein synthesis                         | Goehring, 2003 |
| CLA4  | RXT2    | YBR095C   | 3 | SL | Unknown                                   | Goehring, 2003 |
| CLA4  | YBR174C | YBR174C   | 2 | SL | Unknown                                   | Goehring, 2003 |
| CLA4  | SWD3    | YBR175W   | 3 | SL | Chromatin/chromosome structure            | Goehring, 2003 |
| CLA4  | BEM1    | YBR200W   | 2 | SL | Cell polarity                             | Goehring, 2003 |
| CLA4  | DCC1    | YCL016C   | 3 | SL | Chromatin/chromosome structure            | Goehring, 2003 |
| CLA4  | RPL35A  | YDL191W   | 3 | SL | Protein synthesis                         | Goehring, 2003 |
| CLA4  | SHS1    | YDL225W   | 0 | SL | Cytokinesis                               | Goehring, 2003 |
| CLA4  | SEM1    | YDR363W-A | 3 | SL | Vesicular transport                       | Goehring, 2003 |
| CLA4  | DYN2    | YDR424C   | 2 | SS | Mitosis                                   | Goehring, 2003 |
| CLA4  | SWI4    | YER111C   | 3 | SL | Cell cycle control                        | Goehring, 2003 |
| CLA4  | PEA2    | YER149C   | 3 | SS | Cell polarity                             | Goehring, 2003 |
| CLA4  | BEM2    | YER155C   | 3 | SL | Cell polarity                             | Goehring, 2003 |
| CLA4  | FAB1    | YFR019W   | 3 | SL | Lipid metabolism                          | Goehring, 2003 |
| CLA4  | RPL24A  | YGL031C   | 2 | SL | Protein synthesis                         | Goehring, 2003 |
| CLA4  | SSF73   | YGL066W   | 3 | SL | Pol II transcription                      | Goehring, 2003 |
| CLA4  | ITC1    | YGL133W   | 3 | SL | Chromatin/chromosome structure            | Goehring, 2003 |
| CLA4  | RAD54   | YGL163C   | 3 | SS | DNA repair                                | Goehring, 2003 |
| CLA4  | PRE9    | YGR135W   | 3 | SL | Protein degradation                       | Goehring, 2003 |
| CLA4  | ELP2    | YGR200C   | 3 | SS | Pol II transcription                      | Goehring, 2003 |
| CLA4  | SMI1    | YGR229C   | 3 | SL | Cell wall organization and biogenesis     | Goehring, 2003 |
| CLA4  | STE20   | YHL007C   | 3 | SL | Mating response                           | Goehring, 2003 |
| CLA4  | SLT2    | YHR030C   | 3 | SL | Cell wall organization and biogenesis     | Goehring, 2003 |
| CLA4  | UBA4    | YHR111W   | 0 | SS | Unknown                                   | Goehring, 2003 |
| CLA4  | CHS7    | YHR142W   | 3 | SL | Cell wall organization and biogenesis     | Goehring, 2003 |
| CLA4  | SPO12   | YHR152W   | 3 | SL | Meiosis                                   | Goehring, 2003 |
| CLA4  | CTF8    | YHR191C   | 3 | SL | Chromatin/chromosome structure            | Goehring, 2003 |
| CLA4  | RPN10   | YHR200W   | 3 | SL | Pol II transcription                      | Goehring, 2003 |
| CLA4  | HOS4    | YIL112W   | 3 | SL | Chromatin/chromosome structure            | Goehring, 2003 |
| CLA4  | MGA2    | YIR033W   | 3 | SL | Chromatin/chromosome structure            | Goehring, 2003 |
| CLA4  | RTT101  | YJL047C   | 2 | SS | Protein modification                      | Goehring, 2003 |
| CLA4  | BCK1    | YJL095W   | 3 | SL | Cell wall organization and biogenesis     | Goehring, 2003 |
| CLA4  | CHS6    | YJL099W   | 3 | SL | Cell wall organization and biogenesis     | Goehring, 2003 |
| CLA4  | ASF1    | YJL115W   | 3 | SL | Chromatin/chromosome structure            | Goehring, 2003 |

|      |           |           |   |    |                                       |                |
|------|-----------|-----------|---|----|---------------------------------------|----------------|
| CLA4 | RPS21B    | YJL136C   | 3 | SL | Protein synthesis                     | Goehring, 2003 |
| CLA4 | IXR1      | YKL032C   | 3 | SS | DNA repair                            | Goehring, 2003 |
| CLA4 | SPA2      | YLL021W   | 3 | SL | Cell polarity                         | Goehring, 2003 |
| CLA4 | APC9      | YLR102C   | 3 | SL | Cell cycle control                    | Goehring, 2003 |
| CLA4 | BUD6      | YLR319C   | 3 | SL | Cell polarity                         | Goehring, 2003 |
| CLA4 | CHS5      | YLR330W   | 3 | SL | Cell wall organization and biogenesis | Goehring, 2003 |
| CLA4 | VAC14     | YLR386W   | 3 | SL | Vacuolar organization and biogenesis  | Goehring, 2003 |
| CLA4 | GIM5      | YML094W   | 3 | SL | Cell structure                        | Goehring, 2003 |
| CLA4 | YML095C-A | YML095C-A | 3 | SL | Unknown                               | Goehring, 2003 |
| CLA4 | CTF18     | YMR078C   | 0 | SL | Chromatin/chromosome structure        | Goehring, 2003 |
| CLA4 | UBP8      | YMR223W   | 3 | SL | Protein modification                  | Goehring, 2003 |
| CLA4 | SAP30     | YMR263W   | 3 | SL | Chromatin/chromosome structure        | Goehring, 2003 |
| CLA4 | ELP6      | YMR312W   | 2 | SS | Pol II transcription                  | Goehring, 2003 |
| CLA4 | FKH2      | YNL068C   | 2 | SS | Pol II transcription                  | Goehring, 2003 |
| CLA4 | GIM3      | YNL153C   | 2 | SL | Cell structure                        | Goehring, 2003 |
| CLA4 | RTT106    | YNL206C   | 2 | SS | Unknown                               | Goehring, 2003 |
| CLA4 | URE2      | YNL229C   | 3 | SL | Amino-acid metabolism                 | Goehring, 2003 |
| CLA4 | BNI1      | YNL271C   | 3 | SL | Cell polarity                         | Goehring, 2003 |
| CLA4 | SLK19     | YOR195W   | 3 | SL | Chromatin/chromosome structure        | Goehring, 2003 |
| CLA4 | RIM20     | YOR275C   | 3 | SL | Cell stress                           | Goehring, 2003 |
| CLA4 | YPL047W   | YPL047W   | 3 | SL | Unknown                               | Goehring, 2003 |
| CLA4 | BEM4      | YPL161C   | 3 | SL | Cell polarity                         | Goehring, 2003 |
| CLA4 | NIP100    | YPL174C   | 3 | SL | Mitosis                               | Goehring, 2003 |
| CLA4 | CTF4      | YPR135W   | 3 | SL | Chromatin/chromosome structure        | Goehring, 2003 |
| SHS1 | CYK3      | YDL117W   | 3 | SL | Cytokinesis                           |                |
| SHS1 | SWI4      | YER111C   | 3 | SL | Cell cycle control                    |                |
| SHS1 | BEM2      | YER155C   | 3 | SL | Cell polarity                         |                |
| SHS1 | BNI4      | YNL233W   | 3 | SS | Cytokinesis                           |                |
| SHS1 | BNI1      | YNL271C   | 3 | SL | Cell polarity                         |                |
| SHS1 | CLA4      | YNL298W   | 3 | SL | Cell polarity                         |                |
| SMY1 | DRS2      | YAL026C   | 0 | SS | Vesicular transport                   |                |
| SMY1 | SLA1      | YBL007C   | 2 | SS | Cell polarity                         |                |
| SMY1 | SKT5      | YBL061C   | 3 | SS | Cell wall organization and biogenesis |                |
| SMY1 | CHS3      | YBR023C   | 3 | SS | Cell wall organization and biogenesis |                |
| SMY1 | BEM1      | YBR200W   | 1 | SL | Cell polarity                         |                |
| SMY1 | SHS1      | YDL225W   | 1 | SS | Cytokinesis                           |                |
| SMY1 | SWI4      | YER111C   | 1 | SS | Cell cycle control                    |                |
| SMY1 | BEM2      | YER155C   | 3 | SL | Cell polarity                         |                |
| SMY1 | BUB1      | YGR188C   | 3 | SL | Mitosis                               |                |
| SMY1 | CHS7      | YHR142W   | 0 | SS | Cell wall organization and biogenesis |                |
| SMY1 | BNI4      | YNL233W   | 0 | SS | Cytokinesis                           |                |
| SMY1 | CLA4      | YNL298W   | 2 | SL | Cell polarity                         |                |
| SLT2 | EDE1      | YBL047c   | 3 | SL | Vesicular transport                   |                |
| SLT2 | CHS3      | YBR023C   | 3 | SL | Cell wall organization and biogenesis |                |
| SLT2 | ECM33     | YBR078W   | 3 | SL | Cell wall organization and biogenesis |                |
| SLT2 | SEC66     | YBR171W   | 3 | SL | Vesicular transport                   |                |
| SLT2 | ROT2      | YBR229C   | 3 | SS | Cell wall organization and biogenesis |                |
| SLT2 | SWI5      | YDR146C   | 3 | SS | Pol II transcription                  |                |
| SLT2 | MNN10     | YDR245W   | 3 | SL | Protein modification                  |                |
| SLT2 | YPS7      | YDR349C   | 3 | SL | Protein degradation                   |                |
| SLT2 | ERD1      | YDR414c   | 3 | SL | Protein modification                  |                |
| SLT2 | SWI4      | YER111C   | 3 | SL | Cell cycle control                    |                |
| SLT2 | BEM2      | YER155C   | 3 | SL | Cell polarity                         |                |
| SLT2 | CWH41     | YGL027C   | 3 | SL | Cell wall organization and biogenesis |                |
| SLT2 | RIM8      | YGL045W   | 3 | SL | Unknown                               |                |
| SLT2 | HUR1      | YGL168W   | 3 | SS | Unknown                               |                |
| SLT2 | KRE11     | YGR166W   | 3 | SL | Cell wall organization and biogenesis |                |
| SLT2 | SMI1      | YGR229C   | 3 | SL | Cell wall organization and biogenesis |                |
| SLT2 | GCN5      | YGR252W   | 3 | SS | Pol II transcription                  |                |
| SLT2 | GGA2      | YHR108w   | 3 | SS | Vesicular transport                   |                |
| SLT2 | YUR1      | YJL139C   | 3 | SL | Cell wall organization and biogenesis |                |

|       |         |         |   |    |    |                                       |             |
|-------|---------|---------|---|----|----|---------------------------------------|-------------|
| SLT2  | HOC1    | YJR075W | 3 |    | SL | Cell wall organization and biogenesis |             |
| SLT2  | YKL037W | YKL037W | 3 |    | SL | Unknown                               |             |
| SLT2  | FPS1    | YLL043W | 3 |    | SL | Transport                             |             |
| SLT2  | CHS5    | YLR330W | 3 |    | SL | Cell wall organization and biogenesis |             |
| SLT2  | FKS1    | YLR342W | 3 |    | SL | Cell wall organization and biogenesis |             |
| SLT2  | RIM13   | YMR154C | 3 |    | SS | Meiosis                               |             |
| SLT2  | TPM1    | YNL079C | 3 |    | SL | Cell structure                        |             |
| SLT2  | BNI4    | YNL233W | 3 |    | SL | Cytokinesis                           |             |
| SLT2  | BNI1    | YNL271C | 3 |    | SS | Cell polarity                         |             |
| SLT2  | CLA4    | YNL298W | 3 |    | SS | Cell polarity                         |             |
| SLT2  | IRA2    | YOL081W | 3 |    | SL | Signal transduction                   |             |
| SLT2  | RIM20   | YOR275C | 3 |    | SL | Cell stress                           |             |
| SLT2  | YPL158C | YPL158C | 3 |    | SS | Unknown                               |             |
| BNI4  | EDE1    | YBL047C | 1 |    | SS | Vesicular transport                   |             |
| BNI4  | RGD1    | YBR260C | 1 | SS | SS | Cell polarity                         |             |
| BNI4  | RVS161  | YCR009C | 0 |    | SS | Cell polarity                         |             |
| BNI4  | CYK3    | YDL117W | 0 |    | SL | Cytokinesis                           |             |
| BNI4  | SHS1    | YDL225W | 0 |    | SS | Cytokinesis                           |             |
| BNI4  | NBP2    | YDR162C | 2 |    | SS | Cell polarity                         |             |
| BNI4  | RVS167  | YDR388W | 0 |    | SL | Cell polarity                         |             |
| BNI4  | SMI1    | YGR229C | 3 | SL |    | Cell wall organization and biogenesis |             |
| BNI4  | SLT2    | YHR030C | 2 | SL |    | Cell wall organization and biogenesis |             |
| BNI4  | BCK1    | YJL095W | 2 |    | SL | Cell wall organization and biogenesis |             |
| BNI4  | ILM1    | YJR118C | 3 | SL |    | Energy generation                     |             |
| BNI4  | IXR1    | YKL032C | 2 |    | SS | DNA repair                            |             |
| BNI4  | SPA2    | YLL021W | 2 |    | SS | Cell polarity                         |             |
| BNI4  | VRP1    | YLR337C | 2 |    | SL | Cell polarity                         |             |
| BNI4  | FKS1    | YLR342W | 2 |    | SL | Cell wall organization and biogenesis |             |
| BNI4  | VAN1    | YML115C | 1 |    | SL | Protein modification                  |             |
| BNI4  | BNI1    | YNL271C | 2 | SS |    | Cell polarity                         |             |
| BNI4  | BRE5    | YNR051C | 2 |    | SS | Unknown                               |             |
| BNI4  | YPL066W | YPL066W | 0 |    | SS | Unknown                               |             |
| PHO85 | SPT7    | YBR081C | 3 |    | SL | Chromatin/chromosome structure        | Huang, 2003 |
| PHO85 | BEM1    | YBR200W | 3 |    | SL | Cell polarity                         | Huang, 2003 |
| PHO85 | RGD1    | YBR260C | 3 |    | SL | Cell polarity                         | Huang, 2003 |
| PHO85 | SRB8    | YCR081W | 3 |    | SL | Pol II transcription                  | Huang, 2003 |
| PHO85 | BRE1    | YDL074C | 3 |    | SL | Chromatin/chromosome structure        | Huang, 2003 |
| PHO85 | NUM1    | YDR150W | 3 |    | SL | Mitosis                               | Huang, 2003 |
| PHO85 | UME6    | YDR207C | 3 |    | SL | Meiosis                               | Huang, 2003 |
| PHO85 | MNN10   | YDR245W | 3 |    | SL | Protein modification                  | Huang, 2003 |
| PHO85 | ERD1    | YDR414C | 3 |    | SL | Protein modification                  | Huang, 2003 |
| PHO85 | SSN2    | YDR443C | 3 |    | SL | Pol II transcription                  | Huang, 2003 |
| PHO85 | NHX1    | YDR456W | 3 |    | SL | Transport                             | Huang, 2003 |
| PHO85 | ANP1    | YEL036C | 3 |    | SL | Protein modification                  | Huang, 2003 |
| PHO85 | YER049W | YER049W | 3 |    | SL | Chromatin/chromosome structure        | Huang, 2003 |
| PHO85 | SHC1    | YER096W | 3 |    | SL | Meiosis                               | Huang, 2003 |
| PHO85 | SWI4    | YER111C | 3 |    | SL | Cell cycle control                    | Huang, 2003 |
| PHO85 | BEM2    | YER155C | 3 |    | SL | Cell polarity                         | Huang, 2003 |
| PHO85 | YGL015C | YGL015C | 3 |    | SL | Unknown                               | Huang, 2003 |
| PHO85 | PMR1    | YGL167C | 3 |    | SL | Small molecule transport              | Huang, 2003 |
| PHO85 | PAC10   | YGR078C | 3 |    | SL | Cell structure                        | Huang, 2003 |
| PHO85 | SRB5    | YGR104C | 3 |    | SL | Pol II transcription                  | Huang, 2003 |
| PHO85 | CHO2    | YGR157W | 3 |    | SL | Lipid metabolism                      | Huang, 2003 |
| PHO85 | YGR161C | YGR161C | 3 |    | SL | Unknown                               | Huang, 2003 |
| PHO85 | WSC4    | YHL028W | 3 |    | SL | Cell wall organization and biogenesis | Huang, 2003 |
| PHO85 | VPS29   | YHR012W | 3 |    | SL | Vesicular transport                   | Huang, 2003 |
| PHO85 | SLT2    | YHR030C | 3 |    | SL | Cell wall organization and biogenesis | Huang, 2003 |
| PHO85 | PAN5    | YHR063C | 3 |    | SL | Unknown                               | Huang, 2003 |
| PHO85 | BCK1    | YJL095W | 3 |    | SL | Cell wall organization and biogenesis | Huang, 2003 |
| PHO85 | GSH1    | YJL101C | 3 |    | SL | Other metabolism                      | Huang, 2003 |
| PHO85 | VPS35   | YJL154C | 3 |    | SL | Vesicular transport                   | Huang, 2003 |

|       |         |         |   |    |                                       |             |
|-------|---------|---------|---|----|---------------------------------------|-------------|
| PHO85 | OPI3    | YJR073C | 3 | SL | Lipid metabolism                      | Huang, 2003 |
| PHO85 | HOC1    | YJR075W | 3 | SL | Cell wall organization and biogenesis | Huang, 2003 |
| PHO85 | YJR142W | YJR142W | 3 | SL | Unknown                               | Huang, 2003 |
| PHO85 | YKE2    | YLR200W | 3 | SL | Cell structure                        | Huang, 2003 |
| PHO85 | FKS1    | YLR342W | 3 | SL | Cell wall organization and biogenesis | Huang, 2003 |
| PHO85 | VPS38   | YLR360W | 3 | SL | Vesicular transport                   | Huang, 2003 |
| PHO85 | ROM2    | YLR371W | 3 | SL | Cell wall organization and biogenesis | Huang, 2003 |
| PHO85 | SUR4    | YLR372W | 3 | SL | Lipid metabolism                      | Huang, 2003 |
| PHO85 | TUS1    | YLR425W | 3 | SL | Unknown                               | Huang, 2003 |
| PHO85 | VAN1    | YML115C | 3 | SL | Protein modification                  | Huang, 2003 |
| PHO85 | YML122C | YML122C | 3 | SL | Unknown                               | Huang, 2003 |
| PHO85 | EFR3    | YMR212C | 3 | SL | Other metabolism                      | Huang, 2003 |
| PHO85 | FKS3    | YMR306W | 3 | SL | Cell wall organization and biogenesis | Huang, 2003 |
| PHO85 | TPM1    | YNL079C | 3 | SL | Cell structure                        | Huang, 2003 |
| PHO85 | GCR2    | YNL199C | 3 | SL | Pol II Transcription                  | Huang, 2003 |
| PHO85 | BNI1    | YNL271C | 3 | SL | Cell polarity                         | Huang, 2003 |
| PHO85 | CLA4    | YNL298W | 3 | SL | Cell polarity                         | Huang, 2003 |
| PHO85 | LEM3    | YNL323W | 3 | SL | Signal transduction                   | Huang, 2003 |
| PHO85 | TAT2    | YOL020W | 3 | SL | Transport                             | Huang, 2003 |
| PHO85 | MCH4    | YOL119C | 3 | SL | Transport                             | Huang, 2003 |
| PHO85 | SMF1    | YOL122C | 3 | SL | Small molecule transport              | Huang, 2003 |
| PHO85 | SLG1    | YOR008C | 3 | SL | Cell wall organization and biogenesis | Huang, 2003 |
| PHO85 | RTS1    | YOR014W | 3 | SL | Cell stress                           | Huang, 2003 |
| PHO85 | VAM3    | YOR106W | 3 | SL | Vesicular transport                   | Huang, 2003 |
| PHO85 | SFL1    | YOR140W | 3 | SL | Pol II transcription                  | Huang, 2003 |
| PHO85 | GCR1    | YPL075W | 3 | SL | Glycogen metabolism                   | Huang, 2003 |
| PHO85 | BEM4    | YPL161C | 3 | SL | Cell polarity                         | Huang, 2003 |
| PHO85 | VIK1    | YPL253C | 3 | SL | Mitosis                               | Huang, 2003 |
| PHO85 | HF11    | YPL254W | 3 | SL | Pol II transcription                  | Huang, 2003 |
| ARL3  | VAM6    | YDL077C | 1 | SS | Vesicular transport                   |             |
| ARL3  | ARF1    | YDL192W | 1 | SS | Transport                             |             |
| ARL3  | GSS1    | YDR108W | 3 | SL | Vesicular transport                   |             |
| ARL3  | VPS61   | YDR136C | 3 | SL | Vesicular transport                   |             |
| ARL3  | RGP1    | YDR137W | 3 | SL | Vesicular transport                   |             |
| ARL3  | SUM1    | YDR310C | 0 | SS | Chromatin/chromosome structure        |             |
| ARL3  | SWA2    | YDR320C | 1 | SS | Vesicular transport                   |             |
| ARL3  | GDA1    | YEL042W | 0 | SL | Protein modification                  |             |
| ARL3  | GLO3    | YER122C | 3 | SL | Vesicular transport                   |             |
| ARL3  | COG7    | YGL005C | 3 | SL | Vesicular transport                   |             |
| ARL3  | SWF3    | YGL020C | 2 | SL | Unknown                               |             |
| ARL3  | GOS1    | YHL031C | 3 | SS | Vesicular transport                   |             |
| ARL3  | CPR7    | YJR032W | 2 | SL | Protein folding                       |             |
| ARL3  | YKL118W | YKL118W | 1 | SS | Unknown                               |             |
| ARL3  | VPS67   | YKR020W | 3 | SL | Vacuolar organization and biogenesis  |             |
| ARL3  | RIC1    | YLR039C | 2 | SL | Vesicular transport                   |             |
| ARL3  | VPS63   | YLR261C | 3 | SL | Vacuolar organization and biogenesis  |             |
| ARL3  | YPT6    | YLR262C | 3 | SL | Vesicular transport                   |             |
| ARL3  | COG8    | YML071C | 3 | SS | Vesicular transport                   |             |
| ARL3  | COG6    | YNL041C | 3 | SL | Vesicular transport                   |             |
| ARL3  | COG5    | YNL051W | 3 | SL | Vesicular transport                   |             |
| ARL3  | MON2    | YNL297C | 0 | SS | Vacuolar organization and biogenesis  |             |
| ARL3  | TLG2    | YOL018C | 0 | SS | Vesicular transport                   |             |
| ARL3  | VAM10   | YOR068C | 3 | SS | Vacuolar organization and biogenesis  |             |
| ARL3  | VPS5    | YOR069W | 3 | SS | Vesicular transport                   |             |
| ARL3  | GYP1    | YOR070C | 3 | SL | Vesicular transport                   |             |
| ARL3  | VAM3    | YOR106W | 1 | SS | Vesicular transport                   |             |
| ARL3  | VPS17   | YOR132W | 1 | SL | Vesicular transport                   |             |
| GYP1  | CSS2    | YBR036C | 1 | SS | Small molecule transport              |             |
| GYP1  | VMA2    | YBR127C | 1 | SL | Vacuole organization and biogenesis   |             |
| GYP1  | ARL1    | YBR164C | 1 | SL | Vesicular transport                   |             |
| GYP1  | VPS61   | YDR136C | 1 | SL | Vesicular transport                   |             |

|      |         |           |   |    |                                       |
|------|---------|-----------|---|----|---------------------------------------|
| GYP1 | NBP2    | YDR162C   | 1 | SS | Cell polarity                         |
| GYP1 | SUM1    | YDR310C   | 1 | SS | Chromatin/chromosome structure        |
| GYP1 | ERD1    | YDR414C   | 1 | SS | Protein modification                  |
| GYP1 | RMD7    | YER083C   | 1 | SL | Cell wall organization and biogenesis |
| GYP1 | COG7    | YGL005C   | 1 | SL | Vesicular transport                   |
| GYP1 | CHO2    | YGR157W   | 1 | SS | Lipid metabolism                      |
| GYP1 | GOS1    | YHL031C   | 1 | SL | Vesicular transport                   |
| GYP1 | SYS1    | YJL004C   | 1 | SL | Protein translocation                 |
| GYP1 | MNN11   | YJL183W   | 1 | SS | Protein modification                  |
| GYP1 | CPR7    | YJR032W   | 1 | SL | Protein folding                       |
| GYP1 | CBF1    | YJR060W   | 1 | SL | Chromatin/chromosome structure        |
| GYP1 | RIC1    | YLR039C   | 1 | SL | Vesicular transport                   |
| GYP1 | VPS63   | YLR261C   | 1 | SL | Vacuolar organization and biogenesis  |
| GYP1 | YPT6    | YLR262C   | 1 | SL | Vesicular transport                   |
| GYP1 | SEC22   | YLR268W   | 1 | SS | Vesicular transport                   |
| GYP1 | COG8    | YML071C   | 1 | SL | Vesicular transport                   |
| GYP1 | SCS7    | YMR272C   | 1 | SS | Lipid metabolism                      |
| GYP1 | COG6    | YNL041C   | 1 | SL | Vesicular transport                   |
| GYP1 | COG5    | YNL051W   | 1 | SL | Vesicular transport                   |
| GYP1 | RUD3    | YOR216C   | 1 | SS | Vesicular transport                   |
| GYP1 | ARL3    | YPL051W   | 1 | SL | Vesicular transport                   |
| GYP1 | LGE1    | YPL055C   | 1 | SS | Cell cycle control                    |
| GYP1 | SUR1    | YPL057C   | 1 | SS | Lipid metabolism                      |
| GYP1 | VMA13   | YPR036W   | 1 | SL | Vacuolar organization and biogenesis  |
| RIC1 | VPS8    | YAL002W   | 0 | SL | Vesicular transport                   |
| RIC1 | SWC1    | YAL011W   | 0 | SL | Unknown                               |
| RIC1 | FUN30   | YAL019W   | 0 | SL | Unknown                               |
| RIC1 | PMT2    | YAL023C   | 2 | SS | Protein modification                  |
| RIC1 | DRS2    | YAL026C   | 3 | SS | Vesicular transport                   |
| RIC1 | BUD14   | YAR014C   | 0 | SL | Cell polarity                         |
| RIC1 | FUI1    | YBL042C   | 0 | SS | Small molecule transport              |
| RIC1 | SFT2    | YBL102W   | 0 | SS | Vesicular transport                   |
| RIC1 | ARL1    | YBR164C   | 0 | SS | Vesicular transport                   |
| RIC1 | RER1    | YCL001W   | 0 | SS | Vesicular transport                   |
| RIC1 | SRO9    | YCL037C   | 2 | SL | Protein synthesis                     |
| RIC1 | MAK31   | YCR020C-A | 3 | SL | Protein modification                  |
| RIC1 | PER1    | YCR044C   | 1 | SS | Other metabolism                      |
| RIC1 | PTC1    | YDL006W   | 0 | SL | Signal transduction                   |
| RIC1 | BRE1    | YDL074C   | 3 | SL | Chromatin/chromosome structure        |
| RIC1 | VAM6    | YDL077C   | 0 | SS | Vesicular transport                   |
| RIC1 | ARR4    | YDL100C   | 0 | SS | Small molecule transport              |
| RIC1 | RPL35A  | YDL191W   | 0 | SL | Protein synthesis                     |
| RIC1 | VPS41   | YDR080W   | 1 | SL | Vesicular transport                   |
| RIC1 | YDR107C | YDR107C   | 0 | SS | Transport                             |
| RIC1 | GSS1    | YDR108W   | 3 | SL | Vesicular transport                   |
| RIC1 | ENT5    | YDR153C   | 0 | SL | Vesicular transport                   |
| RIC1 | NBP2    | YDR162C   | 0 | SL | Cell polarity                         |
| RIC1 | RAV2    | YDR202C   | 0 | SS | Small molecule transport              |
| RIC1 | YDR203W | YDR203W   | 0 | SL | Unknown                               |
| RIC1 | UME6    | YDR207C   | 0 | SL | Meiosis                               |
| RIC1 | SWA2    | YDR320C   | 0 | SL | Vesicular transport                   |
| RIC1 | SWR1    | YDR334W   | 0 | SL | Unknown                               |
| RIC1 | VPS74   | YDR372C   | 1 | SS | Vacuolar organization and biogenesis  |
| RIC1 | SPF1    | YEL031W   | 0 | SS | Small molecule transport              |
| RIC1 | YEL043W | YEL043W   | 0 | SL | Unknown                               |
| RIC1 | VMA8    | YEL051W   | 0 | SL | Vacuolar organization and biogenesis  |
| RIC1 | MAK10   | YEL053C   | 3 | SL | Protein modification                  |
| RIC1 | RMD7    | YER083C   | 1 | SL | Cell wall organization and biogenesis |
| RIC1 | YER084W | YER084W   | 0 | SL | Unknown                               |
| RIC1 | SCS2    | YER120W   | 1 | SL | Lipid metabolism                      |
| RIC1 | GLO3    | YER122C   | 0 | SL | Vesicular transport                   |

|      |         |           |   |    |                                       |
|------|---------|-----------|---|----|---------------------------------------|
| RIC1 | RAD4    | YER162C   | 0 | SS | DNA repair                            |
| RIC1 | BST1    | YFL025C   | 0 | SS | Vesicular transport                   |
| RIC1 | RIM15   | YFL033C   | 0 | SL | Meiosis                               |
| RIC1 | RPL2A   | YFR031C-A | 3 | SL | Protein synthesis                     |
| RIC1 | COG7    | YGL005C   | 2 | SL | Vesicular transport                   |
| RIC1 | SWF3    | YGL020C   | 3 | SL | Unknown                               |
| RIC1 | ERV14   | YGL054C   | 2 | SL | Vesicular transport                   |
| RIC1 | GUP1    | YGL084C   | 0 | SS | Lipid metabolism                      |
| RIC1 | SNF4    | YGL115W   | 0 | SS | Protein modification                  |
| RIC1 | KEM1    | YGL173C   | 2 | SL | RNA processing                        |
| RIC1 | RTF1    | YGL244W   | 0 | SL | Pol II transcription                  |
| RIC1 | UPF3    | YGR072W   | 3 | SS | RNA turnover                          |
| RIC1 | VMA21   | YGR105W   | 0 | SL | Vacuolar organization and biogenesis  |
| RIC1 | SMI1    | YGR229C   | 0 | SS | Cell wall organization and biogenesis |
| RIC1 | APL6    | YGR261C   | 2 | SS | Vesicular transport                   |
| RIC1 | GOS1    | YHL031C   | 3 | SL | Vesicular transport                   |
| RIC1 | NEM1    | YHR004C   | 0 | SS | Unknown                               |
| RIC1 | VPS29   | YHR012W   | 3 | SL | Vesicular transport                   |
| RIC1 | VMA22   | YHR060W   | 0 | SL | Vacuolar organization and biogenesis  |
| RIC1 | YIL039W | YIL039W   | 1 | SL | Unknown                               |
| RIC1 | SEC28   | YIL076W   | 0 | SL | Vesicular transport                   |
| RIC1 | SYS1    | YJL004C   | 1 | SS | Protein translocation                 |
| RIC1 | VPS35   | YJL154C   | 0 | SS | Vesicular transport                   |
| RIC1 | RAV1    | YJR033C   | 0 | SS | Vacuolar organization and biogenesis  |
| RIC1 | GEF1    | YJR040W   | 0 | SS | Small molecule transport              |
| RIC1 | CBF1    | YJR060W   | 1 | SL | Chromatin/chromosome structure        |
| RIC1 | OPI3    | YJR073C   | 0 | SS | Lipid metabolism                      |
| RIC1 | TEF4    | YKL081W   | 0 | SL | Protein synthesis                     |
| RIC1 | CNB1    | YKL190W   | 0 | SS | Cell wall organization and biogenesis |
| RIC1 | VPS1    | YKR001C   | 0 | SL | Vesicular transport                   |
| RIC1 | VPS67   | YKR020W   | 0 | SL | Vacuolar organization and biogenesis  |
| RIC1 | GMH1    | YKR030W   | 3 | SL | Unknown                               |
| RIC1 | RPL40B  | YKR094C   | 0 | SL | Protein synthesis                     |
| RIC1 | ENT4    | YLL038C   | 0 | SS | Vesicular transport                   |
| RIC1 | VPS13   | YLL040C   | 0 | SS | Vesicular transport                   |
| RIC1 | BRE2    | YLR015W   | 0 | SL | Chromatin/chromosome structure        |
| RIC1 | EMP70   | YLR083C   | 0 | SS | Transport                             |
| RIC1 | ARP6    | YLR085C   | 0 | SL | Cell structure                        |
| RIC1 | CSF1    | YLR087C   | 0 | SL | Cell stress                           |
| RIC1 | IMH1    | YLR309C   | 3 | SL | Vesicular transport                   |
| RIC1 | EST2    | YLR318W   | 1 | SL | Chromatin/chromosome structure        |
| RIC1 | VPS38   | YLR360W   | 3 | SL | Vesicular transport                   |
| RIC1 | DCR2    | YLR361C   | 1 | SL | Unknown                               |
| RIC1 | YPT7    | YML001W   | 0 | SL | Vesicular transport                   |
| RIC1 | YMD8    | YML038C   | 0 | SL | Small molecule transport              |
| RIC1 | VPS71   | YML041C   | 0 | SL | Vesicular transport                   |
| RIC1 | COG8    | YML071C   | 2 | SL | Vesicular transport                   |
| RIC1 | MVP1    | YMR004W   | 3 | SL | Vesicular transport                   |
| RIC1 | YMR010W | YMR010W   | 0 | SL | Meiosis                               |
| RIC1 | STV1    | YMR054W   | 0 | SS | Vacuolar organization and biogenesis  |
| RIC1 | PKR1    | YMR123W   | 3 | SL | Unknown                               |
| RIC1 | SKY1    | YMR216C   | 2 | SS | RNA splicing                          |
| RIC1 | SCS7    | YMR272C   | 0 | SL | Lipid metabolism                      |
| RIC1 | RCE1    | YMR274C   | 2 | SS | Protein modification                  |
| RIC1 | GAS1    | YMR307W   | 3 | SS | Cell wall organization and biogenesis |
| RIC1 | COG6    | YNL041C   | 3 | SL | Vesicular transport                   |
| RIC1 | COG5    | YNL051W   | 3 | SL | Vesicular transport                   |
| RIC1 | RPL16B  | YNL069C   | 0 | SL | Protein synthesis                     |
| RIC1 | FAR11   | YNL127W   | 1 | SS | Unknown                               |
| RIC1 | YNL136W | YNL136W   | 0 | SL | Unknown                               |
| RIC1 | PSD1    | YNL169C   | 0 | SL | Lipid metabolism                      |



|      |         |           |   |    |                                      |
|------|---------|-----------|---|----|--------------------------------------|
| RIC1 | KEX2    | YNL238W   | 0 | SL | Protein modification                 |
| RIC1 | MID1    | YNL291C   | 0 | SL | Small molecule transport             |
| RIC1 | KRE25   | YNL296W   | 3 | SL | Unknown                              |
| RIC1 | MON2    | YNL297C   | 3 | SL | Vacuolar organization and biogenesis |
| RIC1 | TRF5    | YNL299W   | 0 | SL | Chromatin/chromosome structure       |
| RIC1 | PPG1    | YNR032W   | 1 | SL | Carbohydrate metabolism              |
| RIC1 | BRE5    | YNR051C   | 0 | SL | Unknown                              |
| RIC1 | HTZ1    | YOL012C   | 0 | SL | Chromatin/chromosome structure       |
| RIC1 | ESC8    | YOL017W   | 0 | SS | Unknown                              |
| RIC1 | TLG2    | YOL018C   | 3 | SL | Vesicular transport                  |
| RIC1 | VAM10   | YOR068C   | 1 | SL | Vacuolar organization and biogenesis |
| RIC1 | VPS5    | YOR069W   | 2 | SL | Vesicular transport                  |
| RIC1 | GYP1    | YOR070C   | 3 | SL | Vesicular transport                  |
| RIC1 | VPS21   | YOR089C   | 0 | SS | Vesicular transport                  |
| RIC1 | INP53   | YOR109W   | 0 | SL | Lipid metabolism                     |
| RIC1 | YOR112W | YOR112W   | 0 | SL | Unknown                              |
| RIC1 | RGA1    | YOR127W   | 1 | SS | Cell polarity                        |
| RIC1 | VPS17   | YOR132W   | 3 | SL | Vesicular transport                  |
| RIC1 | RUD3    | YOR216C   | 2 | SL | Vesicular transport                  |
| RIC1 | SNC2    | YOR327C   | 0 | SS | Vesicular transport                  |
| RIC1 | EGD1    | YPL037C   | 0 | SL | Protein folding                      |
| RIC1 | ARL3    | YPL051W   | 3 | SL | Vesicular transport                  |
| RIC1 | LGE1    | YPL055C   | 3 | SL | Cell cycle control                   |
| RIC1 | YPL105C | YPL105C   | 0 | SL | Unknown                              |
| RIC1 | VPS30   | YPL120W   | 3 | SL | Vesicular transport                  |
| RIC1 | BEM4    | YPL161C   | 0 | SL | Cell polarity                        |
| RIC1 | APL5    | YPL195W   | 0 | SS | Vesicular transport                  |
| RIC1 | OXR1    | YPL196W   | 0 | SS | Unknown                              |
| RIC1 | TFP3    | YPL234C   | 2 | SL | Vacuolar organization and biogenesis |
| RIC1 | DSS4    | YPR017C   | 0 | SS | Vesicular transport                  |
| RIC1 | SRO7    | YPR032W   | 0 | SS | Vesicular transport                  |
| RIC1 | YPR050C | YPR050C   | 3 | SL | Unknown                              |
| RIC1 | MAK3    | YPR051W   | 3 | SL | Protein modification                 |
| RIC1 | MRL1    | YPR079W   | 0 | SS | Vacuolar organization and biogenesis |
| RIC1 | YPR084W | YPR084W   | 0 | SL | Unknown                              |
| RIC1 | YPR197C | YPR197C   | 0 | SL | Unknown                              |
| YPT6 | VPS8    | YAL002W   | 2 | SL | Vesicular transport                  |
| YPT6 | SWC1    | YAL011W   | 0 | SL | Unknown                              |
| YPT6 | FUN30   | YAL019W   | 3 | SL | Unknown                              |
| YPT6 | BUD14   | YAR014C   | 2 | SL | Cell polarity                        |
| YPT6 | YBL083C | YBL083C   | 1 | SS | Unknown                              |
| YPT6 | SFT2    | YBL102W   | 3 | SL | Vesicular transport                  |
| YPT6 | ARL1    | YBR164C   | 3 | SL | Vesicular transport                  |
| YPT6 | APM3    | YBR288C   | 1 | SL | Vesicular transport                  |
| YPT6 | RER1    | YCL001W   | 3 | SL | Vesicular transport                  |
| YPT6 | SRO9    | YCL037C   | 0 | SL | Protein synthesis                    |
| YPT6 | MAK31   | YCR020C-A | 3 | SL | Protein modification                 |
| YPT6 | PER1    | YCR044C   | 0 | SS | Other metabolism                     |
| YPT6 | RAD18   | YCR066W   | 1 | SL | DNA repair                           |
| YPT6 | PTC1    | YDL006W   | 1 | SS | Signal transduction                  |
| YPT6 | BRE1    | YDL074C   | 3 | SL | Chromatin/chromosome structure       |
| YPT6 | VAM6    | YDL077C   | 0 | SS | Vesicular transport                  |
| YPT6 | ARR4    | YDL100C   | 1 | SL | Small molecule transport             |
| YPT6 | RPL35A  | YDL191W   | 2 | SS | Protein synthesis                    |
| YPT6 | VPS41   | YDR080W   | 0 | SL | Vesicular transport                  |
| YPT6 | YDR107C | YDR107C   | 1 | SL | Transport                            |
| YPT6 | GSS1    | YDR108W   | 3 | SL | Vesicular transport                  |
| YPT6 | SWF1    | YDR126W   | 2 | SL | Unknown                              |
| YPT6 | ENT5    | YDR153C   | 3 | SL | Vesicular transport                  |
| YPT6 | NBP2    | YDR162C   | 3 | SL | Cell polarity                        |
| YPT6 | RAV2    | YDR202C   | 2 | SL | Small molecule transport             |

|      |         |           |   |    |                                       |
|------|---------|-----------|---|----|---------------------------------------|
| YPT6 | YDR203W | YDR203W   | 3 | SL | Unknown                               |
| YPT6 | SUM1    | YDR310C   | 2 | SL | Chromatin/chromosome structure        |
| YPT6 | SWA2    | YDR320C   | 3 | SL | Vesicular transport                   |
| YPT6 | SWR1    | YDR334W   | 0 | SL | Unknown                               |
| YPT6 | VID21   | YDR359C   | 0 | SS | Unknown                               |
| YPT6 | VPS74   | YDR372C   | 0 | SL | Vacuolar organization and biogenesis  |
| YPT6 | YEL043W | YEL043W   | 1 | SL | Unknown                               |
| YPT6 | VMA8    | YEL051W   | 0 | SL | Vacuolar organization and biogenesis  |
| YPT6 | MAK10   | YEL053C   | 3 | SL | Protein modification                  |
| YPT6 | YER084W | YER084W   | 3 | SL | Unknown                               |
| YPT6 | SBH1    | YER087C-A | 0 | SS | Protein translocation                 |
| YPT6 | SCS2    | YER120W   | 1 | SL | Lipid metabolism                      |
| YPT6 | GLO3    | YER122C   | 0 | SL | Vesicular transport                   |
| YPT6 | RAD4    | YER162C   | 0 | SL | DNA repair                            |
| YPT6 | BST1    | YFL025C   | 3 | SS | Vesicular transport                   |
| YPT6 | RIM15   | YFL033C   | 1 | SL | Meiosis                               |
| YPT6 | RPL2A   | YFR031C-A | 2 | SL | Protein synthesis                     |
| YPT6 | COG7    | YGL005C   | 2 | SL | Vesicular transport                   |
| YPT6 | SWF3    | YGL020C   | 3 | SL | Unknown                               |
| YPT6 | ERV14   | YGL054C   | 3 | SL | Vesicular transport                   |
| YPT6 | GUP1    | YGL084C   | 2 | SL | Lipid metabolism                      |
| YPT6 | SNF4    | YGL115W   | 1 | SL | Protein modification                  |
| YPT6 | VAM7    | YGL212W   | 2 | SL | Vacuolar organization and biogenesis  |
| YPT6 | RTF1    | YGL244W   | 3 | SL | Pol II transcription                  |
| YPT6 | ZRT1    | YGL255W   | 0 | SS | Small molecule transport              |
| YPT6 | VMA7    | YGR020C   | 2 | SL | Vacuolar organization and biogenesis  |
| YPT6 | UPF3    | YGR072W   | 0 | SS | RNA turnover                          |
| YPT6 | VMA21   | YGR105W   | 3 | SL | Vacuolar organization and biogenesis  |
| YPT6 | SMI1    | YGR229C   | 3 | SL | Cell wall organization and biogenesis |
| YPT6 | APL6    | YGR261C   | 3 | SL | Vesicular transport                   |
| YPT6 | OPI1    | YHL020C   | 0 | SL | Lipid metabolism                      |
| YPT6 | GOS1    | YHL031C   | 3 | SL | Vesicular transport                   |
| YPT6 | NEM1    | YHR004C   | 1 | SL | Unknown                               |
| YPT6 | VPS29   | YHR012W   | 3 | SL | Vesicular transport                   |
| YPT6 | VMA10   | YHR039C-B | 0 | SL | Small molecule transport              |
| YPT6 | VMA22   | YHR060W   | 0 | SL | Vacuolar organization and biogenesis  |
| YPT6 | YIL039W | YIL039W   | 0 | SS | Unknown                               |
| YPT6 | SEC28   | YIL076W   | 2 | SL | Vesicular transport                   |
| YPT6 | SYS1    | YJL004C   | 3 | SL | Protein translocation                 |
| YPT6 | SNX4    | YJL036W   | 1 | SL | Protein degradation                   |
| YPT6 | PEP8    | YJL053W   | 3 | SL | Vesicular transport                   |
| YPT6 | YJL123C | YJL123C   | 3 | SL | Unknown                               |
| YPT6 | VPS35   | YJL154C   | 3 | SL | Vesicular transport                   |
| YPT6 | RAV1    | YJR033C   | 3 | SL | Vacuolar organization and biogenesis  |
| YPT6 | GEF1    | YJR040W   | 0 | SL | Small molecule transport              |
| YPT6 | CBF1    | YJR060W   | 3 | SL | Chromatin/chromosome structure        |
| YPT6 | OPI3    | YJR073C   | 3 | SS | Lipid metabolism                      |
| YPT6 | TEF4    | YKL081W   | 2 | SL | Protein synthesis                     |
| YPT6 | CNB1    | YKL190W   | 0 | SL | Cell wall organization and biogenesis |
| YPT6 | IRS4    | YKR019C   | 2 | SL | Chromatin/chromosome structure        |
| YPT6 | VPS67   | YKR020W   | 2 | SL | Vacuolar organization and biogenesis  |
| YPT6 | GMH1    | YKR030W   | 3 | SL | Unknown                               |
| YPT6 | ENT4    | YLL038C   | 2 | SL | Vesicular transport                   |
| YPT6 | BRE2    | YLR015W   | 1 | SL | Chromatin/chromosome structure        |
| YPT6 | EMP70   | YLR083C   | 1 | SL | Transport                             |
| YPT6 | ARP6    | YLR085C   | 3 | SL | Cell structure                        |
| YPT6 | CSF1    | YLR087C   | 0 | SL | Cell stress                           |
| YPT6 | IMH1    | YLR309C   | 3 | SL | Vesicular transport                   |
| YPT6 | EST2    | YLR318W   | 3 | SL | Chromatin/chromosome structure        |
| YPT6 | VPS38   | YLR360W   | 3 | SS | Vesicular transport                   |
| YPT6 | DCR2    | YLR361C   | 0 | SS | Unknown                               |

|       |         |         |   |    |                                       |
|-------|---------|---------|---|----|---------------------------------------|
| YPT6  | YPT7    | YML001W | 2 | SS | Vesicular transport                   |
| YPT6  | VPS71   | YML041C | 2 | SS | Vesicular transport                   |
| YPT6  | COG8    | YML071C | 3 | SL | Vesicular transport                   |
| YPT6  | MVP1    | YMR004W | 3 | SL | Vesicular transport                   |
| YPT6  | YMR010W | YMR010W | 2 | SL | Meiosis                               |
| YPT6  | STV1    | YMR054W | 0 | SL | Vacuolar organization and biogenesis  |
| YPT6  | PKR1    | YMR123W | 2 | SL | Unknown                               |
| YPT6  | SKY1    | YMR216C | 2 | SS | RNA splicing                          |
| YPT6  | RSN1    | YMR266W | 1 | SL | Unknown                               |
| YPT6  | RCE1    | YMR274C | 3 | SL | Protein modification                  |
| YPT6  | GAS1    | YMR307W | 3 | SS | Cell wall organization and biogenesis |
| YPT6  | COG6    | YNL041C | 3 | SL | Vesicular transport                   |
| YPT6  | COG5    | YNL051W | 3 | SL | Vesicular transport                   |
| YPT6  | RPL16B  | YNL069C | 1 | SL | Protein synthesis                     |
| YPT6  | YNL136W | YNL136W | 1 | SS | Unknown                               |
| YPT6  | PSD1    | YNL169C | 3 | SL | Lipid metabolism                      |
| YPT6  | KRE25   | YNL296W | 3 | SL | Unknown                               |
| YPT6  | MON2    | YNL297C | 3 | SL | Vacuolar organization and biogenesis  |
| YPT6  | PPG1    | YNR032W | 1 | SS | Carbohydrate metabolism               |
| YPT6  | BRE5    | YNR051C | 3 | SL | Unknown                               |
| YPT6  | HTZ1    | YOL012C | 2 | SL | Chromatin/chromosome structure        |
| YPT6  | ESC8    | YOL017W | 2 | SL | Unknown                               |
| YPT6  | TLG2    | YOL018C | 3 | SL | Vesicular transport                   |
| YPT6  | INO4    | YOL108C | 3 | SS | Lipid metabolism                      |
| YPT6  | VAM10   | YOR068C | 2 | SL | Vacuolar organization and biogenesis  |
| YPT6  | VPS5    | YOR069W | 2 | SL | Vesicular transport                   |
| YPT6  | GYP1    | YOR070C | 3 | SL | Vesicular transport                   |
| YPT6  | VPS21   | YOR089C | 0 | SL | Vesicular transport                   |
| YPT6  | VAM3    | YOR106W | 0 | SL | Vesicular transport                   |
| YPT6  | INP53   | YOR109W | 2 | SL | Lipid metabolism                      |
| YPT6  | YOR112W | YOR112W | 3 | SL | Unknown                               |
| YPT6  | VPS17   | YOR132W | 3 | SL | Vesicular transport                   |
| YPT6  | RUD3    | YOR216C | 3 | SL | Vesicular transport                   |
| YPT6  | EGD1    | YPL037C | 2 | SL | Protein folding                       |
| YPT6  | ARL3    | YPL051W | 3 | SL | Vesicular transport                   |
| YPT6  | LGE1    | YPL055C | 3 | SL | Cell cycle control                    |
| YPT6  | VPS30   | YPL120W | 2 | SL | Vesicular transport                   |
| YPT6  | BEM4    | YPL161C | 0 | SL | Cell polarity                         |
| YPT6  | APL5    | YPL195W | 3 | SL | Vesicular transport                   |
| YPT6  | OXR1    | YPL196W | 3 | SL | Unknown                               |
| YPT6  | TFP3    | YPL234C | 2 | SL | Vacuolar organization and biogenesis  |
| YPT6  | DSS4    | YPR017C | 0 | SL | Vesicular transport                   |
| YPT6  | SRO7    | YPR032W | 0 | SS | Vesicular transport                   |
| YPT6  | YPR050C | YPR050C | 2 | SL | Unknown                               |
| YPT6  | MAK3    | YPR051W | 3 | SL | Protein modification                  |
| YPT6  | MRL1    | YPR079W | 2 | SS | Vacuolar organization and biogenesis  |
| YPT6  | YPR084W | YPR084W | 1 | SL | Unknown                               |
| YPT6  | YPR197C | YPR197C | 2 | SS | Unknown                               |
| CDC73 | VPS8    | YAL002W | 1 | SS | Vesicular transport                   |
| CDC73 | SWC1    | YAL011W | 2 | SL | Unknown                               |
| CDC73 | DEP1    | YAL013W | 2 | SL | Lipid metabolism                      |
| CDC73 | NUP60   | YAR002W | 1 | SL | Nuclear-cytoplasmic transport         |
| CDC73 | ECM8    | YBR076W | 1 | SS | Cell wall organization and biogenesis |
| CDC73 | RXT2    | YBR095C | 3 | SL | Unknown                               |
| CDC73 | SIF2    | YBR103W | 0 | SL | Chromatin/chromosome structure        |
| CDC73 | SOY     | YBR194W | 1 | SS | Unknown                               |
| CDC73 | HPC2    | YBR215W | 2 | SL | Pol II transcription                  |
| CDC73 | PDB1    | YBR221C | 0 | SS | Carbohydrate metabolism               |
| CDC73 | AOR1    | YBR231C | 1 | SL | Unknown                               |
| CDC73 | SRO9    | YCL037C | 1 | SL | Protein synthesis                     |
| CDC73 | PAT1    | YCR077C | 0 | SL | Chromatin/chromosome structure        |

|       |           |           |   |    |   |
|-------|-----------|-----------|---|----|---|
| CDC73 | NHP10     | YDL002C   | 1 | SS | Unknown                                   |
| CDC73 | YDL033C   | YDL033C   | 0 | SL | Unknown                                   |
| CDC73 | RGP1      | YDR137W   | 1 | SS | Vesicular transport                       |
| CDC73 | MNN10     | YDR245W   | 1 | SS | Protein modification                      |
| CDC73 | RTT103    | YDR289C   | 1 | SS | Unknown                                   |
| CDC73 | SWR1      | YDR334W   | 0 | SL | Unknown                                   |
| CDC73 | MSN5      | YDR335W   | 1 | SS | Nuclear-cytoplasmic transport             |
| CDC73 | SEM1      | YDR363W-A | 0 | SL | Vesicular transport                       |
| CDC73 | XRS2      | YDR369C   | 1 | SL | DNA repair                                |
| CDC73 | LSM6      | YDR378C   | 1 | SL | RNA splicing                              |
| CDC73 | DOT1      | YDR440W   | 1 | SL | Chromatin/chromosome structure            |
| CDC73 | VPS72     | YDR485C   | 2 | SL | Vesicular transport                       |
| CDC73 | VAC8      | YEL013W   | 1 | SL | Vacuolar organization and biogenesis      |
| CDC73 | SPF1      | YEL031W   | 2 | SL | Small molecule transport                  |
| CDC73 | YEL033W   | YEL033W   | 1 | SL | Differentiation                           |
| CDC73 | CIN8      | YEL061C   | 1 | SL | Mitosis                                   |
| CDC73 | YER084W   | YER084W   | 0 | SL | Unknown                                   |
| CDC73 | SWI4      | YER111C   | 3 | SL | Cell cycle control                        |
| CDC73 | GLO3      | YER122C   | 0 | SL | Vesicular transport                       |
| CDC73 | YER139C   | YER139C   | 0 | SS | Unknown                                   |
| CDC73 | SPT2      | YER161C   | 2 | SL | Chromatin/chromosome structure            |
| CDC73 | PDA1      | YER178W   | 1 | SS | Mitochondrion organization and biogenesis |
| CDC73 | UBP6      | YFR010W   | 0 | SL | Protein modification                      |
| CDC73 | SWF3      | YGL020C   | 3 | SL | Unknown                                   |
| CDC73 | DST1      | YGL043W   | 2 | SL | Pol II transcription                      |
| CDC73 | KEM1      | YGL173C   | 1 | SS | RNA processing                            |
| CDC73 | BUD13     | YGL174W   | 1 | SL | Cell polarity                             |
| CDC73 | VID30     | YGL227W   | 0 | SL | Pol II Transcription                      |
| CDC73 | RTF1      | YGL244W   | 0 | SS | Pol II transcription                      |
| CDC73 | YTA7      | YGR270W   | 1 | SS | Vacuolar organization and biogenesis      |
| CDC73 | GOS1      | YHL031C   | 2 | SS | Vesicular transport                       |
| CDC73 | THP2      | YHR167W   | 0 | SL | Recombination                             |
| CDC73 | APQ12     | YIL040W   | 0 | SL | Unknown                                   |
| CDC73 | SEC28     | YIL076W   | 1 | SL | Vesicular transport                       |
| CDC73 | MET18     | YIL128W   | 1 | SL | Pol II Transcription                      |
| CDC73 | IST3      | YIR005W   | 0 | SL | RNA splicing                              |
| CDC73 | LSM1      | YJL124C   | 0 | SS | RNA turnover                              |
| CDC73 | SET2      | YJL168C   | 1 | SL | Chromatin/chromosome structure            |
| CDC73 | HIR3      | YJR140C   | 0 | SL | Pol II transcription                      |
| CDC73 | YKL053C-A | YKL053C-A | 1 | SL | Mitochondrion organization and biogenesis |
| CDC73 | CTK1      | YKL139W   | 0 | SL | Pol II transcription                      |
| CDC73 | ELF1      | YKL160W   | 0 | SL | Unknown                                   |
| CDC73 | LST4      | YKL176C   | 1 | SL | Vesicular transport                       |
| CDC73 | DOA1      | YKL213C   | 1 | SL | Protein degradation                       |
| CDC73 | RTT109    | YLL002W   | 1 | SL | DNA repair                                |
| CDC73 | RIC1      | YLR039C   | 2 | SL | Vesicular transport                       |
| CDC73 | PET309    | YLR067C   | 1 | SS | RNA metabolism                            |
| CDC73 | ARP6      | YLR085C   | 2 | SL | Cell structure                            |
| CDC73 | YLR168C   | YLR168C   | 0 | SL | Unknown                                   |
| CDC73 | SWI6      | YLR182W   | 1 | SS | Cell cycle control                        |
| CDC73 | MMR1      | YLR190W   | 1 | SL | Unknown                                   |
| CDC73 | QRI5      | YLR204W   | 1 | SL | Unknown                                   |
| CDC73 | LIP2      | YLR239C   | 1 | SS | Protein modification                      |
| CDC73 | YPT6      | YLR262C   | 1 | SL | Vesicular transport                       |
| CDC73 | SEC22     | YLR268W   | 0 | SL | Vesicular transport                       |
| CDC73 | YLR269C   | YLR269C   | 1 | SL | Unknown                                   |
| CDC73 | NKP2      | YLR315W   | 1 | SS | Chromatin/chromosome structure            |
| CDC73 | ORM2      | YLR350W   | 2 | SL | Cell wall organization and biogenesis     |
| CDC73 | VID22     | YLR373C   | 1 | SL | Vacuolar organization and biogenesis      |
| CDC73 | IKI3      | YLR384C   | 0 | SL | Pol II transcription                      |
| CDC73 | YML012C-A | YML013C-A | 1 | SL | Unknown                                   |

|       |         |         |   |    |   |              |
|-------|---------|---------|---|----|---|--------------|
| CDC73 | RAD52   | YML032C | 1 | SS | DNA repair                                |              |
| CDC73 | VPS71   | YML041C | 2 | SL | Vesicular transport                       |              |
| CDC73 | LYS7    | YMR038C | 1 | SS | Amino-acid metabolism                     |              |
| CDC73 | RIM13   | YMR154C | 0 | SS | Meiosis                                   |              |
| CDC73 | MRPS8   | YMR158W | 1 | SL | Mitochondrion organization and biogenesis |              |
| CDC73 | SAP30   | YMR263W | 2 | SL | Chromatin/chromosome structure            |              |
| CDC73 | RCE1    | YMR274C | 1 | SL | Protein modification                      |              |
| CDC73 | BUL1    | YMR275C | 1 | SS | Protein degradation                       |              |
| CDC73 | SSN8    | YNL025C | 1 | SL | Pol II transcription                      |              |
| CDC73 | PHO23   | YNL097C | 0 |    | SL Phosphate metabolism                   |              |
| CDC73 | YNL140C | YNL140C | 0 |    | SL Unknown                                |              |
| CDC73 | YNL198C | YNL198C | 1 | SL | Unknown                                   |              |
| CDC73 | GCR2    | YNL199C | 1 | SL | Pol II Transcription                      |              |
| CDC73 | IES2    | YNL215W | 2 | SS | Unknown                                   |              |
| CDC73 | RIM21   | YNL294C | 1 | SS | Unknown                                   |              |
| CDC73 | SIN3    | YOL004W | 1 | SL | Pol II transcription                      |              |
| CDC73 | HTZ1    | YOL012C | 1 | SL | Chromatin/chromosome structure            |              |
| CDC73 | MDM38   | YOL027C | 0 | SL | Mitochondrion organization and biogenesis |              |
| CDC73 | THP1    | YOL072W | 1 | SL | Pol II Transcription                      |              |
| CDC73 | RRP6    | YOR001W | 1 | SS | RNA processing                            |              |
| CDC73 | DFG16   | YOR030W | 1 | SS | Differentiation                           |              |
| CDC73 | HIR2    | YOR038C | 2 |    | SL Pol II transcription                   |              |
| CDC73 | DIA2    | YOR080W | 1 | SL | Differentiation                           |              |
| CDC73 | VPS21   | YOR089C | 2 |    | SS Vesicular transport                    |              |
| CDC73 | LEO1    | YOR123C | 1 | SL | Chromatin/chromosome structure            |              |
| CDC73 | UBP2    | YOR124C | 1 | SS | Protein modification                      |              |
| CDC73 | RUD3    | YOR216C | 2 | SL | Vesicular transport                       |              |
| CDC73 | TIM18   | YOR297C | 1 | SL | Mitochondrion organization and biogenesis |              |
| CDC73 | SNU66   | YOR308C | 2 | SL | RNA splicing                              |              |
| CDC73 | PDE2    | YOR360C | 1 | SL | Signal transduction                       |              |
| CDC73 | SSN3    | YPL042C | 1 | SL | Pol II transcription                      |              |
| CDC73 | SUR1    | YPL057C | 0 | SL | Lipid metabolism                          |              |
| CDC73 | BTS1    | YPL069C | 1 | SL | Protein modification                      |              |
| CDC73 | CTI6    | YPL181W | 3 | SL | Chromatin/chromosome structure            |              |
| CDC73 | YPL182C | YPL182C | 2 | SL | Unknown                                   |              |
| CDC73 | MED1    | YPR070W | 2 | SS | SS Chromatin/chromosome structure         |              |
| CDC73 | YPR084W | YPR084W | 0 | SL | Unknown                                   |              |
| SET2  | SWC1    | YAL011W | 0 | SL | Unknown                                   | Krogan, 2003 |
| SET2  | DEP1    | YAL013W | 0 | SS | Lipid metabolism                          | Krogan, 2003 |
| SET2  | SIF2    | YBR103W | 2 | SS | Chromatin/chromosome structure            | Krogan, 2003 |
| SET2  | SWD3    | YBR175W | 0 | SS | Chromatin/chromosome structure            | Krogan, 2003 |
| SET2  | DCC1    | YCL016C | 1 | SS | Chromatin/chromosome structure            | Krogan, 2003 |
| SET2  | SNT1    | YCR033W | 0 | SS | Chromatin/chromosome structure            | Krogan, 2003 |
| SET2  | YDL033C | YDL033C | 0 | SL | Unknown                                   | Krogan, 2003 |
| SET2  | BRE1    | YDL074C | 2 | SL | Chromatin/chromosome structure            | Krogan, 2003 |
| SET2  | SWR1    | YDR334W | 3 | SS | Unknown                                   | Krogan, 2003 |
| SET2  | VID21   | YDR359C | 1 | SS | Unknown                                   | Krogan, 2003 |
| SET2  | SDC1    | YDR469W | 0 | SS | Chromatin/chromosome structure            | Krogan, 2003 |
| SET2  | RIM8    | YGL045W | 1 | SS | Unknown                                   | Krogan, 2003 |
| SET2  | RIM8    | YGL046W | 1 | SS | Unknown                                   | Krogan, 2003 |
| SET2  | SOH1    | YGL127C | 0 | SL | DNA repair                                | Krogan, 2003 |
| SET2  | RTF1    | YGL244W | 3 | SL | Pol II transcription                      | Krogan, 2003 |
| SET2  | SHY1    | YGR112W | 2 | SS | Energy generation                         | Krogan, 2003 |
| SET2  | HOS4    | YIL112W | 0 | SS | Chromatin/chromosome structure            | Krogan, 2003 |
| SET2  | SET3    | YKR029C | 0 | SS | Chromatin/chromosome structure            | Krogan, 2003 |
| SET2  | BRE2    | YLR015W | 0 | SS | Chromatin/chromosome structure            | Krogan, 2003 |
| SET2  | ARP6    | YLR085C | 1 | SL | Cell structure                            | Krogan, 2003 |
| SET2  | SEC22   | YLR268W | 3 | SL | Vesicular transport                       | Krogan, 2003 |
| SET2  | VAC14   | YLR386W | 2 | SS | Vacuolar organization and biogenesis      | Krogan, 2003 |
| SET2  | CDC73   | YLR418C | 0 | SL | Pol II transcription                      | Krogan, 2003 |
| SET2  | VPS71   | YML041C | 0 | SS | Vesicular transport                       | Krogan, 2003 |

|      |         |           |   |    |    |                                       |              |
|------|---------|-----------|---|----|----|---------------------------------------|--------------|
| SET2 | GIM5    | YML094W   | 0 | SL |    | Cell structure                        | Krogan, 2003 |
| SET2 | MSC1    | YML128C   | 2 |    | SL | Unknown                               | Krogan, 2003 |
| SET2 | GIM3    | YNL153C   | 0 | SL |    | Cell structure                        | Krogan, 2003 |
| SET2 | RIM21   | YNL294C   | 1 | SS |    | Unknown                               | Krogan, 2003 |
| SET2 | MON2    | YNL297C   | 0 | SL |    | Vacuolar organization and biogenesis  | Krogan, 2003 |
| SET2 | BRE5    | YNR051C   | 0 | SS |    | Unknown                               | Krogan, 2003 |
| SET2 | HTZ1    | YOL012C   | 1 | SL |    | Chromatin/chromosome structure        | Krogan, 2003 |
| SET2 | VAM3    | YOR106W   | 1 | SL |    | Vesicular transport                   | Krogan, 2003 |
| SET2 | LEO1    | YOR123C   | 1 | SS |    | Chromatin/chromosome structure        | Krogan, 2003 |
| SET2 | LGE1    | YPL055C   | 3 | SL |    | Cell cycle control                    | Krogan, 2003 |
| SET2 | BEM4    | YPL161C   | 2 | SL |    | Cell polarity                         | Krogan, 2003 |
| SET2 | YPR014C | YPR014C   | 0 | SS |    | Unknown                               | Krogan, 2003 |
| LIA1 | SRO9    | YCL037C   | 2 | SL |    | Protein synthesis                     |              |
| LIA1 | ARF1    | YDL192W   | 3 |    | SL | Transport                             |              |
| LIA1 | PRB1    | YEL060C   | 2 |    | SS | Protein degradation                   |              |
| LIA1 | RMD9    | YGL107C   | 2 |    | SS | Meiosis                               |              |
| LIA1 | SOH1    | YGL127C   | 2 |    | SL | DNA repair                            |              |
| LIA1 | RTF1    | YGL244W   | 3 |    | SS | Pol II transcription                  |              |
| LIA1 | SRB2    | YHR041C   | 3 |    | SS | Pol II Transcription                  |              |
| LIA1 | YMR269W | YMR269W   | 3 |    | SS | Unknown                               |              |
| LIA1 | AAH1    | YNL141W   | 3 |    | SS | Nucleotide metabolism                 |              |
| LIA1 | YOR309C | YOR309C   | 3 |    | SL | Unknown                               |              |
| ARP1 | HCM1    | YCR065W   | 3 | SS |    | Pol II transcription                  |              |
| ARP1 | GIM4    | YEL003W   | 3 | SS |    | Cell structure                        |              |
| ARP1 | CIN8    | YEL061C   | 2 |    | SS | Mitosis                               |              |
| ARP1 | BIM1    | YER016W   | 3 | SL |    | Mitosis                               |              |
| ARP1 | RPL34A  | YER056C-A | 2 |    | SS | Protein synthesis                     |              |
| ARP1 | BOI2    | YER114C   | 3 | SS |    | Cell polarity                         |              |
| ARP1 | MON1    | YGL124C   | 1 | SL |    | Unknown                               |              |
| ARP1 | KIP3    | YGL216W   | 0 | SL |    | Mitosis                               |              |
| ARP1 | YGL217C | YGL217C   | 0 | SL |    | Unknown                               |              |
| ARP1 | PAC10   | YGR078C   | 2 | SS |    | Cell structure                        |              |
| ARP1 | SMI1    | YGR229C   | 3 |    | SS | Cell wall organization and biogenesis |              |
| ARP1 | VPS29   | YHR012W   | 3 |    | SS | Vesicular transport                   |              |
| ARP1 | YKE2    | YLR200W   | 0 | SS |    | Cell structure                        |              |
| ARP1 | CLB4    | YLR210W   | 3 | SS |    | Cell cycle control                    |              |
| ARP1 | VID22   | YLR373C   | 2 |    | SS | Vacuolar organization and biogenesis  |              |
| ARP1 | GIM5    | YML094W   | 1 | SS |    | Cell structure                        |              |
| ARP1 | CIK1    | YMR198W   | 2 |    | SL | Mitosis                               |              |
| ARP1 | GIM3    | YNL153C   | 3 | SL |    | Cell structure                        |              |
| ARP1 | BNI1    | YNL271C   | 0 | SS |    | Cell polarity                         |              |
| ARP1 | BRE5    | YNR051C   | 0 |    | SS | Unknown                               |              |
| ARP1 | CIN1    | YOR349W   | 0 |    | SS | Cell structure                        |              |
| ARP1 | KAR9    | YPL269W   | 3 | SL |    | Mitosis                               |              |
| ARP1 | KAR3    | YPR141C   | 1 |    | SL | Mitosis                               |              |
| JNM1 | LTE1    | YAL024C   | 1 | SL |    | Cell cycle control                    |              |
| JNM1 | HCM1    | YCR065W   | 3 | SS | SS | Pol II transcription                  |              |
| JNM1 | PAT1    | YCR077C   | 2 | SL |    | Chromatin/chromosome structure        |              |
| JNM1 | GIM4    | YEL003W   | 1 | SS |    | Cell structure                        |              |
| JNM1 | CIN8    | YEL061C   | 1 |    | SL | Mitosis                               |              |
| JNM1 | PAC2    | YER007W   | 0 |    | SS | Cell structure                        |              |
| JNM1 | BIM1    | YER016W   | 3 | SL |    | Mitosis                               |              |
| JNM1 | BOI2    | YER114C   | 3 | SS | SS | Cell polarity                         |              |
| JNM1 | KIP3    | YGL216W   | 3 | SL |    | Mitosis                               |              |
| JNM1 | YGL217C | YGL217C   | 3 | SL |    | Unknown                               |              |
| JNM1 | PAC10   | YGR078C   | 0 | SL |    | Cell structure                        |              |
| JNM1 | SMI1    | YGR229C   | 3 |    | SS | Cell wall organization and biogenesis |              |
| JNM1 | VPS35   | YJL154C   | 1 | SL |    | Vesicular transport                   |              |
| JNM1 | CAP1    | YKL007W   | 0 | SS | SS | Cell structure                        |              |
| JNM1 | YKE2    | YLR200W   | 0 | SS |    | Cell structure                        |              |
| JNM1 | CLB4    | YLR210W   | 3 | SL |    | Cell cycle control                    |              |

|        |         |         |   |    |    |   |
|--------|---------|---------|---|----|----|---|
| JNM1   | CPR6    | YLR216C | 2 | SL |    | Protein folding                           |
| JNM1   | YLR217W | YLR217W | 0 | SL |    | Unknown                                   |
| JNM1   | GIM5    | YML094W | 1 |    | SL | Cell structure                            |
| JNM1   | TUB3    | YML124C | 0 |    | SS | Cell structure                            |
| JNM1   | RPL16B  | YNL069C | 1 | SL |    | Protein synthesis                         |
| JNM1   | GIM3    | YNL153C | 3 | SS |    | Cell structure                            |
| JNM1   | BN11    | YNL271C | 2 | SL |    | Cell polarity                             |
| JNM1   | CIN1    | YOR349W | 0 | SS | SL | Cell structure                            |
| JNM1   | CIN2    | YPL241C | 3 | SS |    | Cell structure                            |
| JNM1   | KAR9    | YPL269W | 3 | SL |    | Mitosis                                   |
| JNM1   | KAR3    | YPR141C | 0 |    | SL | Mitosis                                   |
| NIP100 | DEP1    | YAL013W | 3 |    | SL | Lipid metabolism                          |
| NIP100 | CRD1    | YDL142C | 0 | SS | SS | Mitochondrion organization and biogenesis |
| NIP100 | MRPL1   | YDR116C | 0 | SL | SS | Mitochondrion organization and biogenesis |
| NIP100 | EMI1    | YDR512C | 2 |    | SS | Meiosis                                   |
| NIP100 | GIM4    | YEL003W | 1 | SS |    | Cell structure                            |
| NIP100 | CIN8    | YEL061C | 0 |    | SL | Mitosis                                   |
| NIP100 | PAC2    | YER007W | 0 | SS |    | Cell structure                            |
| NIP100 | BIM1    | YER016W | 3 | SL |    | Mitosis                                   |
| NIP100 | BOI2    | YER114C | 2 | SS | SS | Cell polarity                             |
| NIP100 | MON1    | YGL124C | 1 | SL |    | Unknown                                   |
| NIP100 | KIP3    | YGL216W | 2 | SL |    | Mitosis                                   |
| NIP100 | YGL217C | YGL217C | 2 | SL |    | Unknown                                   |
| NIP100 | PAC10   | YGR078C | 1 |    | SL | Cell structure                            |
| NIP100 | CAP2    | YIL034C | 1 | SS |    | Cell structure                            |
| NIP100 | CAP1    | YKL007W | 3 |    | SS | Cell structure                            |
| NIP100 | BRE2    | YLR015W | 1 | SS | SS | Chromatin/chromosome structure            |
| NIP100 | YKE2    | YLR200W | 0 | SL |    | Cell structure                            |
| NIP100 | CLB4    | YLR210W | 2 | SS | SS | Cell cycle control                        |
| NIP100 | CPR6    | YLR216C | 2 | SS | SS | Protein folding                           |
| NIP100 | YLR217W | YLR217W | 2 | SS | SS | Unknown                                   |
| NIP100 | ATP10   | YLR393W | 3 | SS | SS | Energy generation                         |
| NIP100 | GIM5    | YML094W | 0 |    | SL | Cell structure                            |
| NIP100 | CIN4    | YMR138W | 0 |    | SS | Cell structure                            |
| NIP100 | SAP30   | YMR263W | 1 | SS | SS | Chromatin/chromosome structure            |
| NIP100 | GAS1    | YMR307W | 0 |    | SS | Cell wall organization and biogenesis     |
| NIP100 | GIM3    | YNL153C | 2 | SL |    | Cell structure                            |
| NIP100 | BN11    | YNL271C | 2 |    | SL | Cell polarity                             |
| NIP100 | MCK1    | YNL307C | 2 |    | SS | Meiosis                                   |
| NIP100 | CIN1    | YOR349W | 3 |    | SL | Cell structure                            |
| NIP100 | YPL205C | YPL205C | 1 |    | SS | Meiosis                                   |
| NIP100 | CIN2    | YPL241C | 3 |    | SL | Cell structure                            |
| NIP100 | KAR9    | YPL269W | 3 |    | SL | Mitosis                                   |
| NIP100 | KAR3    | YPR141C | 3 |    | SL | Mitosis                                   |
| DYN1   | LTE1    | YAL024C | 0 | SS |    | Cell cycle control                        |
| DYN1   | HCM1    | YCR065W | 0 | SS |    | Pol II transcription                      |
| DYN1   | GIM4    | YEL003W | 0 | SS |    | Cell structure                            |
| DYN1   | CIN8    | YEL061C | 0 |    | SL | Mitosis                                   |
| DYN1   | BIM1    | YER016W | 2 | SL |    | Mitosis                                   |
| DYN1   | BOI2    | YER114C | 0 | SS |    | Cell polarity                             |
| DYN1   | MON1    | YGL124C | 0 | SL | SL | Unknown                                   |
| DYN1   | KIP3    | YGL216W | 3 | SL |    | Mitosis                                   |
| DYN1   | YGL217C | YGL217C | 3 | SL |    | Unknown                                   |
| DYN1   | PAC10   | YGR078C | 0 | SL | SS | Cell structure                            |
| DYN1   | YKE2    | YLR200W | 0 | SS |    | Cell structure                            |
| DYN1   | GIM5    | YML094W | 0 | SS | SS | Cell structure                            |
| DYN1   | GIM3    | YNL153C | 2 |    | SL | Cell structure                            |
| DYN1   | BN11    | YNL271C | 0 | SL |    | Cell polarity                             |
| DYN1   | CIN1    | YOR349W | 0 |    | SS | Cell structure                            |
| DYN1   | KAR9    | YPL269W | 2 | SL |    | Mitosis                                   |
| DYN1   | KAR3    | YPR141C | 0 |    | SL | Mitosis                                   |

|         |         |         |   |    |    |                    |
|---------|---------|---------|---|----|----|--------------------|
| DYN2    | GIM4    | YEL003W | 0 |    | SS | Cell structure     |
| DYN2    | CIN8    | YEL061C | 1 |    | SL | Mitosis            |
| DYN2    | BIM1    | YER016W | 1 | SL |    | Mitosis            |
| DYN2    | MON1    | YGL124C | 1 |    | SS | Unknown            |
| DYN2    | KIP3    | YGL216W | 2 | SL |    | Mitosis            |
| DYN2    | YGL217C | YGL217C | 3 | SS |    | Unknown            |
| DYN2    | PAC10   | YGR078C | 1 | SL |    | Cell structure     |
| DYN2    | YKE2    | YLR200W | 0 | SS |    | Cell structure     |
| DYN2    | GIM5    | YML094W | 0 |    | SS | Cell structure     |
| DYN2    | GIM3    | YNL153C | 3 |    | SL | Cell structure     |
| DYN2    | BN11    | YNL271C | 0 |    | SL | Cell polarity      |
| DYN2    | CIN1    | YOR349W | 0 |    | SS | Cell structure     |
| DYN2    | KAR9    | YPL269W | 0 |    | SS | Mitosis            |
| PAC11   | GIM4    | YEL003W | 1 | SS |    | Cell structure     |
| PAC11   | CIN8    | YEL061C | 0 |    | SL | Mitosis            |
| PAC11   | BIM1    | YER016W | 2 | SL |    | Mitosis            |
| PAC11   | BOI2    | YER114C | 0 |    | SS | Cell polarity      |
| PAC11   | KIP3    | YGL216W | 0 | SL |    | Mitosis            |
| PAC11   | YGL217C | YGL217C | 3 | SL |    | Unknown            |
| PAC11   | PAC10   | YGR078C | 0 |    | SL | Cell structure     |
| PAC11   | YKE2    | YLR200W | 0 | SL |    | Cell structure     |
| PAC11   | CLB4    | YLR210W | 1 |    | SS | Cell cycle control |
| PAC11   | GIM5    | YML094W | 1 |    | SS | Cell structure     |
| PAC11   | GIM3    | YNL153C | 2 |    | SL | Cell structure     |
| PAC11   | BN11    | YNL271C | 0 | SL |    | Cell polarity      |
| PAC11   | CIN1    | YOR349W | 0 |    | SL | Cell structure     |
| PAC11   | KAR9    | YPL269W | 2 | SL |    | Mitosis            |
| YMR299c | GIM4    | YEL003W | 1 |    | SS | Cell structure     |
| YMR299c | CIN8    | YEL061C | 1 |    | SL | Mitosis            |
| YMR299c | PAC2    | YER007W | 1 |    | SS | Cell structure     |
| YMR299c | BIM1    | YER016W | 1 | SL |    | Mitosis            |
| YMR299c | MON1    | YGL124C | 1 |    | SS | Unknown            |
| YMR299c | KIP3    | YGL216W | 1 |    | SS | Mitosis            |
| YMR299c | YGL217C | YGL217C | 1 | SS |    | Unknown            |
| YMR299c | PAC10   | YGR078C | 1 | SS |    | Cell structure     |
| YMR299c | YKE2    | YLR200W | 1 |    | SS | Cell structure     |
| YMR299c | CLB4    | YLR210W | 1 |    | SS | Cell cycle control |
| YMR299c | GIM5    | YML094W | 1 |    | SL | Cell structure     |
| YMR299c | GIM3    | YNL153C | 1 |    | SL | Cell structure     |
| YMR299c | BN11    | YNL271C | 1 | SS |    | Cell polarity      |
| YMR299c | CIN1    | YOR349W | 1 |    | SS | Cell structure     |
| YMR299c | CIN2    | YPL241C | 1 |    | SS | Cell structure     |
| YMR299c | KAR9    | YPL269W | 1 | SS |    | Mitosis            |
| YMR299c | KAR3    | YPR141C | 1 | SS |    | Mitosis            |
| PAC1    | GIM4    | YEL003W | 1 |    | SL | Cell structure     |
| PAC1    | CIN8    | YEL061C | 1 |    | SL | Mitosis            |
| PAC1    | BIM1    | YER016W | 3 | SL |    | Mitosis            |
| PAC1    | BEM2    | YER155C | 3 |    | SL | Cell polarity      |
| PAC1    | FAB1    | YFR019W | 3 |    | SL | Lipid metabolism   |
| PAC1    | KIP3    | YGL216W | 3 | SS |    | Mitosis            |
| PAC1    | YGL217C | YGL217C | 3 | SS |    | Unknown            |
| PAC1    | PAC10   | YGR078C | 1 | SL |    | Cell structure     |
| PAC1    | YHR168W | YHR168W | 1 |    | SS | Unknown            |
| PAC1    | CAP1    | YKL007W | 3 |    | SS | Cell structure     |
| PAC1    | YKE2    | YLR200W | 1 | SS |    | Cell structure     |
| PAC1    | GIM5    | YML094W | 1 | SL |    | Cell structure     |
| PAC1    | GIM3    | YNL153C | 3 | SL |    | Cell structure     |
| PAC1    | BN11    | YNL271C | 3 | SL |    | Cell polarity      |
| PAC1    | YOR296W | YOR296W | 2 | SS |    | Unknown            |
| PAC1    | YOR300W | YOR300W | 1 | SS |    | Unknown            |
| PAC1    | KAR9    | YPL269W | 3 | SL |    | Mitosis            |



|      |         |         |   |    |    |                                       |
|------|---------|---------|---|----|----|---------------------------------------|
| PAC1 | KAR3    | YPR141C | 2 | SL |    | Mitosis                               |
| NUM1 | LTE1    | YAL024C | 1 |    | SL | Cell cycle control                    |
| NUM1 | CCZ1    | YBR131W | 2 | SL |    | Vesicular transport                   |
| NUM1 | AOR1    | YBR231C | 0 |    | SS | Unknown                               |
| NUM1 | HCM1    | YCR065W | 3 | SL |    | Pol II transcription                  |
| NUM1 | PAT1    | YCR077C | 0 | SL |    | Chromatin/chromosome structure        |
| NUM1 | GIM4    | YEL003W | 0 | SS |    | Cell structure                        |
| NUM1 | CIN8    | YEL061C | 0 |    | SL | Mitosis                               |
| NUM1 | BIM1    | YER016W | 3 | SL |    | Mitosis                               |
| NUM1 | FAB1    | YFR019W | 2 | SL |    | Lipid metabolism                      |
| NUM1 | MAD1    | YGL086W | 0 | SS |    | Mitosis                               |
| NUM1 | MON1    | YGL124C | 2 | SL |    | Unknown                               |
| NUM1 | KIP3    | YGL216W | 0 | SL |    | Mitosis                               |
| NUM1 | YGL217C | YGL217C | 3 | SL |    | Unknown                               |
| NUM1 | PAC10   | YGR078C | 0 | SL |    | Cell structure                        |
| NUM1 | SMI1    | YGR229C | 3 | SS |    | Cell wall organization and biogenesis |
| NUM1 | CAP2    | YIL034C | 1 |    | SS | Cell structure                        |
| NUM1 | VPS35   | YJL154C | 2 | SS | SS | Vesicular transport                   |
| NUM1 | BFA1    | YJR053W | 0 | SS |    | Mitosis                               |
| NUM1 | CAP1    | YKL007W | 1 |    | SS | Cell structure                        |
| NUM1 | DNM1    | YLL001W | 2 |    | SS | Cell structure                        |
| NUM1 | YKE2    | YLR200W | 0 | SL |    | Cell structure                        |
| NUM1 | CLB4    | YLR210W | 2 | SL |    | Cell cycle control                    |
| NUM1 | CPR6    | YLR216C | 2 | SL |    | Protein folding                       |
| NUM1 | YLR217W | YLR217W | 3 |    | SS | Unknown                               |
| NUM1 | BUD6    | YLR319C | 1 |    | SS | Cell polarity                         |
| NUM1 | YPT7    | YML001W | 2 | SL |    | Vesicular transport                   |
| NUM1 | GIM5    | YML094W | 3 |    | SL | Cell structure                        |
| NUM1 | BUB2    | YMR055C | 0 | SS |    | Mitosis                               |
| NUM1 | TPM1    | YNL079C | 3 | SS |    | Cell structure                        |
| NUM1 | GIM3    | YNL153C | 0 | SL |    | Cell structure                        |
| NUM1 | BN11    | YNL271C | 0 | SL |    | Cell polarity                         |
| NUM1 | ASE1    | YOR058C | 0 | SL |    | Mitosis                               |
| NUM1 | YOR322C | YOR322C | 1 | SS | SS | Unknown                               |
| NUM1 | CIN1    | YOR349W | 1 | SS |    | Cell structure                        |
| NUM1 | YPL205C | YPL205C | 1 | SL | SL | Meiosis                               |
| NUM1 | KAR9    | YPL269W | 3 | SL |    | Mitosis                               |
| NUM1 | KAR3    | YPR141C | 1 | SL |    | Mitosis                               |
| BFA1 | BIK1    | YCL029C | 1 | SL |    | Mitosis                               |
| BFA1 | GIM4    | YEL003W | 1 | SS |    | Cell structure                        |
| BFA1 | BIM1    | YER016W | 2 | SL |    | Mitosis                               |
| BFA1 | PAC10   | YGR078C | 1 | SS |    | Cell structure                        |
| BFA1 | YKE2    | YLR200W | 0 | SL |    | Cell structure                        |
| BFA1 | GIM5    | YML094W | 1 | SL |    | Cell structure                        |
| BFA1 | GIM3    | YNL153C | 2 | SL |    | Cell structure                        |
| BFA1 | RAD50   | YNL250W | 1 |    | SS | DNA repair                            |
| BFA1 | BUB3    | YOR026W | 0 |    | SL | Mitosis                               |
| BFA1 | KAR9    | YPL269W | 3 | SL |    | Mitosis                               |
| BFA1 | CTF4    | YPR135W | 1 |    | SS | Chromatin/chromosome structure        |
| BFA1 | KAR3    | YPR141C | 0 |    | SL | Mitosis                               |
| BIK1 | RPL19B  | YBL027W | 0 | SL |    | Protein synthesis                     |
| BIK1 | HCM1    | YCR065W | 0 | SL |    | Pol II transcription                  |
| BIK1 | PAT1    | YCR077C | 2 | SL |    | Chromatin/chromosome structure        |
| BIK1 | RTT103  | YDR289C | 0 | SL |    | Unknown                               |
| BIK1 | YDR360W | YDR360W | 2 |    | SL | Unknown                               |
| BIK1 | GIM4    | YEL003W | 0 |    | SL | Cell structure                        |
| BIK1 | CIN8    | YEL061C | 0 |    | SL | Mitosis                               |
| BIK1 | PAC2    | YER007W | 0 |    | SL | Cell structure                        |
| BIK1 | BIM1    | YER016W | 3 | SL |    | Mitosis                               |
| BIK1 | SHC1    | YER096W | 0 | SL |    | Meiosis                               |
| BIK1 | FAB1    | YFR019W | 0 | SL |    | Lipid metabolism                      |

|      |           |           |   |    |                                |
|------|-----------|-----------|---|----|--------------------------------|
| BIK1 | RPL24A    | YGL031C   | 0 | SL | Protein synthesis              |
| BIK1 | MAD1      | YGL086W   | 0 | SL | Mitosis                        |
| BIK1 | KEM1      | YGL173C   | 0 | SL | RNA processing                 |
| BIK1 | PAC10     | YGR078C   | 2 | SL | Cell structure                 |
| BIK1 | DBF2      | YGR092W   | 3 | SS | Cell cycle control             |
| BIK1 | BUB1      | YGR188C   | 0 | SL | Mitosis                        |
| BIK1 | MSL1      | YIR009W   | 0 | SS | RNA splicing                   |
| BIK1 | MAD2      | YJL030W   | 0 | SS | Mitosis                        |
| BIK1 | RPA34     | YJL148W   | 0 | SS | Protein synthesis              |
| BIK1 | RIC1      | YLR039C   | 0 | SS | Vesicular transport            |
| BIK1 | YKE2      | YLR200W   | 0 | SL | Cell structure                 |
| BIK1 | GIM5      | YML094W   | 2 | SL | Cell structure                 |
| BIK1 | YML095C-A | YML095C-A | 0 | SL | Unknown                        |
| BIK1 | TUB3      | YML124C   | 0 | SL | Cell structure                 |
| BIK1 | BUB2      | YMR055C   | 2 | SL | Mitosis                        |
| BIK1 | CIN4      | YMR138W   | 0 | SS | Cell structure                 |
| BIK1 | INP52     | YNL106C   | 0 | SL | Lipid metabolism               |
| BIK1 | GIM3      | YNL153C   | 2 | SL | Cell structure                 |
| BIK1 | HTZ1      | YOL012C   | 0 | SL | Chromatin/chromosome structure |
| BIK1 | BUB3      | YOR026W   | 0 | SL | Mitosis                        |
| BIK1 | ASE1      | YOR058C   | 2 | SL | Mitosis                        |
| BIK1 | RBL2      | YOR265W   | 0 | SS | Cell structure                 |
| BIK1 | CIN1      | YOR349W   | 0 | SL | Cell structure                 |
| BIK1 | CIN2      | YPL241C   | 2 | SL | Cell structure                 |
| BIK1 | KAR9      | YPL269W   | 3 | SL | Mitosis                        |
| ARP6 | DEP1      | YAL013W   | 3 | SL | SL Lipid metabolism            |
| ARP6 | CSS2      | YBR036C   | 0 | SS | Small molecule transport       |
| ARP6 | AKL1      | YBR059C   | 0 | SS | Unknown                        |
| ARP6 | CBP6      | YBR120C   | 0 | SS | Protein synthesis              |
| ARP6 | SWD3      | YBR175W   | 2 | SS | Chromatin/chromosome structure |
| ARP6 | MRC1      | YCL060C   | 3 | SS | DNA repair                     |
| ARP6 | HCM1      | YCR065W   | 3 | SS | Pol II transcription           |
| ARP6 | YDL033C   | YDL033C   | 1 | SS | Unknown                        |
| ARP6 | BRE1      | YDL074C   | 3 | SL | Chromatin/chromosome structure |
| ARP6 | GSS1      | YDR108W   | 2 | SS | Vesicular transport            |
| ARP6 | RGP1      | YDR137w   | 0 | SS | Vesicular transport            |
| ARP6 | YDR360W   | YDR360W   | 0 | SS | Unknown                        |
| ARP6 | GIM4      | YEL003W   | 3 | SL | Cell structure                 |
| ARP6 | PAC2      | YER007W   | 1 | SL | Cell structure                 |
| ARP6 | BIM1      | YER016W   | 1 | SL | SL Mitosis                     |
| ARP6 | GLO3      | YER122C   | 1 | SL | Vesicular transport            |
| ARP6 | DEG1      | YFL001W   | 0 | SL | SL RNA processing              |
| ARP6 | MAD1      | YGL086W   | 0 | SS | Mitosis                        |
| ARP6 | BUD13     | YGL174W   | 1 | SL | SL Cell polarity               |
| ARP6 | RTF1      | YGL244W   | 3 | SL | SL Pol II transcription        |
| ARP6 | YGR071C   | YGR071C   | 0 | SS | Unknown                        |
| ARP6 | PAC10     | YGR078C   | 0 | SL | Cell structure                 |
| ARP6 | BUB1      | YGR188C   | 2 | SL | Mitosis                        |
| ARP6 | SET2      | YJL168C   | 3 | SS | Chromatin/chromosome structure |
| ARP6 | MGM101    | YJR144W   | 1 | SS | Energy generation              |
| ARP6 | BRE2      | YLR015W   | 1 | SL | Chromatin/chromosome structure |
| ARP6 | RIC1      | YLR039C   | 3 | SS | Vesicular transport            |
| ARP6 | SPT8      | YLR055C   | 2 | SL | Chromatin/chromosome structure |
| ARP6 | PET309    | YLR067C   | 1 | SL | RNA metabolism                 |
| ARP6 | HOG1      | YLR113W   | 0 | SS | Signal transduction            |
| ARP6 | YPT6      | YLR262C   | 0 | SS | Vesicular transport            |
| ARP6 | SEC22     | YLR268W   | 3 | SL | Vesicular transport            |
| ARP6 | EST2      | YLR318W   | 3 | SS | Chromatin/chromosome structure |
| ARP6 | YLR374C   | YLR374C   | 2 | SS | Unknown                        |
| ARP6 | YML090W   | YML090W   | 3 | SS | Unknown                        |
| ARP6 | GIM5      | YML094W   | 1 | SL | Cell structure                 |

|      |         |         |   |    |    |                                      |
|------|---------|---------|---|----|----|--------------------------------------|
| ARP6 | TUB3    | YML124C | 2 | SL |    | Cell structure                       |
| ARP6 | COG6    | YNL041C | 0 |    | SS | Vesicular transport                  |
| ARP6 | PHO23   | YNL097C | 2 | SS |    | Phosphate metabolism                 |
| ARP6 | GIM3    | YNL153C | 2 | SL |    | Cell structure                       |
| ARP6 | KRE25   | YNL296W | 0 | SS |    | Unknown                              |
| ARP6 | MET22   | YOL064C | 2 | SL |    | Amino-acid metabolism                |
| ARP6 | WHI2    | YOR043W | 0 | SS |    | Cell cycle control                   |
| ARP6 | LEO1    | YOR123C | 1 | SS |    | Chromatin/chromosome structure       |
| ARP6 | SER1    | YOR184W | 2 | SS |    | Amino-acid metabolism                |
| ARP6 | RUD3    | YOR216C | 2 | SS |    | Vesicular transport                  |
| ARP6 | SNU66   | YOR308C | 0 | SS |    | RNA splicing                         |
| ARP6 | CIN1    | YOR349W | 3 | SL |    | Cell structure                       |
| ARP6 | LGE1    | YPL055C | 3 | SL |    | Cell cycle control                   |
| ARP6 | CTI6    | YPL181W | 3 | SL |    | Chromatin/chromosome structure       |
| ARP6 | YPL182C | YPL182C | 3 | SL |    | Unknown                              |
| ARP6 | THI6    | YPL214C | 0 | SS |    | Other metabolism                     |
| ARP6 | CIN2    | YPL241C | 2 | SS |    | Cell structure                       |
| ASE1 | BIK1    | YCL029C | 3 | SL |    | Mitosis                              |
| ASE1 | CSM1    | YCR086W | 3 | SL |    | Meiosis                              |
| ASE1 | FIN1    | YDR130C | 3 | SL |    | Unknown                              |
| ASE1 | YDR149C | YDR149C | 3 | SL |    | Unknown                              |
| ASE1 | NUM1    | YDR150W | 2 |    | SL | Mitosis                              |
| ASE1 | DYN2    | YDR424C | 3 | SL |    | Mitosis                              |
| ASE1 | PAC11   | YDR488C | 1 | SL |    | Mitosis                              |
| ASE1 | GIM4    | YEL003W | 1 | SS |    | Cell structure                       |
| ASE1 | CIN8    | YEL061C | 1 |    | SL | Mitosis                              |
| ASE1 | BIM1    | YER016W | 2 | SL |    | Mitosis                              |
| ASE1 | BEM2    | YER155C | 0 |    | SL | Cell polarity                        |
| ASE1 | PAC10   | YGR078C | 0 |    | SL | Cell structure                       |
| ASE1 | ARP1    | YHR129C | 3 | SL |    | Mitosis                              |
| ASE1 | ELM1    | YKL048C | 2 |    | SL | Cell polarity                        |
| ASE1 | DYN1    | YKR054C | 2 | SL |    | Mitosis                              |
| ASE1 | YLL049W | YLL049W | 3 | SL |    | Unknown                              |
| ASE1 | YLR254C | YLR254C | 3 |    | SL | Unknown                              |
| ASE1 | VAC14   | YLR386W | 1 |    | SL | Vacuolar organization and biogenesis |
| ASE1 | GIM5    | YML094W | 0 |    | SS | Cell structure                       |
| ASE1 | JNM1    | YMR294W | 3 | SL |    | Mitosis                              |
| ASE1 | YMR299C | YMR299C | 3 | SL |    | Mitosis                              |
| ASE1 | GIM3    | YNL153C | 3 |    | SL | Cell structure                       |
| ASE1 | BNI1    | YNL271C | 1 | SS |    | Cell polarity                        |
| ASE1 | PAC1    | YOR269W | 3 | SL |    | Mitosis                              |
| ASE1 | KIP2    | YPL155C | 0 | SS |    | Mitosis                              |
| ASE1 | NIP100  | YPL174C | 3 | SL |    | Mitosis                              |
| ASE1 | CLB2    | YPR119W | 1 | SL |    | Cell cycle control                   |
| ASE1 | KAR3    | YPR141C | 2 |    | SL | Mitosis                              |
| KAR9 | BIK1    | YCL029C | 2 | SL |    | Mitosis                              |
| KAR9 | YDR149C | YDR149C | 3 | SL |    | Unknown                              |
| KAR9 | NUM1    | YDR150W | 2 | SL |    | Mitosis                              |
| KAR9 | DYN2    | YDR424C | 0 |    | SS | Mitosis                              |
| KAR9 | PAC11   | YDR488C | 3 | SL |    | Mitosis                              |
| KAR9 | GIM4    | YEL003W | 0 | SL |    | Cell structure                       |
| KAR9 | PAC10   | YGR078C | 1 | SL |    | Cell structure                       |
| KAR9 | ARP1    | YHR129C | 3 | SL |    | Mitosis                              |
| KAR9 | BFA1    | YJR053W | 2 | SL |    | Mitosis                              |
| KAR9 | IXR1    | YKL032C | 1 | SS |    | DNA repair                           |
| KAR9 | DYN1    | YKR054C | 3 | SL |    | Mitosis                              |
| KAR9 | YLL049W | YLL049W | 3 | SL |    | Unknown                              |
| KAR9 | YKE2    | YLR200W | 0 | SS |    | Cell structure                       |
| KAR9 | GIM5    | YML094W | 0 |    | SS | Cell structure                       |
| KAR9 | BUB2    | YMR055C | 2 | SL |    | Mitosis                              |
| KAR9 | JNM1    | YMR294W | 3 | SL |    | Mitosis                              |

|         |         |         |   |    |    |   |
|---------|---------|---------|---|----|----|---|
| KAR9    | YMR299C | YMR299C | 0 | SL |    | Mitosis                                   |
| KAR9    | GIM3    | YNL153C | 0 | SL |    | Cell structure                            |
| KAR9    | KIN4    | YOR233W | 0 | SS | SS | Protein modification                      |
| KAR9    | PAC1    | YOR269W | 3 | SL |    | Mitosis                                   |
| KAR9    | KIP2    | YPL155C | 2 | SL |    | Mitosis                                   |
| KAR9    | NIP100  | YPL174C | 2 | SL |    | Mitosis                                   |
| KAR9    | MCM16   | YPR046W | 0 | SS |    | Chromatin/chromosome structure            |
| MYO2-14 | SKT5    | YBL061C | 0 |    | SS | Cell wall organization and biogenesis     |
| MYO2-14 | YBL062W | YBL062W | 0 |    | SS | Unknown                                   |
| MYO2-14 | CHS3    | YBR023C | 0 |    | SS | Cell wall organization and biogenesis     |
| MYO2-14 | BEM1    | YBR200W | 3 | SL |    | Cell polarity                             |
| MYO2-14 | BIK1    | YCL029C | 0 | SL |    | Mitosis                                   |
| MYO2-14 | PTC1    | YDL006W | 1 | SL |    | Signal transduction                       |
| MYO2-14 | SHS1    | YDL225W | 1 | SL |    | Cytokinesis                               |
| MYO2-14 | YDR149C | YDR149C | 2 | SL |    | Unknown                                   |
| MYO2-14 | NUM1    | YDR150W | 2 | SL |    | Mitosis                                   |
| MYO2-14 | DYN2    | YDR424C | 0 | SS |    | Mitosis                                   |
| MYO2-14 | PAC11   | YDR488C | 3 | SL |    | Mitosis                                   |
| MYO2-14 | BEM2    | YER155C | 2 | SL |    | Cell polarity                             |
| MYO2-14 | FAB1    | YFR019W | 3 | SL |    | Lipid metabolism                          |
| MYO2-14 | CKB1    | YGL019W | 2 | SL |    | Cell cycle control                        |
| MYO2-14 | YGL211W | YGL211W | 0 | SS |    | Unknown                                   |
| MYO2-14 | ELP2    | YGR200C | 2 | SL |    | Pol II transcription                      |
| MYO2-14 | YGR228W | YGR228W | 3 | SS |    | Unknown                                   |
| MYO2-14 | SMI1    | YGR229C | 3 | SL |    | Cell wall organization and biogenesis     |
| MYO2-14 | SLT2    | YHR030C | 1 | SL |    | Cell wall organization and biogenesis     |
| MYO2-14 | UBA4    | YHR111W | 3 | SS |    | Protein modification                      |
| MYO2-14 | ARP1    | YHR129C | 3 | SL |    | Mitosis                                   |
| MYO2-14 | CHS7    | YHR142W | 2 |    | SS | Cell wall organization and biogenesis     |
| MYO2-14 | URM1    | YIL008W | 2 | SL |    | Protein modification                      |
| MYO2-14 | BCK1    | YJL095W | 2 | SL |    | Cell wall organization and biogenesis     |
| MYO2-14 | BFA1    | YJR053W | 2 | SL |    | Mitosis                                   |
| MYO2-14 | RPS4A   | YJR145C | 0 | SS |    | Protein synthesis                         |
| MYO2-14 | ELM1    | YKL048C | 1 | SS |    | Cell polarity                             |
| MYO2-14 | DYN1    | YKR054C | 0 | SL |    | Mitosis                                   |
| MYO2-14 | YKR074W | YKR074W | 2 |    | SL | Unknown                                   |
| MYO2-14 | YLL049W | YLL049W | 3 | SL |    | Unknown                                   |
| MYO2-14 | CHS5    | YLR330W | 0 |    | SS | Cell wall organization and biogenesis     |
| MYO2-14 | FLM1    | YLR368W | 2 | SL |    | Mitochondrion organization and biogenesis |
| MYO2-14 | VAC14   | YLR386W | 3 | SS |    | Vacuolar organization and biogenesis      |
| MYO2-14 | BUB2    | YMR055C | 1 | SS |    | Mitosis                                   |
| MYO2-14 | TPM1    | YNL079C | 3 | SL |    | Cell structure                            |
| MYO2-14 | YNL119W | YNL119W | 2 | SL | SL | Unknown                                   |
| MYO2-14 | YNL120C | YNL120C | 2 | SL |    | Unknown                                   |
| MYO2-14 | BNI4    | YNL233W | 2 | SS |    | Cytokinesis                               |
| MYO2-14 | CLA4    | YNL298W | 2 | SL |    | Cell polarity                             |
| MYO2-14 | CKB2    | YOR039W | 0 | SL |    | Cell cycle control                        |
| MYO2-14 | PAC1    | YOR269W | 3 | SL |    | Mitosis                                   |
| MYO2-14 | ELP3    | YPL086C | 3 | SL |    | Pol II transcription                      |
| MYO2-14 | ELP4    | YPL101W | 2 | SL |    | Pol II transcription                      |
| MYO2-14 | KIP2    | YPL155C | 2 | SL |    | Mitosis                                   |
| MYO2-14 | NIP100  | YPL174C | 0 | SL |    | Mitosis                                   |
| CLB4    | NUM1    | YDR150W | 1 | SS |    | Mitosis                                   |
| CLB4    | PAC11   | YDR488C | 1 |    | SS | Mitosis                                   |
| CLB4    | PAC10   | YGR078C | 0 |    | SS | Cell structure                            |
| CLB4    | ARP1    | YHR129C | 2 | SS |    | Mitosis                                   |
| CLB4    | YLL049W | YLL049W | 2 | SS |    | Unknown                                   |
| CLB4    | CTF18   | YMR078C | 0 |    | SS | Chromatin/chromosome structure            |
| CLB4    | JNM1    | YMR294W | 3 |    | SS | Mitosis                                   |
| CLB4    | YMR299C | YMR299C | 0 |    | SS | Mitosis                                   |
| CLB4    | NIP100  | YPL174C | 3 | SS |    | Mitosis                                   |

|      |         |         |   |    |    |                                       |
|------|---------|---------|---|----|----|---------------------------------------|
| CLB4 | KAR3    | YPR141C | 2 |    | SL | Mitosis                               |
| KIP2 | DRS2    | YAL026C | 2 |    | SL | Vesicular transport                   |
| KIP2 | GIM4    | YEL003W | 1 | SL |    | Cell structure                        |
| KIP2 | CIN8    | YEL061C | 2 |    | SL | Mitosis                               |
| KIP2 | PAC2    | YER007W | 1 | SS | SS | Cell structure                        |
| KIP2 | BIM1    | YER016W | 3 | SL |    | Mitosis                               |
| KIP2 | PAC10   | YGR078C | 1 |    | SL | Cell structure                        |
| KIP2 | DBF2    | YGR092W | 0 |    | SL | Cell cycle control                    |
| KIP2 | YKE2    | YLR200W | 1 |    | SL | Cell structure                        |
| KIP2 | GIM5    | YML094W | 1 |    | SL | Cell structure                        |
| KIP2 | TUB3    | YML124C | 0 |    | SL | Cell structure                        |
| KIP2 | GIM3    | YNL153C | 2 |    | SL | Cell structure                        |
| KIP2 | ASE1    | YOR058C | 1 | SS | SL | Mitosis                               |
| KIP2 | CIN1    | YOR349W | 0 | SS | SS | Cell structure                        |
| KIP2 | CIN2    | YPL241C | 1 | SS | SS | Cell structure                        |
| KIP2 | KAR9    | YPL269W | 0 |    | SL | Mitosis                               |
| KIP3 | SHE1    | YBL031W | 2 |    | SL | Unknown                               |
| KIP3 | DCC1    | YCL016C | 1 | SS |    | Chromatin/chromosome structure        |
| KIP3 | YDR149C | YDR149C | 3 |    | SL | Unknown                               |
| KIP3 | NUM1    | YDR150W | 3 |    | SL | Mitosis                               |
| KIP3 | DYN2    | YDR424C | 3 |    | SL | Mitosis                               |
| KIP3 | PAC11   | YDR488C | 3 |    | SL | Mitosis                               |
| KIP3 | BIM1    | YER016W | 2 |    | SL | Mitosis                               |
| KIP3 | YGL152C | YGL152C | 3 |    | SS | Unknown                               |
| KIP3 | KEM1    | YGL173C | 0 |    | SS | RNA processing                        |
| KIP3 | ARP1    | YHR129C | 3 |    | SL | Mitosis                               |
| KIP3 | CTF8    | YHR191C | 0 |    | SS | Chromatin/chromosome structure        |
| KIP3 | DYN1    | YKR054C | 3 |    | SL | Mitosis                               |
| KIP3 | YLL049W | YLL049W | 2 |    | SL | Unknown                               |
| KIP3 | CTF18   | YMR078C | 0 |    | SL | Chromatin/chromosome structure        |
| KIP3 | JNM1    | YMR294W | 2 |    | SL | Mitosis                               |
| KIP3 | YMR299C | YMR299C | 3 |    | SL | Mitosis                               |
| KIP3 | SLK19   | YOR195W | 1 |    | SS | Chromatin/chromosome structure        |
| KIP3 | PAC1    | YOR269W | 3 |    | SL | Mitosis                               |
| KIP3 | NIP100  | YPL174C | 3 |    | SL | Mitosis                               |
| KIP3 | CTF4    | YPR135W | 1 |    | SS | Chromatin/chromosome structure        |
| KIP3 | KAR3    | YPR141C | 0 |    | SL | Mitosis                               |
| CIN8 | KIP1    | YBL063W | 2 |    | SL | Mitosis                               |
| CIN8 | IML3    | YBR107C | 0 |    | SS | Chromatin/chromosome structure        |
| CIN8 | MRPL36  | YBR122C | 3 |    | SL | Protein synthesis                     |
| CIN8 | DCC1    | YCL016C | 3 |    | SS | Chromatin/chromosome structure        |
| CIN8 | BIK1    | YCL029C | 2 |    | SS | Mitosis                               |
| CIN8 | CSM1    | YCR086W | 2 |    | SL | Meiosis                               |
| CIN8 | YDR149C | YDR149C | 0 |    | SL | Unknown                               |
| CIN8 | NUM1    | YDR150W | 0 |    | SL | Mitosis                               |
| CIN8 | CHL4    | YDR254W | 1 |    | SS | Chromatin/chromosome structure        |
| CIN8 | MCM21   | YDR318W | 1 |    | SS | Chromatin/chromosome structure        |
| CIN8 | DYN2    | YDR424C | 3 |    | SL | Mitosis                               |
| CIN8 | PPM1    | YDR435C | 2 |    | SS | Protein modification                  |
| CIN8 | PAC11   | YDR488C | 2 |    | SL | Mitosis                               |
| CIN8 | GIM4    | YEL003W | 1 |    | SS | Cell structure                        |
| CIN8 | PAC2    | YER007W | 0 |    | SS | Cell structure                        |
| CIN8 | BIM1    | YER016W | 0 |    | SS | Mitosis                               |
| CIN8 | BEM2    | YER155C | 2 |    | SL | Cell polarity                         |
| CIN8 | BMH1    | YER177W | 1 |    | SL | Differentiation                       |
| CIN8 | MAD1    | YGL086W | 2 |    | SL | Mitosis                               |
| CIN8 | HUR1    | YGL168W | 0 |    | SL | Unknown                               |
| CIN8 | PAC10   | YGR078C | 0 |    | SL | Cell structure                        |
| CIN8 | BUB1    | YGR188C | 2 |    | SS | Mitosis                               |
| CIN8 | SMI1    | YGR229C | 2 |    | SL | Cell wall organization and biogenesis |
| CIN8 | ARP1    | YHR129C | 2 |    | SL | Mitosis                               |

|      |         |           |   |    |                                |
|------|---------|-----------|---|----|--------------------------------|
| CIN8 | MAD3    | YJL013C   | 3 | SL | Mitosis                        |
| CIN8 | MAD2    | YJL030W   | 0 | SL | Mitosis                        |
| CIN8 | BFA1    | YJR053W   | 3 | SL | Mitosis                        |
| CIN8 | MCM22   | YJR135C   | 0 | SS | Chromatin/chromosome structure |
| CIN8 | ELM1    | YKL048C   | 0 | SL | Cell polarity                  |
| CIN8 | DYN1    | YKR054C   | 3 | SL | Mitosis                        |
| CIN8 | YLL049W | YLL049W   | 0 | SL | Unknown                        |
| CIN8 | YKE2    | YLR200W   | 1 | SS | Cell structure                 |
| CIN8 | CLB4    | YLR210W   | 1 | SS | Cell cycle control             |
| CIN8 | CTF3    | YLR381W   | 0 | SS | Chromatin/chromosome structure |
| CIN8 | GIM5    | YML094W   | 1 | SL | Cell structure                 |
| CIN8 | TUB3    | YML124C   | 1 | SL | Cell structure                 |
| CIN8 | CSM3    | YMR048W   | 1 | SL | Meiosis                        |
| CIN8 | BUB2    | YMR055C   | 2 | SL | Mitosis                        |
| CIN8 | CTF18   | YMR078C   | 0 | SL | Chromatin/chromosome structure |
| CIN8 | CIN4    | YMR138W   | 1 | SL | Cell structure                 |
| CIN8 | JNM1    | YMR294W   | 3 | SL | Mitosis                        |
| CIN8 | YMR299C | YMR299C   | 3 | SL | Mitosis                        |
| CIN8 | GIM3    | YNL153C   | 2 | SL | Cell structure                 |
| CIN8 | TOF1    | YNL273W   | 0 | SL | DNA repair                     |
| CIN8 | CLA4    | YNL298W   | 0 | SL | Cell polarity                  |
| CIN8 | RTS1    | YOR014W   | 1 | SL | Cell stress                    |
| CIN8 | SLK19   | YOR195W   | 2 | SL | Chromatin/chromosome structure |
| CIN8 | RBL2    | YOR265W   | 0 | SS | Cell structure                 |
| CIN8 | PAC1    | YOR269W   | 3 | SL | Mitosis                        |
| CIN8 | CIN1    | YOR349W   | 2 | SL | Cell structure                 |
| CIN8 | CHL1    | YPL008W   | 3 | SL | Chromatin/chromosome structure |
| CIN8 | CTF19   | YPL018W   | 3 | SL | Chromatin/chromosome structure |
| CIN8 | RRD2    | YPL152W   | 3 | SL | Unknown                        |
| CIN8 | KIP2    | YPL155C   | 2 | SL | Mitosis                        |
| CIN8 | NIP100  | YPL174C   | 0 | SL | Mitosis                        |
| CIN8 | CIN2    | YPL241C   | 1 | SL | Cell structure                 |
| CIN8 | MCM16   | YPR046W   | 1 | SL | Chromatin/chromosome structure |
| CIN8 | CLB2    | YPR119W   | 3 | SL | Cell cycle control             |
| CIN8 | CTF4    | YPR135W   | 0 | SS | Chromatin/chromosome structure |
| KAR3 | LTE1    | YAL024C   | 2 | SL | Cell cycle control             |
| KAR3 | NUP60   | YAR002W   | 2 | SL | Nuclear-cytoplasmic transport  |
| KAR3 | BUD14   | YAR014C   | 2 | SL | Cell polarity                  |
| KAR3 | MUM2    | YBR057C   | 0 | SL | Meiosis                        |
| KAR3 | SIF2    | YBR103W   | 2 | SL | Chromatin/chromosome structure |
| KAR3 | IML3    | YBR107C   | 3 | SL | Chromatin/chromosome structure |
| KAR3 | MRC1    | YCL061C   | 0 | SL | DNA repair                     |
| KAR3 | RAD61   | YDR014W   | 3 | SL | Unknown                        |
| KAR3 | NUM1    | YDR150W   | 2 | SL | Mitosis                        |
| KAR3 | CHL4    | YDR254W   | 3 | SL | Chromatin/chromosome structure |
| KAR3 | SWM1    | YDR260C   | 0 | SL | Meiosis                        |
| KAR3 | MCM21   | YDR318W   | 2 | SL | Chromatin/chromosome structure |
| KAR3 | SEM1    | YDR363W-A | 3 | SL | Vesicular transport            |
| KAR3 | XRS2    | YDR369C   | 0 | SL | DNA repair                     |
| KAR3 | PAC11   | YDR488C   | 0 | SL | Mitosis                        |
| KAR3 | GIM4    | YEL003W   | 0 | SL | Cell structure                 |
| KAR3 | BEM2    | YER155C   | 3 | SL | Cell polarity                  |
| KAR3 | BMH1    | YER177W   | 2 | SL | Differentiation                |
| KAR3 | UBP6    | YFR010W   | 2 | SL | Protein modification           |
| KAR3 | CDC26   | YFR036W   | 0 | SL | Cell cycle control             |
| KAR3 | MAD1    | YGL086W   | 3 | SL | Mitosis                        |
| KAR3 | PMR1    | YGL167C   | 3 | SL | Small molecule transport       |
| KAR3 | HUR1    | YGL168W   | 3 | SL | Unknown                        |
| KAR3 | KEM1    | YGL173C   | 3 | SL | RNA processing                 |
| KAR3 | KIP3    | YGL216W   | 3 | SL | Mitosis                        |
| KAR3 | PAC10   | YGR078C   | 2 | SL | Cell structure                 |

|         |           |           |   |    |   |
|---------|-----------|-----------|---|----|---|
| KAR3    | DBF2      | YGR092W   | 2 | SL | Cell cycle control                        |
| KAR3    | PRE9      | YGR135W   | 3 | SL | Protein degradation                       |
| KAR3    | BUB1      | YGR188C   | 2 | SL | Mitosis                                   |
| KAR3    | ARD1      | YHR013C   | 0 | SL | Chromatin/chromosome structure            |
| KAR3    | ARP1      | YHR129C   | 2 | SL | Mitosis                                   |
| KAR3    | CTF8      | YHR191C   | 2 | SL | Chromatin/chromosome structure            |
| KAR3    | YHR194W   | YHR194W   | 2 | SL | Mitochondrion organization and biogenesis |
| KAR3    | RPN10     | YHR200W   | 2 | SL | Pol II transcription                      |
| KAR3    | YIL090W   | YIL090W   | 2 | SL | Unknown                                   |
| KAR3    | MAD3      | YJL013C   | 3 | SL | Mitosis                                   |
| KAR3    | MAD2      | YJL030W   | 3 | SL | Mitosis                                   |
| KAR3    | ASF1      | YJL115W   | 2 | SL | Chromatin/chromosome structure            |
| KAR3    | SOD1      | YJR104C   | 0 | SL | Cell stress                               |
| KAR3    | MCM22     | YJR135C   | 3 | SL | Chromatin/chromosome structure            |
| KAR3    | DYN1      | YKR054C   | 2 | SL | Mitosis                                   |
| KAR3    | RTT109    | YLL002W   | 2 | SL | DNA repair                                |
| KAR3    | YLL049W   | YLL049W   | 2 | SL | Unknown                                   |
| KAR3    | ARP6      | YLR085C   | 0 | SS | Cell structure                            |
| KAR3    | YKE2      | YLR200W   | 3 | SL | Cell structure                            |
| KAR3    | CLB4      | YLR210W   | 2 | SL | Cell cycle control                        |
| KAR3    | CPR6      | YLR216C   | 3 | SL | Protein folding                           |
| KAR3    | YLR217W   | YLR217W   | 3 | SL | Unknown                                   |
| KAR3    | CTF3      | YLR381W   | 3 | SL | Chromatin/chromosome structure            |
| KAR3    | RAD52     | YML032C   | 2 | SL | DNA repair                                |
| KAR3    | GIM5      | YML094W   | 2 | SL | Cell structure                            |
| KAR3    | CSM3      | YMR048W   | 3 | SL | Meiosis                                   |
| KAR3    | BUB2      | YMR055C   | 0 | SL | Mitosis                                   |
| KAR3    | JNM1      | YMR294W   | 3 | SL | Mitosis                                   |
| KAR3    | GIM3      | YNL153C   | 3 | SL | Cell structure                            |
| KAR3    | TOF1      | YNL273W   | 3 | SL | DNA repair                                |
| KAR3    | MCK1      | YNL307C   | 3 | SL | Meiosis                                   |
| KAR3    | PSH1      | YOL054W   | 2 | SL | Cell stress                               |
| KAR3    | BUB3      | YOR026W   | 2 | SL | Mitosis                                   |
| KAR3    | ASE1      | YOR058C   | 2 | SL | Mitosis                                   |
| KAR3    | SLK19     | YOR195W   | 3 | SL | Chromatin/chromosome structure            |
| KAR3    | PAC1      | YOR269W   | 0 | SL | Mitosis                                   |
| KAR3    | CHL1      | YPL008W   | 3 | SL | Chromatin/chromosome structure            |
| KAR3    | CTF19     | YPL018W   | 3 | SL | Chromatin/chromosome structure            |
| KAR3    | RRD2      | YPL152W   | 3 | SL | Unknown                                   |
| KAR3    | NIP100    | YPL174C   | 0 | SL | Mitosis                                   |
| KAR3    | MCM16     | YPR046W   | 3 | SL | Chromatin/chromosome structure            |
| YDR332w | SHP1      | YBL058W   | 0 | SS | Carbohydrate metabolism                   |
| YDR332w | HHF1      | YBR009C   | 3 | SL | Chromatin/chromosome structure            |
| YDR332w | RAD61     | YDR014W   | 3 | SL | Unknown                                   |
| YDR332w | HTA1      | YDR225W   | 0 | SL | Chromatin/chromosome structure            |
| YDR332w | PEX5      | YDR244W   | 2 | SS | Lipid metabolism                          |
| YDR332w | PEX10     | YDR265W   | 2 | SS | Peroxisome organization and biogenesis    |
| YDR332w | BIM1      | YER016W   | 3 | SL | Mitosis                                   |
| YDR332w | HOP2      | YGL033W   | 0 | SS | Meiosis                                   |
| YDR332w | MAD1      | YGL086W   | 3 | SL | Mitosis                                   |
| YDR332w | UBR1      | YGR184C   | 2 | SS | Protein degradation                       |
| YDR332w | BUB1      | YGR188C   | 2 | SL | Mitosis                                   |
| YDR332w | CTF8      | YHR191C   | 0 | SL | Chromatin/chromosome structure            |
| YDR332w | MAD3      | YJL013C   | 0 | SL | Mitosis                                   |
| YDR332w | MAD2      | YJL030W   | 3 | SL | Mitosis                                   |
| YDR332w | GIM5      | YML094W   | 0 | SL | Cell structure                            |
| YDR332w | YML095C-A | YML095C-A | 0 | SL | Unknown                                   |
| YDR332w | CIK1      | YMR198W   | 2 | SL | Mitosis                                   |
| YDR332w | INP52     | YNL106C   | 3 | SS | Lipid metabolism                          |
| YDR332w | GIM3      | YNL153C   | 0 | SL | Cell structure                            |
| YDR332w | HTZ1      | YOL012C   | 0 | SS | Chromatin/chromosome structure            |

|         |        |         |   |    |   |
|---------|--------|---------|---|----|---|
| YDR332w | BUB3   | YOR026W | 0 | SS | Mitosis                                   |
| YDR332w | CHL1   | YPL008W | 3 | SL | Chromatin/chromosome structure            |
| YDR332w | CTF4   | YPR135W | 2 | SL | Chromatin/chromosome structure            |
| YDR332w | KAR3   | YPR141C | 0 | SL | Mitosis                                   |
| TUB3    | SWC1   | YAL011W | 2 | SL | Unknown                                   |
| TUB3    | BIK1   | YCL029C | 0 | SL | Mitosis                                   |
| TUB3    | GIM4   | YEL003W | 2 | SL | Cell structure                            |
| TUB3    | CIN8   | YEL061C | 1 | SL | Mitosis                                   |
| TUB3    | PAC2   | YER007W | 2 | SL | Cell structure                            |
| TUB3    | MAD1   | YGL086W | 0 | SL | Mitosis                                   |
| TUB3    | PAC10  | YGR078C | 2 | SL | Cell structure                            |
| TUB3    | ARP1   | YHR129C | 0 | SS | Mitosis                                   |
| TUB3    | MAD3   | YJL013C | 0 | SL | Mitosis                                   |
| TUB3    | YKE2   | YLR200W | 0 | SL | Cell structure                            |
| TUB3    | VPS71  | YML041C | 2 | SL | Vesicular transport                       |
| TUB3    | GIM5   | YML094W | 1 | SS | Cell structure                            |
| TUB3    | CIN4   | YMR138W | 0 | SS | Cell structure                            |
| TUB3    | GIM3   | YNL153C | 3 | SL | Cell structure                            |
| TUB3    | HTZ1   | YOL012C | 2 | SL | Chromatin/chromosome structure            |
| TUB3    | DSE3   | YOR264W | 2 | SL | Differentiation                           |
| TUB3    | RBL2   | YOR265W | 3 | SL | Cell structure                            |
| TUB3    | PNT1   | YOR266W | 3 | SL | Mitochondrion organization and biogenesis |
| TUB3    | CIN1   | YOR349W | 3 | SL | Cell structure                            |
| TUB3    | NIP100 | YPL174C | 1 | SS | Mitosis                                   |
| TUB3    | CIN2   | YPL241C | 3 | SL | Cell structure                            |
| RBL2    | GIM4   | YEL003W | 1 | SL | Cell structure                            |
| RBL2    | PAC2   | YER007W | 0 | SL | Cell structure                            |
| RBL2    | PAC10  | YGR078C | 1 | SL | Cell structure                            |
| RBL2    | YKE2   | YLR200W | 0 | SL | Cell structure                            |
| RBL2    | GIM5   | YML094W | 0 | SS | Cell structure                            |
| RBL2    | TUB3   | YML124C | 3 | SS | Cell structure                            |
| RBL2    | CIN4   | YMR138W | 0 | SL | Cell structure                            |
| RBL2    | GIM3   | YNL153C | 0 | SL | Cell structure                            |
| RBL2    | BUB3   | YOR026W | 0 | SL | Mitosis                                   |
| RBL2    | CIN1   | YOR349W | 0 | SS | Cell structure                            |
| RBL2    | CIN2   | YPL241C | 0 | SL | Cell structure                            |
| PAC2    | BIK1   | YCL029C | 0 | SL | Mitosis                                   |
| PAC2    | MAD1   | YGL086W | 0 | SS | Mitosis                                   |
| PAC2    | PAC10  | YGR078C | 0 | SL | Cell structure                            |
| PAC2    | BUB1   | YGR188C | 0 | SL | Mitosis                                   |
| PAC2    | MAD2   | YJL030W | 0 | SS | Mitosis                                   |
| PAC2    | YKE2   | YLR200W | 0 | SL | Cell structure                            |
| PAC2    | GIM5   | YML094W | 1 | SS | Cell structure                            |
| PAC2    | TUB3   | YML124C | 2 | SL | Cell structure                            |
| PAC2    | CTF18  | YMR078C | 0 | SL | Chromatin/chromosome structure            |
| PAC2    | GIM3   | YNL153C | 1 | SL | Cell structure                            |
| PAC2    | RBL2   | YOR265W | 0 | SL | Cell structure                            |
| CIN2    | BIK1   | YCL029C | 2 | SL | Mitosis                                   |
| CIN2    | GIM4   | YEL003W | 3 | SL | Cell structure                            |
| CIN2    | MAD1   | YGL086W | 0 | SL | Mitosis                                   |
| CIN2    | PAC10  | YGR078C | 1 | SL | Cell structure                            |
| CIN2    | BUB1   | YGR188C | 0 | SL | Mitosis                                   |
| CIN2    | MAD3   | YJL013C | 0 | SS | Mitosis                                   |
| CIN2    | MAD2   | YJL030W | 1 | SL | Mitosis                                   |
| CIN2    | BFA1   | YJR053W | 0 | SL | Mitosis                                   |
| CIN2    | YKE2   | YLR200W | 0 | SS | Cell structure                            |
| CIN2    | GIM5   | YML094W | 1 | SS | Cell structure                            |
| CIN2    | TUB3   | YML124C | 2 | SL | Cell structure                            |
| CIN2    | BUB2   | YMR055C | 0 | SS | Mitosis                                   |
| CIN2    | CTF18  | YMR078C | 0 | SL | Chromatin/chromosome structure            |
| CIN2    | JNM1   | YMR294W | 0 | SS | SS Mitosis                                |



|      |        |         |   |    |                                       |
|------|--------|---------|---|----|---------------------------------------|
| CIN2 | GIM3   | YNL153C | 2 | SL | Cell structure                        |
| CIN2 | RBL2   | YOR265W | 0 | SL | Cell structure                        |
| CIN2 | CIN1   | YOR349W | 0 | SS | Cell structure                        |
| CIN2 | NIP100 | YPL174C | 2 | SS | Mitosis                               |
| CIN4 | BIK1   | YCL029C | 0 | SS | Mitosis                               |
| CIN4 | GIM4   | YEL003W | 0 | SS | Cell structure                        |
| CIN4 | CIN8   | YEL061C | 1 | SL | Mitosis                               |
| CIN4 | PAC10  | YGR078C | 1 | SS | Cell structure                        |
| CIN4 | YKE2   | YLR200W | 0 | SL | Cell structure                        |
| CIN4 | GIM5   | YML094W | 0 | SL | Cell structure                        |
| CIN4 | TUB3   | YML124C | 0 | SS | Cell structure                        |
| CIN4 | GIM3   | YNL153C | 1 | SS | Cell structure                        |
| CIN4 | RBL2   | YOR265W | 0 | SL | Cell structure                        |
| CIN4 | CIN1   | YOR349W | 0 | SS | Cell structure                        |
| CTF4 | NUP60  | YAR002W | 0 | SS | Nuclear-cytoplasmic transport         |
| CTF4 | SWD1   | YAR003W | 0 | SS | Chromatin/chromosome structure        |
| CTF4 | SLA1   | YBL007C | 0 | SL | Cell polarity                         |
| CTF4 | MUM2   | YBR057C | 2 | SL | Meiosis                               |
| CTF4 | MMS4   | YBR100W | 1 | SS | DNA repair                            |
| CTF4 | IML3   | YBR107C | 1 | SS | Chromatin/chromosome structure        |
| CTF4 | AOR1   | YBR231C | 1 | SS | Unknown                               |
| CTF4 | DCC1   | YCL016C | 3 | SL | Chromatin/chromosome structure        |
| CTF4 | MRC1   | YCL060C | 3 | SL | DNA repair                            |
| CTF4 | MRC1   | YCL061C | 3 | SL | DNA repair                            |
| CTF4 | HEX3   | YDL013W | 1 | SS | Meiosis                               |
| CTF4 | RPN4   | YDL020C | 0 | SL | Protein degradation                   |
| CTF4 | CLB3   | YDL155W | 0 | SS | Cell cycle control                    |
| CTF4 | SHS1   | YDL225W | 0 | SS | Cytokinesis                           |
| CTF4 | RAD57  | YDR004W | 1 | SS | DNA repair                            |
| CTF4 | RAD61  | YDR014W | 0 | SL | Unknown                               |
| CTF4 | RAD55  | YDR076W | 1 | SS | DNA repair                            |
| CTF4 | HTA1   | YDR225W | 1 | SS | Chromatin/chromosome structure        |
| CTF4 | CHL4   | YDR254W | 0 | SL | Chromatin/chromosome structure        |
| CTF4 | PMP3   | YDR276C | 1 | SS | Small molecule transport              |
| CTF4 | MCM21  | YDR318W | 2 | SL | Chromatin/chromosome structure        |
| CTF4 | GIM4   | YEL003W | 0 | SL | Cell structure                        |
| CTF4 | RAD23  | YEL037C | 1 | SS | DNA repair                            |
| CTF4 | CIN8   | YEL061C | 0 | SS | Mitosis                               |
| CTF4 | BIM1   | YER016W | 3 | SL | Mitosis                               |
| CTF4 | ISC1   | YER019W | 0 | SL | Lipid metabolism                      |
| CTF4 | RMD7   | YER083C | 1 | SS | Cell wall organization and biogenesis |
| CTF4 | RAD51  | YER095W | 0 | SL | DNA repair                            |
| CTF4 | SLX8   | YER116C | 2 | SL | DNA repair                            |
| CTF4 | CHD1   | YER164W | 0 | SS | Chromatin/chromosome structure        |
| CTF4 | RAD24  | YER173W | 1 | SS | DNA repair                            |
| CTF4 | UBP6   | YFR010W | 0 | SL | Protein modification                  |
| CTF4 | CDC26  | YFR036W | 2 | SL | Cell cycle control                    |
| CTF4 | SSF73  | YGL066W | 3 | SL | Pol II transcription                  |
| CTF4 | MAD1   | YGL086W | 3 | SS | Mitosis                               |
| CTF4 | MMS2   | YGL087C | 0 | SS | DNA repair                            |
| CTF4 | SOH1   | YGL127C | 1 | SS | DNA repair                            |
| CTF4 | RAD54  | YGL163C | 1 | SS | DNA repair                            |
| CTF4 | HUR1   | YGL168W | 0 | SL | Unknown                               |
| CTF4 | KEM1   | YGL173C | 0 | SL | RNA processing                        |
| CTF4 | KIP3   | YGL216W | 0 | SS | Mitosis                               |
| CTF4 | RTF1   | YGL244W | 0 | SS | Pol II transcription                  |
| CTF4 | PAC10  | YGR078C | 0 | SL | Cell structure                        |
| CTF4 | UBR1   | YGR184C | 3 | SL | Protein degradation                   |
| CTF4 | BUB1   | YGR188C | 0 | SS | Mitosis                               |
| CTF4 | SMI1   | YGR229C | 2 | SS | Cell wall organization and biogenesis |
| CTF4 | ARD1   | YHR013C | 0 | SS | Chromatin/chromosome structure        |

|      |         |         |   |    |    |                                       |
|------|---------|---------|---|----|----|---------------------------------------|
| CTF4 | RRM3    | YHR031C | 2 | SL |    | DNA replication                       |
| CTF4 | CTF8    | YHR191C | 0 |    | SL | Chromatin/chromosome structure        |
| CTF4 | RPN10   | YHR200W | 0 | SL |    | Pol II transcription                  |
| CTF4 | MAD3    | YJL013C | 0 | SS |    | Mitosis                               |
| CTF4 | MAD2    | YJL030W | 0 |    | SS | Mitosis                               |
| CTF4 | HPR5    | YJL092W | 3 | SL |    | DNA repair                            |
| CTF4 | POL32   | YJR043C | 0 |    | SS | DNA replication                       |
| CTF4 | SOD1    | YJR104C | 0 |    | SL | Cell stress                           |
| CTF4 | MCM22   | YJR135C | 0 | SL |    | Chromatin/chromosome structure        |
| CTF4 | RPS4A   | YJR145C | 0 | SS |    | Protein synthesis                     |
| CTF4 | HSL1    | YKL101W | 2 |    | SS | Cell cycle control                    |
| CTF4 | RAD27   | YKL113C | 2 |    | SL | DNA repair                            |
| CTF4 | RAD5    | YLR032W | 0 | SL |    | DNA repair                            |
| CTF4 | ARP6    | YLR085C | 0 | SS |    | Cell structure                        |
| CTF4 | STM1    | YLR150W | 1 | SS |    | Nucleotide metabolism                 |
| CTF4 | TOP3    | YLR234W | 0 | SS |    | Chromatin/chromosome structure        |
| CTF4 | YLR235C | YLR235C | 0 |    | SL | Unknown                               |
| CTF4 | SEC22   | YLR268W | 0 | SS |    | Vesicular transport                   |
| CTF4 | CTF3    | YLR381W | 2 | SS |    | Chromatin/chromosome structure        |
| CTF4 | TSA1    | YML028W | 2 | SL |    | Cell stress                           |
| CTF4 | RAD52   | YML032C | 1 |    | SL | DNA repair                            |
| CTF4 | GIM5    | YML094W | 2 | SL |    | Cell structure                        |
| CTF4 | LYS7    | YMR038C | 0 | SS |    | Amino-acid metabolism                 |
| CTF4 | CSM3    | YMR048W | 3 |    | SL | Meiosis                               |
| CTF4 | BUB2    | YMR055C | 0 |    | SS | Mitosis                               |
| CTF4 | CTF18   | YMR078C | 0 | SS |    | Chromatin/chromosome structure        |
| CTF4 | SGS1    | YMR190C | 0 | SS |    | DNA repair                            |
| CTF4 | MRE11   | YMR224C | 0 |    | SL | DNA repair                            |
| CTF4 | GIM3    | YNL153C | 0 | SL |    | Cell structure                        |
| CTF4 | RAD50   | YNL250W | 0 | SL |    | DNA repair                            |
| CTF4 | TOF1    | YNL273W | 3 |    | SL | DNA repair                            |
| CTF4 | MID1    | YNL291C | 1 | SS |    | Small molecule transport              |
| CTF4 | CLA4    | YNL298W | 2 |    | SL | Cell polarity                         |
| CTF4 | MCK1    | YNL307C | 0 | SS |    | Meiosis                               |
| CTF4 | BRE5    | YNR051C | 0 | SL |    | Unknown                               |
| CTF4 | HTZ1    | YOL012C | 0 | SS |    | Chromatin/chromosome structure        |
| CTF4 | RTS1    | YOR014W | 1 | SL |    | Cell stress                           |
| CTF4 | BUB3    | YOR026W | 0 |    | SL | Mitosis                               |
| CTF4 | ELG1    | YOR144C | 2 |    | SL | DNA repair                            |
| CTF4 | SLK19   | YOR195W | 0 | SS |    | Chromatin/chromosome structure        |
| CTF4 | YPL017C | YPL017C | 0 | SL |    | Unknown                               |
| CTF4 | CTF19   | YPL018W | 2 |    | SL | Chromatin/chromosome structure        |
| CTF4 | NCE4    | YPL024W | 0 | SL |    | Cell wall organization and biogenesis |
| CTF4 | LGE1    | YPL055C | 2 | SS |    | Cell cycle control                    |
| CTF4 | SUR1    | YPL057C | 3 | SS |    | Lipid metabolism                      |
| CTF4 | YPL144W | YPL144W | 3 | SS | SS | Meiosis                               |
| CTF4 | DDC1    | YPL194W | 1 |    | SS | DNA repair                            |
| CTF4 | VIK1    | YPL253C | 1 |    | SS | Mitosis                               |
| CTF4 | YPR015C | YPR015C | 0 | SS |    | Pol II Transcription                  |
| CTF4 | RLF2    | YPR018W | 0 | SL |    | Chromatin/chromosome structure        |
| CTF4 | MCM16   | YPR046W | 0 | SS |    | Chromatin/chromosome structure        |
| CTF4 | CLB2    | YPR119W | 3 | SL |    | Cell cycle control                    |
| CTF4 | CLB5    | YPR120C | 0 | SS |    | Cell cycle control                    |
| CTF8 | MRC1    | YCL060C | 0 |    | SL | DNA repair                            |
| CTF8 | MRC1    | YCL061C | 1 |    | SL | DNA repair                            |
| CTF8 | RAD57   | YDR004W | 0 | SS |    | DNA repair                            |
| CTF8 | RAD55   | YDR076W | 0 | SS |    | DNA repair                            |
| CTF8 | RAD9    | YDR217C | 0 | SS |    | DNA repair                            |
| CTF8 | HTA1    | YDR225W | 3 | SS |    | Chromatin/chromosome structure        |
| CTF8 | MSN5    | YDR335W | 1 | SS |    | Nuclear-cytoplasmic transport         |
| CTF8 | GIM4    | YEL003W | 2 | SS |    | Cell structure                        |

|       |         |         |   |    |                                       |
|-------|---------|---------|---|----|---------------------------------------|
| CTF8  | CIN8    | YEL061C | 0 | SL | Mitosis                               |
| CTF8  | BIM1    | YER016W | 2 | SL | Mitosis                               |
| CTF8  | SLX8    | YER116C | 0 | SL | DNA repair                            |
| CTF8  | CDC26   | YFR036W | 1 | SL | Cell cycle control                    |
| CTF8  | SSF73   | YGL066W | 3 | SS | Pol II transcription                  |
| CTF8  | MAD1    | YGL086W | 2 | SS | Mitosis                               |
| CTF8  | SOH1    | YGL127C | 0 | SS | DNA repair                            |
| CTF8  | RAD54   | YGL163C | 0 | SS | DNA repair                            |
| CTF8  | PMR1    | YGL167C | 2 | SS | Small molecule transport              |
| CTF8  | HUR1    | YGL168W | 2 | SS | Unknown                               |
| CTF8  | KEM1    | YGL173C | 3 | SS | RNA processing                        |
| CTF8  | KIP3    | YGL216W | 0 | SS | Mitosis                               |
| CTF8  | RTF1    | YGL244W | 2 | SS | Pol II transcription                  |
| CTF8  | PAC10   | YGR078C | 3 | SS | Cell structure                        |
| CTF8  | UBR1    | YGR184C | 0 | SS | Protein degradation                   |
| CTF8  | SMI1    | YGR229C | 2 | SS | Cell wall organization and biogenesis |
| CTF8  | RRM3    | YHR031C | 0 | SS | DNA replication                       |
| CTF8  | MAD2    | YJL030W | 3 | SS | Mitosis                               |
| CTF8  | HPR5    | YJL092W | 0 | SS | DNA repair                            |
| CTF8  | RAD5    | YLR032W | 1 | SS | DNA repair                            |
| CTF8  | ARP6    | YLR085C | 1 | SS | Cell structure                        |
| CTF8  | TOP3    | YLR234W | 0 | SS | Chromatin/chromosome structure        |
| CTF8  | YLR235C | YLR235C | 0 | SS | Unknown                               |
| CTF8  | RAD52   | YML032C | 0 | SS | DNA repair                            |
| CTF8  | GIM5    | YML094W | 0 | SS | Cell structure                        |
| CTF8  | LYS7    | YMR038C | 0 | SS | Amino-acid metabolism                 |
| CTF8  | CSM3    | YMR048W | 2 | SL | Meiosis                               |
| CTF8  | BUB2    | YMR055C | 0 | SS | Mitosis                               |
| CTF8  | GIM3    | YNL153C | 2 | SS | Cell structure                        |
| CTF8  | RAD50   | YNL250W | 0 | SS | DNA repair                            |
| CTF8  | TOF1    | YNL273W | 2 | SL | DNA repair                            |
| CTF8  | CLA4    | YNL298W | 3 | SS | Cell polarity                         |
| CTF8  | HTZ1    | YOL012C | 0 | SS | Chromatin/chromosome structure        |
| CTF8  | ASE1    | YOR058C | 0 | SS | Mitosis                               |
| CTF8  | SLK19   | YOR195W | 2 | SS | Chromatin/chromosome structure        |
| CTF8  | RAD17   | YOR368W | 1 | SS | DNA repair                            |
| CTF8  | CHL1    | YPL008W | 3 | SL | Chromatin/chromosome structure        |
| CTF8  | LGE1    | YPL055C | 0 | SS | Cell cycle control                    |
| CTF8  | DDC1    | YPL194W | 0 | SS | DNA repair                            |
| CTF8  | VIK1    | YPL253C | 2 | SS | Mitosis                               |
| CTF8  | YPR045C | YPR045C | 0 | SL | Unknown                               |
| CTF8  | CLB2    | YPR119W | 2 | SS | Cell cycle control                    |
| CTF8  | CTF4    | YPR135W | 2 | SL | Chromatin/chromosome structure        |
| CTF8  | KAR3    | YPR141C | 3 | SL | Mitosis                               |
| CTF18 | LTE1    | YAL024C | 0 | SL | Cell cycle control                    |
| CTF18 | NUP60   | YAR002W | 0 | SL | Nuclear-cytoplasmic transport         |
| CTF18 | MUM2    | YBR057C | 0 | SL | Meiosis                               |
| CTF18 | UBC4    | YBR082C | 1 | SL | Protein degradation                   |
| CTF18 | MRPL36  | YBR122C | 0 | SL | Protein synthesis                     |
| CTF18 | MRC1    | YCL060C | 3 | SL | DNA repair                            |
| CTF18 | MRC1    | YCL061C | 1 | SL | DNA repair                            |
| CTF18 | RAD57   | YDR004W | 0 | SS | DNA repair                            |
| CTF18 | RAD55   | YDR076W | 1 | SS | DNA repair                            |
| CTF18 | RAD9    | YDR217C | 0 | SL | DNA repair                            |
| CTF18 | GIM4    | YEL003W | 0 | SL | Cell structure                        |
| CTF18 | RAD23   | YEL037C | 1 | SS | DNA repair                            |
| CTF18 | CIN8    | YEL061C | 0 | SL | Mitosis                               |
| CTF18 | PAC2    | YER007W | 0 | SL | Cell structure                        |
| CTF18 | BIM1    | YER016W | 2 | SL | Mitosis                               |
| CTF18 | RAD51   | YER095W | 1 | SS | DNA repair                            |
| CTF18 | SLX8    | YER116C | 1 | SL | DNA repair                            |

|       |         |         |   |    |                                      |
|-------|---------|---------|---|----|--------------------------------------|
| CTF18 | RAD24   | YER173W | 0 | SL | DNA repair                           |
| CTF18 | CDC26   | YFR036W | 2 | SL | Cell cycle control                   |
| CTF18 | MAD1    | YGL086W | 2 | SL | Mitosis                              |
| CTF18 | SOH1    | YGL127C | 1 | SS | DNA repair                           |
| CTF18 | RAD54   | YGL163C | 0 | SS | DNA repair                           |
| CTF18 | KIP3    | YGL216W | 0 | SL | Mitosis                              |
| CTF18 | YGL217C | YGL217C | 1 | SS | Unknown                              |
| CTF18 | PAC10   | YGR078C | 0 | SL | Cell structure                       |
| CTF18 | BUB1    | YGR188C | 0 | SL | Mitosis                              |
| CTF18 | MAD3    | YJL013C | 0 | SL | Mitosis                              |
| CTF18 | MAD2    | YJL030W | 0 | SS | Mitosis                              |
| CTF18 | HPR5    | YJL092W | 2 | SL | DNA repair                           |
| CTF18 | POL32   | YJR043C | 0 | SL | DNA replication                      |
| CTF18 | RPS4A   | YJR145C | 3 | SL | Protein synthesis                    |
| CTF18 | ELM1    | YKL048C | 0 | SL | Cell polarity                        |
| CTF18 | HSL1    | YKL101W | 0 | SL | Cell cycle control                   |
| CTF18 | RAD27   | YKL113C | 1 | SS | DNA repair                           |
| CTF18 | RAD5    | YLR032W | 0 | SS | DNA repair                           |
| CTF18 | ARP6    | YLR085C | 1 | SS | Cell structure                       |
| CTF18 | CLB4    | YLR210W | 1 | SS | Cell cycle control                   |
| CTF18 | TOP3    | YLR234W | 1 | SL | Chromatin/chromosome structure       |
| CTF18 | VPS63   | YLR261C | 1 | SS | Vacuolar organization and biogenesis |
| CTF18 | RAD52   | YML032C | 1 | SS | DNA repair                           |
| CTF18 | GIM5    | YML094W | 0 | SL | Cell structure                       |
| CTF18 | LYS7    | YMR038C | 0 | SL | Amino-acid metabolism                |
| CTF18 | CSM3    | YMR048W | 0 | SL | Meiosis                              |
| CTF18 | SGS1    | YMR190C | 1 | SL | DNA repair                           |
| CTF18 | CIK1    | YMR198W | 0 | SL | Mitosis                              |
| CTF18 | MRE11   | YMR224C | 0 | SL | DNA repair                           |
| CTF18 | GIM3    | YNL153C | 0 | SL | Cell structure                       |
| CTF18 | RAD50   | YNL250W | 0 | SL | DNA repair                           |
| CTF18 | TOF1    | YNL273W | 0 | SL | DNA repair                           |
| CTF18 | CLA4    | YNL298W | 0 | SL | Cell polarity                        |
| CTF18 | MCK1    | YNL307C | 0 | SL | Meiosis                              |
| CTF18 | HTZ1    | YOL012C | 0 | SL | Chromatin/chromosome structure       |
| CTF18 | BUB3    | YOR026W | 0 | SL | Mitosis                              |
| CTF18 | SLK19   | YOR195W | 0 | SL | Chromatin/chromosome structure       |
| CTF18 | CIN1    | YOR349W | 0 | SL | Cell structure                       |
| CTF18 | CHL1    | YPL008W | 2 | SL | Chromatin/chromosome structure       |
| CTF18 | DDC1    | YPL194W | 0 | SL | DNA repair                           |
| CTF18 | YPL205C | YPL205C | 0 | SL | Meiosis                              |
| CTF18 | CIN2    | YPL241C | 0 | SL | Cell structure                       |
| CTF18 | VIK1    | YPL253C | 3 | SL | Mitosis                              |
| CTF18 | CLB2    | YPR119W | 3 | SL | Cell cycle control                   |
| CTF18 | CTF4    | YPR135W | 0 | SL | Chromatin/chromosome structure       |
| DCC1  | LTE1    | YAL024C | 0 | SL | Cell cycle control                   |
| DCC1  | NUP60   | YAR002W | 0 | SS | Nuclear-cytoplasmic transport        |
| DCC1  | AOR1    | YBR231C | 1 | SS | Unknown                              |
| DCC1  | MRC1    | YCL060C | 0 | SL | DNA repair                           |
| DCC1  | MRC1    | YCL061C | 2 | SL | DNA repair                           |
| DCC1  | HEX3    | YDL013W | 1 | SS | Meiosis                              |
| DCC1  | RPN4    | YDL020C | 0 | SL | Protein degradation                  |
| DCC1  | RAD57   | YDR004W | 1 | SS | DNA repair                           |
| DCC1  | UME6    | YDR207C | 1 | SL | Meiosis                              |
| DCC1  | RAD9    | YDR217C | 2 | SL | DNA repair                           |
| DCC1  | RAD23   | YEL037C | 0 | SL | DNA repair                           |
| DCC1  | PAC2    | YER007W | 1 | SL | Cell structure                       |
| DCC1  | BIM1    | YER016W | 2 | SS | Mitosis                              |
| DCC1  | ISC1    | YER019W | 1 | SL | Lipid metabolism                     |
| DCC1  | RAD51   | YER095W | 1 | SS | DNA repair                           |
| DCC1  | CHD1    | YER164W | 1 | SS | Chromatin/chromosome structure       |

|         |         |         |   |    |    |                                      |
|---------|---------|---------|---|----|----|--------------------------------------|
| DCC1    | SSF73   | YGL066W | 2 | SS | SL | Pol II transcription                 |
| DCC1    | MAD1    | YGL086W | 2 |    | SL | Mitosis                              |
| DCC1    | RAD54   | YGL163C | 1 |    | SS | DNA repair                           |
| DCC1    | KEM1    | YGL173C | 0 | SL |    | RNA processing                       |
| DCC1    | RTF1    | YGL244W | 0 | SL |    | Pol II transcription                 |
| DCC1    | UBR1    | YGR184C | 1 | SS |    | Protein degradation                  |
| DCC1    | BUB1    | YGR188C | 1 | SL |    | Mitosis                              |
| DCC1    | RRM3    | YHR031C | 1 | SL |    | DNA replication                      |
| DCC1    | RPN10   | YHR200W | 0 | SL |    | Pol II transcription                 |
| DCC1    | MAD3    | YJL013C | 1 |    | SS | Mitosis                              |
| DCC1    | MAD2    | YJL030W | 0 |    | SL | Mitosis                              |
| DCC1    | HPR5    | YJL092W | 1 | SL |    | DNA repair                           |
| DCC1    | POL32   | YJR043C | 1 | SS |    | DNA replication                      |
| DCC1    | RPS4A   | YJR145C | 0 | SS |    | Protein synthesis                    |
| DCC1    | HSL1    | YKL101W | 1 | SL |    | Cell cycle control                   |
| DCC1    | RAD27   | YKL113C | 1 |    | SS | DNA repair                           |
| DCC1    | YLR235C | YLR235C | 1 | SS |    | Unknown                              |
| DCC1    | TSA1    | YML028W | 1 | SL |    | Cell stress                          |
| DCC1    | RAD52   | YML032C | 0 |    | SS | DNA repair                           |
| DCC1    | GIM5    | YML094W | 2 | SL |    | Cell structure                       |
| DCC1    | LYS7    | YMR038C | 0 | SS |    | Amino-acid metabolism                |
| DCC1    | CSM3    | YMR048W | 3 | SL |    | Meiosis                              |
| DCC1    | SPT21   | YMR179W | 1 | SL |    | Pol II transcription                 |
| DCC1    | SGS1    | YMR190C | 1 |    | SS | DNA repair                           |
| DCC1    | CIK1    | YMR198W | 3 | SL |    | Mitosis                              |
| DCC1    | MRE11   | YMR224C | 0 | SL |    | DNA repair                           |
| DCC1    | GIM3    | YNL153C | 3 |    | SL | Cell structure                       |
| DCC1    | RTT106  | YNL206C | 1 | SS |    | Unknown                              |
| DCC1    | RAD50   | YNL250W | 1 | SL |    | DNA repair                           |
| DCC1    | TOF1    | YNL273W | 2 | SS |    | DNA repair                           |
| DCC1    | CLA4    | YNL298W | 3 |    | SL | Cell polarity                        |
| DCC1    | HTZ1    | YOL012C | 3 |    | SS | Chromatin/chromosome structure       |
| DCC1    | SLK19   | YOR195W | 1 | SL |    | Chromatin/chromosome structure       |
| DCC1    | CIN1    | YOR349W | 2 | SS |    | Cell structure                       |
| DCC1    | CHL1    | YPL008W | 3 | SS |    | Chromatin/chromosome structure       |
| DCC1    | DDC1    | YPL194W | 1 |    | SS | DNA repair                           |
| DCC1    | CIN2    | YPL241C | 1 | SL |    | Cell structure                       |
| DCC1    | VMA13   | YPR036W | 1 | SL |    | Vacuolar organization and biogenesis |
| DCC1    | CLB2    | YPR119W | 3 | SS |    | Cell cycle control                   |
| DCC1    | CLB5    | YPR120C | 0 | SL |    | Cell cycle control                   |
| DCC1    | CTF4    | YPR135W | 0 | SL |    | Chromatin/chromosome structure       |
| DCC1    | KAR3    | YPR141C | 0 | SL |    | Mitosis                              |
| SCC1-73 | DCC1    | YCL016C | 2 | SL |    | Chromatin/chromosome structure       |
| SCC1-73 | MRC1    | YCL060C | 3 | SL |    | DNA repair                           |
| SCC1-73 | CHL4    | YDR254W | 1 | SS |    | Chromatin/chromosome structure       |
| SCC1-73 | MCM21   | YDR318W | 3 | SL |    | Chromatin/chromosome structure       |
| SCC1-73 | CIN8    | YEL061C | 1 |    | SL | Mitosis                              |
| SCC1-73 | BIM1    | YER016W | 1 | SS |    | Mitosis                              |
| SCC1-73 | YGL250W | YGL250W | 1 |    | SS | Unknown                              |
| SCC1-73 | BUB1    | YGR188C | 1 |    | SL | Mitosis                              |
| SCC1-73 | CTF8    | YHR191C | 3 | SL |    | Chromatin/chromosome structure       |
| SCC1-73 | MCM22   | YJR135C | 3 | SS |    | Chromatin/chromosome structure       |
| SCC1-73 | CTF3    | YLR381W | 3 | SS |    | Chromatin/chromosome structure       |
| SCC1-73 | GIM5    | YML094W | 2 |    | SS | Cell structure                       |
| SCC1-73 | CSM3    | YMR048W | 3 | SL |    | Meiosis                              |
| SCC1-73 | CTF18   | YMR078C | 1 | SL |    | Chromatin/chromosome structure       |
| SCC1-73 | GIM3    | YNL153C | 2 |    | SS | Cell structure                       |
| SCC1-73 | TOF1    | YNL273W | 3 | SL |    | DNA repair                           |
| SCC1-73 | BUB3    | YOR026W | 0 | SS |    | Mitosis                              |
| SCC1-73 | CHL1    | YPL008W | 3 | SL |    | Chromatin/chromosome structure       |
| SCC1-73 | YPL017C | YPL017C | 3 | SL |    | Unknown                              |

|         |           |           |   |    |    |                                |
|---------|-----------|-----------|---|----|----|--------------------------------|
| SCC1-73 | CTF19     | YPL018W   | 2 | SL |    | Chromatin/chromosome structure |
| SCC1-73 | MCM16     | YPR046W   | 1 | SS |    | Chromatin/chromosome structure |
| SCC1-73 | CTF4      | YPR135W   | 1 | SL |    | Chromatin/chromosome structure |
| SCC1-73 | KAR3      | YPR141C   | 1 |    | SL | Mitosis                        |
| CHL1    | DCC1      | YCL016C   | 2 | SL | SL | Chromatin/chromosome structure |
| CHL1    | MRC1      | YCL060C   | 3 | SL |    | DNA repair                     |
| CHL1    | RAD61     | YDR014W   | 2 | SS |    | Unknown                        |
| CHL1    | CHL4      | YDR254W   | 2 |    | SS | Chromatin/chromosome structure |
| CHL1    | MCM21     | YDR318W   | 1 | SL |    | Chromatin/chromosome structure |
| CHL1    | CIN8      | YEL061C   | 0 |    | SL | Mitosis                        |
| CHL1    | BIM1      | YER016W   | 3 | SL |    | Mitosis                        |
| CHL1    | MAD1      | YGL086W   | 3 | SL |    | Mitosis                        |
| CHL1    | BUB1      | YGR188C   | 0 | SL |    | Mitosis                        |
| CHL1    | CTF8      | YHR191C   | 2 | SL | SL | Chromatin/chromosome structure |
| CHL1    | MAD3      | YJL013C   | 0 |    | SS | Mitosis                        |
| CHL1    | MAD2      | YJL030W   | 3 | SS |    | Mitosis                        |
| CHL1    | HPR5      | YJL092W   | 1 | SS |    | DNA repair                     |
| CHL1    | MCM22     | YJR135C   | 0 | SS |    | Chromatin/chromosome structure |
| CHL1    | RAD27     | YKL113C   | 1 |    | SS | DNA repair                     |
| CHL1    | YKE2      | YLR200W   | 1 | SS |    | Cell structure                 |
| CHL1    | NKP2      | YLR315W   | 0 |    | SS | Chromatin/chromosome structure |
| CHL1    | CTF3      | YLR381W   | 2 | SS |    | Chromatin/chromosome structure |
| CHL1    | GIM5      | YML094W   | 1 |    | SL | Cell structure                 |
| CHL1    | CTF18     | YMR078C   | 0 |    | SL | Chromatin/chromosome structure |
| CHL1    | GIM3      | YNL153C   | 2 | SL |    | Cell structure                 |
| CHL1    | RTS1      | YOR014W   | 0 | SL |    | Cell stress                    |
| CHL1    | ELG1      | YOR144C   | 3 | SL | SL | DNA repair                     |
| CHL1    | CTF19     | YPL018W   | 0 | SL |    | Chromatin/chromosome structure |
| CHL1    | MCM16     | YPR046W   | 0 | SS |    | Chromatin/chromosome structure |
| CHL1    | CLB2      | YPR119W   | 1 |    | SS | Cell cycle control             |
| MAD2    | IML3      | YBR107C   | 0 | SS |    | Chromatin/chromosome structure |
| MAD2    | SOY       | YBR194W   | 0 | SS |    | Unknown                        |
| MAD2    | BIK1      | YCL029C   | 0 |    | SS | Mitosis                        |
| MAD2    | HCM1      | YCR065W   | 3 | SL |    | Pol II transcription           |
| MAD2    | CHL4      | YDR254W   | 1 | SS |    | Chromatin/chromosome structure |
| MAD2    | MCM21     | YDR318W   | 0 | SL |    | Chromatin/chromosome structure |
| MAD2    | VID21     | YDR359C   | 1 | SL |    | Unknown                        |
| MAD2    | GIM4      | YEL003W   | 2 | SS |    | Cell structure                 |
| MAD2    | CIN8      | YEL061C   | 1 |    | SL | Mitosis                        |
| MAD2    | PAC2      | YER007W   | 0 | SS |    | Cell structure                 |
| MAD2    | BIM1      | YER016W   | 3 | SL |    | Mitosis                        |
| MAD2    | YGL060W   | YGL060W   | 2 | SL |    | Unknown                        |
| MAD2    | PAC10     | YGR078C   | 0 | SS |    | Cell structure                 |
| MAD2    | CTF8      | YHR191C   | 1 | SS |    | Chromatin/chromosome structure |
| MAD2    | YJL064W   | YJL064W   | 0 | SS |    | Unknown                        |
| MAD2    | MCM22     | YJR135C   | 0 |    | SS | Chromatin/chromosome structure |
| MAD2    | YKE2      | YLR200W   | 0 |    | SL | Cell structure                 |
| MAD2    | CTF3      | YLR381W   | 1 | SS |    | Chromatin/chromosome structure |
| MAD2    | GIM5      | YML094W   | 0 | SS |    | Cell structure                 |
| MAD2    | YML095C-A | YML095C-A | 1 | SS |    | Unknown                        |
| MAD2    | RAS2      | YNL098C   | 1 | SS |    | Signal transduction            |
| MAD2    | GIM3      | YNL153C   | 2 | SL |    | Cell structure                 |
| MAD2    | HTZ1      | YOL012C   | 1 | SS |    | Chromatin/chromosome structure |
| MAD2    | SLK19     | YOR195W   | 1 | SS |    | Chromatin/chromosome structure |
| MAD2    | CIN1      | YOR349W   | 2 | SL |    | Cell structure                 |
| MAD2    | CHL1      | YPL008W   | 0 | SS |    | Chromatin/chromosome structure |
| MAD2    | YPL017C   | YPL017C   | 0 | SL |    | Unknown                        |
| MAD2    | CTF19     | YPL018W   | 2 | SL |    | Chromatin/chromosome structure |
| MAD2    | CIN2      | YPL241C   | 1 | SL |    | Cell structure                 |
| MAD2    | MCM16     | YPR046W   | 1 | SS |    | Chromatin/chromosome structure |
| MAD2    | CTF4      | YPR135W   | 0 | SS |    | Chromatin/chromosome structure |

|      |           |           |   |    |    |                                |
|------|-----------|-----------|---|----|----|--------------------------------|
| MAD2 | KAR3      | YPR141C   | 0 | SL |    | Mitosis                        |
| YKE2 | VPS8      | YAL002W   | 1 |    | SS | Vesicular transport            |
| YKE2 | SSA1      | YAL005C   | 2 | SS |    | Protein folding                |
| YKE2 | SWC1      | YAL011W   | 3 | SL |    | Unknown                        |
| YKE2 | YAL042C-a | YAL043C-a | 1 | SS |    | Unknown                        |
| YKE2 | SLA1      | YBL007C   | 2 | SL |    | Cell polarity                  |
| YKE2 | HAP3      | YBL021C   | 1 | SS |    | Pol II transcription           |
| YKE2 | NCL1      | YBL024W   | 1 | SL |    | RNA processing                 |
| YKE2 | PIN4      | YBL051C   | 2 | SL |    | RNA processing                 |
| YKE2 | SIF2      | YBR103W   | 0 | SL |    | Chromatin/chromosome structure |
| YKE2 | IML3      | YBR107C   | 0 | SL |    | Chromatin/chromosome structure |
| YKE2 | RAD16     | YBR114W   | 1 | SS |    | DNA repair                     |
| YKE2 | CBP6      | YBR120C   | 2 | SS |    | Protein synthesis              |
| YKE2 | SEC66     | YBR171W   | 2 | SL |    | Vesicular transport            |
| YKE2 | PCH2      | YBR186W   | 1 | SS |    | Meiosis                        |
| YKE2 | BEM1      | YBR200W   | 1 | SL |    | Cell polarity                  |
| YKE2 | AOR1      | YBR231C   | 3 | SL |    | Unknown                        |
| YKE2 | YBR255W   | YBR255W   | 1 | SS |    | Unknown                        |
| YKE2 | DCC1      | YCL016C   | 3 | SL |    | Chromatin/chromosome structure |
| YKE2 | BIK1      | YCL029C   | 3 | SL |    | Mitosis                        |
| YKE2 | SNT1      | YCR033W   | 0 | SS |    | Chromatin/chromosome structure |
| YKE2 | CSM1      | YCR086W   | 1 | SS |    | Meiosis                        |
| YKE2 | RPN4      | YDL020C   | 1 |    | SL | Protein degradation            |
| YKE2 | YDL033C   | YDL033C   | 2 | SS | SS | Unknown                        |
| YKE2 | CLB3      | YDL155W   | 1 | SS |    | Cell cycle control             |
| YKE2 | MKC7      | YDR144C   | 1 | SS |    | Unknown                        |
| YKE2 | YDR149C   | YDR149C   | 2 | SL |    | Unknown                        |
| YKE2 | NUM1      | YDR150W   | 2 | SL |    | Mitosis                        |
| YKE2 | CPR1      | YDR155C   | 1 | SS |    | Protein folding                |
| YKE2 | PLP1      | YDR183W   | 1 | SS |    | Mating response                |
| YKE2 | CHL4      | YDR254W   | 2 | SL |    | Chromatin/chromosome structure |
| YKE2 | PMP3      | YDR276C   | 1 | SL |    | Small molecule transport       |
| YKE2 | RTT103    | YDR289C   | 1 | SS |    | Unknown                        |
| YKE2 | SSD1      | YDR293C   | 2 | SS |    | Cell cycle control             |
| YKE2 | SUM1      | YDR310C   | 3 | SL |    | Chromatin/chromosome structure |
| YKE2 | MCM21     | YDR318W   | 0 | SS |    | Chromatin/chromosome structure |
| YKE2 | SWR1      | YDR334W   | 2 | SL |    | Unknown                        |
| YKE2 | YDR360W   | YDR360W   | 1 | SS |    | Unknown                        |
| YKE2 | DYN2      | YDR424C   | 0 | SS |    | Mitosis                        |
| YKE2 | VPS72     | YDR485C   | 1 | SL |    | Vesicular transport            |
| YKE2 | PAC11     | YDR488C   | 1 | SL |    | Mitosis                        |
| YKE2 | SPF1      | YEL031W   | 1 | SS |    | Small molecule transport       |
| YKE2 | YEL041W   | YEL041W   | 1 | SS |    | Unknown                        |
| YKE2 | MAK10     | YEL053C   | 1 | SS |    | Protein modification           |
| YKE2 | HAT2      | YEL056W   | 1 | SS |    | Chromatin/chromosome structure |
| YKE2 | CIN8      | YEL061C   | 1 | SS |    | Mitosis                        |
| YKE2 | PAC2      | YER007W   | 2 | SL |    | Cell structure                 |
| YKE2 | BIM1      | YER016W   | 3 | SL |    | Mitosis                        |
| YKE2 | ISC1      | YER019W   | 1 | SS |    | Lipid metabolism               |
| YKE2 | BEM2      | YER155C   | 0 | SS |    | Cell polarity                  |
| YKE2 | FAB1      | YFR019W   | 0 | SL |    | Lipid metabolism               |
| YKE2 | MAD1      | YGL086W   | 3 | SL |    | Mitosis                        |
| YKE2 | MMS2      | YGL087C   | 0 | SS |    | DNA repair                     |
| YKE2 | KEM1      | YGL173C   | 1 | SS |    | RNA processing                 |
| YKE2 | HOS2      | YGL194C   | 1 | SS |    | Chromatin/chromosome structure |
| YKE2 | HAP2      | YGL237C   | 2 | SS |    | Pol II transcription           |
| YKE2 | YGL242C   | YGL242C   | 1 | SS |    | Unknown                        |
| YKE2 | HXK2      | YGL253W   | 1 | SS |    | Carbohydrate metabolism        |
| YKE2 | UGA1      | YGR019W   | 1 | SS |    | Amino-acid metabolism          |
| YKE2 | SHY1      | YGR112W   | 2 | SS |    | Energy generation              |
| YKE2 | BUB1      | YGR188C   | 0 | SL |    | Mitosis                        |

|      |         |         |   |    |   |
|------|---------|---------|---|----|---|
| YKE2 | YTA7    | YGR270W | 1 | SS | Vacuolar organization and biogenesis      |
| YKE2 | VPS29   | YHR012W | 1 | SS | Vesicular transport                       |
| YKE2 | SLT2    | YHR030C | 0 | SS | Cell wall organization and biogenesis     |
| YKE2 | UBA4    | YHR111W | 0 | SS | Protein modification                      |
| YKE2 | ARP1    | YHR129C | 2 | SS | Mitosis                                   |
| YKE2 | WSS1    | YHR134W | 1 | SS | DNA repair                                |
| YKE2 | STB5    | YHR178W | 0 | SS | Pol II transcription                      |
| YKE2 | CTF8    | YHR191C | 2 | SS | Chromatin/chromosome structure            |
| YKE2 | URM1    | YIL008W | 1 | SS | Protein modification                      |
| YKE2 | CAP2    | YIL034C | 2 | SS | Cell structure                            |
| YKE2 | SDS3    | YIL084C | 1 | SS | Chromatin/chromosome structure            |
| YKE2 | PRK1    | YIL095W | 1 | SS | Cell polarity                             |
| YKE2 | MAD3    | YJL013C | 0 | SS | Mitosis                                   |
| YKE2 | BBC1    | YJL020C | 1 | SL | Cell polarity                             |
| YKE2 | MAD2    | YJL030W | 3 | SL | Mitosis                                   |
| YKE2 | BCK1    | YJL095W | 1 | SS | Cell wall organization and biogenesis     |
| YKE2 | MNN11   | YJL183W | 2 | SS | Protein modification                      |
| YKE2 | RPS22A  | YJL190C | 1 | SS | Protein synthesis                         |
| YKE2 | CPR7    | YJR032W | 1 | SS | Protein folding                           |
| YKE2 | BFA1    | YJR053W | 1 | SL | Mitosis                                   |
| YKE2 | HOC1    | YJR075W | 0 | SS | Cell wall organization and biogenesis     |
| YKE2 | STE24   | YJR117W | 3 | SL | Protein modification                      |
| YKE2 | MCM22   | YJR135C | 0 | SS | Chromatin/chromosome structure            |
| YKE2 | PAN3    | YKL025C | 2 | SS | DNA repair                                |
| YKE2 | ELM1    | YKL048C | 2 | SS | Cell polarity                             |
| YKE2 | YKL118W | YKL118W | 1 | SS | Unknown                                   |
| YKE2 | DYN1    | YKR054C | 0 | SS | Mitosis                                   |
| YKE2 | YLL049W | YLL049W | 1 | SS | Unknown                                   |
| YKE2 | ARP6    | YLR085C | 2 | SS | Cell structure                            |
| YKE2 | YLR089C | YLR089C | 1 | SS | Mitochondrion organization and biogenesis |
| YKE2 | EST1    | YLR233C | 0 | SS | Chromatin/chromosome structure            |
| YKE2 | TOP3    | YLR234W | 1 | SS | Chromatin/chromosome structure            |
| YKE2 | SEC72   | YLR292C | 1 | SS | Protein translocation                     |
| YKE2 | VRP1    | YLR337C | 1 | SS | Cell polarity                             |
| YKE2 | CTF3    | YLR381W | 1 | SS | Chromatin/chromosome structure            |
| YKE2 | VAC14   | YLR386W | 2 | SS | Vacuolar organization and biogenesis      |
| YKE2 | PPZ1    | YML016C | 1 | SS | Signal transduction                       |
| YKE2 | RAD52   | YML032C | 1 | SS | DNA repair                                |
| YKE2 | VPS71   | YML041C | 2 | SS | Vesicular transport                       |
| YKE2 | TUB3    | YML124C | 3 | SL | Cell structure                            |
| YKE2 | MAC1    | YMR021C | 0 | SS | Pol II transcription                      |
| YKE2 | BUB2    | YMR055C | 2 | SL | Mitosis                                   |
| YKE2 | CTF18   | YMR078C | 1 | SS | Chromatin/chromosome structure            |
| YKE2 | MYO5    | YMR109W | 1 | SS | Cell polarity                             |
| YKE2 | CIN4    | YMR138W | 3 | SL | Cell structure                            |
| YKE2 | RIM13   | YMR154C | 1 | SS | Meiosis                                   |
| YKE2 | RSN1    | YMR266W | 1 | SS | Unknown                                   |
| YKE2 | JNM1    | YMR294W | 3 | SS | Mitosis                                   |
| YKE2 | YMR299C | YMR299C | 2 | SS | Mitosis                                   |
| YKE2 | ELP6    | YMR312W | 1 | SL | Pol II transcription                      |
| YKE2 | PET8    | YNL003C | 2 | SS | Small molecule transport                  |
| YKE2 | YNL140C | YNL140C | 1 | SS | Unknown                                   |
| YKE2 | CAF40   | YNL288W | 1 | SS | Pol II transcription                      |
| YKE2 | RIM21   | YNL294C | 1 | SS | Unknown                                   |
| YKE2 | CLA4    | YNL298W | 2 | SS | Cell polarity                             |
| YKE2 | HTZ1    | YOL012C | 2 | SL | Chromatin/chromosome structure            |
| YKE2 | AHC1    | YOR023C | 1 | SL | Protein modification                      |
| YKE2 | BUB3    | YOR026W | 0 | SL | Mitosis                                   |
| YKE2 | ASE1    | YOR058C | 0 | SS | Mitosis                                   |
| YKE2 | RGA1    | YOR127W | 1 | SS | Cell polarity                             |
| YKE2 | RUD3    | YOR216C | 1 | SS | Vesicular transport                       |



|       |         |         |   |    |   |
|-------|---------|---------|---|----|---|
| YKE2  | DSE3    | YOR264W | 2 | SL | Differentiation                           |
| YKE2  | RBL2    | YOR265W | 3 | SL | Cell structure                            |
| YKE2  | PNT1    | YOR266W | 3 | SL | Mitochondrion organization and biogenesis |
| YKE2  | PAC1    | YOR269W | 2 | SS | Mitosis                                   |
| YKE2  | YOR296W | YOR296W | 1 | SS | Unknown                                   |
| YKE2  | CIN1    | YOR349W | 3 | SL | Cell structure                            |
| YKE2  | MNE1    | YOR350C | 2 | SS | Unknown                                   |
| YKE2  | HAP5    | YOR358W | 3 | SS | Pol II transcription                      |
| YKE2  | CHL1    | YPL008W | 2 | SL | Chromatin/chromosome structure            |
| YKE2  | YPL017C | YPL017C | 1 | SS | Unknown                                   |
| YKE2  | CTF19   | YPL018W | 3 | SL | Chromatin/chromosome structure            |
| YKE2  | KIP2    | YPL155C | 3 | SL | Mitosis                                   |
| YKE2  | SET6    | YPL165C | 0 | SS | Unknown                                   |
| YKE2  | NIP100  | YPL174C | 2 | SL | Mitosis                                   |
| YKE2  | CBP3    | YPL215W | 2 | SS | Energy generation                         |
| YKE2  | CIN2    | YPL241C | 3 | SL | Cell structure                            |
| YKE2  | VIK1    | YPL253C | 0 | SS | Mitosis                                   |
| YKE2  | KAR9    | YPL269W | 2 | SS | Mitosis                                   |
| YKE2  | EAF3    | YPR023C | 1 | SS | Pol II Transcription                      |
| YKE2  | MCM16   | YPR046W | 1 | SL | Chromatin/chromosome structure            |
| YKE2  | MED1    | YPR070W | 0 | SS | Chromatin/chromosome structure            |
| YKE2  | CTF4    | YPR135W | 2 | SS | Chromatin/chromosome structure            |
| YKE2  | KAR3    | YPR141C | 3 | SL | Mitosis                                   |
| PAC10 | VPS8    | YAL002W | 1 | SS | Vesicular transport                       |
| PAC10 | SWC1    | YAL011W | 3 | SL | Unknown                                   |
| PAC10 | DRS2    | YAL026C | 1 | SS | Vesicular transport                       |
| PAC10 | BUD14   | YAR014C | 1 | SS | Cell polarity                             |
| PAC10 | SLA1    | YBL007C | 1 | SL | Cell polarity                             |
| PAC10 | NCL1    | YBL024W | 3 | SL | RNA processing                            |
| PAC10 | PIN4    | YBL051C | 1 | SS | RNA processing                            |
| PAC10 | SIF2    | YBR103W | 1 | SS | Chromatin/chromosome structure            |
| PAC10 | IML3    | YBR107C | 2 | SL | Chromatin/chromosome structure            |
| PAC10 | YBR108W | YBR108W | 1 | SS | Unknown                                   |
| PAC10 | RAD16   | YBR114W | 0 | SL | DNA repair                                |
| PAC10 | SEC66   | YBR171W | 0 | SL | Vesicular transport                       |
| PAC10 | AOR1    | YBR231C | 2 | SL | Unknown                                   |
| PAC10 | YBR255W | YBR255W | 1 | SS | Unknown                                   |
| PAC10 | DCC1    | YCL016C | 0 | SL | Chromatin/chromosome structure            |
| PAC10 | BIK1    | YCL029C | 3 | SL | Mitosis                                   |
| PAC10 | SNT1    | YCR033W | 0 | SL | Chromatin/chromosome structure            |
| PAC10 | PER1    | YCR044C | 0 | SL | Other metabolism                          |
| PAC10 | YCR082W | YCR082W | 1 | SS | Unknown                                   |
| PAC10 | CSM1    | YCR086W | 0 | SL | Meiosis                                   |
| PAC10 | RPN4    | YDL020C | 1 | SL | Protein degradation                       |
| PAC10 | CLB3    | YDL155W | 0 | SL | Cell cycle control                        |
| PAC10 | UGA3    | YDL170W | 2 | SS | Pol II transcription                      |
| PAC10 | MKC7    | YDR144C | 1 | SL | Unknown                                   |
| PAC10 | YDR149C | YDR149C | 0 | SL | Unknown                                   |
| PAC10 | NUM1    | YDR150W | 0 | SL | Mitosis                                   |
| PAC10 | PLP1    | YDR183W | 1 | SS | Mating response                           |
| PAC10 | CHL4    | YDR254W | 3 | SL | Chromatin/chromosome structure            |
| PAC10 | PMP3    | YDR276C | 1 | SL | Small molecule transport                  |
| PAC10 | RTT103  | YDR289C | 1 | SS | Unknown                                   |
| PAC10 | SSD1    | YDR293C | 3 | SS | Cell cycle control                        |
| PAC10 | SUM1    | YDR310C | 3 | SL | Chromatin/chromosome structure            |
| PAC10 | MCM21   | YDR318W | 0 | SL | Chromatin/chromosome structure            |
| PAC10 | SWR1    | YDR334W | 1 | SL | Unknown                                   |
| PAC10 | YDR360W | YDR360W | 1 | SS | Unknown                                   |
| PAC10 | DYN2    | YDR424C | 0 | SL | Mitosis                                   |
| PAC10 | VPS72   | YDR485C | 1 | SS | Vesicular transport                       |
| PAC10 | PAC11   | YDR488C | 0 | SL | Mitosis                                   |

|       |         |         |   |    |   |
|-------|---------|---------|---|----|---|
| PAC10 | SPF1    | YEL031W | 2 | SS | Small molecule transport                  |
| PAC10 | UTR4    | YEL038W | 1 | SS | Unknown                                   |
| PAC10 | CYC7    | YEL039C | 1 |    | SL Energy generation                      |
| PAC10 | YEL041W | YEL041W | 1 | SS | Unknown                                   |
| PAC10 | AFG1    | YEL052W | 1 | SS | Protein folding                           |
| PAC10 | MAK10   | YEL053C | 2 | SL | Protein modification                      |
| PAC10 | HAT2    | YEL056W | 1 | SS | Chromatin/chromosome structure            |
| PAC10 | CIN8    | YEL061C | 0 | SL | Mitosis                                   |
| PAC10 | PAC2    | YER007W | 3 | SL | Cell structure                            |
| PAC10 | BIM1    | YER016W | 3 | SL | Mitosis                                   |
| PAC10 | PEA2    | YER149C | 1 | SL | Cell polarity                             |
| PAC10 | BEM2    | YER155C | 1 | SS | Cell polarity                             |
| PAC10 | BMH1    | YER177W | 0 | SL | Differentiation                           |
| PAC10 | FAB1    | YFR019W | 0 | SL | Lipid metabolism                          |
| PAC10 | MAD1    | YGL086W | 3 | SL | Mitosis                                   |
| PAC10 | MMS2    | YGL087C | 2 | SS | DNA repair                                |
| PAC10 | KEM1    | YGL173C | 2 | SS | RNA processing                            |
| PAC10 | HOS2    | YGL194C | 1 | SS | Chromatin/chromosome structure            |
| PAC10 | YGL242C | YGL242C | 1 | SS | Unknown                                   |
| PAC10 | HXK2    | YGL253W | 2 | SS | Carbohydrate metabolism                   |
| PAC10 | YGR054W | YGR054W | 2 | SS | Unknown                                   |
| PAC10 | CLB1    | YGR108W | 2 | SS | Cell cycle control                        |
| PAC10 | SHY1    | YGR112W | 2 | SS | Energy generation                         |
| PAC10 | SMI1    | YGR229C | 1 | SL | Cell wall organization and biogenesis     |
| PAC10 | HSE1    | YHL002W | 0 | SS | Transport                                 |
| PAC10 | YHL029C | YHL029C | 2 | SS | Unknown                                   |
| PAC10 | VPS29   | YHR012W | 2 | SS | Vesicular transport                       |
| PAC10 | UBA4    | YHR111W | 2 | SS | Protein modification                      |
| PAC10 | BZZ1    | YHR114W | 0 | SS | Cell polarity                             |
| PAC10 | ARP1    | YHR129C | 0 | SS | Mitosis                                   |
| PAC10 | WSS1    | YHR134W | 1 | SS | DNA repair                                |
| PAC10 | STB5    | YHR178W | 2 | SS | Pol II transcription                      |
| PAC10 | CTF8    | YHR191C | 0 | SS | Chromatin/chromosome structure            |
| PAC10 | URM1    | YIL008W | 1 | SS | Protein modification                      |
| PAC10 | CAP2    | YIL034C | 1 | SS | Cell structure                            |
| PAC10 | SDS3    | YIL084C | 1 | SS | Chromatin/chromosome structure            |
| PAC10 | PRK1    | YIL095W | 1 | SS | Cell polarity                             |
| PAC10 | MAD3    | YJL013C | 0 | SL | Mitosis                                   |
| PAC10 | BBC1    | YJL020C | 1 | SS | Cell polarity                             |
| PAC10 | MAD2    | YJL030W | 0 | SL | Mitosis                                   |
| PAC10 | RPS22A  | YJL190C | 1 | SS | Protein synthesis                         |
| PAC10 | CPR7    | YJR032W | 0 | SL | Protein folding                           |
| PAC10 | BFA1    | YJR053W | 3 | SL | Mitosis                                   |
| PAC10 | HOC1    | YJR075W | 3 | SS | Cell wall organization and biogenesis     |
| PAC10 | STE24   | YJR117W | 2 | SL | Protein modification                      |
| PAC10 | YJR129C | YJR129C | 2 | SL | Unknown                                   |
| PAC10 | MCM22   | YJR135C | 2 | SL | Chromatin/chromosome structure            |
| PAC10 | ELM1    | YKL048C | 1 | SS | Cell polarity                             |
| PAC10 | DYN1    | YKR054C | 0 | SS | Mitosis                                   |
| PAC10 | DNM1    | YLL001W | 1 | SS | Cell structure                            |
| PAC10 | MMM1    | YLL006W | 1 | SS | Cell structure                            |
| PAC10 | YLL007C | YLL007C | 1 | SS | Unknown                                   |
| PAC10 | YLL049W | YLL049W | 2 | SL | Unknown                                   |
| PAC10 | ARP6    | YLR085C | 1 | SL | Cell structure                            |
| PAC10 | YLR089C | YLR089C | 2 | SL | Mitochondrion organization and biogenesis |
| PAC10 | CLB4    | YLR210W | 0 | SS | Cell cycle control                        |
| PAC10 | TOP3    | YLR234W | 1 | SS | Chromatin/chromosome structure            |
| PAC10 | SEC72   | YLR292C | 3 | SL | Protein translocation                     |
| PAC10 | VRP1    | YLR337C | 1 | SL | Cell polarity                             |
| PAC10 | CTF3    | YLR381W | 2 | SL | Chromatin/chromosome structure            |
| PAC10 | RAD52   | YML032C | 1 | SS | DNA repair                                |

|       |         |         |   |    |   |
|-------|---------|---------|---|----|---|
| PAC10 | TUB3    | YML124C | 3 | SL | Cell structure                            |
| PAC10 | BUB2    | YMR055C | 0 | SS | Mitosis                                   |
| PAC10 | CTF18   | YMR078C | 0 | SL | Chromatin/chromosome structure            |
| PAC10 | MYO5    | YMR109W | 1 | SS | Cell polarity                             |
| PAC10 | CIN4    | YMR138W | 2 | SS | Cell structure                            |
| PAC10 | RIM13   | YMR154C | 1 | SS | Meiosis                                   |
| PAC10 | HOT1    | YMR172W | 1 | SS | Cell stress                               |
| PAC10 | JNM1    | YMR294W | 3 | SL | Mitosis                                   |
| PAC10 | YMR299C | YMR299C | 1 | SS | Mitosis                                   |
| PAC10 | ELP6    | YMR312W | 2 |    | SS Pol II transcription                   |
| PAC10 | YNL140C | YNL140C | 1 | SS | Unknown                                   |
| PAC10 | BNI5    | YNL166C | 1 | SL | Cytokinesis                               |
| PAC10 | CAF40   | YNL288W | 1 | SL | Pol II transcription                      |
| PAC10 | RIM21   | YNL294C | 1 | SL | Unknown                                   |
| PAC10 | CLA4    | YNL298W | 0 | SS | Cell polarity                             |
| PAC10 | HTZ1    | YOL012C | 0 | SL | Chromatin/chromosome structure            |
| PAC10 | RTG1    | YOL067C | 1 | SS | Carbohydrate metabolism                   |
| PAC10 | AHC1    | YOR023C | 0 | SL | Protein modification                      |
| PAC10 | BUB3    | YOR026W | 1 | SS | Mitosis                                   |
| PAC10 | ASE1    | YOR058C | 2 | SS | Mitosis                                   |
| PAC10 | RGA1    | YOR127W | 0 | SL | Cell polarity                             |
| PAC10 | VPS17   | YOR132W | 2 | SL | Vesicular transport                       |
| PAC10 | RUD3    | YOR216C | 2 | SL | Vesicular transport                       |
| PAC10 | DSE3    | YOR264W | 3 | SL | Differentiation                           |
| PAC10 | RBL2    | YOR265W | 3 | SL | Cell structure                            |
| PAC10 | PNT1    | YOR266W | 3 | SL | Mitochondrion organization and biogenesis |
| PAC10 | PAC1    | YOR269W | 3 | SL | Mitosis                                   |
| PAC10 | SPS4    | YOR313C | 0 | SS | Meiosis                                   |
| PAC10 | CIN1    | YOR349W | 3 | SL | Cell structure                            |
| PAC10 | CHL1    | YPL008W | 0 | SL | Chromatin/chromosome structure            |
| PAC10 | YPL017C | YPL017C | 1 | SS | Unknown                                   |
| PAC10 | CTF19   | YPL018W | 0 | SL | Chromatin/chromosome structure            |
| PAC10 | BEM3    | YPL115C | 1 | SL | Cell polarity                             |
| PAC10 | KIP2    | YPL155C | 3 | SS | Mitosis                                   |
| PAC10 | BEM4    | YPL161C | 1 | SS | Cell polarity                             |
| PAC10 | SET6    | YPL165C | 2 | SS | Unknown                                   |
| PAC10 | NIP100  | YPL174C | 3 | SL | Mitosis                                   |
| PAC10 | CIN2    | YPL241C | 3 | SL | Cell structure                            |
| PAC10 | VIK1    | YPL253C | 3 | SL | Mitosis                                   |
| PAC10 | KAR9    | YPL269W | 0 | SL | Mitosis                                   |
| PAC10 | EAF3    | YPR023C | 1 | SS | Pol II Transcription                      |
| PAC10 | MCM16   | YPR046W | 1 | SS | Chromatin/chromosome structure            |
| PAC10 | YPR050C | YPR050C | 2 | SL | Unknown                                   |
| PAC10 | MAK3    | YPR051W | 1 | SS | Protein modification                      |
| PAC10 | MED1    | YPR070W | 1 | SS | Chromatin/chromosome structure            |
| PAC10 | CTF4    | YPR135W | 1 | SL | Chromatin/chromosome structure            |
| PAC10 | KAR3    | YPR141C | 1 | SS | Mitosis                                   |
| GIM3  | SWC1    | YAL011W | 2 | SL | Unknown                                   |
| GIM3  | SLA1    | YBL007C | 3 | SL | Cell polarity                             |
| GIM3  | NCL1    | YBL024W | 0 | SL | RNA processing                            |
| GIM3  | SIF2    | YBR103W | 1 | SS | Chromatin/chromosome structure            |
| GIM3  | IML3    | YBR107C | 1 | SS | Chromatin/chromosome structure            |
| GIM3  | YBR108W | YBR108W | 1 | SS | Unknown                                   |
| GIM3  | SEC66   | YBR171W | 2 | SL | Vesicular transport                       |
| GIM3  | BEM1    | YBR200W | 0 | SL | Cell polarity                             |
| GIM3  | AOR1    | YBR231C | 0 | SL | Unknown                                   |
| GIM3  | BSD2    | YBR290W | 1 |    | SS Transport                              |
| GIM3  | DCC1    | YCL016C | 3 | SL | Chromatin/chromosome structure            |
| GIM3  | BIK1    | YCL029C | 3 | SL | Mitosis                                   |
| GIM3  | PER1    | YCR044C | 1 | SS | Other metabolism                          |
| GIM3  | CSM1    | YCR086W | 1 | SS | Meiosis                                   |

|      |         |         |   |    |   |
|------|---------|---------|---|----|---|
| GIM3 | CLB3    | YDL155W | 1 | SS | Cell cycle control                        |
| GIM3 | UGA3    | YDL170W | 1 | SS | Pol II transcription                      |
| GIM3 | YDR149C | YDR149C | 3 | SS | Unknown                                   |
| GIM3 | NUM1    | YDR150W | 3 | SS | Mitosis                                   |
| GIM3 | PLP1    | YDR183W | 2 | SS | Mating response                           |
| GIM3 | CHL4    | YDR254W | 0 | SL | Chromatin/chromosome structure            |
| GIM3 | PMP3    | YDR276C | 1 | SS | Small molecule transport                  |
| GIM3 | RTT103  | YDR289C | 0 | SS | Unknown                                   |
| GIM3 | SSD1    | YDR293C | 0 | SS | Cell cycle control                        |
| GIM3 | SUM1    | YDR310C | 3 | SL | Chromatin/chromosome structure            |
| GIM3 | MCM21   | YDR318W | 2 | SL | Chromatin/chromosome structure            |
| GIM3 | SWR1    | YDR334W | 2 | SL | Unknown                                   |
| GIM3 | YDR360W | YDR360W | 1 | SS | Unknown                                   |
| GIM3 | DYN2    | YDR424C | 2 | SS | Mitosis                                   |
| GIM3 | VPS72   | YDR485C | 2 | SL | Vesicular transport                       |
| GIM3 | PAC11   | YDR488C | 1 | SS | Mitosis                                   |
| GIM3 | CIN8    | YEL061C | 0 | SL | Mitosis                                   |
| GIM3 | PAC2    | YER007W | 3 | SL | Cell structure                            |
| GIM3 | BIM1    | YER016W | 3 | SL | Mitosis                                   |
| GIM3 | BEM2    | YER155C | 2 | SL | Cell polarity                             |
| GIM3 | BMH1    | YER177W | 1 | SS | Differentiation                           |
| GIM3 | FAB1    | YFR019W | 2 | SL | Lipid metabolism                          |
| GIM3 | MAD1    | YGL086W | 3 | SL | Mitosis                                   |
| GIM3 | HXK2    | YGL253W | 1 | SL | Carbohydrate metabolism                   |
| GIM3 | YGR054W | YGR054W | 1 | SS | Unknown                                   |
| GIM3 | BUB1    | YGR188C | 0 | SL | Mitosis                                   |
| GIM3 | SMI1    | YGR229C | 1 | SS | Cell wall organization and biogenesis     |
| GIM3 | YTA7    | YGR270W | 1 | SS | Vacuolar organization and biogenesis      |
| GIM3 | VPS29   | YHR012W | 2 | SS | Vesicular transport                       |
| GIM3 | SLT2    | YHR030C | 1 | SS | Cell wall organization and biogenesis     |
| GIM3 | UBA4    | YHR111W | 0 | SS | Protein modification                      |
| GIM3 | ARP1    | YHR129C | 3 | SL | Mitosis                                   |
| GIM3 | STB5    | YHR178W | 1 | SL | Pol II transcription                      |
| GIM3 | CTF8    | YHR191C | 0 | SL | Chromatin/chromosome structure            |
| GIM3 | PRK1    | YIL095W | 1 | SS | Cell polarity                             |
| GIM3 | MAD3    | YJL013C | 1 | SL | Mitosis                                   |
| GIM3 | BBC1    | YJL020C | 1 | SS | Cell polarity                             |
| GIM3 | MAD2    | YJL030W | 2 | SL | Mitosis                                   |
| GIM3 | BCK1    | YJL095W | 0 | SL | Cell wall organization and biogenesis     |
| GIM3 | MNN11   | YJL183W | 1 | SS | Protein modification                      |
| GIM3 | RPS22A  | YJL190C | 1 | SL | Protein synthesis                         |
| GIM3 | CPR7    | YJR032W | 2 | SS | Protein folding                           |
| GIM3 | BFA1    | YJR053W | 3 | SL | Mitosis                                   |
| GIM3 | HOC1    | YJR075W | 3 | SL | Cell wall organization and biogenesis     |
| GIM3 | STE24   | YJR117W | 3 | SL | Protein modification                      |
| GIM3 | MCM22   | YJR135C | 2 | SL | Chromatin/chromosome structure            |
| GIM3 | PAN3    | YKL025C | 3 | SS | DNA repair                                |
| GIM3 | ELM1    | YKL048C | 2 | SL | Cell polarity                             |
| GIM3 | YKL118W | YKL118W | 1 | SS | Unknown                                   |
| GIM3 | DYN1    | YKR054C | 2 | SL | Mitosis                                   |
| GIM3 | MMM1    | YLL006W | 2 | SS | Cell structure                            |
| GIM3 | YLL049W | YLL049W | 1 | SS | Unknown                                   |
| GIM3 | ARP6    | YLR085C | 3 | SL | Cell structure                            |
| GIM3 | YLR089C | YLR089C | 2 | SL | Mitochondrion organization and biogenesis |
| GIM3 | VRP1    | YLR337C | 0 | SL | Cell polarity                             |
| GIM3 | CTF3    | YLR381W | 2 | SL | Chromatin/chromosome structure            |
| GIM3 | VAC14   | YLR386W | 3 | SS | Vacuolar organization and biogenesis      |
| GIM3 | VMA6    | YLR447C | 1 | SS | Vacuolar organization and biogenesis      |
| GIM3 | RAD52   | YML032C | 2 | SS | DNA repair                                |
| GIM3 | VPS71   | YML041C | 3 | SL | Vesicular transport                       |
| GIM3 | TUB3    | YML124C | 3 | SL | Cell structure                            |

|      |         |         |   |    |    |   |
|------|---------|---------|---|----|----|---|
| GIM3 | BUB2    | YMR055C | 3 | SL |    | Mitosis                                   |
| GIM3 | CTF18   | YMR078C | 0 | SS | SL | Chromatin/chromosome structure            |
| GIM3 | MYO5    | YMR109W | 0 | SL |    | Cell polarity                             |
| GIM3 | CIN4    | YMR138W | 3 | SL |    | Cell structure                            |
| GIM3 | RIM13   | YMR154C | 1 | SS |    | Meiosis                                   |
| GIM3 | JNM1    | YMR294W | 3 | SL |    | Mitosis                                   |
| GIM3 | YMR299C | YMR299C | 2 | SL |    | Mitosis                                   |
| GIM3 | ELP6    | YMR312W | 1 | SS |    | Pol II transcription                      |
| GIM3 | BNI5    | YNL166C | 1 | SL |    | Cytokinesis                               |
| GIM3 | RIM21   | YNL294C | 1 | SS |    | Unknown                                   |
| GIM3 | CLA4    | YNL298W | 0 | SL |    | Cell polarity                             |
| GIM3 | HTZ1    | YOL012C | 0 | SL |    | Chromatin/chromosome structure            |
| GIM3 | AHC1    | YOR023C | 1 |    | SL | Protein modification                      |
| GIM3 | BUB3    | YOR026W | 0 |    | SL | Mitosis                                   |
| GIM3 | ASE1    | YOR058C | 2 | SL |    | Mitosis                                   |
| GIM3 | RUD3    | YOR216C | 3 | SL |    | Vesicular transport                       |
| GIM3 | DSE3    | YOR264W | 2 | SL |    | Differentiation                           |
| GIM3 | RBL2    | YOR265W | 3 | SL |    | Cell structure                            |
| GIM3 | PNT1    | YOR266W | 3 | SL |    | Mitochondrion organization and biogenesis |
| GIM3 | PAC1    | YOR269W | 2 | SL |    | Mitosis                                   |
| GIM3 | CIN1    | YOR349W | 3 | SL |    | Cell structure                            |
| GIM3 | HAP5    | YOR358W | 1 | SS |    | Pol II transcription                      |
| GIM3 | CHL1    | YPL008W | 0 | SL |    | Chromatin/chromosome structure            |
| GIM3 | YPL017C | YPL017C | 1 | SS |    | Unknown                                   |
| GIM3 | CTF19   | YPL018W | 2 | SL |    | Chromatin/chromosome structure            |
| GIM3 | BEM3    | YPL115C | 1 | SS |    | Cell polarity                             |
| GIM3 | KIP2    | YPL155C | 2 | SL |    | Mitosis                                   |
| GIM3 | SET6    | YPL165C | 1 | SS |    | Unknown                                   |
| GIM3 | NIP100  | YPL174C | 3 | SL |    | Mitosis                                   |
| GIM3 | CIN2    | YPL241C | 3 | SL |    | Cell structure                            |
| GIM3 | VIK1    | YPL253C | 0 | SL |    | Mitosis                                   |
| GIM3 | KAR9    | YPL269W | 2 | SL |    | Mitosis                                   |
| GIM3 | EAF3    | YPR023C | 1 | SS |    | Pol II Transcription                      |
| GIM3 | MCM16   | YPR046W | 1 | SS |    | Chromatin/chromosome structure            |
| GIM3 | MED1    | YPR070W | 1 | SS |    | Chromatin/chromosome structure            |
| GIM3 | CTF4    | YPR135W | 1 | SL |    | Chromatin/chromosome structure            |
| GIM3 | KAR3    | YPR141C | 0 | SL |    | Mitosis                                   |
| GIM4 | SWC1    | YAL011W | 3 | SL |    | Unknown                                   |
| GIM4 | SLA1    | YBL007C | 1 | SS |    | Cell polarity                             |
| GIM4 | NCL1    | YBL024W | 3 | SS |    | RNA processing                            |
| GIM4 | PIN4    | YBL051C | 1 | SS |    | RNA processing                            |
| GIM4 | SIF2    | YBR103W | 2 | SS |    | Chromatin/chromosome structure            |
| GIM4 | IML3    | YBR107C | 1 | SS |    | Chromatin/chromosome structure            |
| GIM4 | SEC66   | YBR171W | 0 | SS |    | Vesicular transport                       |
| GIM4 | AOR1    | YBR231C | 2 | SS |    | Unknown                                   |
| GIM4 | DCC1    | YCL016C | 3 |    | SL | Chromatin/chromosome structure            |
| GIM4 | BIK1    | YCL029C | 2 | SL |    | Mitosis                                   |
| GIM4 | PER1    | YCR044C | 1 | SS |    | Other metabolism                          |
| GIM4 | YCR082W | YCR082W | 2 | SS | SL | Unknown                                   |
| GIM4 | CSM1    | YCR086W | 2 | SL |    | Meiosis                                   |
| GIM4 | CBS1    | YDL069C | 1 | SS |    | Protein synthesis                         |
| GIM4 | CLB3    | YDL155W | 2 |    | SS | Cell cycle control                        |
| GIM4 | YDR149C | YDR149C | 2 | SS |    | Unknown                                   |
| GIM4 | NUM1    | YDR150W | 0 | SS |    | Mitosis                                   |
| GIM4 | CPR1    | YDR155C | 0 | SS |    | Protein folding                           |
| GIM4 | CHL4    | YDR254W | 0 | SS |    | Chromatin/chromosome structure            |
| GIM4 | PMP3    | YDR276C | 2 |    | SS | Small molecule transport                  |
| GIM4 | RTT103  | YDR289C | 0 | SS |    | Unknown                                   |
| GIM4 | MCM21   | YDR318W | 2 | SS |    | Chromatin/chromosome structure            |
| GIM4 | SWR1    | YDR334W | 2 | SL |    | Unknown                                   |
| GIM4 | DYN2    | YDR424C | 0 | SL |    | Mitosis                                   |

|      |         |         |   |    |   |
|------|---------|---------|---|----|---|
| GIM4 | VPS72   | YDR485C | 0 | SL | Vesicular transport                       |
| GIM4 | PAC11   | YDR488C | 1 | SS | Mitosis                                   |
| GIM4 | CIN8    | YEL061C | 2 | SL | Mitosis                                   |
| GIM4 | PAC2    | YER007W | 1 | SL | Cell structure                            |
| GIM4 | BIM1    | YER016W | 3 | SL | Mitosis                                   |
| GIM4 | ISC1    | YER019W | 1 | SS | Lipid metabolism                          |
| GIM4 | PEA2    | YER149C | 1 | SS | Cell polarity                             |
| GIM4 | BEM2    | YER155C | 1 | SS | Cell polarity                             |
| GIM4 | BMH1    | YER177W | 1 | SS | Differentiation                           |
| GIM4 | FAB1    | YFR019W | 0 | SL | Lipid metabolism                          |
| GIM4 | MAD1    | YGL086W | 3 | SL | Mitosis                                   |
| GIM4 | MMS2    | YGL087C | 0 | SS | DNA repair                                |
| GIM4 | HXK2    | YGL253W | 0 | SS | Carbohydrate metabolism                   |
| GIM4 | BUB1    | YGR188C | 0 | SL | Mitosis                                   |
| GIM4 | YTA7    | YGR270W | 0 | SL | Vacuolar organization and biogenesis      |
| GIM4 | HSE1    | YHL002W | 1 | SS | Transport                                 |
| GIM4 | VPS29   | YHR012W | 1 | SL | Vesicular transport                       |
| GIM4 | UBA4    | YHR111W | 1 | SS | Protein modification                      |
| GIM4 | ARP1    | YHR129C | 3 | SS | Mitosis                                   |
| GIM4 | CTF8    | YHR191C | 0 | SL | Chromatin/chromosome structure            |
| GIM4 | CAP2    | YIL034C | 0 | SS | Cell structure                            |
| GIM4 | SDS3    | YIL084C | 0 | SS | Chromatin/chromosome structure            |
| GIM4 | PRK1    | YIL095W | 0 | SL | Cell polarity                             |
| GIM4 | MAD3    | YJL013C | 2 | SS | Mitosis                                   |
| GIM4 | BBC1    | YJL020C | 0 | SL | Cell polarity                             |
| GIM4 | MAD2    | YJL030W | 3 | SL | Mitosis                                   |
| GIM4 | MNN11   | YJL183W | 2 | SL | Protein modification                      |
| GIM4 | RPS22A  | YJL190C | 0 | SS | Protein synthesis                         |
| GIM4 | CPR7    | YJR032W | 1 | SS | Protein folding                           |
| GIM4 | BFA1    | YJR053W | 2 | SL | Mitosis                                   |
| GIM4 | HOC1    | YJR075W | 0 | SS | Cell wall organization and biogenesis     |
| GIM4 | STE24   | YJR117W | 3 | SL | Protein modification                      |
| GIM4 | YJR129C | YJR129C | 0 | SS | Unknown                                   |
| GIM4 | MCM22   | YJR135C | 0 | SS | Chromatin/chromosome structure            |
| GIM4 | PAN3    | YKL025C | 2 | SL | DNA repair                                |
| GIM4 | ELM1    | YKL048C | 3 | SL | Cell polarity                             |
| GIM4 | YKL118W | YKL118W | 3 | SL | Unknown                                   |
| GIM4 | DYN1    | YKR054C | 0 | SS | Mitosis                                   |
| GIM4 | DNM1    | YLL001W | 1 | SS | Cell structure                            |
| GIM4 | MMM1    | YLL006W | 0 | SL | Cell structure                            |
| GIM4 | YLL007C | YLL007C | 1 | SS | Unknown                                   |
| GIM4 | YLL049W | YLL049W | 2 | SS | Unknown                                   |
| GIM4 | ARP6    | YLR085C | 3 | SL | Cell structure                            |
| GIM4 | YLR089C | YLR089C | 1 | SL | Mitochondrion organization and biogenesis |
| GIM4 | SEC72   | YLR292C | 1 | SS | Protein translocation                     |
| GIM4 | VRP1    | YLR337C | 0 | SL | Cell polarity                             |
| GIM4 | CTF3    | YLR381W | 0 | SS | Chromatin/chromosome structure            |
| GIM4 | VAC14   | YLR386W | 1 | SS | Vacuolar organization and biogenesis      |
| GIM4 | VMA6    | YLR447C | 0 | SL | Vacuolar organization and biogenesis      |
| GIM4 | RAD52   | YML032C | 1 | SS | DNA repair                                |
| GIM4 | VPS71   | YML041C | 3 | SL | Vesicular transport                       |
| GIM4 | RAD10   | YML095C | 0 | SS | DNA repair                                |
| GIM4 | TUB3    | YML124C | 3 | SL | Cell structure                            |
| GIM4 | MSC1    | YML128C | 0 | SL | Unknown                                   |
| GIM4 | BUB2    | YMR055C | 0 | SS | Mitosis                                   |
| GIM4 | CTF18   | YMR078C | 0 | SL | Chromatin/chromosome structure            |
| GIM4 | MYO5    | YMR109W | 0 | SL | Cell polarity                             |
| GIM4 | CIN4    | YMR138W | 3 | SL | Cell structure                            |
| GIM4 | RIM13   | YMR154C | 1 | SS | Meiosis                                   |
| GIM4 | JNM1    | YMR294W | 2 | SS | Mitosis                                   |
| GIM4 | YMR299C | YMR299C | 1 | SS | Mitosis                                   |

|      |         |         |   |    |   |
|------|---------|---------|---|----|---|
| GIM4 | ELP6    | YMR312W | 1 | SS | Pol II transcription                      |
| GIM4 | YNL140C | YNL140C | 1 | SS | Unknown                                   |
| GIM4 | RIM21   | YNL294C | 1 | SS | Unknown                                   |
| GIM4 | CLA4    | YNL298W | 0 | SS | Cell polarity                             |
| GIM4 | HTZ1    | YOL012C | 3 | SL | Chromatin/chromosome structure            |
| GIM4 | MSN1    | YOL116W | 0 | SS | Cell stress                               |
| GIM4 | AHC1    | YOR023C | 1 | SS | Protein modification                      |
| GIM4 | BUB3    | YOR026W | 1 | SS | Mitosis                                   |
| GIM4 | ASE1    | YOR058C | 0 | SS | Mitosis                                   |
| GIM4 | RGA1    | YOR127W | 1 | SS | Cell polarity                             |
| GIM4 | RUD3    | YOR216C | 1 | SS | Vesicular transport                       |
| GIM4 | DSE3    | YOR264W | 3 | SL | Differentiation                           |
| GIM4 | RBL2    | YOR265W | 3 | SL | Cell structure                            |
| GIM4 | PNT1    | YOR266W | 3 | SL | Mitochondrion organization and biogenesis |
| GIM4 | PAC1    | YOR269W | 0 | SL | Mitosis                                   |
| GIM4 | CIN1    | YOR349W | 3 | SL | Cell structure                            |
| GIM4 | HAP5    | YOR358W | 1 | SS | Pol II transcription                      |
| GIM4 | CHL1    | YPL008W | 0 | SL | Chromatin/chromosome structure            |
| GIM4 | YPL017C | YPL017C | 1 | SS | Unknown                                   |
| GIM4 | CTF19   | YPL018W | 2 | SL | Chromatin/chromosome structure            |
| GIM4 | KIP2    | YPL155C | 0 | SL | Mitosis                                   |
| GIM4 | BEM4    | YPL161C | 0 | SS | Cell polarity                             |
| GIM4 | NIP100  | YPL174C | 0 | SS | Mitosis                                   |
| GIM4 | MMT2    | YPL224C | 1 | SS | Small molecule transport                  |
| GIM4 | CIN2    | YPL241C | 3 | SL | Cell structure                            |
| GIM4 | VIK1    | YPL253C | 0 | SS | Mitosis                                   |
| GIM4 | KAR9    | YPL269W | 0 | SL | Mitosis                                   |
| GIM4 | EAF3    | YPR023C | 0 | SS | Pol II Transcription                      |
| GIM4 | MCM16   | YPR046W | 0 | SS | SS Chromatin/chromosome structure         |
| GIM4 | YPR050C | YPR050C | 1 | SS | SS Unknown                                |
| GIM4 | MED1    | YPR070W | 1 | SL | Chromatin/chromosome structure            |
| GIM4 | CTF4    | YPR135W | 1 | SL | Chromatin/chromosome structure            |
| GIM4 | KAR3    | YPR141C | 0 | SL | Mitosis                                   |
| GIM5 | VPS8    | YAL002W | 0 | SS | SS Vesicular transport                    |
| GIM5 | SWC1    | YAL011W | 1 | SS | Unknown                                   |
| GIM5 | DRS2    | YAL026C | 1 | SL | SL Vesicular transport                    |
| GIM5 | SLA1    | YBL007C | 0 | SS | SL Cell polarity                          |
| GIM5 | NCL1    | YBL024W | 0 | SS | RNA processing                            |
| GIM5 | PIN4    | YBL051C | 1 | SS | RNA processing                            |
| GIM5 | SIF2    | YBR103W | 1 | SS | Chromatin/chromosome structure            |
| GIM5 | IML3    | YBR107C | 1 | SS | Chromatin/chromosome structure            |
| GIM5 | YBR108W | YBR108W | 1 | SS | Unknown                                   |
| GIM5 | SEC66   | YBR171W | 2 | SL | Vesicular transport                       |
| GIM5 | AOR1    | YBR231C | 1 | SS | Unknown                                   |
| GIM5 | YBR255W | YBR255W | 1 | SS | Unknown                                   |
| GIM5 | BSD2    | YBR290W | 1 | SS | Transport                                 |
| GIM5 | DCC1    | YCL016C | 2 | SL | Chromatin/chromosome structure            |
| GIM5 | BIK1    | YCL029C | 3 | SL | Mitosis                                   |
| GIM5 | CSM1    | YCR086W | 1 | SS | Meiosis                                   |
| GIM5 | RPN4    | YDL020C | 1 | SS | Protein degradation                       |
| GIM5 | CLB3    | YDL155W | 2 | SS | Cell cycle control                        |
| GIM5 | MKC7    | YDR144C | 1 | SS | Unknown                                   |
| GIM5 | YDR149C | YDR149C | 1 | SS | Unknown                                   |
| GIM5 | NUM1    | YDR150W | 1 | SL | Mitosis                                   |
| GIM5 | PLP1    | YDR183W | 1 | SS | Mating response                           |
| GIM5 | CHL4    | YDR254W | 1 | SS | Chromatin/chromosome structure            |
| GIM5 | PMP3    | YDR276C | 1 | SL | SL Small molecule transport               |
| GIM5 | SSD1    | YDR293C | 2 | SS | Cell cycle control                        |
| GIM5 | SUM1    | YDR310C | 1 | SL | Chromatin/chromosome structure            |
| GIM5 | MCM21   | YDR318W | 2 | SS | Chromatin/chromosome structure            |
| GIM5 | SWR1    | YDR334W | 0 | SL | Unknown                                   |

|      |         |         |   |    |   |
|------|---------|---------|---|----|---|
| GIM5 | YDR360W | YDR360W | 1 | SS | Unknown                                   |
| GIM5 | DYN2    | YDR424C | 2 | SS | Mitosis                                   |
| GIM5 | VPS72   | YDR485C | 0 | SL | Vesicular transport                       |
| GIM5 | PAC11   | YDR488C | 1 | SS | Mitosis                                   |
| GIM5 | SPF1    | YEL031W | 0 | SS | Small molecule transport                  |
| GIM5 | MAK10   | YEL053C | 3 | SS | Protein modification                      |
| GIM5 | CIN8    | YEL061C | 1 | SL | Mitosis                                   |
| GIM5 | PAC2    | YER007W | 3 | SL | Cell structure                            |
| GIM5 | BIM1    | YER016W | 0 | SL | Mitosis                                   |
| GIM5 | KAP123  | YER110C | 1 | SS | Nuclear-cytoplasmic transport             |
| GIM5 | BEM2    | YER155C | 1 | SS | Cell polarity                             |
| GIM5 | BMH1    | YER177W | 1 | SS | Differentiation                           |
| GIM5 | FAB1    | YFR019W | 2 | SS | Lipid metabolism                          |
| GIM5 | MAD1    | YGL086W | 3 | SS | Mitosis                                   |
| GIM5 | MMS2    | YGL087C | 3 | SS | DNA repair                                |
| GIM5 | MON1    | YGL124C | 1 | SS | Unknown                                   |
| GIM5 | NUT1    | YGL151W | 1 | SS | Pol II transcription                      |
| GIM5 | KEM1    | YGL173C | 1 | SL | RNA processing                            |
| GIM5 | HOS2    | YGL194C | 1 | SS | Chromatin/chromosome structure            |
| GIM5 | HXK2    | YGL253W | 1 | SS | Carbohydrate metabolism                   |
| GIM5 | UGA1    | YGR019W | 1 | SS | Amino-acid metabolism                     |
| GIM5 | YGR054W | YGR054W | 1 | SS | Unknown                                   |
| GIM5 | BUB1    | YGR188C | 1 | SL | Mitosis                                   |
| GIM5 | SMI1    | YGR229C | 1 | SS | Cell wall organization and biogenesis     |
| GIM5 | YTA7    | YGR270W | 1 | SS | Vacuolar organization and biogenesis      |
| GIM5 | YHL029C | YHL029C | 1 | SS | Unknown                                   |
| GIM5 | VPS29   | YHR012W | 1 | SS | Vesicular transport                       |
| GIM5 | SLT2    | YHR030C | 1 | SS | Cell wall organization and biogenesis     |
| GIM5 | UBA4    | YHR111W | 1 | SS | Protein modification                      |
| GIM5 | BZZ1    | YHR114W | 1 | SS | Cell polarity                             |
| GIM5 | ARP1    | YHR129C | 1 | SS | Mitosis                                   |
| GIM5 | WSS1    | YHR134W | 1 | SS | DNA repair                                |
| GIM5 | STB5    | YHR178W | 1 | SS | Pol II transcription                      |
| GIM5 | CTF8    | YHR191C | 0 | SS | Chromatin/chromosome structure            |
| GIM5 | URM1    | YIL008W | 1 | SS | Protein modification                      |
| GIM5 | CAP2    | YIL034C | 1 | SS | Cell structure                            |
| GIM5 | PRK1    | YIL095W | 0 | SS | Cell polarity                             |
| GIM5 | MAD3    | YJL013C | 1 | SS | Mitosis                                   |
| GIM5 | BBC1    | YJL020C | 1 | SS | Cell polarity                             |
| GIM5 | MAD2    | YJL030W | 3 | SS | Mitosis                                   |
| GIM5 | BCK1    | YJL095W | 0 | SS | Cell wall organization and biogenesis     |
| GIM5 | VPS35   | YJL154C | 1 | SS | Vesicular transport                       |
| GIM5 | RPS22A  | YJL190C | 1 | SS | Protein synthesis                         |
| GIM5 | CPR7    | YJR032W | 1 | SS | Protein folding                           |
| GIM5 | BFA1    | YJR053W | 2 | SS | Mitosis                                   |
| GIM5 | HOC1    | YJR075W | 3 | SS | Cell wall organization and biogenesis     |
| GIM5 | STE24   | YJR117W | 2 | SS | Protein modification                      |
| GIM5 | MCM22   | YJR135C | 0 | SL | Chromatin/chromosome structure            |
| GIM5 | PAN3    | YKL025C | 3 | SS | DNA repair                                |
| GIM5 | ELM1    | YKL048C | 1 | SS | Cell polarity                             |
| GIM5 | YKL118W | YKL118W | 1 | SS | Unknown                                   |
| GIM5 | DYN1    | YKR054C | 0 | SS | Mitosis                                   |
| GIM5 | DNM1    | YLL001W | 1 | SS | Cell structure                            |
| GIM5 | MMM1    | YLL006W | 1 | SS | Cell structure                            |
| GIM5 | YLL007C | YLL007C | 1 | SS | Unknown                                   |
| GIM5 | YLL049W | YLL049W | 1 | SL | Unknown                                   |
| GIM5 | ARP6    | YLR085C | 1 | SL | Cell structure                            |
| GIM5 | YLR089C | YLR089C | 1 | SL | Mitochondrion organization and biogenesis |
| GIM5 | SEC72   | YLR292C | 1 | SS | Protein translocation                     |
| GIM5 | VRP1    | YLR337C | 1 | SL | Cell polarity                             |
| GIM5 | VPS38   | YLR360W | 1 | SL | Vesicular transport                       |



|      |         |         |   |    |   |
|------|---------|---------|---|----|---|
| GIM5 | CTF3    | YLR381W | 1 | SS | Chromatin/chromosome structure            |
| GIM5 | VAC14   | YLR386W | 3 | SL | Vacuolar organization and biogenesis      |
| GIM5 | VMA6    | YLR447C | 1 | SS | Vacuolar organization and biogenesis      |
| GIM5 | RAD52   | YML032C | 1 | SS | DNA repair                                |
| GIM5 | VPS71   | YML041C | 2 | SS | Vesicular transport                       |
| GIM5 | GSF2    | YML048W | 1 | SS | Carbohydrate metabolism                   |
| GIM5 | TUB3    | YML124C | 2 | SS | Cell structure                            |
| GIM5 | MSC1    | YML128C | 1 | SS | Unknown                                   |
| GIM5 | MAC1    | YMR021C | 1 | SS | SS Pol II transcription                   |
| GIM5 | BUB2    | YMR055C | 0 | SS | Mitosis                                   |
| GIM5 | CTF18   | YMR078C | 0 | SL | Chromatin/chromosome structure            |
| GIM5 | MYO5    | YMR109W | 1 | SL | Cell polarity                             |
| GIM5 | SAS2    | YMR127C | 0 | SS | Chromatin/chromosome structure            |
| GIM5 | CIN4    | YMR138W | 2 | SS | Cell structure                            |
| GIM5 | RIM13   | YMR154C | 1 | SS | Meiosis                                   |
| GIM5 | HOT1    | YMR172W | 1 | SL | Cell stress                               |
| GIM5 | RSN1    | YMR266W | 1 | SS | Unknown                                   |
| GIM5 | JNM1    | YMR294W | 0 | SS | Mitosis                                   |
| GIM5 | YMR299C | YMR299C | 1 | SS | Mitosis                                   |
| GIM5 | ELP6    | YMR312W | 1 | SS | Pol II transcription                      |
| GIM5 | YNL140C | YNL140C | 1 | SS | Unknown                                   |
| GIM5 | BNI5    | YNL166C | 0 | SS | SS Cytokinesis                            |
| GIM5 | CAF40   | YNL288W | 1 | SS | Pol II transcription                      |
| GIM5 | RIM21   | YNL294C | 1 | SL | Unknown                                   |
| GIM5 | CLA4    | YNL298W | 1 | SS | Cell polarity                             |
| GIM5 | HTZ1    | YOL012C | 1 | SL | Chromatin/chromosome structure            |
| GIM5 | RTG1    | YOL067C | 1 | SS | Carbohydrate metabolism                   |
| GIM5 | MSN1    | YOL116W | 1 | SS | Cell stress                               |
| GIM5 | AHC1    | YOR023C | 0 | SS | Protein modification                      |
| GIM5 | BUB3    | YOR026W | 1 | SL | Mitosis                                   |
| GIM5 | ASE1    | YOR058C | 2 | SS | Mitosis                                   |
| GIM5 | VPS17   | YOR132W | 3 | SS | Vesicular transport                       |
| GIM5 | RUD3    | YOR216C | 3 | SS | Vesicular transport                       |
| GIM5 | DSE3    | YOR264W | 2 | SS | Differentiation                           |
| GIM5 | RBL2    | YOR265W | 3 | SS | Cell structure                            |
| GIM5 | PNT1    | YOR266W | 3 | SS | Mitochondrion organization and biogenesis |
| GIM5 | PAC1    | YOR269W | 0 | SS | Mitosis                                   |
| GIM5 | CIN1    | YOR349W | 3 | SS | Cell structure                            |
| GIM5 | CHL1    | YPL008W | 1 | SS | Chromatin/chromosome structure            |
| GIM5 | YPL017C | YPL017C | 0 | SL | Unknown                                   |
| GIM5 | CTF19   | YPL018W | 1 | SS | Chromatin/chromosome structure            |
| GIM5 | BEM3    | YPL115C | 1 | SS | SS Cell polarity                          |
| GIM5 | KIP2    | YPL155C | 2 | SS | Mitosis                                   |
| GIM5 | NIP100  | YPL174C | 0 | SS | Mitosis                                   |
| GIM5 | YPL176C | YPL176C | 1 | SS | Cell growth and/or maintenance            |
| GIM5 | CIN2    | YPL241C | 3 | SL | Cell structure                            |
| GIM5 | VIK1    | YPL253C | 2 | SS | Mitosis                                   |
| GIM5 | KAR9    | YPL269W | 0 | SS | Mitosis                                   |
| GIM5 | EAF3    | YPR023C | 1 | SS | Pol II Transcription                      |
| GIM5 | MCM16   | YPR046W | 0 | SS | Chromatin/chromosome structure            |
| GIM5 | YPR050C | YPR050C | 0 | SS | Unknown                                   |
| GIM5 | MAK3    | YPR051W | 0 | SS | Protein modification                      |
| GIM5 | MED1    | YPR070W | 1 | SS | Chromatin/chromosome structure            |
| GIM5 | CTF4    | YPR135W | 1 | SS | Chromatin/chromosome structure            |
| GIM5 | KAR3    | YPR141C | 0 | SL | SL Mitosis                                |
| CSM3 | DCC1    | YCL016C | 2 | SL | SL Chromatin/chromosome structure         |
| CSM3 | MRC1    | YCL060C | 3 | SS | DNA repair                                |
| CSM3 | RAD57   | YDR004W | 0 | SS | DNA repair                                |
| CSM3 | RAD9    | YDR217C | 1 | SS | SS DNA repair                             |
| CSM3 | GIM4    | YEL003W | 0 | SS | Cell structure                            |
| CSM3 | BIM1    | YER016W | 3 | SL | Mitosis                                   |

|      |         |         |   |    |    |                                      |
|------|---------|---------|---|----|----|--------------------------------------|
| CSM3 | ISC1    | YER019W | 1 | SS |    | Lipid metabolism                     |
| CSM3 | SLX8    | YER116C | 2 | SS | SS | DNA repair                           |
| CSM3 | RAD4    | YER162C | 1 | SS |    | DNA repair                           |
| CSM3 | RAD24   | YER173W | 0 | SS | SS | DNA repair                           |
| CSM3 | CDH1    | YGL003C | 2 | SS |    | Protein degradation                  |
| CSM3 | MAD1    | YGL086W | 0 | SS |    | Mitosis                              |
| CSM3 | PAC10   | YGR078C | 0 | SS |    | Cell structure                       |
| CSM3 | BUB1    | YGR188C | 0 | SL |    | Mitosis                              |
| CSM3 | CTF8    | YHR191C | 0 | SL | SL | Chromatin/chromosome structure       |
| CSM3 | APQ12   | YIL040W | 0 | SS |    | Unknown                              |
| CSM3 | HPR5    | YJL092W | 2 | SL |    | DNA repair                           |
| CSM3 | POL32   | YJR043C | 3 | SL | SL | DNA replication                      |
| CSM3 | CSN12   | YJR084W | 0 | SL |    | Unknown                              |
| CSM3 | RAD27   | YKL113C | 0 | SS | SS | DNA repair                           |
| CSM3 | RAD5    | YLR032W | 1 |    | SS | DNA repair                           |
| CSM3 | YKE2    | YLR200W | 0 | SL |    | Cell structure                       |
| CSM3 | TOP3    | YLR234W | 0 | SS |    | Chromatin/chromosome structure       |
| CSM3 | MEC3    | YLR288C | 0 | SS |    | DNA repair                           |
| CSM3 | SEL1    | YML013W | 0 | SS |    | Unknown                              |
| CSM3 | GIM5    | YML094W | 0 | SS |    | Cell structure                       |
| CSM3 | YMR010W | YMR010W | 0 | SS |    | Meiosis                              |
| CSM3 | BUB2    | YMR055C | 0 | SL |    | Mitosis                              |
| CSM3 | CTF18   | YMR078C | 0 | SS | SL | Chromatin/chromosome structure       |
| CSM3 | SGS1    | YMR190C | 1 | SS | SS | DNA repair                           |
| CSM3 | GIM3    | YNL153C | 0 | SS |    | Cell structure                       |
| CSM3 | MON2    | YNL297C | 0 | SS |    | Vacuolar organization and biogenesis |
| CSM3 | BRE5    | YNR051C | 0 | SS |    | Unknown                              |
| CSM3 | ELG1    | YOR144C | 1 | SS | SS | DNA repair                           |
| CSM3 | RAD17   | YOR368W | 3 | SS | SS | DNA repair                           |
| CSM3 | YPL077C | YPL077C | 0 | SS |    | Unknown                              |
| CSM3 | GUP2    | YPL189W | 2 | SS |    | Lipid metabolism                     |
| CSM3 | DDC1    | YPL194W | 0 | SS |    | DNA repair                           |
| CSM3 | CTF4    | YPR135W | 0 | SL | SL | Chromatin/chromosome structure       |
| CSM3 | KAR3    | YPR141C | 0 | SL |    | Mitosis                              |
| MRC1 | NUP60   | YAR002W | 3 | SS | SS | Nuclear-cytoplasmic transport        |
| MRC1 | PHO5    | YBR093C | 2 | SS | SS | Phosphate metabolism                 |
| MRC1 | DCC1    | YCL016C | 1 |    | SL | Chromatin/chromosome structure       |
| MRC1 | RAD9    | YDR217C | 3 | SL | SL | DNA repair                           |
| MRC1 | XRS2    | YDR369C | 0 | SS | SS | DNA repair                           |
| MRC1 | RAD51   | YER095W | 1 |    | SS | DNA repair                           |
| MRC1 | RAD24   | YER173W | 2 | SL | SS | DNA repair                           |
| MRC1 | SOH1    | YGL127C | 1 |    | SS | DNA repair                           |
| MRC1 | RRM3    | YHR031C | 3 | SL | SL | DNA replication                      |
| MRC1 | CTF8    | YHR191C | 2 | SL | SL | Chromatin/chromosome structure       |
| MRC1 | HPR5    | YJL092W | 0 | SL | SS | DNA repair                           |
| MRC1 | POL32   | YJR043C | 3 | SL | SL | DNA replication                      |
| MRC1 | RAD27   | YKL113C | 0 | SS | SS | DNA repair                           |
| MRC1 | RAD52   | YML032C | 1 |    | SS | DNA repair                           |
| MRC1 | CSM3    | YMR048W | 0 | SS | SS | Meiosis                              |
| MRC1 | CTF18   | YMR078C | 0 | SL |    | Chromatin/chromosome structure       |
| MRC1 | SGS1    | YMR190C | 3 | SS | SS | DNA repair                           |
| MRC1 | CIK1    | YMR198W | 0 | SL | SL | Mitosis                              |
| MRC1 | RAD50   | YNL250W | 1 |    | SS | DNA repair                           |
| MRC1 | TOF1    | YNL273W | 3 | SS | SS | DNA repair                           |
| MRC1 | HTZ1    | YOL012C | 1 |    | SS | Chromatin/chromosome structure       |
| MRC1 | YOR024W | YOR024W | 2 | SS | SS | Unknown                              |
| MRC1 | HST3    | YOR025W | 3 | SL | SS | Chromatin/chromosome structure       |
| MRC1 | ELG1    | YOR144C | 1 |    | SS | DNA repair                           |
| MRC1 | RAD17   | YOR368W | 3 | SL | SS | DNA repair                           |
| MRC1 | DDC1    | YPL194W | 2 | SL | SS | DNA repair                           |
| MRC1 | CTF4    | YPR135W | 3 | SL | SL | Chromatin/chromosome structure       |

|      |         |         |   |    |    |                                |                |
|------|---------|---------|---|----|----|--------------------------------|----------------|
| MRC1 | KAR3    | YPR141C | 0 | SL | SL | Mitosis                        |                |
| TOF1 | NUP60   | YAR002w | 0 | SL |    | Nuclear-cytoplasmic transport  |                |
| TOF1 | UMP1    | YBR173C | 2 | SL |    | Protein degradation            |                |
| TOF1 | DCC1    | YCL016C | 3 | SL | SL | Chromatin/chromosome structure |                |
| TOF1 | MRC1    | YCL061C | 3 | SS |    | DNA repair                     |                |
| TOF1 | RAD55   | YDR076W | 1 |    | SS | DNA repair                     |                |
| TOF1 | RAD9    | YDR217C | 2 | SS | SS | DNA repair                     |                |
| TOF1 | IPK1    | YDR315C | 2 | SL |    | Lipid metabolism               |                |
| TOF1 | RAD23   | YEL037C | 1 |    | SS | DNA repair                     |                |
| TOF1 | BIM1    | YER016W | 3 | SL |    | Mitosis                        |                |
| TOF1 | RAD24   | YER173W | 3 | SL | SS | DNA repair                     |                |
| TOF1 | RAD54   | YGL163C | 1 |    | SS | DNA repair                     |                |
| TOF1 | CTF8    | YHR191C | 2 | SL | SL | Chromatin/chromosome structure |                |
| TOF1 | POL32   | YJR043C | 2 | SL | SL | DNA replication                |                |
| TOF1 | RAD27   | YKL113C | 2 |    | SL | DNA repair                     |                |
| TOF1 | RAD5    | YLR032W | 1 |    | SS | DNA repair                     |                |
| TOF1 | TOP3    | YLR234W | 3 |    | SL | Chromatin/chromosome structure |                |
| TOF1 | MEC3    | YLR288C | 3 | SL |    | DNA repair                     |                |
| TOF1 | RAD52   | YML032C | 0 |    | SS | DNA repair                     |                |
| TOF1 | CTF18   | YMR078C | 0 | SL | SL | Chromatin/chromosome structure |                |
| TOF1 | CIK1    | YMR198W | 2 | SL |    | Mitosis                        |                |
| TOF1 | HTZ1    | YOL012C | 1 |    | SS | Chromatin/chromosome structure |                |
| TOF1 | ELG1    | YOR144C | 1 |    | SS | DNA repair                     |                |
| TOF1 | RAD17   | YOR368W | 2 | SS | SS | DNA repair                     |                |
| TOF1 | DDC1    | YPL194W | 3 | SL |    | DNA repair                     |                |
| TOF1 | CTF4    | YPR135W | 3 | SL | SL | Chromatin/chromosome structure |                |
| TOF1 | KAR3    | YPR141C | 3 | SL |    | Mitosis                        |                |
| ELG1 | YBR094W | YBR094W | 3 |    | SS | Unknown                        | Bellaoui, 2003 |
| ELG1 | MMS4    | YBR098W | 3 |    | SS | DNA repair                     | Bellaoui, 2003 |
| ELG1 | YBR099C | YBR099C | 3 |    | SL | Unknown                        | Bellaoui, 2003 |
| ELG1 | MMS4    | YBR100W | 2 |    | SS | DNA repair                     | Bellaoui, 2003 |
| ELG1 | MRC1    | YCL061C | 3 |    | SS | DNA repair                     | Bellaoui, 2003 |
| ELG1 | HEX3    | YDL013W | 0 |    | SS | Meiosis                        | Bellaoui, 2003 |
| ELG1 | BRE1    | YDL074C | 2 |    | SS | Chromatin/chromosome structure | Bellaoui, 2003 |
| ELG1 | RAD57   | YDR004W | 3 |    | SS | DNA repair                     | Bellaoui, 2003 |
| ELG1 | RAD55   | YDR076W | 3 |    | SS | DNA repair                     | Bellaoui, 2003 |
| ELG1 | SWR1    | YDR334W | 3 |    | SS | Unknown                        | Bellaoui, 2003 |
| ELG1 | XRS2    | YDR369C | 2 |    | SL | DNA repair                     | Bellaoui, 2003 |
| ELG1 | MUS81   | YDR386W | 3 |    | SL | DNA repair                     | Bellaoui, 2003 |
| ELG1 | BIM1    | YER016W | 2 |    | SS | Mitosis                        | Bellaoui, 2003 |
| ELG1 | RAD51   | YER095W | 3 |    | SS | DNA repair                     | Bellaoui, 2003 |
| ELG1 | SLX8    | YER116C | 3 |    | SS | DNA repair                     | Bellaoui, 2003 |
| ELG1 | RAD24   | YER173W | 0 |    | SS | DNA repair                     | Bellaoui, 2003 |
| ELG1 | RAD54   | YGL163C | 3 |    | SS | DNA repair                     | Bellaoui, 2003 |
| ELG1 | YOR1    | YGR281W | 2 |    | SS | Small molecule transport       | Bellaoui, 2003 |
| ELG1 | HPR5    | YJL092W | 2 |    | SS | DNA repair                     | Bellaoui, 2003 |
| ELG1 | POL32   | YJR043C | 3 |    | SL | DNA replication                | Bellaoui, 2003 |
| ELG1 | RAD27   | YKL113C | 2 |    | SS | DNA repair                     | Bellaoui, 2003 |
| ELG1 | RTT109  | YLL002W | 3 |    | SS | DNA repair                     | Bellaoui, 2003 |
| ELG1 | TOP3    | YLR234W | 3 |    | SS | Chromatin/chromosome structure | Bellaoui, 2003 |
| ELG1 | YLR235C | YLR235C | 3 |    | SS | Unknown                        | Bellaoui, 2003 |
| ELG1 | RAD52   | YML032C | 3 |    | SS | DNA repair                     | Bellaoui, 2003 |
| ELG1 | SGS1    | YMR190C | 0 |    | SS | DNA repair                     | Bellaoui, 2003 |
| ELG1 | MRE11   | YMR224C | 0 |    | SL | DNA repair                     | Bellaoui, 2003 |
| ELG1 | RAD50   | YNL250W | 2 |    | SL | DNA repair                     | Bellaoui, 2003 |
| ELG1 | TOF1    | YNL273W | 2 |    | SS | DNA repair                     | Bellaoui, 2003 |
| ELG1 | MID1    | YNL291C | 3 |    | SS | Small molecule transport       | Bellaoui, 2003 |
| ELG1 | BRE5    | YNR051C | 2 |    | SS | Unknown                        | Bellaoui, 2003 |
| ELG1 | CHL1    | YPL008W | 0 |    | SS | Chromatin/chromosome structure | Bellaoui, 2003 |
| ELG1 | CTF4    | YPR135W | 3 |    | SL | Chromatin/chromosome structure | Bellaoui, 2003 |
| ELG1 | KAR3    | YPR141C | 3 |    | SS | Mitosis                        | Bellaoui, 2003 |

|        |           |           |   |    |   |
|--------|-----------|-----------|---|----|---|
| POL32  | LTE1      | YAL024C   | 2 | SL | Cell cycle control                        |
| POL32  | MSI1      | YBR195C   | 0 | SS | Chromatin/chromosome structure            |
| POL32  | DCC1      | YCL016C   | 0 | SS | Chromatin/chromosome structure            |
| POL32  | MRC1      | YCL060C   | 3 | SL | DNA repair                                |
| POL32  | RAD55     | YDR076W   | 2 | SS | DNA repair                                |
| POL32  | RAD9      | YDR217C   | 3 | SL | DNA repair                                |
| POL32  | MNN10     | YDR245W   | 2 | SL | Protein modification                      |
| POL32  | VID21     | YDR359C   | 2 | SL | Unknown                                   |
| POL32  | XRS2      | YDR369C   | 2 | SL | DNA repair                                |
| POL32  | RAD51     | YER095W   | 2 | SS | DNA repair                                |
| POL32  | UBP3      | YER151C   | 2 | SS | Protein modification                      |
| POL32  | RAD24     | YER173W   | 2 | SS | DNA repair                                |
| POL32  | RAD54     | YGL163C   | 3 | SS | DNA repair                                |
| POL32  | RAD27     | YKL113C   | 3 | SL | DNA repair                                |
| POL32  | TOP3      | YLR234W   | 2 | SL | Chromatin/chromosome structure            |
| POL32  | YLR235C   | YLR235C   | 3 | SL | Unknown                                   |
| POL32  | ARC18     | YLR370C   | 3 | SS | Cell polarity                             |
| POL32  | RAD52     | YML032C   | 3 | SL | DNA repair                                |
| POL32  | CSM3      | YMR048W   | 3 | SL | Meiosis                                   |
| POL32  | CTF18     | YMR078C   | 0 | SL | Chromatin/chromosome structure            |
| POL32  | YDJ1      | YNL064C   | 3 | SL | Mitochondrion organization and biogenesis |
| POL32  | RAD50     | YNL250W   | 2 | SL | DNA repair                                |
| POL32  | TOF1      | YNL273W   | 2 | SL | DNA repair                                |
| POL32  | RAD17     | YOR368W   | 2 | SS | DNA repair                                |
| POL32  | NCE4      | YPL024W   | 2 | SL | Cell wall organization and biogenesis     |
| POL32  | DDC1      | YPL194W   | 3 | SS | DNA repair                                |
| POL32  | CTF4      | YPR135W   | 2 | SS | Chromatin/chromosome structure            |
| TOP1   | MMS4      | YBR098W   | 1 | SS | DNA repair                                |
| TOP1   | PAT1      | YCR077C   | 2 | SL | Chromatin/chromosome structure            |
| TOP1   | YDR249C   | YDR249C   | 2 | SS | Unknown                                   |
| TOP1   | ASF1      | YJL115W   | 1 | SS | Chromatin/chromosome structure            |
| TOP1   | MRP17     | YKL003C   | 2 | SL | Protein synthesis                         |
| TOP1   | TOP3      | YLR234W   | 1 | SL | Chromatin/chromosome structure            |
| TOP1   | YLR235C   | YLR235C   | 0 | SL | Unknown                                   |
| TOP1   | RAD52     | YML032C   | 0 | SS | DNA repair                                |
| TOP1   | MFT1      | YML062C   | 2 | SL | Mitochondrion organization and biogenesis |
| TOP1   | SGS1      | YMR190C   | 0 | SL | DNA repair                                |
| TOP1   | MRE11     | YMR224C   | 1 | SL | DNA repair                                |
| TOP1   | RAD50     | YNL250W   | 1 | SL | DNA repair                                |
| TOP1   | BRE5      | YNR051C   | 0 | SL | Unknown                                   |
| TOP1   | HMS1      | YOR032C   | 1 | SL | Pol II transcription                      |
| TOP1   | EXO1      | YOR033C   | 3 | SL | DNA repair                                |
| TOP1   | YOR044W   | YOR044W   | 2 | SS | Unknown                                   |
| TOP1   | TOM6      | YOR045W   | 2 | SS | Mitochondrion organization and biogenesis |
| TOP1   | NCE4      | YPL024W   | 2 | SL | Cell wall organization and biogenesis     |
| TOP1   | MCM16     | YPR046W   | 1 | SS | Chromatin/chromosome structure            |
| CDC2-1 | YBR094W   | YBR094W   | 2 | SL | Unknown                                   |
| CDC2-1 | MMS4      | YBR098W   | 1 | SL | DNA repair                                |
| CDC2-1 | MRC1      | YCL060C   | 0 | SL | DNA repair                                |
| CDC2-1 | RAD57     | YDR004W   | 1 | SL | DNA repair                                |
| CDC2-1 | RAD24     | YER173W   | 3 | SL | DNA repair                                |
| CDC2-1 | UBP6      | YFR010W   | 1 | SL | Protein modification                      |
| CDC2-1 | POL32     | YJR043C   | 3 | SL | DNA replication                           |
| CDC2-1 | CSM3      | YMR048W   | 1 | SL | Meiosis                                   |
| CDC2-1 | YMR075C-A | YMR075C-A | 1 | SS | Unknown                                   |
| CDC2-1 | GAS1      | YMR307W   | 2 | SL | Cell wall organization and biogenesis     |
| CDC2-1 | TOF1      | YNL273W   | 0 | SL | DNA repair                                |
| CDC2-1 | MID1      | YNL291C   | 0 | SL | Small molecule transport                  |
| CDC2-1 | MCK1      | YNL307C   | 3 | SL | Meiosis                                   |
| CDC2-1 | TRM10     | YOL093W   | 0 | SL | tRNA methylation                          |
| CDC2-1 | RAD17     | YOR368W   | 2 | SL | DNA repair                                |

|         |         |           |   |    |    |                                |
|---------|---------|-----------|---|----|----|--------------------------------|
| CDC2-1  | DDC1    | YPL194W   | 2 | SL |    | DNA repair                     |
| CDC45-1 | LTE1    | YAL024C   | 0 |    | SL | Cell cycle control             |
| CDC45-1 | HIR1    | YBL008W   | 2 |    | SS | Chromatin/chromosome structure |
| CDC45-1 | CSS2    | YBR036C   | 2 |    | SS | Small molecule transport       |
| CDC45-1 | MMS4    | YBR098W   | 0 |    | SS | DNA repair                     |
| CDC45-1 | MSI1    | YBR195C   | 0 |    | SS | Chromatin/chromosome structure |
| CDC45-1 | HPC2    | YBR215W   | 2 | SL |    | Pol II transcription           |
| CDC45-1 | AOR1    | YBR231C   | 2 | SL | SL | Unknown                        |
| CDC45-1 | CHK1    | YBR274W   | 0 | SL | SL | DNA repair                     |
| CDC45-1 | YBR277C | YBR277C   | 2 | SL | SL | Unknown                        |
| CDC45-1 | DPB3    | YBR278W   | 2 | SL | SL | DNA replication                |
| CDC45-1 | DCC1    | YCL016C   | 2 | SL | SL | Chromatin/chromosome structure |
| CDC45-1 | MRC1    | YCL060C   | 2 | SL | SL | DNA repair                     |
| CDC45-1 | PAT1    | YCR077C   | 0 | SL | SL | Chromatin/chromosome structure |
| CDC45-1 | CSM1    | YCR086W   | 2 | SL | SL | Meiosis                        |
| CDC45-1 | NHP10   | YDL002C   | 0 | SL | SL | Unknown                        |
| CDC45-1 | FYV3    | YDL151C   | 2 |    | SS | Unknown                        |
| CDC45-1 | RAD57   | YDR004W   | 2 |    | SS | DNA repair                     |
| CDC45-1 | DPB4    | YDR121W   | 0 | SL |    | DNA replication                |
| CDC45-1 | SWI5    | YDR146C   | 2 | SL |    | Pol II transcription           |
| CDC45-1 | RAD9    | YDR217C   | 0 | SL |    | DNA repair                     |
| CDC45-1 | RTT103  | YDR289C   | 2 | SL |    | Unknown                        |
| CDC45-1 | XRS2    | YDR369C   | 0 | SL |    | DNA repair                     |
| CDC45-1 | VPS72   | YDR485C   | 2 | SL |    | Vesicular transport            |
| CDC45-1 | GIM4    | YEL003W   | 0 | SL |    | Cell structure                 |
| CDC45-1 | HAT2    | YEL056W   | 0 | SL |    | Chromatin/chromosome structure |
| CDC45-1 | NPR2    | YEL062W   | 2 | SL |    | Small molecule transport       |
| CDC45-1 | SWI4    | YER111C   | 0 | SL |    | Cell cycle control             |
| CDC45-1 | SPT2    | YER161C   | 2 | SL |    | Chromatin/chromosome structure |
| CDC45-1 | RAD24   | YER173W   | 0 | SL |    | DNA repair                     |
| CDC45-1 | FAB1    | YFR019W   | 2 | SL |    | Lipid metabolism               |
| CDC45-1 | MAD1    | YGL086W   | 2 | SL |    | Mitosis                        |
| CDC45-1 | SOH1    | YGL127C   | 2 | SL |    | DNA repair                     |
| CDC45-1 | ARO2    | YGL148W   | 2 | SL |    | Amino-acid metabolism          |
| CDC45-1 | NUT1    | YGL151W   | 2 | SL |    | Pol II transcription           |
| CDC45-1 | RAD54   | YGL163C   | 0 | SL |    | DNA repair                     |
| CDC45-1 | KEM1    | YGL173C   | 2 | SL |    | RNA processing                 |
| CDC45-1 | RTF1    | YGL244W   | 3 | SL |    | Pol II transcription           |
| CDC45-1 | RMD11   | YHL023C   | 2 | SL |    | Meiosis                        |
| CDC45-1 | RRM3    | YHR031C   | 2 | SL |    | DNA replication                |
| CDC45-1 | VMA10   | YHR039C-B | 2 | SL |    | Small molecule transport       |
| CDC45-1 | STB5    | YHR178W   | 2 | SL |    | Pol II transcription           |
| CDC45-1 | CTF8    | YHR191C   | 2 | SL |    | Chromatin/chromosome structure |
| CDC45-1 | APQ12   | YIL040W   | 2 | SL |    | Unknown                        |
| CDC45-1 | IMP2'   | YIL154C   | 2 | SL |    | Carbohydrate metabolism        |
| CDC45-1 | MAD2    | YJL030W   | 2 | SL |    | Mitosis                        |
| CDC45-1 | HPR5    | YJL092W   | 0 | SL |    | DNA repair                     |
| CDC45-1 | ASF1    | YJL115W   | 2 | SL |    | Chromatin/chromosome structure |
| CDC45-1 | LSM1    | YJL124C   | 0 | SL |    | RNA turnover                   |
| CDC45-1 | POL32   | YJR043C   | 0 | SL |    | DNA replication                |
| CDC45-1 | BFA1    | YJR053W   | 3 | SL |    | Mitosis                        |
| CDC45-1 | YJR070C | YJR070C   | 2 | SL |    | Unknown                        |
| CDC45-1 | SOD1    | YJR104C   | 0 | SL |    | Cell stress                    |
| CDC45-1 | HIR3    | YJR140C   | 0 | SL |    | Pol II transcription           |
| CDC45-1 | SIS2    | YKR072C   | 2 | SL |    | Cell stress                    |
| CDC45-1 | RTT109  | YLL002W   | 2 | SL |    | DNA repair                     |
| CDC45-1 | SPT8    | YLR055C   | 3 | SL |    | Chromatin/chromosome structure |
| CDC45-1 | TOP3    | YLR234W   | 2 | SL |    | Chromatin/chromosome structure |
| CDC45-1 | YLR235C | YLR235C   | 2 | SL |    | Unknown                        |
| CDC45-1 | SEC22   | YLR268W   | 3 | SL |    | Vesicular transport            |
| CDC45-1 | MEC3    | YLR288C   | 0 | SL |    | DNA repair                     |

|         |         |           |   |    |    |                                       |
|---------|---------|-----------|---|----|----|---------------------------------------|
| CDC45-1 | RAD52   | YML032C   | 0 | SL |    | DNA repair                            |
| CDC45-1 | GIM5    | YML094W   | 2 | SS | SS | Cell structure                        |
| CDC45-1 | SUB1    | YMR039C   | 0 | SS |    | Pol II transcription                  |
| CDC45-1 | CSM3    | YMR048W   | 2 | SS |    | Meiosis                               |
| CDC45-1 | BUB2    | YMR055C   | 0 | SS |    | Mitosis                               |
| CDC45-1 | CTF18   | YMR078C   | 0 |    | SL | Chromatin/chromosome structure        |
| CDC45-1 | YMR166C | YMR166C   | 2 | SS |    | Transport                             |
| CDC45-1 | SCS7    | YMR272C   | 2 | SS |    | Lipid metabolism                      |
| CDC45-1 | IES2    | YNL215W   | 2 | SS |    | Unknown                               |
| CDC45-1 | TOF1    | YNL273W   | 2 | SS |    | DNA repair                            |
| CDC45-1 | RIM21   | YNL294C   | 2 | SS |    | Unknown                               |
| CDC45-1 | TRF5    | YNL299W   | 0 | SS |    | Chromatin/chromosome structure        |
| CDC45-1 | TOP1    | YOL006C   | 2 | SS |    | Chromatin/chromosome structure        |
| CDC45-1 | HTZ1    | YOL012C   | 3 | SS |    | Chromatin/chromosome structure        |
| CDC45-1 | MET22   | YOL064C   | 2 | SS |    | Amino-acid metabolism                 |
| CDC45-1 | YOR024W | YOR024W   | 2 | SS |    | Unknown                               |
| CDC45-1 | HST3    | YOR025W   | 0 | SS |    | Chromatin/chromosome structure        |
| CDC45-1 | DFG16   | YOR030W   | 2 | SS |    | Differentiation                       |
| CDC45-1 | HIR2    | YOR038C   | 2 | SS |    | Pol II transcription                  |
| CDC45-1 | WHI2    | YOR043W   | 2 | SS |    | Cell cycle control                    |
| CDC45-1 | LEO1    | YOR123C   | 2 | SS |    | Chromatin/chromosome structure        |
| CDC45-1 | RAD17   | YOR368W   | 2 | SS |    | DNA repair                            |
| CDC45-1 | HAT1    | YPL001W   | 0 | SS |    | Chromatin/chromosome structure        |
| CDC45-1 | NCE4    | YPL024W   | 2 | SS |    | Cell wall organization and biogenesis |
| CDC45-1 | LGE1    | YPL055C   | 2 | SS |    | Cell cycle control                    |
| CDC45-1 | GON5    | YPL183W-A | 2 |    | SS | Protein synthesis                     |
| CDC45-1 | DDC1    | YPL194W   | 0 |    | SS | DNA repair                            |
| CDC45-1 | BRR1    | YPR057W   | 3 |    | SS | RNA processing                        |
| CDC45-1 | MED1    | YPR070W   | 2 |    | SS | Chromatin/chromosome structure        |
| CDC45-1 | CLB5    | YPR120C   | 0 |    | SL | Cell cycle control                    |
| CDC45-1 | CTF4    | YPR135W   | 2 |    | SL | Chromatin/chromosome structure        |
| CDC45-1 | KAR3    | YPR141C   | 2 |    | SS | Mitosis                               |
| CDC7-1  | HIR1    | YBL008W   | 2 |    | SS | Chromatin/chromosome structure        |
| CDC7-1  | CHK1    | YBR274W   | 3 |    | SS | DNA repair                            |
| CDC7-1  | DCC1    | YCL016C   | 2 |    | SS | Chromatin/chromosome structure        |
| CDC7-1  | RPS14A  | YCR031C   | 3 |    | SS | Protein synthesis                     |
| CDC7-1  | FEN1    | YCR034W   | 2 |    | SS | Lipid metabolism                      |
| CDC7-1  | FYV3    | YDL151C   | 2 |    | SS | Unknown                               |
| CDC7-1  | RAD9    | YDR217C   | 3 |    | SS | DNA repair                            |
| CDC7-1  | ESC2    | YDR363W   | 3 |    | SS | Chromatin/chromosome structure        |
| CDC7-1  | RAD24   | YER173W   | 3 |    | SS | DNA repair                            |
| CDC7-1  | CKB1    | YGL019W   | 3 |    | SS | Cell cycle control                    |
| CDC7-1  | MAD1    | YGL086W   | 3 |    | SS | Mitosis                               |
| CDC7-1  | YGL250W | YGL250W   | 2 |    | SS | Unknown                               |
| CDC7-1  | RTT107  | YHR154W   | 2 |    | SS | Chromatin/chromosome structure        |
| CDC7-1  | CTF8    | YHR191C   | 3 |    | SS | Chromatin/chromosome structure        |
| CDC7-1  | CKA1    | YIL035C   | 3 |    | SS | Cell cycle control                    |
| CDC7-1  | MAD2    | YJL030W   | 3 |    | SS | Mitosis                               |
| CDC7-1  | LAS21   | YJL062W   | 2 |    | SS | Lipid metabolism                      |
| CDC7-1  | TIF2    | YJL138C   | 2 |    | SS | Protein synthesis                     |
| CDC7-1  | CPR7    | YJR032W   | 2 |    | SS | Protein folding                       |
| CDC7-1  | BFA1    | YJR053W   | 2 |    | SS | Mitosis                               |
| CDC7-1  | YJR070C | YJR070C   | 2 |    | SS | Unknown                               |
| CDC7-1  | HIR3    | YJR140C   | 2 |    | SS | Pol II transcription                  |
| CDC7-1  | YKL056C | YKL056C   | 2 |    | SS | Unknown                               |
| CDC7-1  | HSL1    | YKL101W   | 3 |    | SS | Cell cycle control                    |
| CDC7-1  | TIF1    | YKR059W   | 2 |    | SS | Protein synthesis                     |
| CDC7-1  | SPT8    | YLR055C   | 2 |    | SS | Chromatin/chromosome structure        |
| CDC7-1  | TOP3    | YLR234W   | 3 |    | SS | Chromatin/chromosome structure        |
| CDC7-1  | YLR235C | YLR235C   | 2 |    | SS | Unknown                               |
| CDC7-1  | MEC3    | YLR288C   | 0 |    | SS | DNA repair                            |

|        |         |         |   |    |   |
|--------|---------|---------|---|----|---|
| CDC7-1 | ORM2    | YLR350W | 2 | SS | Cell wall organization and biogenesis     |
| CDC7-1 | TSR2    | YLR435W | 2 | SS | Unknown                                   |
| CDC7-1 | PPZ1    | YML016C | 2 | SS | Signal transduction                       |
| CDC7-1 | RAD52   | YML032C | 2 | SS | DNA repair                                |
| CDC7-1 | BUB2    | YMR055C | 2 | SS | Mitosis                                   |
| CDC7-1 | CTF18   | YMR078C | 0 | SS | Chromatin/chromosome structure            |
| CDC7-1 | MUB1    | YMR100W | 3 | SS | Cell polarity                             |
| CDC7-1 | MLH1    | YMR167W | 2 | SS | DNA repair                                |
| CDC7-1 | SGS1    | YMR190C | 3 | SS | DNA repair                                |
| CDC7-1 | IRA2    | YOL081W | 2 | SS | Signal transduction                       |
| CDC7-1 | STI1    | YOR027W | 2 | SS | Protein folding                           |
| CDC7-1 | CKB2    | YOR039W | 2 | SS | Cell cycle control                        |
| CDC7-1 | PDE2    | YOR360C | 2 | SS | Signal transduction                       |
| CDC7-1 | RAD17   | YOR368W | 3 | SS | DNA repair                                |
| CDC7-1 | DDC1    | YPL194W | 2 | SS | DNA repair                                |
| CDC7-1 | CLB2    | YPR119W | 2 | SS | Cell cycle control                        |
| DBF4   | HIR1    | YBL008W | 0 | SS | Chromatin/chromosome structure            |
| DBF4   | HPC2    | YBR215W | 2 | SS | Pol II transcription                      |
| DBF4   | CHK1    | YBR274W | 0 | SS | DNA repair                                |
| DBF4   | DCC1    | YCL016C | 2 | SS | Chromatin/chromosome structure            |
| DBF4   | RPS14A  | YCR031C | 3 | SS | Protein synthesis                         |
| DBF4   | YDL062W | YDL062W | 2 | SS | Unknown                                   |
| DBF4   | RAD9    | YDR217C | 2 | SS | DNA repair                                |
| DBF4   | ESC2    | YDR363W | 0 | SS | Chromatin/chromosome structure            |
| DBF4   | RAD24   | YER173W | 3 | SS | DNA repair                                |
| DBF4   | BMH1    | YER177W | 3 | SS | Differentiation                           |
| DBF4   | RSM23   | YGL129C | 2 | SS | Protein synthesis                         |
| DBF4   | KEM1    | YGL173C | 2 | SS | RNA processing                            |
| DBF4   | PAC10   | YGR078C | 3 | SS | Cell structure                            |
| DBF4   | BUB1    | YGR188C | 0 | SL | Mitosis                                   |
| DBF4   | RTT107  | YHR154W | 3 | SS | Chromatin/chromosome structure            |
| DBF4   | STB5    | YHR178W | 2 | SS | Pol II transcription                      |
| DBF4   | CTF8    | YHR191C | 3 | SS | Chromatin/chromosome structure            |
| DBF4   | MET18   | YIL128W | 2 | SS | Pol II Transcription                      |
| DBF4   | HIR3    | YJR140C | 3 | SS | Pol II transcription                      |
| DBF4   | TIF1    | YKR059W | 2 | SS | Protein synthesis                         |
| DBF4   | TOP3    | YLR234W | 0 | SS | Chromatin/chromosome structure            |
| DBF4   | YLR235C | YLR235C | 0 | SS | Unknown                                   |
| DBF4   | MEC3    | YLR288C | 3 | SS | DNA repair                                |
| DBF4   | MMS22   | YLR320W | 2 | SS | Unknown                                   |
| DBF4   | GIM5    | YML094W | 2 | SS | Cell structure                            |
| DBF4   | VAN1    | YML115C | 2 | SS | Protein modification                      |
| DBF4   | GIM3    | YNL153C | 3 | SS | Cell structure                            |
| DBF4   | IRA2    | YOL081W | 0 | SS | Signal transduction                       |
| DBF4   | STI1    | YOR027W | 2 | SS | Protein folding                           |
| DBF4   | RAD17   | YOR368W | 3 | SS | DNA repair                                |
| DBF4   | NCE4    | YPL024W | 2 | SS | Cell wall organization and biogenesis     |
| DBF4   | CTF4    | YPR135W | 0 | SS | Chromatin/chromosome structure            |
| DDC1   | DCC1    | YCL016C | 0 | SS | Chromatin/chromosome structure            |
| DDC1   | MRC1    | YCL061C | 3 | SL | DNA repair                                |
| DDC1   | YDL033C | YDL033C | 2 | SS | Unknown                                   |
| DDC1   | HTA1    | YDR225W | 0 | SS | Chromatin/chromosome structure            |
| DDC1   | POL32   | YJR043C | 3 | SL | DNA replication                           |
| DDC1   | RAD27   | YKL113C | 0 | SL | DNA repair                                |
| DDC1   | LYS7    | YMR038C | 2 | SL | Amino-acid metabolism                     |
| DDC1   | CSM3    | YMR048W | 2 | SS | Meiosis                                   |
| DDC1   | CTF18   | YMR078C | 0 | SL | Chromatin/chromosome structure            |
| DDC1   | TOF1    | YNL273W | 3 | SS | DNA repair                                |
| DDC1   | CLA4    | YNL298W | 0 | SS | Cell polarity                             |
| DDC1   | HXT17   | YNR072W | 3 | SL | Small molecule transport                  |
| DDC1   | YME1    | YPR024W | 3 | SL | Mitochondrion organization and biogenesis |

|       |           |           |   |    |    |                                       |
|-------|-----------|-----------|---|----|----|---------------------------------------|
| DDC1  | KAR3      | YPR141C   | 0 |    | SS | Mitosis                               |
| RAD9  | DCC1      | YCL016C   | 0 | SS |    | Chromatin/chromosome structure        |
| RAD9  | MRC1      | YCL060C   | 3 | SL |    | DNA repair                            |
| RAD9  | YDL162C   | YDL162C   | 3 | SS |    | Unknown                               |
| RAD9  | YHL029C   | YHL029C   | 0 | SS |    | Unknown                               |
| RAD9  | CTF8      | YHR191C   | 0 | SL |    | Chromatin/chromosome structure        |
| RAD9  | POL32     | YJR043C   | 3 | SL |    | DNA replication                       |
| RAD9  | RAD27     | YKL113C   | 0 | SS |    | DNA repair                            |
| RAD9  | SEC22     | YLR268W   | 2 | SS |    | Vesicular transport                   |
| RAD9  | CSM3      | YMR048W   | 2 | SS |    | Meiosis                               |
| RAD9  | CTF18     | YMR078C   | 0 | SL |    | Chromatin/chromosome structure        |
| RAD9  | GIM3      | YNL153C   | 2 | SS |    | Cell structure                        |
| RAD9  | TOF1      | YNL273W   | 3 | SL |    | DNA repair                            |
| RAD24 | MRC1      | YCL060C   | 3 |    | SS | DNA repair                            |
| RAD24 | SOD1      | YJR104C   | 1 |    | SS | Cell stress                           |
| RAD24 | DOA1      | YKL213C   | 1 |    | SS | Protein degradation                   |
| RAD24 | CTF18     | YMR078C   | 0 |    | SL | Chromatin/chromosome structure        |
| RAD24 | TOF1      | YNL273W   | 3 |    | SS | DNA repair                            |
| RAD50 | DEP1      | YAL013w   | 0 |    | SL | Lipid metabolism                      |
| RAD50 | NUP60     | YAR002w   | 0 |    | SL | Nuclear-cytoplasmic transport         |
| RAD50 | SWD1      | YAR003W   | 2 |    | SS | Chromatin/chromosome structure        |
| RAD50 | SWD3      | YBR175W   | 0 |    | SL | Chromatin/chromosome structure        |
| RAD50 | DCC1      | YCL016c   | 0 |    | SL | Chromatin/chromosome structure        |
| RAD50 | MRC1      | YCL060C   | 2 |    | SL | DNA repair                            |
| RAD50 | CSM1      | YCR086W   | 0 |    | SL | Meiosis                               |
| RAD50 | BRE1      | YDL074c   | 0 |    | SS | Chromatin/chromosome structure        |
| RAD50 | YDL162C   | YDL162C   | 3 |    | SL | Unknown                               |
| RAD50 | SWM1      | YDR260C   | 2 |    | SS | Meiosis                               |
| RAD50 | RNH202    | YDR279W   | 2 |    | SS | Unknown                               |
| RAD50 | ESC2      | YDR363W   | 0 |    | SS | Chromatin/chromosome structure        |
| RAD50 | NPR2      | YEL062W   | 3 |    | SL | Small molecule transport              |
| RAD50 | BIM1      | YER016W   | 2 |    | SS | Mitosis                               |
| RAD50 | UBP6      | YFR010W   | 3 |    | SL | Protein modification                  |
| RAD50 | SLT2      | YHR030c   | 0 |    | SL | Cell wall organization and biogenesis |
| RAD50 | RRM3      | YHR031C   | 0 |    | SL | DNA replication                       |
| RAD50 | RTT107    | YHR154W   | 0 |    | SL | Chromatin/chromosome structure        |
| RAD50 | CTF8      | YHR191C   | 0 |    | SL | Chromatin/chromosome structure        |
| RAD50 | RTT101    | YJL047c   | 0 |    | SS | Protein modification                  |
| RAD50 | BCK1      | YJL095W   | 0 |    | SS | Cell wall organization and biogenesis |
| RAD50 | ASF1      | YJL115W   | 0 |    | SL | Chromatin/chromosome structure        |
| RAD50 | POL32     | YJR043C   | 2 |    | SL | DNA replication                       |
| RAD50 | HSL1      | YKL101W   | 0 |    | SS | Cell cycle control                    |
| RAD50 | RAD27     | YKL113C   | 2 |    | SL | DNA repair                            |
| RAD50 | BRE2      | YLR015W   | 2 |    | SL | Chromatin/chromosome structure        |
| RAD50 | RAD5      | YLR032W   | 0 |    | SS | DNA repair                            |
| RAD50 | VID22     | YLR373c   | 0 |    | SL | Vacuolar organization and biogenesis  |
| RAD50 | TSA1      | YML028W   | 3 |    | SL | Cell stress                           |
| RAD50 | YML095C-A | YML095C-A | 0 |    | SS | Unknown                               |
| RAD50 | VAN1      | YML115C   | 2 |    | SL | Protein modification                  |
| RAD50 | LYS7      | YMR038C   | 0 |    | SL | Amino-acid metabolism                 |
| RAD50 | CTF18     | YMR078C   | 0 |    | SL | Chromatin/chromosome structure        |
| RAD50 | MLS1      | YNL117w   | 0 |    | SL | Lipid metabolism                      |
| RAD50 | MID1      | YNL291C   | 2 |    | SL | Small molecule transport              |
| RAD50 | CLA4      | YNL298W   | 3 |    | SL | Cell polarity                         |
| RAD50 | TOP1      | YOL006C   | 0 |    | SS | Chromatin/chromosome structure        |
| RAD50 | ELG1      | YOR144C   | 2 |    | SL | DNA repair                            |
| RAD50 | RLF2      | YPR018W   | 0 |    | SL | Chromatin/chromosome structure        |
| RAD50 | CLB2      | YPR119W   | 2 |    | SL | Cell cycle control                    |
| RAD50 | CTF4      | YPR135w   | 0 |    | SL | Chromatin/chromosome structure        |
| RAD52 | UMP1      | YBR173C   | 3 |    | SL | Protein degradation                   |
| RAD52 | DCC1      | YCL016C   | 0 |    | SS | Chromatin/chromosome structure        |



|         |         |         |   |    |                                       |
|---------|---------|---------|---|----|---------------------------------------|
| RAD52   | SIT4    | YDL047W | 3 | SL | Cell wall organization and biogenesis |
| RAD52   | YDL162C | YDL162C | 3 | SL | Unknown                               |
| RAD52   | PMR1    | YGL167C | 3 | SL | Small molecule transport              |
| RAD52   | HUR1    | YGL168W | 2 | SL | Unknown                               |
| RAD52   | KEM1    | YGL173C | 3 | SL | RNA processing                        |
| RAD52   | POL32   | YJR043C | 2 | SL | DNA replication                       |
| RAD52   | RAD27   | YKL113C | 3 | SL | DNA repair                            |
| RAD52   | LYS7    | YMR038C | 2 | SL | Amino-acid metabolism                 |
| RAD52   | CTF18   | YMR078C | 0 | SS | Chromatin/chromosome structure        |
| RAD52   | ELG1    | YOR144C | 3 | SL | DNA repair                            |
| CDC8    | MMS4    | YBR098w | 0 | SS | DNA repair                            |
| CDC8    | MRC1    | YCL060C | 3 | SS | DNA repair                            |
| CDC8    | CSM1    | YCR086W | 2 | SS | Meiosis                               |
| CDC8    | YDR438W | YDR438W | 2 | SS | Unknown                               |
| CDC8    | ECM11   | YDR446W | 2 | SS | Cell wall organization and biogenesis |
| CDC8    | PPN1    | YDR452W | 2 | SL | Phosphate metabolism                  |
| CDC8    | TSA2    | YDR453C | 2 | SL | Cell stress                           |
| CDC8    | YDR458C | YDR458C | 2 | SL | Unknown                               |
| CDC8    | PKH1    | YDR490C | 2 | SS | Endocytosis                           |
| CDC8    | BCK2    | YER167W | 2 | SS | Cell cycle control                    |
| CDC8    | RAD24   | YER173W | 2 | SS | DNA repair                            |
| CDC8    | SWF3    | YGL020C | 3 | SS | Unknown                               |
| CDC8    | KEM1    | YGL173C | 2 | SL | RNA processing                        |
| CDC8    | STB5    | YHR178w | 0 | SL | Pol II transcription                  |
| CDC8    | PET191  | YJR034W | 3 | SL | Energy generation                     |
| CDC8    | IXR1    | YKL032c | 0 | SS | DNA repair                            |
| CDC8    | YKL098W | YKL098W | 3 | SS | Unknown                               |
| CDC8    | RAD27   | YKL113C | 3 | SS | DNA repair                            |
| CDC8    | APN1    | YKL114C | 3 | SL | DNA repair                            |
| CDC8    | TOP3    | YLR234W | 2 | SL | Chromatin/chromosome structure        |
| CDC8    | YLR235C | YLR235C | 2 | SL | Unknown                               |
| CDC8    | SEC22   | YLR268W | 3 | SL | Vesicular transport                   |
| CDC8    | SGS1    | YMR190C | 2 | SS | DNA repair                            |
| CDC8    | CIK1    | YMR198W | 0 | SS | Mitosis                               |
| CDC8    | MGS1    | YNL218W | 2 | SS | DNA replication                       |
| CDC8    | URE2    | YNL229c | 0 | SL | Amino-acid metabolism                 |
| CDC8    | ZWF1    | YNL241C | 2 | SL | Carbohydrate metabolism               |
| CDC8    | TRF5    | YNL299W | 2 | SL | Chromatin/chromosome structure        |
| CDC8    | ISW2    | YOR304W | 3 | SS | Chromatin/chromosome structure        |
| CDC8    | DDC1    | YPL194W | 2 | SS | DNA repair                            |
| MMS4    | ESC2    | YDR363W | 2 | SS | Chromatin/chromosome structure        |
| MMS4    | XRS2    | YDR369C | 1 | SS | DNA repair                            |
| MMS4    | RAD27   | YKL113c | 0 | SL | DNA repair                            |
| MMS4    | TOP3    | YLR234W | 3 | SL | Chromatin/chromosome structure        |
| MMS4    | YLR235C | YLR235C | 3 | SL | Unknown                               |
| MMS4    | VID22   | YLR373C | 2 | SS | Vacuolar organization and biogenesis  |
| MMS4    | SGS1    | YMR190C | 3 | SL | DNA repair                            |
| MMS4    | NCE4    | YPL024W | 3 | SL | Cell wall organization and biogenesis |
| MUS81   | RAD27   | YKL113c | 0 | SL | DNA repair                            |
| MUS81   | TOP3    | YLR234W | 2 | SL | Chromatin/chromosome structure        |
| MUS81   | YLR235C | YLR235C | 2 | SL | Unknown                               |
| MUS81   | VID22   | YLR373C | 2 | SS | Vacuolar organization and biogenesis  |
| MUS81   | SGS1    | YMR190C | 3 | SL | DNA repair                            |
| MUS81   | ELG1    | YOR144C | 2 | SS | DNA repair                            |
| MUS81   | NCE4    | YPL024W | 3 | SL | Cell wall organization and biogenesis |
| YBR094w | SOY     | YBR194W | 2 | SL | Unknown                               |
| YBR094w | CSM1    | YCR086W | 0 | SS | Meiosis                               |
| YBR094w | YDL162C | YDL162C | 2 | SS | Unknown                               |
| YBR094w | ESC2    | YDR363W | 3 | SL | Chromatin/chromosome structure        |
| YBR094w | ISC1    | YER019W | 1 | SS | Lipid metabolism                      |
| YBR094w | YEN1    | YER041W | 3 | SS | DNA repair                            |

|         |           |           |   |    |                                       |
|---------|-----------|-----------|---|----|---------------------------------------|
| YBR094w | SOH1      | YGL127C   | 1 | SS | DNA repair                            |
| YBR094w | ASF1      | YJL115W   | 0 | SS | Chromatin/chromosome structure        |
| YBR094w | POL32     | YJR043C   | 2 | SS | DNA replication                       |
| YBR094w | TOP3      | YLR234W   | 2 | SL | Chromatin/chromosome structure        |
| YBR094w | VID22     | YLR373C   | 2 | SS | Vacuolar organization and biogenesis  |
| YBR094w | TSA1      | YML028W   | 3 | SL | Cell stress                           |
| YBR094w | LYS7      | YMR038C   | 0 | SS | Amino-acid metabolism                 |
| YBR094w | SGS1      | YMR190C   | 2 | SL | DNA repair                            |
| YBR094w | GIM3      | YNL153C   | 1 | SS | Cell structure                        |
| YBR094w | MON2      | YNL297C   | 2 | SL | Vacuolar organization and biogenesis  |
| YBR094w | RRP6      | YOR001W   | 1 | SS | RNA processing                        |
| YBR094w | ELG1      | YOR144C   | 3 | SL | DNA repair                            |
| YBR094w | NCE4      | YPL024W   | 3 | SL | Cell wall organization and biogenesis |
| HST1    | ESC2      | YDR363W   | 1 | SS | Chromatin/chromosome structure        |
| HST1    | WHI2      | YOR043W   | 2 | SS | Cell cycle control                    |
| HST3    | MRC1      | YCL060C   | 2 | SL | DNA repair                            |
| HST3    | HST4      | YDR191W   | 2 | SL | Chromatin/chromosome structure        |
| HST3    | POL32     | YJR043C   | 0 | SS | DNA replication                       |
| HST3    | RAD27     | YKL113C   | 2 | SL | DNA repair                            |
| HST3    | YLR235C   | YLR235C   | 0 | SL | Unknown                               |
| HST3    | YML095C-A | YML095C-A | 0 | SS | Unknown                               |
| HST3    | SGS1      | YMR190C   | 1 | SS | DNA repair                            |
| HST3    | CIK1      | YMR198W   | 2 | SL | Mitosis                               |
| HST3    | YOR082C   | YOR082C   | 1 | SS | Unknown                               |
| ESC2    | NUP60     | YAR002W   | 2 | SL | Nuclear-cytoplasmic transport         |
| ESC2    | SWD1      | YAR003W   | 1 | SL | Chromatin/chromosome structure        |
| ESC2    | YBR094W   | YBR094W   | 3 | SL | Unknown                               |
| ESC2    | MMS4      | YBR098W   | 3 | SL | DNA repair                            |
| ESC2    | YBR099C   | YBR099C   | 0 | SL | Unknown                               |
| ESC2    | YBR174C   | YBR174C   | 0 | SL | Unknown                               |
| ESC2    | SLX1      | YBR228W   | 3 | SL | DNA repair                            |
| ESC2    | SRO9      | YCL037C   | 0 | SL | Protein synthesis                     |
| ESC2    | RPN4      | YDL020C   | 1 | SL | Protein degradation                   |
| ESC2    | RNH202    | YDR279W   | 1 | SL | Unknown                               |
| ESC2    | MUS81     | YDR386W   | 3 | SL | DNA repair                            |
| ESC2    | UBP6      | YFR010W   | 0 | SS | Protein modification                  |
| ESC2    | YGR071C   | YGR071C   | 0 | SL | Unknown                               |
| ESC2    | UPF3      | YGR072W   | 3 | SL | RNA turnover                          |
| ESC2    | RRM3      | YHR031C   | 1 | SL | DNA replication                       |
| ESC2    | NMD2      | YHR077C   | 3 | SL | RNA turnover                          |
| ESC2    | WSS1      | YHR134W   | 1 | SS | DNA repair                            |
| ESC2    | THP2      | YHR167W   | 0 | SS | Recombination                         |
| ESC2    | RPL34B    | YIL052C   | 0 | SS | Protein synthesis                     |
| ESC2    | HPR5      | YJL092W   | 0 | SS | DNA repair                            |
| ESC2    | SWI3      | YJL176C   | 2 | SL | Chromatin/chromosome structure        |
| ESC2    | POL32     | YJR043C   | 2 | SS | DNA replication                       |
| ESC2    | HIR3      | YJR140C   | 0 | SS | Pol II transcription                  |
| ESC2    | SLX4      | YLR135W   | 3 | SL | DNA repair                            |
| ESC2    | RNH203    | YLR154C   | 1 | SS | Unknown                               |
| ESC2    | YLR235C   | YLR235C   | 0 | SL | Unknown                               |
| ESC2    | VID22     | YLR373C   | 3 | SL | Vacuolar organization and biogenesis  |
| ESC2    | YLR374C   | YLR374C   | 3 | SS | Unknown                               |
| ESC2    | MSC1      | YML128C   | 1 | SS | Unknown                               |
| ESC2    | NAM7      | YMR080C   | 2 | SL | RNA turnover                          |
| ESC2    | SGS1      | YMR190C   | 1 | SS | DNA repair                            |
| ESC2    | RNH35     | YNL072W   | 0 | SS | DNA replication                       |
| ESC2    | INP52     | YNL106C   | 2 | SL | Lipid metabolism                      |
| ESC2    | MGS1      | YNL218W   | 0 | SS | DNA replication                       |
| ESC2    | TOP1      | YOL006C   | 0 | SS | Chromatin/chromosome structure        |
| ESC2    | SKI7      | YOR076C   | 0 | SL | RNA turnover                          |
| ESC2    | LEO1      | YOR123C   | 0 | SS | Chromatin/chromosome structure        |

|        |         |           |   |    |    |   |
|--------|---------|-----------|---|----|----|---|
| ESC2   | RIS1    | YOR191W   | 0 | SL |    | Chromatin/chromosome structure            |
| ESC2   | PUS7    | YOR243C   | 0 |    | SS | RNA processing                            |
| ESC2   | NCE4    | YPL024W   | 0 | SL |    | Cell wall organization and biogenesis     |
| ESC2   | SUR1    | YPL057C   | 0 |    | SS | Lipid metabolism                          |
| ESC2   | RPL21B  | YPL079W   | 0 |    | SS | Protein synthesis                         |
| RTT107 | RMD7    | YER083C   | 2 |    | SS | Cell wall organization and biogenesis     |
| RTT107 | PMR1    | YGL167C   | 1 |    | SS | Small molecule transport                  |
| RTT107 | HUR1    | YGL168W   | 1 |    | SS | Unknown                                   |
| RTT107 | RRM3    | YHR031C   | 2 |    | SS | DNA replication                           |
| RTT107 | ZAP1    | YJL056C   | 2 |    | SS | Pol II transcription                      |
| RTT107 | SOD1    | YJR104C   | 0 |    | SS | Cell stress                               |
| RTT107 | TOP3    | YLR234W   | 2 |    | SS | Chromatin/chromosome structure            |
| RTT107 | YLR235C | YLR235C   | 3 |    | SS | Unknown                                   |
| RTT107 | VID22   | YLR373C   | 0 |    | SS | Vacuolar organization and biogenesis      |
| RTT107 | IMP2    | YMR035W   | 0 |    | SS | Mitochondrion organization and biogenesis |
| RTT107 | SGS1    | YMR190C   | 0 |    | SS | DNA repair                                |
| RTT107 | GAL11   | YOL051W   | 3 |    | SS | Carbohydrate metabolism                   |
| RTT107 | NCE4    | YPL024W   | 3 |    | SS | Cell wall organization and biogenesis     |
| RAS2   | PDR17   | YNL264C   | 1 | SL |    | Vesicular transport                       |
| RAS2   | RAS1    | YOR101W   | 3 | SL |    | Signal transduction                       |
| RAS2   | YNL063W | YNL063W   | 0 | SS |    | Unknown                                   |
| RAS2   | COX16   | YJL003W   | 0 | SS |    | Energy generation                         |
| ALG6   | PMT2    | YAL023C   | 3 | SL | SS | Protein modification                      |
| ALG6   | PMT1    | YDL095W   | 2 | SS | SS | Protein modification                      |
| ALG6   | YDL096C | YDL096C   | 2 | SS | SS | Unknown                                   |
| ALG6   | RPO41   | YFL036W   | 3 | SL | SL | Mitochondrion organization and biogenesis |
| ALG6   | OST5    | YGL226C-A | 3 | SL | SL | Protein modification                      |
| ALG6   | OST3    | YOR085W   | 3 | SL | SL | Protein modification                      |
| CHS1   | DEP1    | YAL013W   | 3 | SS |    | Lipid metabolism                          |
| CHS1   | PEX22   | YAL055W   | 2 | SS |    | Unknown                                   |
| CHS1   | ECM21   | YBL101C   | 3 | SS |    | Cell wall organization and biogenesis     |
| CHS1   | PHO5    | YBR093C   | 3 | SL |    | Phosphate metabolism                      |
| CHS1   | GRS1    | YBR121C   | 2 | SL |    | Protein synthesis                         |
| CHS1   | TYR1    | YBR166C   | 3 | SS |    | Amino-acid metabolism                     |
| CHS1   | YBR209W | YBR209W   | 2 | SL |    | Unknown                                   |
| CHS1   | FIG2    | YCR089W   | 2 | SS |    | Mating response                           |
| CHS1   | YDL206W | YDL206W   | 3 | SL |    | Unknown                                   |
| CHS1   | HBT1    | YDL223C   | 3 | SL |    | Cell polarity                             |
| CHS1   | YDR248C | YDR248C   | 2 | SS |    | Unknown                                   |
| CHS1   | PMP3    | YDR276C   | 2 | SL |    | Small molecule transport                  |
| CHS1   | YDR314C | YDR314C   | 2 | SL |    | DNA repair                                |
| CHS1   | IPK1    | YDR315C   | 3 | SS |    | Lipid metabolism                          |
| CHS1   | SPF1    | YEL031W   | 2 | SS |    | Small molecule transport                  |
| CHS1   | YEL033W | YEL033W   | 3 | SS |    | Differentiation                           |
| CHS1   | PEA2    | YER149C   | 2 | SL |    | Cell polarity                             |
| CHS1   | PDA1    | YER178W   | 3 | SS |    | Mitochondrion organization and biogenesis |
| CHS1   | YFR045W | YFR045W   | 3 | SL |    | Transport                                 |
| CHS1   | YGL081W | YGL081W   | 3 | SL |    | Unknown                                   |
| CHS1   | CUE3    | YGL110C   | 2 | SL |    | Unknown                                   |
| CHS1   | EMP24   | YGL200C   | 3 | SS |    | Vesicular transport                       |
| CHS1   | HAP2    | YGL237C   | 2 | SS |    | Pol II transcription                      |
| CHS1   | VPS29   | YHR012W   | 3 | SS |    | Vesicular transport                       |
| CHS1   | YIL110W | YIL110W   | 2 | SS |    | Unknown                                   |
| CHS1   | BCK1    | YJL095W   | 3 | SL |    | Cell wall organization and biogenesis     |
| CHS1   | RPE1    | YJL121C   | 2 | SL |    | Carbohydrate metabolism                   |
| CHS1   | RPA34   | YJL148W   | 3 | SS |    | Protein synthesis                         |
| CHS1   | VPS35   | YJL154C   | 2 | SS |    | Vesicular transport                       |
| CHS1   | ELO1    | YJL196C   | 2 | SS |    | Lipid metabolism                          |
| CHS1   | NUC1    | YJL208C   | 3 | SS |    | Recombination                             |
| CHS1   | HXT8    | YJL214W   | 3 | SL |    | Carbohydrate metabolism                   |
| CHS1   | HIT1    | YJR055W   | 2 | SL |    | Unknown                                   |

|      |         |         |   |    |   |
|------|---------|---------|---|----|---|
| CHS1 | CNB1    | YKL190W | 3 | SS | Cell wall organization and biogenesis     |
| CHS1 | UTH1    | YKR042W | 2 | SS | Aging                                     |
| CHS1 | FPS1    | YLL043W | 2 | SS | Transport                                 |
| CHS1 | PDC1    | YLR044C | 2 | SL | Carbohydrate metabolism                   |
| CHS1 | BUD20   | YLR074C | 2 | SL | Cell polarity                             |
| CHS1 | ARC18   | YLR370C | 2 | SS | Cell polarity                             |
| CHS1 | SKI2    | YLR398C | 2 | SS | RNA turnover                              |
| CHS1 | YMR003W | YMR003W | 2 | SL | Unknown                                   |
| CHS1 | PKR1    | YMR123W | 2 | SS | Unknown                                   |
| CHS1 | PFK2    | YMR205C | 3 | SS | Carbohydrate metabolism                   |
| CHS1 | MRE11   | YMR224C | 2 | SS | DNA repair                                |
| CHS1 | YNL087W | YNL087W | 2 | SL | Unknown                                   |
| CHS1 | YNL171C | YNL171C | 2 | SS | Unknown                                   |
| CHS1 | YNL179C | YNL179C | 2 | SL | Unknown                                   |
| CHS1 | YNL200C | YNL200C | 2 | SL | Unknown                                   |
| CHS1 | PSY2    | YNL201C | 2 | SL | Carbohydrate metabolism                   |
| CHS1 | SPS19   | YNL202W | 2 | SL | Lipid metabolism                          |
| CHS1 | YNL203C | YNL203C | 2 | SL | Unknown                                   |
| CHS1 | SPS18   | YNL204C | 2 | SL | Meiosis                                   |
| CHS1 | YNL228W | YNL228W | 2 | SS | Unknown                                   |
| CHS1 | PDR16   | YNL231C | 3 | SS | Lipid metabolism                          |
| CHS1 | YNL235C | YNL235C | 3 | SS | Unknown                                   |
| CHS1 | PEX6    | YNL329C | 3 | SL | Lipid metabolism                          |
| CHS1 | MDM38   | YOL027C | 2 | SS | Mitochondrion organization and biogenesis |
| CHS1 | WHI2    | YOR043W | 3 | SL | Cell cycle control                        |
| CHS1 | VPS5    | YOR069W | 2 | SS | Vesicular transport                       |
| CHS1 | VPS17   | YOR132W | 3 | SL | Vesicular transport                       |
| CHS1 | YOR322C | YOR322C | 2 | SL | Unknown                                   |
| CHS1 | LGE1    | YPL055C | 3 | SS | Cell cycle control                        |
| CHS1 | BEM4    | YPL161C | 3 | SS | Cell polarity                             |
| CHS1 | PRM3    | YPL192C | 2 | SL | Mating response                           |
| CHS1 | LEA1    | YPL213W | 2 | SS | RNA splicing                              |
| CHS1 | CLN2    | YPL256C | 3 | SL | Cell cycle control                        |
| CHS1 | YPL261C | YPL261C | 2 | SL | Unknown                                   |
| CHS1 | YME1    | YPR024W | 2 | SS | Mitochondrion organization and biogenesis |
| CHS1 | YPR053C | YPR053C | 2 | SS | Unknown                                   |
| CHS3 | SLA1    | YBL007C | 3 | SS | Cell polarity                             |
| CHS3 | EDE1    | YBL047C | 2 | SS | Vesicular transport                       |
| CHS3 | RPS8A   | YBL072C | 3 | SS | Protein synthesis                         |
| CHS3 | MNN2    | YBR015C | 3 | SS | Protein modification                      |
| CHS3 | MUM2    | YBR057C | 3 | SS | Meiosis                                   |
| CHS3 | YBR077C | YBR077C | 3 | SS | Unknown                                   |
| CHS3 | YDL032W | YDL032W | 2 | SS | Unknown                                   |
| CHS3 | YDL033C | YDL033C | 2 | SS | Unknown                                   |
| CHS3 | HBT1    | YDL223C | 3 | SS | Cell polarity                             |
| CHS3 | SAC6    | YDR129C | 3 | SL | SS Cell structure                         |
| CHS3 | MNN10   | YDR245W | 0 | SL | Protein modification                      |
| CHS3 | RVS167  | YDR388W | 0 | SS | Cell polarity                             |
| CHS3 | IES6    | YEL044W | 3 | SS | Vesicular transport                       |
| CHS3 | SWI4    | YER111C | 2 | SS | Cell cycle control                        |
| CHS3 | FAB1    | YFR019W | 2 | SS | Lipid metabolism                          |
| CHS3 | CDC26   | YFR036W | 2 | SL | Cell cycle control                        |
| CHS3 | GUP1    | YGL084C | 2 | SS | Lipid metabolism                          |
| CHS3 | EMP24   | YGL200C | 3 | SS | Vesicular transport                       |
| CHS3 | VAM7    | YGL212W | 2 | SS | Vacuolar organization and biogenesis      |
| CHS3 | DOC1    | YGL240W | 3 | SS | Cell cycle control                        |
| CHS3 | PRE9    | YGR135W | 3 | SS | Protein degradation                       |
| CHS3 | SMI1    | YGR229C | 3 | SL | Cell wall organization and biogenesis     |
| CHS3 | SLT2    | YHR030C | 3 | SS | Cell wall organization and biogenesis     |
| CHS3 | BCK1    | YJL095W | 0 | SL | Cell wall organization and biogenesis     |
| CHS3 | RPA34   | YJL148W | 2 | SS | Protein synthesis                         |

|      |         |         |   |    |   |
|------|---------|---------|---|----|---|
| CHS3 | OPI3    | YJR073C | 2 | SS | Lipid metabolism                          |
| CHS3 | ILM1    | YJR118C | 3 | SL | Energy generation                         |
| CHS3 | VPS24   | YKL041W | 0 | SS | Vesicular transport                       |
| CHS3 | SMY1    | YKL079W | 2 | SS | Cell polarity                             |
| CHS3 | MST1    | YKL194C | 3 | SS | Protein synthesis                         |
| CHS3 | VPS67   | YKR020W | 3 | SS | Vacuolar organization and biogenesis      |
| CHS3 | UBI4    | YLL039C | 3 | SS | Protein degradation                       |
| CHS3 | CSF1    | YLR087C | 3 | SS | Cell stress                               |
| CHS3 | CCW12   | YLR110C | 3 | SS | Cell wall organization and biogenesis     |
| CHS3 | YLR111W | YLR111W | 3 | SS | Unknown                                   |
| CHS3 | VRP1    | YLR337C | 0 | SL | Cell polarity                             |
| CHS3 | KRE21   | YLR338W | 3 | SL | Unknown                                   |
| CHS3 | FKS1    | YLR342W | 0 | SS | Cell wall organization and biogenesis     |
| CHS3 | ARC18   | YLR370C | 2 | SS | Cell polarity                             |
| CHS3 | VAN1    | YML115C | 3 | SS | Protein modification                      |
| CHS3 | TOM37   | YMR060C | 3 | SS | Mitochondrion organization and biogenesis |
| CHS3 | YTA12   | YMR089C | 3 | SS | Energy generation                         |
| CHS3 | ASC1    | YMR116C | 3 | SS | Protein synthesis                         |
| CHS3 | GAS1    | YMR307W | 2 | SS | Cell wall organization and biogenesis     |
| CHS3 | TPM1    | YNL079C | 0 | SS | Cell structure                            |
| CHS3 | YNL171C | YNL171C | 3 | SS | Unknown                                   |
| CHS3 | BNI1    | YNL271C | 2 | SS | Cell polarity                             |
| CHS3 | CLA4    | YNL298W | 3 | SS | Cell polarity                             |
| CHS3 | BRE5    | YNR051C | 3 | SS | Unknown                                   |
| CHS3 | SHE4    | YOR035C | 0 | SS | Differentiation                           |
| CHS3 | RPL20B  | YOR312C | 3 | SS | Protein synthesis                         |
| CHS3 | LGE1    | YPL055C | 3 | SS | Cell cycle control                        |
| CHS3 | BTS1    | YPL069C | 2 | SS | Protein modification                      |
| CHS5 | SLA1    | YBL007C | 0 | SL | Cell polarity                             |
| CHS5 | EDE1    | YBL047C | 0 | SS | Vesicular transport                       |
| CHS5 | RPS8A   | YBL072C | 0 | SS | Protein synthesis                         |
| CHS5 | ECM21   | YBL101C | 2 | SS | Cell wall organization and biogenesis     |
| CHS5 | GRS1    | YBR121C | 3 | SS | Protein synthesis                         |
| CHS5 | AOR1    | YBR231C | 2 | SS | Unknown                                   |
| CHS5 | DAN3    | YBR301W | 2 | SS | Cell wall organization and biogenesis     |
| CHS5 | RVS161  | YCR009C | 0 | SS | Cell polarity                             |
| CHS5 | PAT1    | YCR077C | 2 | SL | Chromatin/chromosome structure            |
| CHS5 | YDL033C | YDL033C | 0 | SS | Unknown                                   |
| CHS5 | BRE1    | YDL074C | 2 | SS | Chromatin/chromosome structure            |
| CHS5 | CLB3    | YDL155W | 3 | SS | Cell cycle control                        |
| CHS5 | YDL206W | YDL206W | 3 | SS | Unknown                                   |
| CHS5 | SAC6    | YDR129C | 0 | SL | Cell structure                            |
| CHS5 | MNN10   | YDR245W | 2 | SL | Protein modification                      |
| CHS5 | LSM6    | YDR378C | 0 | SL | RNA splicing                              |
| CHS5 | SHE9    | YDR393W | 2 | SS | Mitochondrion organization and biogenesis |
| CHS5 | DOT1    | YDR440W | 2 | SS | Chromatin/chromosome structure            |
| CHS5 | SWI4    | YER111C | 2 | SS | Cell cycle control                        |
| CHS5 | PEA2    | YER149C | 3 | SS | Cell polarity                             |
| CHS5 | FAB1    | YFR019W | 2 | SS | Lipid metabolism                          |
| CHS5 | YFR045W | YFR045W | 3 | SS | Transport                                 |
| CHS5 | YGL081W | YGL081W | 3 | SS | Unknown                                   |
| CHS5 | GUP1    | YGL084C | 0 | SS | Lipid metabolism                          |
| CHS5 | YGL152C | YGL152C | 3 | SL | Unknown                                   |
| CHS5 | PEX14   | YGL153W | 3 | SL | Peroxisome organization and biogenesis    |
| CHS5 | EMP24   | YGL200C | 3 | SS | Vesicular transport                       |
| CHS5 | PRE9    | YGR135W | 2 | SS | Protein degradation                       |
| CHS5 | SMI1    | YGR229C | 0 | SL | Cell wall organization and biogenesis     |
| CHS5 | HSE1    | YHL002W | 2 | SS | Transport                                 |
| CHS5 | SLT2    | YHR030C | 2 | SL | Cell wall organization and biogenesis     |
| CHS5 | CTK2    | YJL006C | 2 | SS | Pol II transcription                      |
| CHS5 | BCK1    | YJL095W | 2 | SL | Cell wall organization and biogenesis     |

|      |         |         |   |    |   |
|------|---------|---------|---|----|---|
| CHS5 | RPA34   | YJL148W | 0 | SS | Protein synthesis                         |
| CHS5 | SWI3    | YJL176C | 2 | SL | Chromatin/chromosome structure            |
| CHS5 | MNN11   | YJL183W | 2 | SL | Protein modification                      |
| CHS5 | RPL14A  | YKL006W | 2 | SS | Protein synthesis                         |
| CHS5 | UFD4    | YKL010C | 0 | SS | Protein modification                      |
| CHS5 | IXR1    | YKL032C | 0 | SS | DNA repair                                |
| CHS5 | VPS24   | YKL041W | 3 | SS | Vesicular transport                       |
| CHS5 | SMY1    | YKL079W | 2 | SS | Cell polarity                             |
| CHS5 | VPS67   | YKR020W | 0 | SS | Vacuolar organization and biogenesis      |
| CHS5 | NUP133  | YKR082W | 0 | SS | Nuclear-cytoplasmic transport             |
| CHS5 | UBI4    | YLL039C | 3 | SS | Protein degradation                       |
| CHS5 | FPS1    | YLL043W | 3 | SS | Transport                                 |
| CHS5 | CSF1    | YLR087C | 0 | SS | Cell stress                               |
| CHS5 | CCW12   | YLR110C | 2 | SS | Cell wall organization and biogenesis     |
| CHS5 | YLR111W | YLR111W | 0 | SS | Unknown                                   |
| CHS5 | SEC22   | YLR268W | 0 | SL | Vesicular transport                       |
| CHS5 | FKS1    | YLR342W | 0 | SS | Cell wall organization and biogenesis     |
| CHS5 | ARC18   | YLR370C | 2 | SS | Cell polarity                             |
| CHS5 | TUS1    | YLR425W | 0 | SS | Unknown                                   |
| CHS5 | VAN1    | YML115C | 2 | SL | Protein modification                      |
| CHS5 | ASC1    | YMR116C | 0 | SS | Protein synthesis                         |
| CHS5 | MRE11   | YMR224C | 3 | SS | DNA repair                                |
| CHS5 | GAS1    | YMR307W | 3 | SS | Cell wall organization and biogenesis     |
| CHS5 | PET8    | YNL003C | 2 | SS | Small molecule transport                  |
| CHS5 | LAT1    | YNL071W | 3 | SS | Energy generation                         |
| CHS5 | TPM1    | YNL079C | 3 | SS | Cell structure                            |
| CHS5 | YNL171C | YNL171C | 0 | SS | Unknown                                   |
| CHS5 | CLA4    | YNL298W | 2 | SS | Cell polarity                             |
| CHS5 | COQ2    | YNR041C | 2 | SS | Energy generation                         |
| CHS5 | MDM12   | YOL009C | 2 | SL | Mitochondrion organization and biogenesis |
| CHS5 | IRA2    | YOL081W | 2 | SS | Signal transduction                       |
| CHS5 | VPS21   | YOR089C | 0 | SS | Vesicular transport                       |
| CHS5 | PDE2    | YOR360C | 2 | SS | Signal transduction                       |
| CHS5 | LGE1    | YPL055C | 0 | SS | Cell cycle control                        |
| CHS5 | COX11   | YPL132W | 2 | SS | Energy generation                         |
| CHS5 | BEM4    | YPL161C | 3 | SS | Cell polarity                             |
| CHS5 | LEA1    | YPL213W | 2 | SS | RNA splicing                              |
| CHS6 | MUM2    | YBR057C | 2 | SS | Meiosis                                   |
| CHS6 | UME6    | YDR207C | 2 | SS | Meiosis                                   |
| CHS6 | MSN5    | YDR335W | 2 | SS | Nuclear-cytoplasmic transport             |
| CHS6 | RVS167  | YDR388W | 2 | SS | Cell polarity                             |
| CHS6 | RPO41   | YFL036W | 2 | SS | Mitochondrion organization and biogenesis |
| CHS6 | GUP1    | YGL084C | 0 | SS | Lipid metabolism                          |
| CHS6 | SMI1    | YGR229C | 0 | SL | Cell wall organization and biogenesis     |
| CHS6 | SLT2    | YHR030C | 0 | SS | Cell wall organization and biogenesis     |
| CHS6 | IST3    | YIR005W | 2 | SS | RNA splicing                              |
| CHS6 | LAS21   | YJL062W | 0 | SS | Lipid metabolism                          |
| CHS6 | BCK1    | YJL095W | 0 | SS | Cell wall organization and biogenesis     |
| CHS6 | MNN11   | YJL183W | 2 | SL | Protein modification                      |
| CHS6 | ILM1    | YJR118C | 2 | SL | Energy generation                         |
| CHS6 | NUP133  | YKR082W | 0 | SS | Nuclear-cytoplasmic transport             |
| CHS6 | UBI4    | YLL039C | 3 | SL | Protein degradation                       |
| CHS6 | VRP1    | YLR337C | 2 | SL | Cell polarity                             |
| CHS6 | KRE21   | YLR338W | 3 | SL | Unknown                                   |
| CHS6 | FKS1    | YLR342W | 0 | SL | Cell wall organization and biogenesis     |
| CHS6 | ARC18   | YLR370C | 0 | SS | Cell polarity                             |
| CHS6 | VAN1    | YML115C | 2 | SL | Protein modification                      |
| CHS6 | YNL235C | YNL235C | 3 | SS | Unknown                                   |
| CHS6 | CLA4    | YNL298W | 2 | SS | Cell polarity                             |
| CHS6 | IRA2    | YOL081W | 3 | SS | Signal transduction                       |
| CHS7 | SLA1    | YBL007C | 3 | SL | Cell polarity                             |

|       |         |           |   |    |   |
|-------|---------|-----------|---|----|---|
| CHS7  | EDE1    | YBL047C   | 0 | SS | Vesicular transport                       |
| CHS7  | CYK3    | YDL117W   | 0 | SS | Cytokinesis                               |
| CHS7  | SAC6    | YDR129C   | 3 | SL | Cell structure                            |
| CHS7  | MNN10   | YDR245W   | 3 | SL | Protein modification                      |
| CHS7  | RVS167  | YDR388W   | 0 | SS | Cell polarity                             |
| CHS7  | RPO41   | YFL036W   | 0 | SS | Mitochondrion organization and biogenesis |
| CHS7  | PRE9    | YGR135W   | 3 | SS | Protein degradation                       |
| CHS7  | SMI1    | YGR229C   | 3 | SL | Cell wall organization and biogenesis     |
| CHS7  | SLT2    | YHR030C   | 3 | SL | Cell wall organization and biogenesis     |
| CHS7  | QDR2    | YIL121W   | 3 | SS | Transport                                 |
| CHS7  | BCK1    | YJL095W   | 3 | SL | Cell wall organization and biogenesis     |
| CHS7  | RPA34   | YJL148W   | 0 | SS | Protein synthesis                         |
| CHS7  | OPI3    | YJR073C   | 0 | SS | Lipid metabolism                          |
| CHS7  | SMY1    | YKL079W   | 0 | SS | Cell polarity                             |
| CHS7  | NUP133  | YKR082W   | 3 | SS | Nuclear-cytoplasmic transport             |
| CHS7  | CCW12   | YLR110C   | 0 | SS | Cell wall organization and biogenesis     |
| CHS7  | YLR111W | YLR111W   | 0 | SS | Unknown                                   |
| CHS7  | VRP1    | YLR337C   | 3 | SL | Cell polarity                             |
| CHS7  | FKS1    | YLR342W   | 3 | SL | Cell wall organization and biogenesis     |
| CHS7  | TUS1    | YLR425W   | 0 | SS | Unknown                                   |
| CHS7  | VAN1    | YML115C   | 3 | SL | Protein modification                      |
| CHS7  | TPM1    | YNL079C   | 3 | SL | Cell structure                            |
| CHS7  | BNI1    | YNL271C   | 3 | SS | Cell polarity                             |
| CHS7  | CLA4    | YNL298W   | 3 | SS | Cell polarity                             |
| CHS7  | PEX6    | YNL329C   | 3 | SS | Lipid metabolism                          |
| CHS7  | SHE4    | YOR035C   | 3 | SL | Differentiation                           |
| CNE1  | GUP1    | YGL084C   | 0 | SS | SS Lipid metabolism                       |
| CNE1  | MST1    | YKL194C   | 3 | SS | SS Protein synthesis                      |
| CNE1  | PEX1    | YKL197C   | 2 | SS | SS Lipid metabolism                       |
| CNE1  | YDJ1    | YNL064C   | 3 | SS | Mitochondrion organization and biogenesis |
| CNE1  | YNL171C | YNL171C   | 3 | SS | Unknown                                   |
| CNE1  | YNR036C | YNR036C   | 2 | SL | SS Unknown                                |
| CTS1  | PEX6    | YNL329C   | 2 | SS | Lipid metabolism                          |
| DIE2  | RPO41   | YFL036W   | 2 | SL | Mitochondrion organization and biogenesis |
| DIE2  | OST5    | YGL226C-A | 2 | SL | Protein modification                      |
| DIE2  | YGR064W | YGR064W   | 3 | SS | Unknown                                   |
| DIE2  | MDM12   | YOL009C   | 3 | SS | Mitochondrion organization and biogenesis |
| DIE2  | OST3    | YOR085W   | 3 | SL | Protein modification                      |
| ECM15 | TOM37   | YMR060C   | 3 | SS | Mitochondrion organization and biogenesis |
| ERV29 | TOM37   | YMR060C   | 3 | SL | Mitochondrion organization and biogenesis |
| FKS1  | SLA1    | YBL007C   | 0 | SL | Cell polarity                             |
| FKS1  | EDE1    | YBL047C   | 2 | SL | Vesicular transport                       |
| FKS1  | SKT5    | YBL061C   | 2 | SL | Cell wall organization and biogenesis     |
| FKS1  | YBL062W | YBL062W   | 2 | SL | Unknown                                   |
| FKS1  | CHS3    | YBR023C   | 2 | SL | Cell wall organization and biogenesis     |
| FKS1  | UBC4    | YBR082C   | 2 | SS | Protein degradation                       |
| FKS1  | GRS1    | YBR121C   | 2 | SS | Protein synthesis                         |
| FKS1  | FEN1    | YCR034W   | 0 | SS | SS Lipid metabolism                       |
| FKS1  | PTC1    | YDL006W   | 0 | SL | Signal transduction                       |
| FKS1  | HBT1    | YDL223C   | 2 | SS | Cell polarity                             |
| FKS1  | RGP1    | YDR137W   | 0 | SS | Vesicular transport                       |
| FKS1  | LSM6    | YDR378C   | 2 | SS | RNA splicing                              |
| FKS1  | RVS167  | YDR388W   | 0 | SL | Cell polarity                             |
| FKS1  | SNF1    | YDR477W   | 2 | SS | SL Carbohydrate metabolism                |
| FKS1  | GNP1    | YDR508C   | 0 | SS | Amino-acid metabolism                     |
| FKS1  | SWI4    | YER111C   | 2 | SL | Cell cycle control                        |
| FKS1  | UBP3    | YER151C   | 0 | SS | Protein modification                      |
| FKS1  | BEM2    | YER155C   | 0 | SL | Cell polarity                             |
| FKS1  | RIM8    | YGL046W   | 0 | SS | Unknown                                   |
| FKS1  | YGL081W | YGL081W   | 2 | SS | Unknown                                   |
| FKS1  | CUE3    | YGL110C   | 0 | SS | Unknown                                   |

|      |         |         |   |    |   |
|------|---------|---------|---|----|---|
| FKS1 | YGL196W | YGL196W | 2 | SS | Unknown                                   |
| FKS1 | DOC1    | YGL240W | 2 | SS | Cell cycle control                        |
| FKS1 | GSC2    | YGR032W | 0 | SL | Cell wall organization and biogenesis     |
| FKS1 | PEX4    | YGR133W | 2 | SS | Peroxisome organization and biogenesis    |
| FKS1 | PRE9    | YGR135W | 0 | SS | Protein degradation                       |
| FKS1 | CCH1    | YGR217W | 3 | SL | Transport                                 |
| FKS1 | SLT2    | YHR030C | 2 | SL | Cell wall organization and biogenesis     |
| FKS1 | CHS7    | YHR142W | 0 | SL | Cell wall organization and biogenesis     |
| FKS1 | RPN10   | YHR200W | 2 | SS | Pol II transcription                      |
| FKS1 | IMP2'   | YIL154C | 2 | SL | Carbohydrate metabolism                   |
| FKS1 | YJL046W | YJL046W | 2 | SS | Protein modification                      |
| FKS1 | CHS6    | YJL099W | 3 | SL | Cell wall organization and biogenesis     |
| FKS1 | LSM1    | YJL124C | 2 | SS | RNA turnover                              |
| FKS1 | RPS21B  | YJL136C | 2 | SS | Protein synthesis                         |
| FKS1 | MNN11   | YJL183W | 2 | SL | Protein modification                      |
| FKS1 | NUC1    | YJL208C | 2 | SS | Recombination                             |
| FKS1 | HIT1    | YJR055W | 2 | SS | Unknown                                   |
| FKS1 | ILM1    | YJR118C | 2 | SS | Energy generation                         |
| FKS1 | IXR1    | YKL032C | 2 | SS | DNA repair                                |
| FKS1 | ELM1    | YKL048C | 2 | SS | Cell polarity                             |
| FKS1 | CNB1    | YKL190W | 2 | SL | Cell wall organization and biogenesis     |
| FKS1 | VPS67   | YKR020W | 0 | SS | Vacuolar organization and biogenesis      |
| FKS1 | DBP7    | YKR024C | 2 | SS | RNA processing                            |
| FKS1 | SPA2    | YLL021W | 0 | SS | Cell polarity                             |
| FKS1 | FPS1    | YLL043W | 2 | SS | Transport                                 |
| FKS1 | YLR021W | YLR021W | 2 | SS | Unknown                                   |
| FKS1 | QRI5    | YLR204W | 2 | SS | Unknown                                   |
| FKS1 | MMS22   | YLR320W | 0 | SL | Unknown                                   |
| FKS1 | CHS5    | YLR330W | 3 | SL | Cell wall organization and biogenesis     |
| FKS1 | MID2    | YLR332W | 0 | SL | Cell wall organization and biogenesis     |
| FKS1 | KRE21   | YLR338W | 0 | SL | Unknown                                   |
| FKS1 | ROM2    | YLR371W | 0 | SL | Cell wall organization and biogenesis     |
| FKS1 | PSP2    | YML017W | 2 | SS | Unknown                                   |
| FKS1 | YMR073C | YMR073C | 2 | SS | Unknown                                   |
| FKS1 | CRZ1    | YNL027W | 2 | SL | Pol II transcription                      |
| FKS1 | YDJ1    | YNL064C | 0 | SS | Mitochondrion organization and biogenesis |
| FKS1 | RPL16B  | YNL069C | 2 | SS | Protein synthesis                         |
| FKS1 | YNL171C | YNL171C | 0 | SL | Unknown                                   |
| FKS1 | BNI4    | YNL233W | 0 | SL | Cytokinesis                               |
| FKS1 | BNI1    | YNL271C | 0 | SS | SL Cell polarity                          |
| FKS1 | RIM21   | YNL294C | 2 | SS | Unknown                                   |
| FKS1 | BRE5    | YNR051C | 2 | SL | Unknown                                   |
| FKS1 | YOL003C | YOL003C | 0 | SS | Unknown                                   |
| FKS1 | TOP1    | YOL006C | 2 | SS | Chromatin/chromosome structure            |
| FKS1 | DFG16   | YOR030W | 0 | SS | Differentiation                           |
| FKS1 | SHE4    | YOR035C | 0 | SS | Differentiation                           |
| FKS1 | RIM20   | YOR275C | 0 | SS | Cell stress                               |
| FKS1 | RPL20B  | YOR312C | 2 | SS | Protein synthesis                         |
| FKS1 | PHO85   | YPL031C | 2 | SL | Cell cycle control                        |
| FKS1 | YPL041C | YPL041C | 0 | SS | Unknown                                   |
| FKS1 | RLM1    | YPL089C | 3 | SL | Pol II transcription                      |
| FKS1 | YPL144W | YPL144W | 2 | SS | Meiosis                                   |
| FKS1 | BEM4    | YPL161C | 3 | SS | Cell polarity                             |
| FKS1 | YPL261C | YPL261C | 2 | SS | Unknown                                   |
| FKS1 | CSR2    | YPR030W | 2 | SS | Cell wall organization and biogenesis     |
| GAS1 | YAL053W | YAL053W | 3 | SL | Unknown                                   |
| GAS1 | CHS3    | YBR023C | 0 | SS | Cell wall organization and biogenesis     |
| GAS1 | ROT2    | YBR229C | 2 | SL | Cell wall organization and biogenesis     |
| GAS1 | IMG1    | YCR046C | 2 | SS | Energy generation                         |
| GAS1 | PTC1    | YDL006W | 2 | SS | Signal transduction                       |
| GAS1 | AAD4    | YDL243C | 2 | SS | Carbohydrate metabolism                   |



|      |           |           |   |    |   |
|------|-----------|-----------|---|----|---|
| GAS1 | VPS61     | YDR136C   | 3 | SS | Vesicular transport                       |
| GAS1 | RGP1      | YDR137W   | 3 | SS | Vesicular transport                       |
| GAS1 | NBP2      | YDR162C   | 2 | SL | Cell polarity                             |
| GAS1 | SSD1      | YDR293C   | 2 | SS | Cell cycle control                        |
| GAS1 | DOT1      | YDR440W   | 2 | SS | Chromatin/chromosome structure            |
| GAS1 | GNP1      | YDR508C   | 2 | SS | Amino-acid metabolism                     |
| GAS1 | SWI4      | YER111C   | 0 | SS | Cell cycle control                        |
| GAS1 | BEM2      | YER155C   | 0 | SS | Cell polarity                             |
| GAS1 | CWH41     | YGL027C   | 0 | SL | Cell wall organization and biogenesis     |
| GAS1 | CUE3      | YGL110C   | 3 | SS | Unknown                                   |
| GAS1 | EMP24     | YGL200C   | 2 | SL | Vesicular transport                       |
| GAS1 | KRE11     | YGR166W   | 0 | SL | Cell wall organization and biogenesis     |
| GAS1 | SMI1      | YGR229C   | 2 | SL | Cell wall organization and biogenesis     |
| GAS1 | NEM1      | YHR004C   | 2 | SS | Unknown                                   |
| GAS1 | SLT2      | YHR030C   | 3 | SL | Cell wall organization and biogenesis     |
| GAS1 | QDR2      | YIL121W   | 3 | SS | Transport                                 |
| GAS1 | BCK1      | YJL095W   | 3 | SS | Cell wall organization and biogenesis     |
| GAS1 | BUD19     | YJL188C   | 2 | SS | Cell polarity                             |
| GAS1 | OPI3      | YJR073C   | 3 | SS | Lipid metabolism                          |
| GAS1 | CNB1      | YKL190W   | 3 | SS | Cell wall organization and biogenesis     |
| GAS1 | SIS2      | YKR072C   | 3 | SS | Cell stress                               |
| GAS1 | RIC1      | YLR039C   | 2 | SL | Vesicular transport                       |
| GAS1 | VPS63     | YLR261C   | 3 | SL | Vacuolar organization and biogenesis      |
| GAS1 | YPT6      | YLR262C   | 3 | SL | Vesicular transport                       |
| GAS1 | CHS5      | YLR330W   | 3 | SS | Cell wall organization and biogenesis     |
| GAS1 | RSC2      | YLR357W   | 3 | SS | Chromatin/chromosome structure            |
| GAS1 | ROM2      | YLR371W   | 0 | SL | Cell wall organization and biogenesis     |
| GAS1 | ECM7      | YLR443W   | 2 | SS | Cell wall organization and biogenesis     |
| GAS1 | NAB6      | YML117W   | 3 | SL | Unknown                                   |
| GAS1 | TGL3      | YMR313C   | 0 | SL | Lipid metabolism                          |
| GAS1 | YMR316C-A | YMR316C-A | 2 | SS | Unknown                                   |
| GAS1 | YMR317W   | YMR317W   | 0 | SL | Unknown                                   |
| GAS1 | ADH6      | YMR318C   | 0 | SL | Carbohydrate metabolism                   |
| GAS1 | YMR326C   | YMR326C   | 0 | SL | Unknown                                   |
| GAS1 | RIM21     | YNL294C   | 2 | SS | Unknown                                   |
| GAS1 | KRE1      | YNL322C   | 0 | SS | Cell wall organization and biogenesis     |
| GAS1 | SLG1      | YOR008C   | 2 | SL | Cell wall organization and biogenesis     |
| GAS1 | HAP5      | YOR358W   | 2 | SS | Pol II transcription                      |
| GAS1 | PHO85     | YPL031C   | 3 | SS | Cell cycle control                        |
| GAS1 | YPL041C   | YPL041C   | 3 | SS | Unknown                                   |
| GAS1 | RLM1      | YPL089C   | 3 | SS | Pol II transcription                      |
| GAS1 | BEM4      | YPL161C   | 3 | SS | Cell polarity                             |
| GSC2 | FKS1      | YLR342W   | 2 | SL | Cell wall organization and biogenesis     |
| HKR1 | MNN10     | YDR245W   | 2 | SS | Protein modification                      |
| HKR1 | DOT1      | YDR440W   | 2 | SL | Chromatin/chromosome structure            |
| HKR1 | CDC26     | YFR036W   | 2 | SL | Cell cycle control                        |
| HKR1 | EMP24     | YGL200C   | 3 | SL | Vesicular transport                       |
| HKR1 | NSR1      | YGR159C   | 3 | SS | Ribosomal large subunit nucleus export    |
| HKR1 | BCK1      | YJL095W   | 3 | SS | Cell wall organization and biogenesis     |
| HKR1 | VPS24     | YKL041W   | 3 | SL | Vesicular transport                       |
| HKR1 | TOM37     | YMR060C   | 3 | SL | Mitochondrion organization and biogenesis |
| HKR1 | YTA12     | YMR089C   | 2 | SL | Energy generation                         |
| HKR1 | PKR1      | YMR123W   | 3 | SS | Unknown                                   |
| HKR1 | YDJ1      | YNL064C   | 3 | SL | Mitochondrion organization and biogenesis |
| HKR1 | YNL171C   | YNL171C   | 3 | SS | Unknown                                   |
| HKR1 | IFM1      | YOL023W   | 3 | SL | Energy generation                         |
| HKR1 | ARP8      | YOR141C   | 3 | SL | Cell structure                            |
| HKR1 | GDH1      | YOR375C   | 3 | SS | Amino-acid metabolism                     |
| HKR1 | BEM4      | YPL161C   | 3 | SS | Cell polarity                             |
| HOC1 | VPS8      | YAL002W   | 3 | SS | Vesicular transport                       |
| HOC1 | SLA1      | YBL007C   | 3 | SL | Cell polarity                             |

|      |         |           |   |    |   |
|------|---------|-----------|---|----|---|
| HOC1 | EDE1    | YBL047C   | 3 | SS | Vesicular transport                       |
| HOC1 | UBC4    | YBR082C   | 3 | SS | Protein degradation                       |
| HOC1 | RPS6B   | YBR181C   | 2 | SS | Protein synthesis                         |
| HOC1 | SAC6    | YDR129C   | 3 | SS | Cell structure                            |
| HOC1 | RVS167  | YDR388W   | 3 | SL | Cell polarity                             |
| HOC1 | SPF1    | YEL031W   | 3 | SL | Small molecule transport                  |
| HOC1 | RPL1B   | YGL135W   | 3 | SS | SS Protein synthesis                      |
| HOC1 | PAC10   | YGR078C   | 3 | SS | Cell structure                            |
| HOC1 | PEX4    | YGR133W   | 3 | SL | Peroxisome organization and biogenesis    |
| HOC1 | ARD1    | YHR013C   | 3 | SS | Chromatin/chromosome structure            |
| HOC1 | BCK1    | YJL095W   | 3 | SL | Cell wall organization and biogenesis     |
| HOC1 | RPA34   | YJL148W   | 3 | SS | Protein synthesis                         |
| HOC1 | SWI3    | YJL176C   | 2 | SS | Chromatin/chromosome structure            |
| HOC1 | POL32   | YJR043C   | 0 | SS | DNA replication                           |
| HOC1 | CSN12   | YJR084W   | 2 | SL | Unknown                                   |
| HOC1 | RPS4A   | YJR145C   | 3 | SS | Protein synthesis                         |
| HOC1 | YPT52   | YKR014C   | 3 | SS | Vesicular transport                       |
| HOC1 | VPS67   | YKR020W   | 3 | SS | Vacuolar organization and biogenesis      |
| HOC1 | NUP133  | YKR082W   | 3 | SS | Nuclear-cytoplasmic transport             |
| HOC1 | RPL22A  | YLR061W   | 3 | SS | Protein synthesis                         |
| HOC1 | CSF1    | YLR087C   | 2 | SS | Cell stress                               |
| HOC1 | HCR1    | YLR192C   | 3 | SL | Protein synthesis                         |
| HOC1 | ATP14   | YLR295C   | 2 | SS | Energy generation                         |
| HOC1 | VRP1    | YLR337C   | 3 | SL | Cell polarity                             |
| HOC1 | KRE21   | YLR338W   | 3 | SS | Unknown                                   |
| HOC1 | VPS38   | YLR360W   | 3 | SL | Vesicular transport                       |
| HOC1 | COG8    | YML071C   | 2 | SS | Vesicular transport                       |
| HOC1 | GIM5    | YML094W   | 3 | SS | Cell structure                            |
| HOC1 | VPS9    | YML097C   | 3 | SS | Vesicular transport                       |
| HOC1 | VAN1    | YML115C   | 3 | SS | SS Protein modification                   |
| HOC1 | TOM37   | YMR060C   | 3 | SL | Mitochondrion organization and biogenesis |
| HOC1 | CIK1    | YMR198W   | 3 | SS | Mitosis                                   |
| HOC1 | GIM3    | YNL153C   | 3 | SS | Cell structure                            |
| HOC1 | KRE1    | YNL322C   | 3 | SS | SS Cell wall organization and biogenesis  |
| HOC1 | YNR005C | YNR005C   | 3 | SL | SS Unknown                                |
| HOC1 | BRE5    | YNR051C   | 3 | SL | Unknown                                   |
| HOC1 | SHE4    | YOR035C   | 3 | SL | Differentiation                           |
| HOC1 | VPS21   | YOR089C   | 3 | SS | SS Vesicular transport                    |
| HOC1 | PHO85   | YPL031C   | 0 | SL | Cell cycle control                        |
| HOC1 | COX10   | YPL172C   | 3 | SS | Energy generation                         |
| HOG1 | YBL083C | YBL083C   | 2 | SS | Unknown                                   |
| HOG1 | SOY     | YBR194W   | 3 | SS | Unknown                                   |
| HOG1 | SEM1    | YDR363W-A | 2 | SS | Vesicular transport                       |
| HOG1 | ERD1    | YDR414C   | 2 | SS | Protein modification                      |
| HOG1 | ITR1    | YDR497C   | 3 | SS | Transport                                 |
| HOG1 | EMP24   | YGL200C   | 2 | SS | Vesicular transport                       |
| HOG1 | DBF2    | YGR092W   | 3 | SS | Cell cycle control                        |
| HOG1 | MNN11   | YJL183W   | 2 | SS | Protein modification                      |
| HOG1 | VPS24   | YKL041W   | 3 | SL | Vesicular transport                       |
| HOG1 | MST1    | YKL194C   | 2 | SS | Protein synthesis                         |
| HOG1 | YLR358C | YLR358C   | 2 | SS | Unknown                                   |
| HOG1 | SKI2    | YLR398C   | 2 | SS | RNA turnover                              |
| HOG1 | VPS9    | YML097C   | 2 | SL | Vesicular transport                       |
| HOG1 | YTA12   | YMR089C   | 2 | SS | Energy generation                         |
| HOG1 | CIK1    | YMR198W   | 2 | SS | Mitosis                                   |
| HOG1 | SCS7    | YMR272C   | 3 | SL | Lipid metabolism                          |
| HOG1 | YNL171C | YNL171C   | 3 | SS | Unknown                                   |
| HOG1 | IES2    | YNL215W   | 3 | SS | SS Unknown                                |
| HOG1 | PDR17   | YNL264C   | 2 | SS | Vesicular transport                       |
| HOG1 | KRE25   | YNL296W   | 3 | SS | Unknown                                   |
| HOG1 | LEO1    | YOR123C   | 3 | SS | SS Chromatin/chromosome structure         |

|       |         |         |   |    |  |
|-------|---------|---------|---|----|--|
| HOG1  | BIT89   | YPL180W | 3 | SS | Lipid metabolism                             |
| HOG1  | YPR045C | YPR045C | 2 | SS | Unknown                                      |
| KNH1  | VPS8    | YAL002W | 2 | SS | Vesicular transport                          |
| KNH1  | EDS1    | YBR033W | 2 | SS | Pol II transcription                         |
| KNH1  | RPN4    | YDL020C | 3 | SS | Protein degradation                          |
| KNH1  | YDL033C | YDL033C | 2 | SS | Unknown                                      |
| KNH1  | PEX19   | YDL065C | 2 | SL | Peroxisome organization and biogenesis       |
| KNH1  | PEX5    | YDR244W | 3 | SS | Lipid metabolism                             |
| KNH1  | YDR249C | YDR249C | 2 | SS | Unknown                                      |
| KNH1  | PEX3    | YDR329C | 3 | SS | Peroxisome organization and biogenesis       |
| KNH1  | PTP3    | YER075C | 3 | SS | Signal transduction                          |
| KNH1  | DST1    | YGL043W | 2 | SS | Pol II transcription                         |
| KNH1  | YGR064W | YGR064W | 3 | SS | Unknown                                      |
| KNH1  | PEX4    | YGR133W | 2 | SS | Peroxisome organization and biogenesis       |
| KNH1  | PRE9    | YGR135W | 3 | SS | Protein degradation                          |
| KNH1  | NSR1    | YGR159C | 3 | SS | Ribosomal large subunit nucleus export       |
| KNH1  | PSD2    | YGR170W | 3 | SS | Lipid metabolism                             |
| KNH1  | YGR206W | YGR206W | 2 | SS | Unknown                                      |
| KNH1  | RPS0A   | YGR214W | 3 | SS | Protein synthesis                            |
| KNH1  | YHL005C | YHL005C | 2 | SS | Unknown                                      |
| KNH1  | ARD1    | YHR013C | 3 | SL | Chromatin/chromosome structure               |
| KNH1  | YHR034C | YHR034C | 2 | SS | Protein synthesis                            |
| KNH1  | RPS4B   | YHR203C | 2 | SS | Protein synthesis                            |
| KNH1  | QDR2    | YIL121W | 2 | SL | Transport                                    |
| KNH1  | RPA34   | YJL148W | 3 | SS | Protein synthesis                            |
| KNH1  | VPS35   | YJL154C | 2 | SS | Vesicular transport                          |
| KNH1  | KRE9    | YJL174W | 0 | SL | Protein modification                         |
| KNH1  | IXR1    | YKL032C | 3 | SS | DNA repair                                   |
| KNH1  | YPK1    | YKL126W | 2 | SL | Endocytosis                                  |
| KNH1  | PEX13   | YLR191W | 2 | SS | Peroxisome organization and biogenesis       |
| KNH1  | YLR282C | YLR282C | 2 | SS | Unknown                                      |
| KNH1  | CHS5    | YLR330W | 2 | SS | Cell wall organization and biogenesis        |
| KNH1  | ORM2    | YLR350W | 3 | SS | Cell wall organization and biogenesis        |
| KNH1  | VPS38   | YLR360W | 2 | SS | Vesicular transport                          |
| KNH1  | COG8    | YML071C | 2 | SS | Vesicular transport                          |
| KNH1  | IMP2    | YMR035W | 3 | SS | Mitochondrion organization and biogenesis    |
| KNH1  | TOM37   | YMR060C | 3 | SS | SS Mitochondrion organization and biogenesis |
| KNH1  | RPS10B  | YMR230W | 2 | SS | Protein synthesis                            |
| KNH1  | YNL171C | YNL171C | 2 | SS | Unknown                                      |
| KNH1  | PEX6    | YNL329C | 3 | SL | Lipid metabolism                             |
| KNH1  | VPS5    | YOR069W | 3 | SS | Vesicular transport                          |
| KNH1  | GYP1    | YOR070C | 3 | SS | Vesicular transport                          |
| KNH1  | YPR197C | YPR197C | 2 | SS | Unknown                                      |
| KRE11 | RRN10   | YBL025W | 3 | SS | Pol I transcription                          |
| KRE11 | ECM21   | YBL101C | 3 | SS | Cell wall organization and biogenesis        |
| KRE11 | MUM2    | YBR057C | 3 | SS | Meiosis                                      |
| KRE11 | FYV5    | YCL058C | 3 | SS | Unknown                                      |
| KRE11 | PER1    | YCR044C | 3 | SS | SS Other metabolism                          |
| KRE11 | DOT1    | YDR440W | 3 | SS | Chromatin/chromosome structure               |
| KRE11 | YEL048C | YEL048C | 3 | SL | Unknown                                      |
| KRE11 | GUP1    | YGL084C | 3 | SS | Lipid metabolism                             |
| KRE11 | MMM2    | YGL219C | 3 | SS | Unknown                                      |
| KRE11 | CHO2    | YGR157W | 3 | SS | Lipid metabolism                             |
| KRE11 | SMI1    | YGR229C | 0 | SS | Cell wall organization and biogenesis        |
| KRE11 | ARD1    | YHR013C | 3 | SL | Chromatin/chromosome structure               |
| KRE11 | SLT2    | YHR030C | 3 | SS | Cell wall organization and biogenesis        |
| KRE11 | BCK1    | YJL095W | 3 | SL | Cell wall organization and biogenesis        |
| KRE11 | KRE9    | YJL174W | 0 | SL | Protein modification                         |
| KRE11 | SWI3    | YJL176C | 2 | SS | Chromatin/chromosome structure               |
| KRE11 | ILM1    | YJR118C | 3 | SS | SS Energy generation                         |
| KRE11 | VPS24   | YKL041W | 3 | SL | Vesicular transport                          |

|       |         |         |   |    |   |
|-------|---------|---------|---|----|---|
| KRE11 | CTK1    | YKL139W | 3 | SS | Pol II transcription                      |
| KRE11 | VPS67   | YKR020W | 3 | SL | Vacuolar organization and biogenesis      |
| KRE11 | VID22   | YLR373C | 3 | SS | Vacuolar organization and biogenesis      |
| KRE11 | TOM37   | YMR060C | 3 | SS | Mitochondrion organization and biogenesis |
| KRE11 | YTA12   | YMR089C | 3 | SL | Energy generation                         |
| KRE11 | ASC1    | YMR116C | 3 | SS | Protein synthesis                         |
| KRE11 | GAS1    | YMR307W | 3 | SS | Cell wall organization and biogenesis     |
| KRE11 | YNL171C | YNL171C | 3 | SL | Unknown                                   |
| KRE11 | KRE1    | YNL322C | 0 | SL | Cell wall organization and biogenesis     |
| KRE11 | PEX6    | YNL329C | 3 | SS | Lipid metabolism                          |
| KRE11 | TRS33   | YOR115C | 3 | SL | Vesicular transport                       |
| KRE11 | RPL20B  | YOR312C | 3 | SS | Protein synthesis                         |
| KRE11 | BTS1    | YPL069C | 3 | SL | Protein modification                      |
| KRE6  | PEX22   | YAL055W | 3 | SS | Unknown                                   |
| KRE6  | YBL053W | YBL053W | 2 | SL | Unknown                                   |
| KRE6  | YBR042C | YBR042C | 2 | SL | Lipid metabolism                          |
| KRE6  | YDL206W | YDL206W | 3 | SL | Unknown                                   |
| KRE6  | RGP1    | YDR137W | 2 | SL | Vesicular transport                       |
| KRE6  | RTN1    | YDR233C | 2 | SL | Unknown                                   |
| KRE6  | YDR248C | YDR248C | 2 | SL | Unknown                                   |
| KRE6  | GGA1    | YDR358W | 2 | SL | Vesicular transport                       |
| KRE6  | EFT2    | YDR385W | 2 | SL | Protein synthesis                         |
| KRE6  | YEL047C | YEL047C | 2 | SL | Other metabolism                          |
| KRE6  | RPO41   | YFL036W | 3 | SS | Mitochondrion organization and biogenesis |
| KRE6  | YGL081W | YGL081W | 2 | SL | Unknown                                   |
| KRE6  | RPL1B   | YGL135W | 2 | SL | Protein synthesis                         |
| KRE6  | YGL196W | YGL196W | 2 | SL | Unknown                                   |
| KRE6  | EMP24   | YGL200C | 2 | SS | Vesicular transport                       |
| KRE6  | CLG1    | YGL215W | 2 | SL | Unknown                                   |
| KRE6  | RTF1    | YGL244W | 2 | SL | Pol II transcription                      |
| KRE6  | VMA21   | YGR105W | 2 | SS | Vacuolar organization and biogenesis      |
| KRE6  | RPL34B  | YIL052C | 3 | SS | Protein synthesis                         |
| KRE6  | SWI3    | YJL176C | 2 | SL | Chromatin/chromosome structure            |
| KRE6  | VPS24   | YKL041W | 2 | SS | Vesicular transport                       |
| KRE6  | OAC1    | YKL120W | 2 | SS | Transport                                 |
| KRE6  | FPS1    | YLL043W | 2 | SS | Transport                                 |
| KRE6  | POM34   | YLR018C | 2 | SL | Nuclear-cytoplasmic transport             |
| KRE6  | ACE2    | YLR131C | 2 | SS | Pol II Transcription                      |
| KRE6  | PUS5    | YLR165C | 2 | SL | Other metabolism                          |
| KRE6  | VAN1    | YML115C | 2 | SL | Protein modification                      |
| KRE6  | VAM10   | YOR068C | 2 | SS | Vacuolar organization and biogenesis      |
| KRE6  | DIA2    | YOR080W | 2 | SS | Differentiation                           |
| KRE6  | PRM3    | YPL192C | 2 | SL | Mating response                           |
| KRE9  | KNH1    | YDL049C | 0 | SL | Cell wall organization and biogenesis     |
| KRE9  | KRE11   | YGR166W | 0 | SL | Cell wall organization and biogenesis     |
| KRE9  | QCR8    | YJL166W | 3 | SL | Energy generation                         |
| KRE9  | YJR011C | YJR011C | 2 | SL | Unknown                                   |
| KRE9  | BAT2    | YJR148W | 2 | SL | Amino-acid metabolism                     |
| KRE9  | YKL177W | YKL177W | 3 | SL | Unknown                                   |
| KRE9  | STM1    | YLR150W | 2 | SL | Nucleotide metabolism                     |
| KRE9  | MRE11   | YMR224C | 3 | SL | DNA repair                                |
| KRE9  | ARK1    | YNL020C | 2 | SL | Cell polarity                             |
| KRE9  | KRE1    | YNL322C | 0 | SL | Cell wall organization and biogenesis     |
| KRE9  | PRM3    | YPL192C | 2 | SL | Mating response                           |
| KTR3  | KRE21   | YLR338W | 3 | SL | Unknown                                   |
| KTR3  | TOM37   | YMR060C | 3 | SS | Mitochondrion organization and biogenesis |
| LAS21 | FUI1    | YBL042C | 3 | SS | Small molecule transport                  |
| LAS21 | ECM21   | YBL101C | 2 | SS | Cell wall organization and biogenesis     |
| LAS21 | YBL104C | YBL104C | 3 | SS | Unknown                                   |
| LAS21 | ECM8    | YBR076W | 3 | SS | Cell wall organization and biogenesis     |
| LAS21 | AGP1    | YCL025C | 2 | SS | Transport                                 |

|       |         |           |   |    |    |   |
|-------|---------|-----------|---|----|----|---|
| LAS21 | PEX19   | YDL065C   | 3 | SL |    | Peroxisome organization and biogenesis    |
| LAS21 | YDL096C | YDL096C   | 2 | SS |    | Unknown                                   |
| LAS21 | SEM1    | YDR363W-A | 2 | SL |    | Vesicular transport                       |
| LAS21 | RPL9A   | YGL147C   | 3 | SS |    | Protein synthesis                         |
| LAS21 | ARD1    | YHR013C   | 3 | SS |    | Chromatin/chromosome structure            |
| LAS21 | IMP2'   | YIL154C   | 2 | SL |    | Carbohydrate metabolism                   |
| LAS21 | BCK1    | YJL095W   | 3 | SS |    | Cell wall organization and biogenesis     |
| LAS21 | CHS6    | YJL099W   | 2 | SS |    | Cell wall organization and biogenesis     |
| LAS21 | RPA34   | YJL148W   | 3 | SS |    | Protein synthesis                         |
| LAS21 | CSF1    | YLR087C   | 3 | SS |    | Cell stress                               |
| LAS21 | PEX15   | YOL044W   | 3 | SS |    | Cell structure                            |
| LAS21 | RPL21B  | YPL079W   | 2 | SS |    | Protein synthesis                         |
| LAS21 | YPL080C | YPL080C   | 2 | SS |    | Unknown                                   |
| LAS21 | LEA1    | YPL213W   | 3 | SS |    | RNA splicing                              |
| LAS21 | YPR045C | YPR045C   | 3 | SS |    | Unknown                                   |
| LRE1  | IMP2    | YMR035W   | 3 | SS |    | Mitochondrion organization and biogenesis |
| MID2  | SAC6    | YDR129C   | 3 | SS | SS | Cell structure                            |
| MID2  | SMI1    | YGR229C   | 3 | SS | SS | Cell wall organization and biogenesis     |
| MID2  | ILM1    | YJR118C   | 3 | SL | SL | Energy generation                         |
| MID2  | FPS1    | YLL043W   | 3 | SS | SL | Transport                                 |
| MID2  | CCW12   | YLR110C   | 2 | SS | SL | Cell wall organization and biogenesis     |
| MID2  | YLR111W | YLR111W   | 2 | SL | SL | Unknown                                   |
| MID2  | KRE21   | YLR338W   | 3 | SL | SL | Unknown                                   |
| MID2  | ROM2    | YLR371W   | 3 | SL | SL | Cell wall organization and biogenesis     |
| MID2  | VAN1    | YML115C   | 3 | SS | SL | Protein modification                      |
| MID2  | SLG1    | YOR008C   | 3 | SL | SL | Cell wall organization and biogenesis     |
| MNL1  | RPL20B  | YOR312C   | 2 | SS | SS | Protein synthesis                         |
| MNS1  | CKB1    | YGL019W   | 0 | SS |    | Cell cycle control                        |
| SKN1  | RRN10   | YBL025W   | 3 | SL |    | Pol I transcription                       |
| SKN1  | PEX5    | YDR244W   | 2 | SL |    | Lipid metabolism                          |
| SKN1  | PEX4    | YGR133W   | 3 | SL |    | Peroxisome organization and biogenesis    |
| SKN1  | PRE9    | YGR135W   | 3 | SL |    | Protein degradation                       |
| SKN1  | LST4    | YKL176C   | 2 | SS |    | Vesicular transport                       |
| SKN1  | IFM1    | YOL023W   | 3 | SL |    | Energy generation                         |
| SKT5  | SLA1    | YBL007C   | 3 | SS |    | Cell polarity                             |
| SKT5  | EDE1    | YBL047C   | 3 | SS |    | Vesicular transport                       |
| SKT5  | UBP13   | YBL067C   | 2 | SS |    | Protein modification                      |
| SKT5  | AST1    | YBL069W   | 2 | SS |    | Protein targeting                         |
| SKT5  | RPS8A   | YBL072C   | 3 | SS |    | Protein synthesis                         |
| SKT5  | SAC6    | YDR129C   | 3 | SL |    | Cell structure                            |
| SKT5  | UME6    | YDR207C   | 0 | SS |    | Meiosis                                   |
| SKT5  | MNN10   | YDR245W   | 3 | SL |    | Protein modification                      |
| SKT5  | ATP17   | YDR377W   | 3 | SS |    | Energy generation                         |
| SKT5  | RVS167  | YDR388W   | 0 | SL |    | Cell polarity                             |
| SKT5  | SPF1    | YEL031W   | 3 | SS |    | Small molecule transport                  |
| SKT5  | SWI4    | YER111C   | 0 | SS |    | Cell cycle control                        |
| SKT5  | RPO41   | YFL036W   | 0 | SS |    | Mitochondrion organization and biogenesis |
| SKT5  | FAB1    | YFR019W   | 0 | SS |    | Lipid metabolism                          |
| SKT5  | GUP1    | YGL084C   | 0 | SL |    | Lipid metabolism                          |
| SKT5  | SMI1    | YGR229C   | 0 | SL |    | Cell wall organization and biogenesis     |
| SKT5  | SLT2    | YHR030C   | 3 | SS |    | Cell wall organization and biogenesis     |
| SKT5  | BCK1    | YJL095W   | 3 | SL |    | Cell wall organization and biogenesis     |
| SKT5  | RPA34   | YJL148W   | 0 | SS |    | Protein synthesis                         |
| SKT5  | OPI3    | YJR073C   | 3 | SS |    | Lipid metabolism                          |
| SKT5  | ILM1    | YJR118C   | 3 | SL |    | Energy generation                         |
| SKT5  | SMY1    | YKL079W   | 3 | SS |    | Cell polarity                             |
| SKT5  | YPK1    | YKL126W   | 3 | SS |    | Endocytosis                               |
| SKT5  | LST4    | YKL176C   | 3 | SS |    | Vesicular transport                       |
| SKT5  | FPS1    | YLL043W   | 3 | SS |    | Transport                                 |
| SKT5  | CSF1    | YLR087C   | 3 | SS |    | Cell stress                               |
| SKT5  | CCW12   | YLR110C   | 0 | SS |    | Cell wall organization and biogenesis     |

|      |         |           |   |    |  |
|------|---------|-----------|---|----|--|
| SKT5 | YLR111W | YLR111W   | 0 | SS | Unknown  |
| SKT5 | SEC22   | YLR268W   | 2 | SS | Vesicular transport                              |
| SKT5 | VRP1    | YLR337C   | 3 | SL | Cell polarity                                    |
| SKT5 | KRE21   | YLR338W   | 3 | SL | Unknown  |
| SKT5 | FKS1    | YLR342W   | 0 | SL | Cell wall organization and biogenesis            |
| SKT5 | ARC18   | YLR370C   | 2 | SS | Cell polarity                                    |
| SKT5 | TUS1    | YLR425W   | 0 | SS | Unknown  |
| SKT5 | VAN1    | YML115C   | 3 | SL | Protein modification                             |
| SKT5 | YTA12   | YMR089C   | 3 | SS | Energy generation                                |
| SKT5 | TPM1    | YNL079C   | 3 | SL | Cell structure                                   |
| SKT5 | BNI1    | YNL271C   | 0 | SS | Cell polarity                                    |
| SKT5 | CLA4    | YNL298W   | 3 | SS | Cell polarity                                    |
| SKT5 | BRE5    | YNR051C   | 3 | SS | Unknown  |
| SKT5 | SHE4    | YOR035C   | 3 | SS | Differentiation                                  |
| SKT5 | RSA1    | YPL193W   | 2 | SS | Ribosomal large subunit assembly and maintenance |
| SMI1 | SLA1    | YBL007C   | 3 | SL | Cell polarity                                    |
| SMI1 | SKT5    | YBL061C   | 2 | SS | Cell wall organization and biogenesis            |
| SMI1 | ECM21   | YBL101C   | 3 | SS | Cell wall organization and biogenesis            |
| SMI1 | CHS3    | YBR023C   | 3 | SL | Cell wall organization and biogenesis            |
| SMI1 | FAT1    | YBR041W   | 2 | SL | Lipid metabolism                                 |
| SMI1 | UBC4    | YBR082C   | 3 | SL | Protein degradation                              |
| SMI1 | CCZ1    | YBR131W   | 2 | SL | Vesicular transport                              |
| SMI1 | TYR1    | YBR166C   | 2 | SL | Amino-acid metabolism                            |
| SMI1 | BEM1    | YBR200W   | 3 | SL | Cell polarity                                    |
| SMI1 | PTC1    | YDL006W   | 3 | SL | Signal transduction                              |
| SMI1 | RPA14   | YDR156W   | 2 | SL | Pol I transcription                              |
| SMI1 | NBP2    | YDR162C   | 3 | SL | Cell polarity                                    |
| SMI1 | MNN10   | YDR245W   | 3 | SL | Protein modification                             |
| SMI1 | SBE2    | YDR351W   | 3 | SS | Cell wall organization and biogenesis            |
| SMI1 | RVS167  | YDR388W   | 2 | SS | Cell polarity                                    |
| SMI1 | SPF1    | YEL031W   | 2 | SL | Small molecule transport                         |
| SMI1 | SWI4    | YER111C   | 3 | SS | Cell cycle control                               |
| SMI1 | UBP3    | YER151C   | 3 | SS | Protein modification                             |
| SMI1 | BEM2    | YER155C   | 3 | SL | Cell polarity                                    |
| SMI1 | PDA1    | YER178W   | 2 | SS | Mitochondrion organization and biogenesis        |
| SMI1 | RPL29   | YFR032C-A | 2 | SS | Protein synthesis                                |
| SMI1 | RIM8    | YGL046W   | 2 | SS | Unknown  |
| SMI1 | DOC1    | YGL240W   | 3 | SS | Cell cycle control                               |
| SMI1 | PRE9    | YGR135W   | 3 | SS | Protein degradation                              |
| SMI1 | KRE11   | YGR166W   | 2 | SS | Cell wall organization and biogenesis            |
| SMI1 | RPS0A   | YGR214W   | 2 | SS | Protein synthesis                                |
| SMI1 | CCH1    | YGR217W   | 2 | SL | Transport  |
| SMI1 | YGR237C | YGR237C   | 2 | SL | Unknown  |
| SMI1 | SLT2    | YHR030C   | 2 | SL | Cell wall organization and biogenesis            |
| SMI1 | ARP1    | YHR129C   | 0 | SS | Mitosis  |
| SMI1 | CHS7    | YHR142W   | 2 | SL | Cell wall organization and biogenesis            |
| SMI1 | CTF8    | YHR191C   | 2 | SS | Chromatin/chromosome structure                   |
| SMI1 | RPN10   | YHR200W   | 2 | SS | Pol II transcription                             |
| SMI1 | BCK1    | YJL095W   | 3 | SL | Cell wall organization and biogenesis            |
| SMI1 | CHS6    | YJL099W   | 3 | SL | Cell wall organization and biogenesis            |
| SMI1 | PHO86   | YJL117W   | 2 | SS | Phosphate metabolism                             |
| SMI1 | MNN11   | YJL183W   | 3 | SS | Protein modification                             |
| SMI1 | BUD19   | YJL188C   | 3 | SS | Cell polarity                                    |
| SMI1 | ILM1    | YJR118C   | 3 | SL | Energy generation                                |
| SMI1 | ELM1    | YKL048C   | 3 | SS | Cell polarity                                    |
| SMI1 | CNB1    | YKL190W   | 2 | SS | Cell wall organization and biogenesis            |
| SMI1 | VPS67   | YKR020W   | 2 | SS | Vacuolar organization and biogenesis             |
| SMI1 | SPA2    | YLL021W   | 2 | SS | Cell polarity                                    |
| SMI1 | FPS1    | YLL043W   | 3 | SL | Transport  |
| SMI1 | RIC1    | YLR039C   | 3 | SS | Vesicular transport                              |
| SMI1 | YPT6    | YLR262C   | 2 | SS | Vesicular transport                              |

|         |         |           |   |    |    |   |
|---------|---------|-----------|---|----|----|---|
| SMI1    | MMS22   | YLR320W   | 3 | SS |    | Unknown                                   |
| SMI1    | CHS5    | YLR330W   | 3 | SL | SL | Cell wall organization and biogenesis     |
| SMI1    | MID2    | YLR332W   | 3 |    | SS | Cell wall organization and biogenesis     |
| SMI1    | YLR358C | YLR358C   | 3 | SS |    | Unknown                                   |
| SMI1    | ROM2    | YLR371W   | 3 | SS |    | Cell wall organization and biogenesis     |
| SMI1    | IKI3    | YLR384C   | 2 | SS |    | Pol II transcription                      |
| SMI1    | VAN1    | YML115C   | 3 | SL |    | Protein modification                      |
| SMI1    | NAB6    | YML117W   | 2 | SS |    | Unknown                                   |
| SMI1    | LYS7    | YMR038C   | 3 | SL |    | Amino-acid metabolism                     |
| SMI1    | ASC1    | YMR116C   | 3 | SS |    | Protein synthesis                         |
| SMI1    | PFK2    | YMR205C   | 2 | SS |    | Carbohydrate metabolism                   |
| SMI1    | GAS1    | YMR307W   | 3 | SS |    | Cell wall organization and biogenesis     |
| SMI1    | YNL171C | YNL171C   | 3 | SL |    | Unknown                                   |
| SMI1    | BNI4    | YNL233W   | 3 | SL |    | Cytokinesis                               |
| SMI1    | BNI1    | YNL271C   | 2 | SS |    | Cell polarity                             |
| SMI1    | CLA4    | YNL298W   | 3 | SS |    | Cell polarity                             |
| SMI1    | KRE1    | YNL322C   | 3 | SS |    | Cell wall organization and biogenesis     |
| SMI1    | BRE5    | YNR051C   | 3 | SL |    | Unknown                                   |
| SMI1    | YOL003C | YOL003C   | 3 | SS |    | Unknown                                   |
| SMI1    | DFG16   | YOR030W   | 2 | SS |    | Differentiation                           |
| SMI1    | RIM20   | YOR275C   | 3 | SS |    | Cell stress                               |
| SMI1    | PHO85   | YPL031C   | 3 |    | SS | Cell cycle control                        |
| SMI1    | YPL077C | YPL077C   | 2 | SL |    | Unknown                                   |
| SMI1    | RLM1    | YPL089C   | 3 | SL |    | Pol II transcription                      |
| SMI1    | CTF4    | YPR135W   | 3 | SS |    | Chromatin/chromosome structure            |
| SVP26   | BUD25   | YER014C-A | 3 | SS |    | Cell polarity                             |
| SVP26   | EMP24   | YGL200C   | 3 | SS |    | Vesicular transport                       |
| SVP26   | MST1    | YKL194C   | 3 | SS |    | Protein synthesis                         |
| SVP26   | VPS38   | YLR360W   | 2 | SS |    | Vesicular transport                       |
| SVP26   | BDF1    | YLR399C   | 3 | SS |    | Pol II Transcription                      |
| SVP26   | AEP2    | YMR282C   | 3 | SL |    | Mitochondrion organization and biogenesis |
| SVP26   | YDJ1    | YNL064C   | 3 | SS |    | Mitochondrion organization and biogenesis |
| SVP26   | HTZ1    | YOL012C   | 2 | SS |    | Chromatin/chromosome structure            |
| YKL037W | PTC1    | YDL006W   | 3 | SS |    | Signal transduction                       |
| YKL037W | UBP3    | YER151C   | 2 | SS |    | Protein modification                      |
| YKL037W | SLT2    | YHR030C   | 2 | SL |    | Cell wall organization and biogenesis     |
| YKL037W | BCK1    | YJL095W   | 3 | SL |    | Cell wall organization and biogenesis     |
| YKL037W | FPS1    | YLL043W   | 2 | SS |    | Transport                                 |
| YKL037W | ABF2    | YMR072W   | 3 | SS |    | Mitochondrion organization and biogenesis |
| YLR057W | EMP24   | YGL200C   | 2 | SS |    | Vesicular transport                       |
| YLR057W | PEX6    | YNL329C   | 2 | SS |    | Lipid metabolism                          |
| YUR1    | SLT2    | YHR030C   | 2 | SL |    | Cell wall organization and biogenesis     |
| YUR1    | BCK1    | YJL095W   | 3 | SL |    | Cell wall organization and biogenesis     |
| YUR1    | UBI4    | YLL039C   | 0 | SS |    | Protein degradation                       |
| YUR1    | PEX15   | YOL044W   | 2 | SS |    | Cell structure                            |
| RVS161  | DEP1    | YAL013W   | 3 |    | SS | Lipid metabolism                          |
| RVS161  | SLA1    | YBL007C   | 3 |    | SS | Cell polarity                             |
| RVS161  | SKT5    | YBL061C   | 1 |    | SS | Cell wall organization and biogenesis     |
| RVS161  | MNN2    | YBR015C   | 3 |    | SS | Protein modification                      |
| RVS161  | CHS3    | YBR023C   | 1 |    | SS | Cell wall organization and biogenesis     |
| RVS161  | RXT2    | YBR095C   | 3 |    | SS | Unknown                                   |
| RVS161  | TPS1    | YBR126C   | 3 |    | SS | Carbohydrate metabolism                   |
| RVS161  | YBR255W | YBR255W   | 3 |    | SS | Unknown                                   |
| RVS161  | CYK3    | YDL117W   | 3 |    | SS | Cytokinesis                               |
| RVS161  | MNN10   | YDR245W   | 3 |    | SL | Protein modification                      |
| RVS161  | SUM1    | YDR310C   | 3 |    | SS | Chromatin/chromosome structure            |
| RVS161  | GIM4    | YEL003W   | 1 |    | SS | Cell structure                            |
| RVS161  | SPF1    | YEL031W   | 3 |    | SL | Small molecule transport                  |
| RVS161  | SWI4    | YER111C   | 3 |    | SL | Cell cycle control                        |
| RVS161  | GUP1    | YGL084C   | 3 |    | SL | Lipid metabolism                          |
| RVS161  | PAC10   | YGR078C   | 3 |    | SL | Cell structure                            |

|        |         |         |   |    |                                       |
|--------|---------|---------|---|----|---------------------------------------|
| RVS161 | SLT2    | YHR030C | 3 | SL | Cell wall organization and biogenesis |
| RVS161 | CHS7    | YHR142W | 1 | SS | Cell wall organization and biogenesis |
| RVS161 | CAP2    | YIL034C | 3 | SL | Cell structure                        |
| RVS161 | SDS3    | YIL084C | 3 | SL | Chromatin/chromosome structure        |
| RVS161 | YIB3    | YIR003W | 3 | SS | Unknown                               |
| RVS161 | BBC1    | YJL020C | 3 | SS | Cell polarity                         |
| RVS161 | BCK1    | YJL095W | 3 | SL | Cell wall organization and biogenesis |
| RVS161 | CHS6    | YJL099W | 1 | SS | Cell wall organization and biogenesis |
| RVS161 | HOC1    | YJR075W | 3 | SS | Cell wall organization and biogenesis |
| RVS161 | CAP1    | YKL007W | 3 | SL | Cell structure                        |
| RVS161 | EAP1    | YKL204W | 3 | SL | Protein synthesis                     |
| RVS161 | DOA1    | YKL213C | 3 | SS | Protein degradation                   |
| RVS161 | CSF1    | YLR087C | 3 | SL | Cell stress                           |
| RVS161 | CCW12   | YLR110C | 3 | SL | Cell wall organization and biogenesis |
| RVS161 | YLR111W | YLR111W | 3 | SS | Unknown                               |
| RVS161 | YKE2    | YLR200W | 3 | SS | Cell structure                        |
| RVS161 | SEC22   | YLR268W | 3 | SS | Vesicular transport                   |
| RVS161 | CHS5    | YLR330W | 3 | SS | Cell wall organization and biogenesis |
| RVS161 | GIM5    | YML094W | 1 | SL | Cell structure                        |
| RVS161 | MYO5    | YMR109W | 3 | SS | Cell polarity                         |
| RVS161 | SAP30   | YMR263W | 3 | SS | Chromatin/chromosome structure        |
| RVS161 | END3    | YNL084C | 1 | SS | Endocytosis                           |
| RVS161 | PHO23   | YNL097C | 3 | SS | Phosphate metabolism                  |
| RVS161 | GIM3    | YNL153C | 3 | SS | Cell structure                        |
| RVS161 | BNI4    | YNL233W | 1 | SS | Cytokinesis                           |
| RVS161 | CLA4    | YNL298W | 1 | SS | Cell polarity                         |
| RVS161 | KRE1    | YNL322C | 3 | SS | Cell wall organization and biogenesis |
| RVS161 | SIN3    | YOL004W | 3 | SS | Pol II transcription                  |
| RVS161 | VPS21   | YOR089C | 3 | SS | Vesicular transport                   |
| RVS161 | RUD3    | YOR216C | 3 | SS | Vesicular transport                   |
| RVS161 | MNN9    | YPL050C | 1 | SL | Protein modification                  |
| RVS167 | DEP1    | YAL013W | 3 | SS | Lipid metabolism                      |
| RVS167 | SLA1    | YBL007C | 3 | SS | Cell polarity                         |
| RVS167 | SKT5    | YBL061C | 1 | SS | Cell wall organization and biogenesis |
| RVS167 | MNN2    | YBR015C | 3 | SS | Protein modification                  |
| RVS167 | CHS3    | YBR023C | 1 | SS | Cell wall organization and biogenesis |
| RVS167 | RXT2    | YBR095C | 3 | SS | Unknown                               |
| RVS167 | TPS1    | YBR126C | 3 | SS | Carbohydrate metabolism               |
| RVS167 | YBR255W | YBR255W | 3 | SS | Unknown                               |
| RVS167 | CYK3    | YDL117W | 3 | SS | Cytokinesis                           |
| RVS167 | MNN10   | YDR245W | 3 | SL | Protein modification                  |
| RVS167 | SUM1    | YDR310C | 3 | SS | Chromatin/chromosome structure        |
| RVS167 | GIM4    | YEL003W | 1 | SS | Cell structure                        |
| RVS167 | SPF1    | YEL031W | 3 | SL | Small molecule transport              |
| RVS167 | SWI4    | YER111C | 3 | SL | Cell cycle control                    |
| RVS167 | GUP1    | YGL084C | 3 | SS | Lipid metabolism                      |
| RVS167 | PAC10   | YGR078C | 3 | SL | Cell structure                        |
| RVS167 | SLT2    | YHR030C | 3 | SL | Cell wall organization and biogenesis |
| RVS167 | CHS7    | YHR142W | 1 | SS | Cell wall organization and biogenesis |
| RVS167 | CAP2    | YIL034C | 3 | SL | Cell structure                        |
| RVS167 | SDS3    | YIL084C | 3 | SL | Chromatin/chromosome structure        |
| RVS167 | YIB3    | YIR003W | 3 | SS | Unknown                               |
| RVS167 | BBC1    | YJL020C | 3 | SS | Cell polarity                         |
| RVS167 | BCK1    | YJL095W | 3 | SL | Cell wall organization and biogenesis |
| RVS167 | CHS6    | YJL099W | 1 | SS | Cell wall organization and biogenesis |
| RVS167 | HOC1    | YJR075W | 3 | SS | Cell wall organization and biogenesis |
| RVS167 | CAP1    | YKL007W | 3 | SL | Cell structure                        |
| RVS167 | EAP1    | YKL204W | 3 | SS | Protein synthesis                     |
| RVS167 | DOA1    | YKL213C | 3 | SS | Protein degradation                   |
| RVS167 | CSF1    | YLR087C | 3 | SL | Cell stress                           |
| RVS167 | CCW12   | YLR110C | 3 | SL | Cell wall organization and biogenesis |



|        |         |         |   |    |                                       |
|--------|---------|---------|---|----|---------------------------------------|
| RVS167 | YLR111W | YLR111W | 3 | SS | Unknown                               |
| RVS167 | YKE2    | YLR200W | 3 | SS | Cell structure                        |
| RVS167 | SEC22   | YLR268W | 3 | SS | Vesicular transport                   |
| RVS167 | CHS5    | YLR330W | 3 | SS | Cell wall organization and biogenesis |
| RVS167 | GIM5    | YML094W | 1 | SL | Cell structure                        |
| RVS167 | MYO5    | YMR109W | 3 | SS | Cell polarity                         |
| RVS167 | SAP30   | YMR263W | 3 | SS | Chromatin/chromosome structure        |
| RVS167 | END3    | YNL084C | 1 | SS | Endocytosis                           |
| RVS167 | PHO23   | YNL097C | 3 | SS | Phosphate metabolism                  |
| RVS167 | GIM3    | YNL153C | 3 | SS | Cell structure                        |
| RVS167 | BNI4    | YNL233W | 1 | SS | Cytokinesis                           |
| RVS167 | CLA4    | YNL298W | 1 | SS | Cell polarity                         |
| RVS167 | KRE1    | YNL322C | 3 | SS | Cell wall organization and biogenesis |
| RVS167 | SIN3    | YOL004W | 3 | SS | Pol II transcription                  |
| RVS167 | VPS21   | YOR089C | 3 | SS | Vesicular transport                   |
| RVS167 | RUD3    | YOR216C | 3 | SS | Vesicular transport                   |
| RVS167 | MNN9    | YPL050C | 1 | SL | Protein modification                  |
| ARL1   | PER1    | YCR044C | 0 | SS | Other metabolism                      |
| ARL1   | VAM6    | YDL077C | 0 | SS | Vesicular transport                   |
| ARL1   | ARR4    | YDL100C | 0 | SS | Small molecule transport              |
| ARL1   | ARF1    | YDL192W | 0 | SL | Transport                             |
| ARL1   | GSS1    | YDR108W | 3 | SL | Vesicular transport                   |
| ARL1   | VPS61   | YDR136C | 3 | SL | Vesicular transport                   |
| ARL1   | RGP1    | YDR137W | 3 | SL | Vesicular transport                   |
| ARL1   | NBP2    | YDR162C | 3 | SL | SL Cell polarity                      |
| ARL1   | RAV2    | YDR202C | 0 | SS | Small molecule transport              |
| ARL1   | YDR203W | YDR203W | 0 | SS | Unknown                               |
| ARL1   | RMD7    | YER083C | 0 | SL | Cell wall organization and biogenesis |
| ARL1   | GLO3    | YER122C | 0 | SL | Vesicular transport                   |
| ARL1   | COG7    | YGL005C | 1 | SL | Vesicular transport                   |
| ARL1   | VMA21   | YGR105W | 0 | SS | Vacuolar organization and biogenesis  |
| ARL1   | GOS1    | YHL031C | 3 | SS | Vesicular transport                   |
| ARL1   | VPS29   | YHR012W | 0 | SS | Vesicular transport                   |
| ARL1   | VPS35   | YJL154C | 0 | SS | Vesicular transport                   |
| ARL1   | CPR7    | YJR032W | 3 | SL | Protein folding                       |
| ARL1   | RAV1    | YJR033C | 1 | SS | Vacuolar organization and biogenesis  |
| ARL1   | YKL118W | YKL118W | 0 | SS | Unknown                               |
| ARL1   | VPH2    | YKL119C | 0 | SL | Vacuolar organization and biogenesis  |
| ARL1   | VPS1    | YKR001C | 2 | SL | Vesicular transport                   |
| ARL1   | VPS67   | YKR020W | 3 | SL | Vacuolar organization and biogenesis  |
| ARL1   | RIC1    | YLR039C | 3 | SL | Vesicular transport                   |
| ARL1   | ARV1    | YLR242C | 0 | SS | Lipid metabolism                      |
| ARL1   | VPS63   | YLR261C | 3 | SL | Vacuolar organization and biogenesis  |
| ARL1   | YPT6    | YLR262C | 3 | SL | Vesicular transport                   |
| ARL1   | VMA6    | YLR447C | 0 | SS | Vacuolar organization and biogenesis  |
| ARL1   | COG8    | YML071C | 3 | SL | Vesicular transport                   |
| ARL1   | MVP1    | YMR004W | 0 | SS | Vesicular transport                   |
| ARL1   | STV1    | YMR054W | 0 | SS | Vacuolar organization and biogenesis  |
| ARL1   | PKR1    | YMR123W | 1 | SS | Unknown                               |
| ARL1   | COG6    | YNL041C | 3 | SL | Vesicular transport                   |
| ARL1   | YNL043C | YNL043C | 0 | SS | Unknown                               |
| ARL1   | YIP3    | YNL044W | 0 | SS | Vesicular transport                   |
| ARL1   | COG5    | YNL051W | 3 | SL | Vesicular transport                   |
| ARL1   | KEX2    | YNL238W | 0 | SS | Protein modification                  |
| ARL1   | KRE25   | YNL296W | 2 | SS | Unknown                               |
| ARL1   | MON2    | YNL297C | 2 | SL | Vacuolar organization and biogenesis  |
| ARL1   | TLG2    | YOL018C | 1 | SS | Vesicular transport                   |
| ARL1   | VAM10   | YOR068C | 0 | SS | Vacuolar organization and biogenesis  |
| ARL1   | VPS5    | YOR069W | 1 | SS | Vesicular transport                   |
| ARL1   | GYP1    | YOR070C | 2 | SL | Vesicular transport                   |
| ARL1   | VPS17   | YOR132W | 0 | SS | Vesicular transport                   |

|      |         |           |   |    |    |                                       |
|------|---------|-----------|---|----|----|---------------------------------------|
| HPR5 | MMS4    | YBR098W   | 2 |    | SS | DNA repair                            |
| HPR5 | YBR099C | YBR099C   | 0 |    | SS | Unknown                               |
| HPR5 | DCC1    | YCL016C   | 0 | SS |    | Chromatin/chromosome structure        |
| HPR5 | MRC1    | YCL060C   | 3 | SL |    | DNA repair                            |
| HPR5 | ESC2    | YDR363W   | 3 | SS |    | Chromatin/chromosome structure        |
| HPR5 | XRS2    | YDR369C   | 1 | SS |    | DNA repair                            |
| HPR5 | MUS81   | YDR386W   | 0 | SS |    | DNA repair                            |
| HPR5 | RAD54   | YGL163C   | 1 | SL |    | DNA repair                            |
| HPR5 | RRM3    | YHR031C   | 3 | SS |    | DNA replication                       |
| HPR5 | RTT107  | YHR154W   | 3 |    | SS | Chromatin/chromosome structure        |
| HPR5 | CTF8    | YHR191C   | 0 | SS |    | Chromatin/chromosome structure        |
| HPR5 | MPH1    | YIR002C   | 3 | SS |    | DNA repair                            |
| HPR5 | POL32   | YJR043C   | 3 | SS |    | DNA replication                       |
| HPR5 | RAD27   | YKL113C   | 3 | SS |    | DNA repair                            |
| HPR5 | TOP3    | YLR234W   | 1 | SS |    | Chromatin/chromosome structure        |
| HPR5 | YLR235C | YLR235C   | 1 | SS |    | Unknown                               |
| HPR5 | MMS22   | YLR320W   | 1 | SS |    | Unknown                               |
| HPR5 | CSM3    | YMR048W   | 3 | SS |    | Meiosis                               |
| HPR5 | CTF18   | YMR078C   | 0 | SL | SL | Chromatin/chromosome structure        |
| HPR5 | SGS1    | YMR190C   | 2 | SS |    | DNA repair                            |
| HPR5 | RAD50   | YNL250W   | 1 | SS |    | DNA repair                            |
| HPR5 | TOF1    | YNL273W   | 0 | SS |    | DNA repair                            |
| HPR5 | ELG1    | YOR144C   | 0 |    | SS | DNA repair                            |
| HPR5 | CHL1    | YPL008W   | 2 | SS |    | Chromatin/chromosome structure        |
| HPR5 | NCE4    | YPL024W   | 0 |    | SL | Cell wall organization and biogenesis |
| HPR5 | CTF4    | YPR135W   | 2 | SS |    | Chromatin/chromosome structure        |
| HPR5 | MMS1    | YPR164W   | 2 |    | SS | DNA repair                            |
| RRM3 | DCC1    | YCL016C   | 1 | SS |    | Chromatin/chromosome structure        |
| RRM3 | MRC1    | YCL061C   | 3 | SL |    | DNA repair                            |
| RRM3 | PPH3    | YDR075W   | 3 | SL |    | Cell structure                        |
| RRM3 | ESC2    | YDR363W   | 2 | SL |    | Chromatin/chromosome structure        |
| RRM3 | PMR1    | YGL167C   | 3 |    | SL | Small molecule transport              |
| RRM3 | HUR1    | YGL168W   | 2 | SL |    | Unknown                               |
| RRM3 | SAE2    | YGL175C   | 2 | SS |    | DNA repair                            |
| RRM3 | SOD2    | YHR008C   | 0 |    | SL | Cell stress                           |
| RRM3 | RTT107  | YHR154W   | 0 | SL |    | Chromatin/chromosome structure        |
| RRM3 | CTF8    | YHR191C   | 0 | SS |    | Chromatin/chromosome structure        |
| RRM3 | RTT101  | YJL047C   | 3 | SL |    | Protein modification                  |
| RRM3 | HPR5    | YJL092W   | 2 | SL |    | DNA repair                            |
| RRM3 | TOP3    | YLR234W   | 1 | SL |    | Chromatin/chromosome structure        |
| RRM3 | RAD52   | YML032C   | 0 | SS |    | DNA repair                            |
| RRM3 | SGS1    | YMR190C   | 0 | SL |    | DNA repair                            |
| RRM3 | MRE11   | YMR224C   | 1 | SL |    | DNA repair                            |
| RRM3 | RAD50   | YNL250W   | 1 |    | SL | DNA repair                            |
| RRM3 | NCE4    | YPL024W   | 0 | SL |    | Cell wall organization and biogenesis |
| RRM3 | CTF4    | YPR135W   | 1 | SL |    | Chromatin/chromosome structure        |
| RRM3 | MMS1    | YPR164W   | 2 | SL |    | DNA repair                            |
| KRE1 | DRS2    | YAL026C   | 3 | SS |    | Vesicular transport                   |
| KRE1 | YAL053W | YAL053W   | 3 | SL |    | Unknown                               |
| KRE1 | KRE20   | YAL056C-A | 2 |    | SL | Unknown                               |
| KRE1 | CNE1    | YAL058W   | 2 | SS |    | Cell wall organization and biogenesis |
| KRE1 | BUD14   | YAR014C   | 1 |    | SS | Cell polarity                         |
| KRE1 | SKT5    | YBL061C   | 1 |    | SS | Cell wall organization and biogenesis |
| KRE1 | RHK1    | YBL082C   | 3 | SS |    | Cell wall organization and biogenesis |
| KRE1 | YBL083C | YBL083C   | 3 | SS |    | Unknown                               |
| KRE1 | CHS3    | YBR023C   | 1 |    | SS | Cell wall organization and biogenesis |
| KRE1 | ROT2    | YBR229C   | 3 | SL |    | Cell wall organization and biogenesis |
| KRE1 | PER1    | YCR044C   | 3 | SS | SS | Other metabolism                      |
| KRE1 | PTC1    | YDL006W   | 3 | SS | SS | Signal transduction                   |
| KRE1 | SAC6    | YDR129C   | 3 | SS |    | Cell structure                        |
| KRE1 | NBP2    | YDR162C   | 2 | SS |    | Cell polarity                         |

|      |        |         |   |    |    |   |
|------|--------|---------|---|----|----|---|
| KRE1 | SAC7   | YDR389W | 3 |    | SL | Cell structure                            |
| KRE1 | ERD1   | YDR414C | 3 |    | SS | Protein modification                      |
| KRE1 | ERG28  | YER044C | 1 | SL |    | Lipid metabolism                          |
| KRE1 | BEM2   | YER155C | 1 | SS |    | Cell polarity                             |
| KRE1 | FAB1   | YFR019W | 2 | SS | SS | Lipid metabolism                          |
| KRE1 | CWH41  | YGL027C | 3 | SL | SL | Cell wall organization and biogenesis     |
| KRE1 | GUP1   | YGL084C | 3 | SL |    | Lipid metabolism                          |
| KRE1 | HUR1   | YGL168W | 3 | SS | SS | Unknown                                   |
| KRE1 | KEX1   | YGL203C | 3 | SS |    | Protein modification                      |
| KRE1 | KRE11  | YGR166W | 3 | SS |    | Cell wall organization and biogenesis     |
| KRE1 | SMI1   | YGR229C | 3 | SS | SS | Cell wall organization and biogenesis     |
| KRE1 | SLT2   | YHR030C | 3 | SS |    | Cell wall organization and biogenesis     |
| KRE1 | YUR1   | YJL139C | 1 |    | SS | Cell wall organization and biogenesis     |
| KRE1 | KRE9   | YJL174W | 1 |    | SL | Protein modification                      |
| KRE1 | MNN11  | YJL183W | 3 | SL |    | Protein modification                      |
| KRE1 | OPI3   | YJR073C | 3 | SS |    | Lipid metabolism                          |
| KRE1 | HOC1   | YJR075W | 3 | SS |    | Cell wall organization and biogenesis     |
| KRE1 | STE24  | YJR117W | 0 |    | SS | Protein modification                      |
| KRE1 | ILM1   | YJR118C | 3 | SS |    | Energy generation                         |
| KRE1 | CNB1   | YKL190W | 3 |    | SS | Cell wall organization and biogenesis     |
| KRE1 | VPS67  | YKR020W | 3 |    | SS | Vacuolar organization and biogenesis      |
| KRE1 | CHS5   | YLR330W | 2 |    | SS | Cell wall organization and biogenesis     |
| KRE1 | TOM37  | YMR060C | 3 | SS |    | Mitochondrion organization and biogenesis |
| KRE1 | DFG5   | YMR238W | 3 | SS | SS | Differentiation                           |
| KRE1 | GAS1   | YMR307W | 3 | SS | SL | Cell wall organization and biogenesis     |
| KRE1 | KEX2   | YNL238W | 3 | SL |    | Protein modification                      |
| KRE1 | SHE4   | YOR035C | 3 | SS | SS | Differentiation                           |
| KRE1 | VPS28  | YPL065W | 3 |    | SS | Vesicular transport                       |
| CIN1 | DCC1   | YCL016C | 0 | SL |    | Chromatin/chromosome structure            |
| CIN1 | BIK1   | YCL029C | 1 | SL |    | Mitosis                                   |
| CIN1 | NUM1   | YDR150W | 0 | SL |    | Mitosis                                   |
| CIN1 | CHL4   | YDR254W | 0 |    | SS | Chromatin/chromosome structure            |
| CIN1 | MCM21  | YDR318W | 0 |    | SS | Chromatin/chromosome structure            |
| CIN1 | DYN2   | YDR424C | 0 |    | SS | Mitosis                                   |
| CIN1 | PAC11  | YDR488C | 0 |    | SL | Mitosis                                   |
| CIN1 | GIM4   | YEL003W | 1 | SL |    | Cell structure                            |
| CIN1 | CIN8   | YEL061C | 0 |    | SL | Mitosis                                   |
| CIN1 | BIM1   | YER016W | 0 | SL | SL | Mitosis                                   |
| CIN1 | MAD1   | YGL086W | 3 | SL | SL | Mitosis                                   |
| CIN1 | PAC10  | YGR078C | 0 | SL |    | Cell structure                            |
| CIN1 | BUB1   | YGR188C | 0 | SL |    | Mitosis                                   |
| CIN1 | ARP1   | YHR129C | 0 | SS | SS | Mitosis                                   |
| CIN1 | CTF8   | YHR191C | 0 | SL |    | Chromatin/chromosome structure            |
| CIN1 | MAD3   | YJL013C | 0 | SS |    | Mitosis                                   |
| CIN1 | MAD2   | YJL030W | 1 | SL |    | Mitosis                                   |
| CIN1 | DYN1   | YKR054C | 0 | SS | SS | Mitosis                                   |
| CIN1 | ARP6   | YLR085C | 1 | SL |    | Cell structure                            |
| CIN1 | GIM5   | YML094W | 0 |    | SL | Cell structure                            |
| CIN1 | TUB3   | YML124C | 2 | SL |    | Cell structure                            |
| CIN1 | CTF18  | YMR078C | 0 | SL |    | Chromatin/chromosome structure            |
| CIN1 | JNM1   | YMR294W | 0 |    | SL | Mitosis                                   |
| CIN1 | GIM3   | YNL153C | 2 | SL |    | Cell structure                            |
| CIN1 | HTZ1   | YOL012C | 0 | SS |    | Chromatin/chromosome structure            |
| CIN1 | RBL2   | YOR265W | 1 | SL | SL | Cell structure                            |
| CIN1 | CTF19  | YPL018W | 0 | SS |    | Chromatin/chromosome structure            |
| CIN1 | KIP2   | YPL155C | 0 | SS |    | Mitosis                                   |
| CIN1 | NIP100 | YPL174C | 0 |    | SL | Mitosis                                   |
| CIN1 | KAR9   | YPL269W | 0 |    | SL | Mitosis                                   |
| CIN1 | CTF4   | YPR135W | 0 | SS |    | Chromatin/chromosome structure            |
| ROT2 | PDB1   | YBR221C | 3 | SS |    | Carbohydrate metabolism                   |
| ROT2 | RPO41  | YFL036W | 3 | SS |    | Mitochondrion organization and biogenesis |

|       |         |           |   |    |   |
|-------|---------|-----------|---|----|---|
| ROT2  | GUP1    | YGL084C   | 3 | SS | Lipid metabolism                          |
| ROT2  | CHO2    | YGR157W   | 2 | SS | Lipid metabolism                          |
| ROT2  | SLT2    | YHR030C   | 3 | SS | Cell wall organization and biogenesis     |
| ROT2  | GGA2    | YHR108W   | 2 | SS | Vesicular transport                       |
| ROT2  | BCK1    | YJL095W   | 3 | SS | Cell wall organization and biogenesis     |
| ROT2  | CSF1    | YLR087C   | 3 | SS | Cell stress                               |
| ROT2  | GAS1    | YMR307W   | 3 | SS | Cell wall organization and biogenesis     |
| ROT2  | KRE1    | YNL322C   | 3 | SS | Cell wall organization and biogenesis     |
| ROT2  | VAM10   | YOR068C   | 2 | SS | Vacuolar organization and biogenesis      |
| ROT2  | VPS5    | YOR069W   | 2 | SS | Vesicular transport                       |
| ROT2  | GYP1    | YOR070C   | 2 | SS | Vesicular transport                       |
| CWH41 | YBR235W | YBR235W   | 0 | SS | Small molecule transport                  |
| CWH41 | PER1    | YCR044C   | 2 | SS | Other metabolism                          |
| CWH41 | PTC1    | YDL006W   | 2 | SS | Signal transduction                       |
| CWH41 | SWF3    | YGL020C   | 3 | SS | Unknown                                   |
| CWH41 | GUP1    | YGL084C   | 3 | SS | Lipid metabolism                          |
| CWH41 | SNF4    | YGL115W   | 3 | SS | Protein modification                      |
| CWH41 | EMP24   | YGL200C   | 3 | SS | Vesicular transport                       |
| CWH41 | SLT2    | YHR030C   | 3 | SL | Cell wall organization and biogenesis     |
| CWH41 | BCK1    | YJL095W   | 3 | SL | Cell wall organization and biogenesis     |
| CWH41 | CSF1    | YLR087C   | 3 | SS | Cell stress                               |
| CWH41 | SCJ1    | YMR214W   | 0 | SS | Protein folding                           |
| CWH41 | GAS1    | YMR307W   | 3 | SL | Cell wall organization and biogenesis     |
| CWH41 | KRE1    | YNL322C   | 0 | SL | SL Cell wall organization and biogenesis  |
| CWH41 | LEA1    | YPL213W   | 3 | SS | RNA splicing                              |
| ALG8  | PER1    | YCR044C   | 3 | SS | Other metabolism                          |
| ALG8  | TPS2    | YDR074W   | 3 | SS | Carbohydrate metabolism                   |
| ALG8  | RPO41   | YFL036W   | 3 | SL | Mitochondrion organization and biogenesis |
| ALG8  | OST5    | YGL226C-A | 3 | SL | Protein modification                      |
| ALG8  | SLT2    | YHR030C   | 3 | SS | Cell wall organization and biogenesis     |
| ALG8  | BCK1    | YJL095W   | 3 | SS | Cell wall organization and biogenesis     |
| ALG8  | CSF1    | YLR087C   | 0 | SS | Cell stress                               |
| ALG8  | YLR358C | YLR358C   | 3 | SS | Unknown                                   |
| ALG8  | SHE4    | YOR035C   | 3 | SS | Differentiation                           |
| ALG8  | DIA2    | YOR080W   | 3 | SS | Differentiation                           |
| ALG8  | OST3    | YOR085W   | 2 | SL | Protein modification                      |
| DEP1  | HIR1    | YBL008W   | 0 | SS | SS Chromatin/chromosome structure         |
| DEP1  | RPL19B  | YBL027W   | 0 | SS | Protein synthesis                         |
| DEP1  | SIF2    | YBR103W   | 2 | SL | Chromatin/chromosome structure            |
| DEP1  | SEC66   | YBR171W   | 2 | SS | Vesicular transport                       |
| DEP1  | SNT1    | YCR033W   | 2 | SL | Chromatin/chromosome structure            |
| DEP1  | NHP10   | YDL002C   | 1 | SS | SS Unknown                                |
| DEP1  | BRE1    | YDL074C   | 1 | SS | SS Chromatin/chromosome structure         |
| DEP1  | THI3    | YDL080C   | 0 | SL | Amino-acid metabolism                     |
| DEP1  | SWI5    | YDR146C   | 1 | SS | SS Pol II transcription                   |
| DEP1  | SAS4    | YDR181C   | 1 | SS | SS Chromatin/chromosome structure         |
| DEP1  | SWR1    | YDR334W   | 2 | SL | Unknown                                   |
| DEP1  | SEM1    | YDR363W-A | 0 | SS | Vesicular transport                       |
| DEP1  | SPT3    | YDR392W   | 1 | SL | Chromatin/chromosome structure            |
| DEP1  | VPS72   | YDR485C   | 3 | SL | Vesicular transport                       |
| DEP1  | BIM1    | YER016W   | 1 | SL | Mitosis                                   |
| DEP1  | SWI4    | YER111C   | 3 | SS | Cell cycle control                        |
| DEP1  | YER139C | YER139C   | 0 | SL | Unknown                                   |
| DEP1  | UBP6    | YFR010W   | 0 | SS | Protein modification                      |
| DEP1  | SOH1    | YGL127C   | 0 | SL | SL DNA repair                             |
| DEP1  | ITC1    | YGL133W   | 0 | SS | Chromatin/chromosome structure            |
| DEP1  | YGL149W | YGL149W   | 1 | SS | SL Unknown                                |
| DEP1  | YIP5    | YGL161C   | 1 | SS | SS Vesicular transport                    |
| DEP1  | PMR1    | YGL167C   | 0 | SS | Small molecule transport                  |
| DEP1  | HOS2    | YGL194C   | 3 | SL | SL Chromatin/chromosome structure         |
| DEP1  | RTF1    | YGL244W   | 1 | SS | SS Pol II transcription                   |

|       |         |         |   |    |   |
|-------|---------|---------|---|----|---|
| DEP1  | VMA21   | YGR105W | 1 | SL | Vacuolar organization and biogenesis      |
| DEP1  | TIM13   | YGR181W | 3 | SL | Protein translocation                     |
| DEP1  | YGR182C | YGR182C | 3 | SL | Unknown                                   |
| DEP1  | ELP2    | YGR200C | 0 | SL | Pol II transcription                      |
| DEP1  | YTA7    | YGR270W | 0 | SS | Vacuolar organization and biogenesis      |
| DEP1  | SRB2    | YHR041C | 0 | SL | Pol II Transcription                      |
| DEP1  | VMA22   | YHR060W | 1 | SL | Vacuolar organization and biogenesis      |
| DEP1  | STB5    | YHR178W | 0 | SL | Pol II transcription                      |
| DEP1  | RPN10   | YHR200W | 0 | SL | Pol II transcription                      |
| DEP1  | ASF1    | YJL115W | 1 | SS | Chromatin/chromosome structure            |
| DEP1  | OPI3    | YJR073C | 0 | SS | Lipid metabolism                          |
| DEP1  | HIR3    | YJR140C | 1 | SS | Pol II transcription                      |
| DEP1  | YKL118W | YKL118W | 1 | SL | Unknown                                   |
| DEP1  | SET3    | YKR029C | 0 | SS | Chromatin/chromosome structure            |
| DEP1  | SPT8    | YLR055C | 1 | SS | Chromatin/chromosome structure            |
| DEP1  | ARP6    | YLR085C | 2 | SL | Cell structure                            |
| DEP1  | CSF1    | YLR087C | 0 | SL | Cell stress                               |
| DEP1  | YLR111W | YLR111W | 0 | SS | Unknown                                   |
| DEP1  | SEC22   | YLR268W | 0 | SS | Vesicular transport                       |
| DEP1  | IKI3    | YLR384C | 0 | SL | Pol II transcription                      |
| DEP1  | CDC73   | YLR418C | 0 | SL | Pol II transcription                      |
| DEP1  | VPS71   | YML041C | 3 | SL | Vesicular transport                       |
| DEP1  | PRM6    | YML047C | 3 | SL | Unknown                                   |
| DEP1  | TOM37   | YMR060C | 1 | SL | Mitochondrion organization and biogenesis |
| DEP1  | ELP6    | YMR312W | 1 | SL | Pol II transcription                      |
| DEP1  | YNL140C | YNL140C | 1 | SS | SS Unknown                                |
| DEP1  | IES2    | YNL215W | 2 | SL | Unknown                                   |
| DEP1  | CLA4    | YNL298W | 3 | SL | Cell polarity                             |
| DEP1  | HTZ1    | YOL012C | 1 | SL | Chromatin/chromosome structure            |
| DEP1  | VPS21   | YOR089C | 0 | SS | Vesicular transport                       |
| DEP1  | LEO1    | YOR123C | 1 | SS | Chromatin/chromosome structure            |
| DEP1  | SAS5    | YOR213C | 0 | SS | SS Chromatin/chromosome structure         |
| DEP1  | ISW2    | YOR304W | 0 | SS | Chromatin/chromosome structure            |
| DEP1  | LGE1    | YPL055C | 0 | SS | Cell cycle control                        |
| DEP1  | ELP3    | YPL086C | 0 | SL | Pol II transcription                      |
| DEP1  | ELP4    | YPL101W | 1 | SL | Pol II transcription                      |
| DEP1  | KRE24   | YPL102C | 1 | SL | Unknown                                   |
| DEP1  | YPL144W | YPL144W | 0 | SS | Meiosis                                   |
| DEP1  | NIP100  | YPL174C | 1 | SL | Mitosis                                   |
| DEP1  | EAF3    | YPR023C | 1 | SS | Pol II Transcription                      |
| CTI6  | SWC1    | YAL011W | 1 | SL | Unknown                                   |
| CTI6  | SIF2    | YBR103W | 1 | SS | Chromatin/chromosome structure            |
| CTI6  | AOR1    | YBR231C | 1 | SL | SL Unknown                                |
| CTI6  | THI3    | YDL080C | 1 | SS | SS Amino-acid metabolism                  |
| CTI6  | SWR1    | YDR334W | 1 | SL | Unknown                                   |
| CTI6  | VPS72   | YDR485C | 1 | SL | Vesicular transport                       |
| CTI6  | HOS2    | YGL194C | 1 | SS | Chromatin/chromosome structure            |
| CTI6  | PAC10   | YGR078C | 1 | SS | Cell structure                            |
| CTI6  | TIM13   | YGR181W | 1 | SS | SS Protein translocation                  |
| CTI6  | YGR182C | YGR182C | 1 | SL | SS Unknown                                |
| CTI6  | ARP6    | YLR085C | 1 | SS | Cell structure                            |
| CTI6  | CDC73   | YLR418C | 1 | SL | Pol II transcription                      |
| CTI6  | VPS71   | YML041C | 1 | SS | Vesicular transport                       |
| CTI6  | PRM6    | YML047C | 1 | SL | Unknown                                   |
| CTI6  | HTZ1    | YOL012C | 1 | SL | Chromatin/chromosome structure            |
| CTI6  | LEO1    | YOR123C | 1 | SS | SS Chromatin/chromosome structure         |
| SAP30 | VPS8    | YAL002W | 1 | SS | Vesicular transport                       |
| SAP30 | SWC1    | YAL011W | 1 | SL | Unknown                                   |
| SAP30 | LTE1    | YAL024C | 1 | SS | Cell cycle control                        |
| SAP30 | SIF2    | YBR103W | 1 | SS | Chromatin/chromosome structure            |
| SAP30 | AOR1    | YBR231C | 1 | SL | Unknown                                   |

|           |         |         |   |    |    |                                       |                 |
|-----------|---------|---------|---|----|----|---------------------------------------|-----------------|
| SAP30     | NHP10   | YDL002C | 1 | SS | SS | Unknown                               |                 |
| SAP30     | YDL033C | YDL033C | 1 | SL | SS | Unknown                               |                 |
| SAP30     | BRE1    | YDL074C | 1 | SS |    | Chromatin/chromosome structure        |                 |
| SAP30     | THI3    | YDL080C | 1 | SL |    | Amino-acid metabolism                 |                 |
| SAP30     | SWR1    | YDR334W | 1 | SL |    | Unknown                               |                 |
| SAP30     | SPT3    | YDR392W | 1 | SS |    | Chromatin/chromosome structure        |                 |
| SAP30     | VPS72   | YDR485C | 1 | SL |    | Vesicular transport                   |                 |
| SAP30     | BIM1    | YER016W | 1 | SS |    | Mitosis                               |                 |
| SAP30     | RMD7    | YER083C | 1 | SS | SL | Cell wall organization and biogenesis |                 |
| SAP30     | IES5    | YER092W | 1 | SS | SS | Unknown                               |                 |
| SAP30     | SWI4    | YER111C | 1 | SS |    | Cell cycle control                    |                 |
| SAP30     | YER139C | YER139C | 1 | SS | SS | Unknown                               |                 |
| SAP30     | SOH1    | YGL127C | 1 | SS |    | DNA repair                            |                 |
| SAP30     | YIP5    | YGL161C | 1 | SS | SS | Vesicular transport                   |                 |
| SAP30     | HOS2    | YGL194C | 1 | SS |    | Chromatin/chromosome structure        |                 |
| SAP30     | RTF1    | YGL244W | 1 | SS |    | Pol II transcription                  |                 |
| SAP30     | TIM13   | YGR181W | 1 | SL |    | Protein translocation                 |                 |
| SAP30     | YGR182C | YGR182C | 1 | SL | SL | Unknown                               |                 |
| SAP30     | STB5    | YHR178W | 1 | SL |    | Pol II transcription                  |                 |
| SAP30     | RPN10   | YHR200W | 1 | SL |    | Pol II transcription                  |                 |
| SAP30     | ASF1    | YJL115W | 1 | SS |    | Chromatin/chromosome structure        |                 |
| SAP30     | SET2    | YJL168C | 1 | SS |    | Chromatin/chromosome structure        |                 |
| SAP30     | SET3    | YKR029C | 1 | SS |    | Chromatin/chromosome structure        |                 |
| SAP30     | SPT8    | YLR055C | 1 | SS |    | Chromatin/chromosome structure        |                 |
| SAP30     | ARP6    | YLR085C | 1 | SL |    | Cell structure                        |                 |
| SAP30     | SEC22   | YLR268W | 1 | SS |    | Vesicular transport                   |                 |
| SAP30     | VRP1    | YLR337C | 1 | SS | SL | Cell polarity                         |                 |
| SAP30     | CDC73   | YLR418C | 1 | SL |    | Pol II transcription                  |                 |
| SAP30     | VPS71   | YML041C | 1 | SL |    | Vesicular transport                   |                 |
| SAP30     | PRM6    | YML047C | 1 | SL |    | Unknown                               |                 |
| SAP30     | VPS9    | YML097C | 1 | SS |    | Vesicular transport                   |                 |
| SAP30     | MRE11   | YMR224C | 1 | SS |    | DNA repair                            |                 |
| SAP30     | TOM70   | YNL121C | 1 | SS | SS | Small molecule transport              |                 |
| SAP30     | YNL140C | YNL140C | 1 | SS |    | Unknown                               |                 |
| SAP30     | YNL171C | YNL171C | 1 | SL |    | Unknown                               |                 |
| SAP30     | IES2    | YNL215W | 1 | SL | SS | Unknown                               |                 |
| SAP30     | CLA4    | YNL298W | 1 | SL |    | Cell polarity                         |                 |
| SAP30     | HTZ1    | YOL012C | 1 | SL |    | Chromatin/chromosome structure        |                 |
| SAP30     | LEO1    | YOR123C | 1 | SS |    | Chromatin/chromosome structure        |                 |
| SAP30     | SAS5    | YOR213C | 1 | SS | SS | Chromatin/chromosome structure        |                 |
| SAP30     | SNU66   | YOR308C | 1 | SS | SS | RNA splicing                          |                 |
| SAP30     | LGE1    | YPL055C | 1 | SL |    | Cell cycle control                    |                 |
| SAP30     | ELP3    | YPL086C | 1 | SS |    | Pol II transcription                  |                 |
| SAP30     | NIP100  | YPL174C | 1 | SS |    | Mitosis                               |                 |
| CDC42-118 | LTE1    | YAL024C | 2 | SL |    | Cell cycle control                    | Kozminski, 2003 |
| CDC42-118 | YBR077C | YBR077C | 2 |    | SL | Unknown                               | Kozminski, 2003 |
| CDC42-118 | SEC66   | YBR171W | 3 |    | SL | Vesicular transport                   | Kozminski, 2003 |
| CDC42-118 | BEM1    | YBR200W | 0 |    | SL | Cell polarity                         | Kozminski, 2003 |
| CDC42-118 | PAT1    | YCR077C | 0 | SS |    | Chromatin/chromosome structure        | Kozminski, 2003 |
| CDC42-118 | SWF1    | YDR126W | 2 |    | SS | Unknown                               | Kozminski, 2003 |
| CDC42-118 | SSD1    | YDR293C | 3 | SS | SS | Cell cycle control                    | Kozminski, 2003 |
| CDC42-118 | GIC2    | YDR309C | 3 | SS |    | Cell polarity                         | Kozminski, 2003 |
| CDC42-118 | SUM1    | YDR310C | 3 |    | SS | Chromatin/chromosome structure        | Kozminski, 2003 |
| CDC42-118 | SWI4    | YER111C | 3 | SS | SL | Cell cycle control                    | Kozminski, 2003 |
| CDC42-118 | PEA2    | YER149C | 3 |    | SL | Cell polarity                         | Kozminski, 2003 |
| CDC42-118 | PMR1    | YGL167C | 2 | SS | SL | Small molecule transport              | Kozminski, 2003 |
| CDC42-118 | HUR1    | YGL168W | 2 | SS |    | Unknown                               | Kozminski, 2003 |
| CDC42-118 | YGL211W | YGL211W | 2 | SS |    | Unknown                               | Kozminski, 2003 |
| CDC42-118 | YGR151C | YGR151C | 3 |    | SL | Cell polarity                         | Kozminski, 2003 |
| CDC42-118 | RSR1    | YGR152C | 3 | SS |    | Cell polarity                         | Kozminski, 2003 |
| CDC42-118 | ELP2    | YGR200C | 2 |    | SS | Pol II transcription                  | Kozminski, 2003 |

|           |         |         |   |    |    |                                       |                 |
|-----------|---------|---------|---|----|----|---------------------------------------|-----------------|
| CDC42-118 | UBA4    | YHR111W | 2 |    | SS | Protein modification                  | Kozminski, 2003 |
| CDC42-118 | CAP2    | YIL034C | 2 | SS |    | Cell structure                        | Kozminski, 2003 |
| CDC42-118 | CAP1    | YKL007W | 0 | SS |    | Cell structure                        | Kozminski, 2003 |
| CDC42-118 | SPA2    | YLL021W | 2 | SS |    | Cell polarity                         | Kozminski, 2003 |
| CDC42-118 | BUD6    | YLR319C | 3 | SS |    | Cell polarity                         | Kozminski, 2003 |
| CDC42-118 | ELP6    | YMR312W | 2 |    | SS | Pol II transcription                  | Kozminski, 2003 |
| CDC42-118 | BNI1    | YNL271C | 0 |    | SL | Cell polarity                         | Kozminski, 2003 |
| CDC42-118 | MSB3    | YNL293W | 2 |    | SS | Cell polarity                         | Kozminski, 2003 |
| CDC42-118 | CLA4    | YNL298W | 2 |    | SL | Cell polarity                         | Kozminski, 2003 |
| CDC42-118 | MSB1    | YOR188W | 0 |    | SS | Cell polarity                         | Kozminski, 2003 |
| CDC42-118 | ELP3    | YPL086C | 0 |    | SS | Pol II transcription                  | Kozminski, 2003 |
| CDC42-118 | ELP4    | YPL101W | 2 |    | SS | Pol II transcription                  | Kozminski, 2003 |
| CDC42-118 | BEM4    | YPL161C | 3 |    | SL | Cell polarity                         | Kozminski, 2003 |
| SWF1      | ARL1    | YBR164C | 0 | SS |    | Vesicular transport                   |                 |
| SWF1      | PER1    | YCR044C | 0 |    | SS | Other metabolism                      |                 |
| SWF1      | YDL133W | YDL133W | 0 |    | SL | Unknown                               |                 |
| SWF1      | CUP5    | YEL027W | 0 | SS | SS | Vacuole organization and biogenesis   |                 |
| SWF1      | SPF1    | YEL031W | 0 | SS |    | Small molecule transport              |                 |
| SWF1      | RMD7    | YER083C | 0 | SS |    | Cell wall organization and biogenesis |                 |
| SWF1      | COG7    | YGL005C | 0 | SS |    | Vesicular transport                   |                 |
| SWF1      | YGL007W | YGL007W | 0 | SS | SS | Unknown                               |                 |
| SWF1      | VMA21   | YGR105W | 0 | SS |    | Vacuolar organization and biogenesis  |                 |
| SWF1      | YGR228W | YGR228W | 0 | SS |    | Unknown                               |                 |
| SWF1      | SMI1    | YGR229C | 0 | SS |    | Cell wall organization and biogenesis |                 |
| SWF1      | GOS1    | YHL031C | 0 | SS |    | Vesicular transport                   |                 |
| SWF1      | YHR151C | YHR151C | 0 | SS | SS | Unknown                               |                 |
| SWF1      | SYS1    | YJL004C | 0 | SS |    | Protein translocation                 |                 |
| SWF1      | SNX4    | YJL036W | 0 | SL |    | Protein degradation                   |                 |
| SWF1      | BCK1    | YJL095W | 0 | SL |    | Cell wall organization and biogenesis |                 |
| SWF1      | KTI12   | YKL110C | 0 | SS |    | Unknown                               |                 |
| SWF1      | YKL118W | YKL118W | 0 | SS | SL | Unknown                               |                 |
| SWF1      | VPS1    | YKR001C | 0 | SS |    | Vesicular transport                   |                 |
| SWF1      | SPO14   | YKR031C | 0 | SL |    | Meiosis                               |                 |
| SWF1      | YKR033C | YKR033C | 0 | SS | SS | Unknown                               |                 |
| SWF1      | RIC1    | YLR039C | 0 | SL |    | Vesicular transport                   |                 |
| SWF1      | YPT6    | YLR262C | 0 | SL |    | Vesicular transport                   |                 |
| SWF1      | VID22   | YLR373C | 0 | SL |    | Vacuolar organization and biogenesis  |                 |
| SWF1      | YLR374C | YLR374C | 0 | SL | SS | Unknown                               |                 |
| SWF1      | IKI3    | YLR384C | 0 | SS | SS | Pol II transcription                  |                 |
| SWF1      | COG8    | YML071C | 0 | SL |    | Vesicular transport                   |                 |
| SWF1      | HSC82   | YMR186W | 0 | SL |    | Protein folding                       |                 |
| SWF1      | ELP6    | YMR312W | 0 | SL | SS | Pol II transcription                  |                 |
| SWF1      | COG6    | YNL041C | 0 | SS |    | Vesicular transport                   |                 |
| SWF1      | COG5    | YNL051W | 0 | SS |    | Vesicular transport                   |                 |
| SWF1      | PDR17   | YNL264C | 0 | SL |    | Vesicular transport                   |                 |
| SWF1      | MSO1    | YNR049C | 0 | SL |    | Secretion                             |                 |
| SWF1      | TLG2    | YOL018C | 0 | SS |    | Vesicular transport                   |                 |
| SWF1      | MSB4    | YOL112W | 0 | SL |    | Cell polarity                         |                 |
| SWF1      | OST3    | YOR085W | 0 | SS |    | Protein modification                  |                 |
| SWF1      | SNC2    | YOR327C | 0 | SL |    | Vesicular transport                   |                 |
| SWF1      | ARL3    | YPL051W | 0 | SS |    | Vesicular transport                   |                 |
| SWF1      | BTS1    | YPL069C | 0 | SL | SL | Protein modification                  |                 |
| SWF1      | ELP4    | YPL101W | 0 | SS | SS | Pol II transcription                  |                 |
| SWF1      | KRE24   | YPL102C | 0 | SS |    | Unknown                               |                 |
| SWF1      | BEM4    | YPL161C | 0 | SS |    | Cell polarity                         |                 |
| SWF1      | SSO1    | YPL232W | 0 | SL |    | Vesicular transport                   |                 |

The "Query Gene" column indicates the gene used as query in a SGA screen.

The "Genetic Interaction - Gene Name" column indicates the gene being tested for genetic interaction with a particular query.

The "Genetic Interaction - Systematic Name" column indicates the systematic (ORF) name that corresponds to the gene being tested for genetic interaction.

The "Result" column contains the result as confirmed by the spot assay version of random spore analysis.

"Y" refers to synthetic genetic interaction.

"N" refers to no synthetic genetic interaction.

"N/D" refers to test not done.

| <b>Genetic</b>    |                                |  |               |
|-------------------|--------------------------------|--|---------------|
| <b>Query Gene</b> | <b>Interaction - Gene Name</b> | <b>Genetic Interaction - Systematic Name</b> | <b>Result</b> |
| AOR1              | ARP1                           | YHR129C                                      | N             |
| AOR1              | ARP6                           | YLR085C                                      | N             |
| AOR1              | ASE1                           | YOR058C                                      | N             |
| AOR1              | BEM1                           | YBR200W                                      | N             |
| AOR1              | BFA1                           | YJR053W                                      | N             |
| AOR1              | BIK1                           | YCL029C                                      | N             |
| AOR1              | BIM1                           | YER016W                                      | Y             |
| AOR1              | BUB1                           | YGR188C                                      | Y             |
| AOR1              | BUB2                           | YMR055C                                      | N             |
| AOR1              | BUB3                           | YOR026W                                      | Y             |
| AOR1              | CHL4                           | YDR254W                                      | N             |
| AOR1              | CSM3                           | YMR048W                                      | N             |
| AOR1              | CTF19                          | YPL018W                                      | N             |
| AOR1              | CTF3                           | YLR381W                                      | N             |
| AOR1              | CTF8                           | YHR191C                                      | N             |
| AOR1              | DCC1                           | YCL016C                                      | N             |
| AOR1              | DYN1                           | YKR054C                                      | N             |
| AOR1              | ELP2                           | YGR200C                                      | N             |
| AOR1              | FAB1                           | YFR019W                                      | N             |
| AOR1              | GIM3                           | YNL153C                                      | Y             |
| AOR1              | GIM4                           | YEL003W                                      | Y             |
| AOR1              | GIM5                           | YML094W                                      | Y             |
| AOR1              | IES2                           | YNL215W                                      | N             |
| AOR1              | IML3                           | YBR107C                                      | N             |
| AOR1              | INP52                          | YNL106C                                      | N             |
| AOR1              | JNM1                           | YMR294W                                      | N             |
| AOR1              | KEM1                           | YGL173C                                      | Y             |
| AOR1              | KIP3                           | YGL216W                                      | N             |
| AOR1              | MAD1                           | YGL086W                                      | N             |
| AOR1              | MAD2                           | YJL030W                                      | N             |
| AOR1              | MAD3                           | YJL013C                                      | N             |
| AOR1              | MCK1                           | YNL307C                                      | N             |
| AOR1              | MCM21                          | YDR318W                                      | N             |
| AOR1              | MCM22                          | YJR135C                                      | N             |
| AOR1              | MRC1                           | YCL060C                                      | N             |
| AOR1              | NBP2                           | YDR162C                                      | N             |
| AOR1              | NUM1                           | YDR150W                                      | N             |
| AOR1              | PAC1                           | YOR269W                                      | N             |
| AOR1              | PAC11                          | YDR488C                                      | N             |
| AOR1              | PHO23                          | YNL097C                                      | Y             |
| AOR1              | PPZ1                           | YML016C                                      | N             |
| AOR1              | RAD54                          | YGL163C                                      | N             |
| AOR1              | RTT103                         | YDR289C                                      | N             |
| AOR1              | SAP30                          | YMR263W                                      | Y             |
| AOR1              | SLK19                          | YOR195W                                      | N             |
| AOR1              | SMI1                           | YGR229C                                      | N             |
| AOR1              | VAC14                          | YLR386W                                      | N             |
| AOR1              | VID22                          | YLR373C                                      | N             |
| AOR1              | RXT2                           | RXT2   | Y             |
| AOR1              | YDR149C                        | YDR149C                                      | N             |
| AOR1              | YGL211W                        | YGL211W                                      | N             |
| AOR1              | YGL217C                        | YGL217C                                      | N             |
| AOR1              | YML095C-A                      | YML095C-A                                    | N             |



|      |           |           |   |
|------|-----------|-----------|---|
| AOR1 | YNL170W   | YNL170W   | N |
| AOR1 | YPL017C   | YPL017C   | N |
| AOR1 | YTA7      | YGR270W   | Y |
| ARP1 | AOR1      | YBR231C   | N |
| ARP1 | ARP6      | YLR085C   | N |
| ARP1 | ASE1      | YOR058C   | N |
| ARP1 | BEM1      | YBR200W   | N |
| ARP1 | BFA1      | YJR053W   | N |
| ARP1 | BIK1      | YCL029C   | N |
| ARP1 | BIM1      | YER016W   | Y |
| ARP1 | BUB1      | YGR188C   | N |
| ARP1 | BUB2      | YMR055C   | N |
| ARP1 | BUB3      | YOR026W   | N |
| ARP1 | CHL4      | YDR254W   | N |
| ARP1 | CSM3      | YMR048W   | N |
| ARP1 | CTF19     | YPL018W   | N |
| ARP1 | CTF3      | YLR381W   | N |
| ARP1 | CTF8      | YHR191C   | N |
| ARP1 | DCC1      | YCL016C   | N |
| ARP1 | DYN1      | YKR054C   | N |
| ARP1 | ELP2      | YGR200C   | N |
| ARP1 | FAB1      | YFR019W   | Y |
| ARP1 | GIM3      | YNL153C   | Y |
| ARP1 | GIM4      | YEL003W   | N |
| ARP1 | GIM5      | YML094W   | Y |
| ARP1 | IES2      | YNL215W   | N |
| ARP1 | IML3      | YBR107C   | N |
| ARP1 | INP52     | YNL106C   | N |
| ARP1 | JNM1      | YMR294W   | N |
| ARP1 | KEM1      | YGL173C   | N |
| ARP1 | KIP3      | YGL216W   | Y |
| ARP1 | MAD1      | YGL086W   | N |
| ARP1 | MAD2      | YJL030W   | N |
| ARP1 | MAD3      | YJL013C   | N |
| ARP1 | MCK1      | YNL307C   | N |
| ARP1 | MCM21     | YDR318W   | N |
| ARP1 | MCM22     | YJR135C   | N |
| ARP1 | MRC1      | YCL060C   | N |
| ARP1 | NBP2      | YDR162C   | N |
| ARP1 | NUM1      | YDR150W   | N |
| ARP1 | PAC1      | YOR269W   | N |
| ARP1 | PAC11     | YDR488C   | N |
| ARP1 | PHO23     | YNL097C   | N |
| ARP1 | PPZ1      | YML016C   | N |
| ARP1 | RAD54     | YGL163C   | N |
| ARP1 | RTT103    | YDR289C   | N |
| ARP1 | SAP30     | YMR263W   | N |
| ARP1 | SLK19     | YOR195W   | N |
| ARP1 | SMI1      | YGR229C   | N |
| ARP1 | VAC14     | YLR386W   | N |
| ARP1 | VID22     | YLR373C   | N |
| ARP1 | RXT2      | RXT2      | N |
| ARP1 | YDR149C   | YDR149C   | N |
| ARP1 | YGL211W   | YGL211W   | N |
| ARP1 | YGL217C   | YGL217C   | Y |
| ARP1 | YML095C-A | YML095C-A | N |
| ARP1 | YNL170W   | YNL170W   | N |
| ARP1 | YPL017C   | YPL017C   | N |
| ARP1 | YTA7      | YGR270W   | N |
| ARP6 | AOR1      | YBR231C   | N |
| ARP6 | ARP1      | YHR129C   | N |
| ARP6 | ASE1      | YOR058C   | N |
| ARP6 | BEM1      | YBR200W   | N |
| ARP6 | BFA1      | YJR053W   | N |
| ARP6 | BIK1      | YCL029C   | N |
| ARP6 | BIM1      | YER016W   | Y |

|      |           |           |   |
|------|-----------|-----------|---|
| ARP6 | BUB1      | YGR188C   | Y |
| ARP6 | BUB2      | YMR055C   | N |
| ARP6 | BUB3      | YOR026W   | Y |
| ARP6 | CHL4      | YDR254W   | N |
| ARP6 | CSM3      | YMR048W   | N |
| ARP6 | CTF19     | YPL018W   | N |
| ARP6 | CTF3      | YLR381W   | N |
| ARP6 | CTF8      | YHR191C   | N |
| ARP6 | DCC1      | YCL016C   | N |
| ARP6 | DYN1      | YKR054C   | N |
| ARP6 | ELP2      | YGR200C   | N |
| ARP6 | FAB1      | YFR019W   | N |
| ARP6 | GIM3      | YNL153C   | Y |
| ARP6 | GIM4      | YEL003W   | Y |
| ARP6 | GIM5      | YML094W   | Y |
| ARP6 | IES2      | YNL215W   | N |
| ARP6 | IML3      | YBR107C   | N |
| ARP6 | INP52     | YNL106C   | N |
| ARP6 | JNM1      | YMR294W   | N |
| ARP6 | KEM1      | YGL173C   | N |
| ARP6 | KIP3      | YGL216W   | N |
| ARP6 | MAD1      | YGL086W   | N |
| ARP6 | MAD2      | YJL030W   | N |
| ARP6 | MAD3      | YJL013C   | N |
| ARP6 | MCK1      | YNL307C   | N |
| ARP6 | MCM21     | YDR318W   | N |
| ARP6 | MCM22     | YJR135C   | N |
| ARP6 | MRC1      | YCL060C   | N |
| ARP6 | NBP2      | YDR162C   | N |
| ARP6 | NUM1      | YDR150W   | N |
| ARP6 | PAC1      | YOR269W   | N |
| ARP6 | PAC11     | YDR488C   | N |
| ARP6 | PHO23     | YNL097C   | Y |
| ARP6 | PPZ1      | YML016C   | N |
| ARP6 | RAD54     | YGL163C   | N |
| ARP6 | RTT103    | YDR289C   | N |
| ARP6 | SAP30     | YMR263W   | Y |
| ARP6 | SLK19     | YOR195W   | N |
| ARP6 | SMI1      | YGR229C   | N |
| ARP6 | VAC14     | YLR386W   | N |
| ARP6 | VID22     | YLR373C   | N |
| ARP6 | RXT2      | RXT2      | Y |
| ARP6 | YDR149C   | YDR149C   | N |
| ARP6 | YGL211W   | YGL211W   | N |
| ARP6 | YGL217C   | YGL217C   | N |
| ARP6 | YML095C-A | YML095C-A | N |
| ARP6 | YNL170W   | YNL170W   | N |
| ARP6 | YPL017C   | YPL017C   | N |
| ARP6 | YTA7      | YGR270W   | Y |
| ASE1 | AOR1      | YBR231C   | N |
| ASE1 | ARP1      | YHR129C   | Y |
| ASE1 | ARP6      | YLR085C   | N |
| ASE1 | BEM1      | YBR200W   | N |
| ASE1 | BFA1      | YJR053W   | N |
| ASE1 | BIK1      | YCL029C   | Y |
| ASE1 | BIM1      | YER016W   | Y |
| ASE1 | BUB1      | YGR188C   | N |
| ASE1 | BUB2      | YMR055C   | N |
| ASE1 | BUB3      | YOR026W   | N |
| ASE1 | CHL4      | YDR254W   | N |
| ASE1 | CSM3      | YMR048W   | N |
| ASE1 | CTF19     | YPL018W   | N |
| ASE1 | CTF3      | YLR381W   | N |
| ASE1 | CTF8      | YHR191C   | N |
| ASE1 | DCC1      | YCL016C   | N |
| ASE1 | DYN1      | YKR054C   | Y |

|      |           |           |   |
|------|-----------|-----------|---|
| ASE1 | ELP2      | YGR200C   | N |
| ASE1 | FAB1      | YFR019W   | Y |
| ASE1 | GIM3      | YNL153C   | Y |
| ASE1 | GIM4      | YEL003W   | N |
| ASE1 | GIM5      | YML094W   | N |
| ASE1 | IES2      | YNL215W   | N |
| ASE1 | IML3      | YBR107C   | N |
| ASE1 | INP52     | YNL106C   | N |
| ASE1 | JNM1      | YMR294W   | Y |
| ASE1 | KEM1      | YGL173C   | N |
| ASE1 | KIP3      | YGL216W   | N |
| ASE1 | MAD1      | YGL086W   | N |
| ASE1 | MAD2      | YJL030W   | N |
| ASE1 | MAD3      | YJL013C   | N |
| ASE1 | MCK1      | YNL307C   | N |
| ASE1 | MCM21     | YDR318W   | N |
| ASE1 | MCM22     | YJR135C   | N |
| ASE1 | MRC1      | YCL060C   | N |
| ASE1 | NBP2      | YDR162C   | N |
| ASE1 | NUM1      | YDR150W   | Y |
| ASE1 | PAC1      | YOR269W   | Y |
| ASE1 | PAC11     | YDR488C   | Y |
| ASE1 | PHO23     | YNL097C   | N |
| ASE1 | PPZ1      | YML016C   | N |
| ASE1 | RAD54     | YGL163C   | N |
| ASE1 | RTT103    | YDR289C   | N |
| ASE1 | SAP30     | YMR263W   | N |
| ASE1 | SLK19     | YOR195W   | N |
| ASE1 | SMI1      | YGR229C   | N |
| ASE1 | VAC14     | YLR386W   | N |
| ASE1 | VID22     | YLR373C   | N |
| ASE1 | RXT2      | RXT2      | N |
| ASE1 | YDR149C   | YDR149C   | Y |
| ASE1 | YGL211W   | YGL211W   | N |
| ASE1 | YGL217C   | YGL217C   | N |
| ASE1 | YML095C-A | YML095C-A | N |
| ASE1 | YNL170W   | YNL170W   | N |
| ASE1 | YPL017C   | YPL017C   | N |
| ASE1 | YTA7      | YGR270W   | N |
| BEM1 | AOR1      | YBR231C   | N |
| BEM1 | ARP1      | YHR129C   | N |
| BEM1 | ARP6      | YLR085C   | N |
| BEM1 | ASE1      | YOR058C   | N |
| BEM1 | BFA1      | YJR053W   | N |
| BEM1 | BIK1      | YCL029C   | N |
| BEM1 | BIM1      | YER016W   | Y |
| BEM1 | BUB1      | YGR188C   | N |
| BEM1 | BUB2      | YMR055C   | N |
| BEM1 | BUB3      | YOR026W   | N |
| BEM1 | CHL4      | YDR254W   | N |
| BEM1 | CSM3      | YMR048W   | N |
| BEM1 | CTF19     | YPL018W   | N |
| BEM1 | CTF3      | YLR381W   | N |
| BEM1 | CTF8      | YHR191C   | N |
| BEM1 | DCC1      | YCL016C   | N |
| BEM1 | DYN1      | YKR054C   | N |
| BEM1 | ELP2      | YGR200C   | Y |
| BEM1 | FAB1      | YFR019W   | Y |
| BEM1 | GIM3      | YNL153C   | Y |
| BEM1 | GIM4      | YEL003W   | N |
| BEM1 | GIM5      | YML094W   | Y |
| BEM1 | IES2      | YNL215W   | N |
| BEM1 | IML3      | YBR107C   | N |
| BEM1 | INP52     | YNL106C   | N |
| BEM1 | JNM1      | YMR294W   | N |
| BEM1 | KEM1      | YGL173C   | Y |

|      |           |           |   |
|------|-----------|-----------|---|
| BEM1 | KIP3      | YGL216W   | N |
| BEM1 | MAD1      | YGL086W   | N |
| BEM1 | MAD2      | YJL030W   | N |
| BEM1 | MAD3      | YJL013C   | N |
| BEM1 | MCK1      | YNL307C   | Y |
| BEM1 | MCM21     | YDR318W   | N |
| BEM1 | MCM22     | YJR135C   | N |
| BEM1 | MRC1      | YCL060C   | N |
| BEM1 | NBP2      | YDR162C   | Y |
| BEM1 | NUM1      | YDR150W   | N |
| BEM1 | PAC1      | YOR269W   | N |
| BEM1 | PAC11     | YDR488C   | N |
| BEM1 | PHO23     | YNL097C   | N |
| BEM1 | PPZ1      | YML016C   | Y |
| BEM1 | RAD54     | YGL163C   | N |
| BEM1 | RTT103    | YDR289C   | N |
| BEM1 | SAP30     | YMR263W   | N |
| BEM1 | SLK19     | YOR195W   | N |
| BEM1 | SMI1      | YGR229C   | Y |
| BEM1 | VAC14     | YLR386W   | N |
| BEM1 | VID22     | YLR373C   | Y |
| BEM1 | RXT2      | RXT2      | N |
| BEM1 | YDR149C   | YDR149C   | N |
| BEM1 | YGL211W   | YGL211W   | Y |
| BEM1 | YGL217C   | YGL217C   | N |
| BEM1 | YML095C-A | YML095C-A | N |
| BEM1 | YNL170W   | YNL170W   | N |
| BEM1 | YPL017C   | YPL017C   | N |
| BEM1 | YTA7      | YGR270W   | N |
| BFA1 | AOR1      | YBR231C   | N |
| BFA1 | ARP1      | YHR129C   | N |
| BFA1 | ARP6      | YLR085C   | N |
| BFA1 | ASE1      | YOR058C   | N |
| BFA1 | BEM1      | YBR200W   | N |
| BFA1 | BIK1      | YCL029C   | N |
| BFA1 | BIM1      | YER016W   | Y |
| BFA1 | BUB1      | YGR188C   | N |
| BFA1 | BUB2      | YMR055C   | N |
| BFA1 | BUB3      | YOR026W   | N |
| BFA1 | CHL4      | YDR254W   | N |
| BFA1 | CSM3      | YMR048W   | N |
| BFA1 | CTF19     | YPL018W   | N |
| BFA1 | CTF3      | YLR381W   | N |
| BFA1 | CTF8      | YHR191C   | N |
| BFA1 | DCC1      | YCL016C   | N |
| BFA1 | DYN1      | YKR054C   | N |
| BFA1 | ELP2      | YGR200C   | N |
| BFA1 | FAB1      | YFR019W   | N |
| BFA1 | GIM3      | YNL153C   | N |
| BFA1 | GIM4      | YEL003W   | N |
| BFA1 | GIM5      | YML094W   | N |
| BFA1 | IES2      | YNL215W   | N |
| BFA1 | IML3      | YBR107C   | N |
| BFA1 | INP52     | YNL106C   | N |
| BFA1 | JNM1      | YMR294W   | N |
| BFA1 | KEM1      | YGL173C   | N |
| BFA1 | KIP3      | YGL216W   | N |
| BFA1 | MAD1      | YGL086W   | N |
| BFA1 | MAD2      | YJL030W   | N |
| BFA1 | MAD3      | YJL013C   | N |
| BFA1 | MCK1      | YNL307C   | N |
| BFA1 | MCM21     | YDR318W   | N |
| BFA1 | MCM22     | YJR135C   | N |
| BFA1 | MRC1      | YCL060C   | N |
| BFA1 | NBP2      | YDR162C   | N |
| BFA1 | NUM1      | YDR150W   | N |

|      |           |           |   |
|------|-----------|-----------|---|
| BFA1 | PAC1      | YOR269W   | N |
| BFA1 | PAC11     | YDR488C   | N |
| BFA1 | PHO23     | YNL097C   | N |
| BFA1 | PPZ1      | YML016C   | N |
| BFA1 | RAD54     | YGL163C   | N |
| BFA1 | RTT103    | YDR289C   | N |
| BFA1 | SAP30     | YMR263W   | N |
| BFA1 | SLK19     | YOR195W   | N |
| BFA1 | SMI1      | YGR229C   | N |
| BFA1 | VAC14     | YLR386W   | N |
| BFA1 | VID22     | YLR373C   | N |
| BFA1 | RXT2      | RXT2      | N |
| BFA1 | YDR149C   | YDR149C   | N |
| BFA1 | YGL211W   | YGL211W   | N |
| BFA1 | YGL217C   | YGL217C   | N |
| BFA1 | YML095C-A | YML095C-A | N |
| BFA1 | YNL170W   | YNL170W   | N |
| BFA1 | YPL017C   | YPL017C   | N |
| BFA1 | YTA7      | YGR270W   | N |
| BIK1 | AOR1      | YBR231C   | Y |
| BIK1 | ARP1      | YHR129C   | N |
| BIK1 | ARP6      | YLR085C   | N |
| BIK1 | ASE1      | YOR058C   | Y |
| BIK1 | BEM1      | YBR200W   | N |
| BIK1 | BFA1      | YJR053W   | Y |
| BIK1 | BIM1      | YER016W   | Y |
| BIK1 | BUB1      | YGR188C   | Y |
| BIK1 | BUB2      | YMR055C   | N |
| BIK1 | BUB3      | YOR026W   | Y |
| BIK1 | CHL4      | YDR254W   | N |
| BIK1 | CSM3      | YMR048W   | N |
| BIK1 | CTF19     | YPL018W   | N |
| BIK1 | CTF3      | YLR381W   | N |
| BIK1 | CTF8      | YHR191C   | N |
| BIK1 | DCC1      | YCL016C   | N |
| BIK1 | DYN1      | YKR054C   | N |
| BIK1 | ELP2      | YGR200C   | N |
| BIK1 | FAB1      | YFR019W   | Y |
| BIK1 | GIM3      | YNL153C   | Y |
| BIK1 | GIM4      | YEL003W   | N |
| BIK1 | GIM5      | YML094W   | Y |
| BIK1 | IES2      | YNL215W   | N |
| BIK1 | IML3      | YBR107C   | N |
| BIK1 | INP52     | YNL106C   | Y |
| BIK1 | JNM1      | YMR294W   | N |
| BIK1 | KEM1      | YGL173C   | N |
| BIK1 | KIP3      | YGL216W   | N |
| BIK1 | MAD1      | YGL086W   | N |
| BIK1 | MAD2      | YJL030W   | N |
| BIK1 | MAD3      | YJL013C   | N |
| BIK1 | MCK1      | YNL307C   | N |
| BIK1 | MCM21     | YDR318W   | N |
| BIK1 | MCM22     | YJR135C   | N |
| BIK1 | MRC1      | YCL060C   | N |
| BIK1 | NBP2      | YDR162C   | N |
| BIK1 | NUM1      | YDR150W   | N |
| BIK1 | PAC1      | YOR269W   | N |
| BIK1 | PAC11     | YDR488C   | N |
| BIK1 | PHO23     | YNL097C   | N |
| BIK1 | PPZ1      | YML016C   | N |
| BIK1 | RAD54     | YGL163C   | N |
| BIK1 | RTT103    | YDR289C   | Y |
| BIK1 | SAP30     | YMR263W   | N |
| BIK1 | SLK19     | YOR195W   | N |
| BIK1 | SMI1      | YGR229C   | N |
| BIK1 | VAC14     | YLR386W   | N |

|      |           |           |     |
|------|-----------|-----------|-----|
| BIK1 | VID22     | YLR373C   | N   |
| BIK1 | RXT2      | RXT2      | N   |
| BIK1 | YDR149C   | YDR149C   | N   |
| BIK1 | YGL211W   | YGL211W   | N   |
| BIK1 | YGL217C   | YGL217C   | N   |
| BIK1 | YML095C-A | YML095C-A | N   |
| BIK1 | YNL170W   | YNL170W   | N   |
| BIK1 | YPL017C   | YPL017C   | N   |
| BIK1 | YTA7      | YGR270W   | N   |
| BIM1 | AOR1      | YBR231C   | Y   |
| BIM1 | ARP1      | YHR129C   | Y   |
| BIM1 | ARP6      | YLR085C   | Y   |
| BIM1 | ASE1      | YOR058C   | Y   |
| BIM1 | BEM1      | YBR200W   | Y   |
| BIM1 | BFA1      | YJR053W   | Y   |
| BIM1 | BIK1      | YCL029C   | Y   |
| BIM1 | BUB1      | YGR188C   | Y   |
| BIM1 | BUB2      | YMR055C   | Y   |
| BIM1 | BUB3      | YOR026W   | Y   |
| BIM1 | CHL4      | YDR254W   | Y   |
| BIM1 | CSM3      | YMR048W   | Y   |
| BIM1 | CTF19     | YPL018W   | Y   |
| BIM1 | CTF3      | YLR381W   | Y   |
| BIM1 | CTF8      | YHR191C   | Y   |
| BIM1 | DCC1      | YCL016C   | Y   |
| BIM1 | DYN1      | YKR054C   | Y   |
| BIM1 | ELP2      | YGR200C   | Y   |
| BIM1 | FAB1      | YFR019W   | Y   |
| BIM1 | GIM3      | YNL153C   | Y   |
| BIM1 | GIM4      | YEL003W   | Y   |
| BIM1 | GIM5      | YML094W   | Y   |
| BIM1 | IES2      | YNL215W   | Y   |
| BIM1 | IML3      | YBR107C   | Y   |
| BIM1 | INP52     | YNL106C   | Y   |
| BIM1 | JNM1      | YMR294W   | Y   |
| BIM1 | KEM1      | YGL173C   | Y   |
| BIM1 | KIP3      | YGL216W   | Y   |
| BIM1 | MAD1      | YGL086W   | Y   |
| BIM1 | MAD2      | YJL030W   | Y   |
| BIM1 | MAD3      | YJL013C   | Y   |
| BIM1 | MCK1      | YNL307C   | Y   |
| BIM1 | MCM21     | YDR318W   | Y   |
| BIM1 | MCM22     | YJR135C   | Y   |
| BIM1 | MRC1      | YCL060C   | Y   |
| BIM1 | NBP2      | YDR162C   | Y   |
| BIM1 | NUM1      | YDR150W   | Y   |
| BIM1 | PAC1      | YOR269W   | Y   |
| BIM1 | PAC11     | YDR488C   | Y   |
| BIM1 | PHO23     | YNL097C   | Y   |
| BIM1 | PPZ1      | YML016C   | Y   |
| BIM1 | RAD54     | YGL163C   | Y   |
| BIM1 | RTT103    | YDR289C   | Y   |
| BIM1 | SAP30     | YMR263W   | Y   |
| BIM1 | SLK19     | YOR195W   | Y   |
| BIM1 | SMI1      | YGR229C   | Y   |
| BIM1 | VAC14     | YLR386W   | Y   |
| BIM1 | VID22     | YLR373C   | Y   |
| BIM1 | RXT2      | RXT2      | Y   |
| BIM1 | YDR149C   | YDR149C   | Y   |
| BIM1 | YGL211W   | YGL211W   | Y   |
| BIM1 | YGL217C   | YGL217C   | Y   |
| BIM1 | YML095C-A | YML095C-A | Y   |
| BIM1 | YNL170W   | YNL170W   | Y   |
| BIM1 | YPL017C   | YPL017C   | Y   |
| BIM1 | YTA7      | YGR270W   | Y   |
| BUB1 | AOR1      | YBR231C   | N/D |

|      |           |           |     |
|------|-----------|-----------|-----|
| BUB1 | ARP1      | YHR129C   | N/D |
| BUB1 | ARP6      | YLR085C   | N/D |
| BUB1 | ASE1      | YOR058C   | N/D |
| BUB1 | BEM1      | YBR200W   | N/D |
| BUB1 | BFA1      | YJR053W   | N/D |
| BUB1 | BIK1      | YCL029C   | N/D |
| BUB1 | BIM1      | YER016W   | N/D |
| BUB1 | BUB2      | YMR055C   | N/D |
| BUB1 | BUB3      | YOR026W   | N/D |
| BUB1 | CHL4      | YDR254W   | N/D |
| BUB1 | CSM3      | YMR048W   | N/D |
| BUB1 | CTF19     | YPL018W   | N/D |
| BUB1 | CTF3      | YLR381W   | N/D |
| BUB1 | CTF8      | YHR191C   | N/D |
| BUB1 | DCC1      | YCL016C   | N/D |
| BUB1 | DYN1      | YKR054C   | N/D |
| BUB1 | ELP2      | YGR200C   | N/D |
| BUB1 | FAB1      | YFR019W   | N/D |
| BUB1 | GIM3      | YNL153C   | N/D |
| BUB1 | GIM4      | YEL003W   | N/D |
| BUB1 | GIM5      | YML094W   | N/D |
| BUB1 | IES2      | YNL215W   | N/D |
| BUB1 | IML3      | YBR107C   | N/D |
| BUB1 | INP52     | YNL106C   | N/D |
| BUB1 | JNM1      | YMR294W   | N/D |
| BUB1 | KEM1      | YGL173C   | N/D |
| BUB1 | KIP3      | YGL216W   | N/D |
| BUB1 | MAD1      | YGL086W   | N/D |
| BUB1 | MAD2      | YJL030W   | N/D |
| BUB1 | MAD3      | YJL013C   | N/D |
| BUB1 | MCK1      | YNL307C   | N/D |
| BUB1 | MCM21     | YDR318W   | N/D |
| BUB1 | MCM22     | YJR135C   | N/D |
| BUB1 | MRC1      | YCL060C   | N/D |
| BUB1 | NBP2      | YDR162C   | N/D |
| BUB1 | NUM1      | YDR150W   | N/D |
| BUB1 | PAC1      | YOR269W   | N/D |
| BUB1 | PAC11     | YDR488C   | N/D |
| BUB1 | PHO23     | YNL097C   | N/D |
| BUB1 | PPZ1      | YML016C   | N/D |
| BUB1 | RAD54     | YGL163C   | N/D |
| BUB1 | RTT103    | YDR289C   | N/D |
| BUB1 | SAP30     | YMR263W   | N/D |
| BUB1 | SLK19     | YOR195W   | N/D |
| BUB1 | SMI1      | YGR229C   | N/D |
| BUB1 | VAC14     | YLR386W   | N/D |
| BUB1 | VID22     | YLR373C   | N/D |
| BUB1 | RXT2      | RXT2      | N/D |
| BUB1 | YDR149C   | YDR149C   | N/D |
| BUB1 | YGL211W   | YGL211W   | N/D |
| BUB1 | YGL217C   | YGL217C   | N/D |
| BUB1 | YML095C-A | YML095C-A | N/D |
| BUB1 | YNL170W   | YNL170W   | N/D |
| BUB1 | YPL017C   | YPL017C   | N/D |
| BUB1 | YTA7      | YGR270W   | N/D |
| BUB2 | AOR1      | YBR231C   | N   |
| BUB2 | ARP1      | YHR129C   | N   |
| BUB2 | ARP6      | YLR085C   | N   |
| BUB2 | ASE1      | YOR058C   | N   |
| BUB2 | BEM1      | YBR200W   | N   |
| BUB2 | BFA1      | YJR053W   | N   |
| BUB2 | BIK1      | YCL029C   | N   |
| BUB2 | BIM1      | YER016W   | Y   |
| BUB2 | BUB1      | YGR188C   | N   |
| BUB2 | BUB3      | YOR026W   | N   |
| BUB2 | CHL4      | YDR254W   | N   |

|      |           |           |   |
|------|-----------|-----------|---|
| BUB2 | CSM3      | YMR048W   | Y |
| BUB2 | CTF19     | YPL018W   | N |
| BUB2 | CTF3      | YLR381W   | N |
| BUB2 | CTF8      | YHR191C   | N |
| BUB2 | DCC1      | YCL016C   | N |
| BUB2 | DYN1      | YKR054C   | N |
| BUB2 | ELP2      | YGR200C   | N |
| BUB2 | FAB1      | YFR019W   | N |
| BUB2 | GIM3      | YNL153C   | Y |
| BUB2 | GIM4      | YEL003W   | Y |
| BUB2 | GIM5      | YML094W   | Y |
| BUB2 | IES2      | YNL215W   | N |
| BUB2 | IML3      | YBR107C   | N |
| BUB2 | INP52     | YNL106C   | N |
| BUB2 | JNM1      | YMR294W   | N |
| BUB2 | KEM1      | YGL173C   | N |
| BUB2 | KIP3      | YGL216W   | N |
| BUB2 | MAD1      | YGL086W   | N |
| BUB2 | MAD2      | YJL030W   | N |
| BUB2 | MAD3      | YJL013C   | N |
| BUB2 | MCK1      | YNL307C   | N |
| BUB2 | MCM21     | YDR318W   | N |
| BUB2 | MCM22     | YJR135C   | N |
| BUB2 | MRC1      | YCL060C   | N |
| BUB2 | NBP2      | YDR162C   | N |
| BUB2 | NUM1      | YDR150W   | Y |
| BUB2 | PAC1      | YOR269W   | N |
| BUB2 | PAC11     | YDR488C   | N |
| BUB2 | PHO23     | YNL097C   | N |
| BUB2 | PPZ1      | YML016C   | N |
| BUB2 | RAD54     | YGL163C   | N |
| BUB2 | RTT103    | YDR289C   | N |
| BUB2 | SAP30     | YMR263W   | N |
| BUB2 | SLK19     | YOR195W   | N |
| BUB2 | SMI1      | YGR229C   | N |
| BUB2 | VAC14     | YLR386W   | N |
| BUB2 | VID22     | YLR373C   | N |
| BUB2 | RXT2      | RXT2      | N |
| BUB2 | YDR149C   | YDR149C   | N |
| BUB2 | YGL211W   | YGL211W   | N |
| BUB2 | YGL217C   | YGL217C   | N |
| BUB2 | YML095C-A | YML095C-A | N |
| BUB2 | YNL170W   | YNL170W   | N |
| BUB2 | YPL017C   | YPL017C   | N |
| BUB2 | YTA7      | YGR270W   | N |
| BUB3 | AOR1      | YBR231C   | N |
| BUB3 | ARP1      | YHR129C   | N |
| BUB3 | ARP6      | YLR085C   | Y |
| BUB3 | ASE1      | YOR058C   | Y |
| BUB3 | BEM1      | YBR200W   | N |
| BUB3 | BFA1      | YJR053W   | N |
| BUB3 | BIK1      | YCL029C   | Y |
| BUB3 | BIM1      | YER016W   | Y |
| BUB3 | BUB1      | YGR188C   | N |
| BUB3 | BUB2      | YMR055C   | N |
| BUB3 | CHL4      | YDR254W   | Y |
| BUB3 | CSM3      | YMR048W   | Y |
| BUB3 | CTF19     | YPL018W   | Y |
| BUB3 | CTF3      | YLR381W   | Y |
| BUB3 | CTF8      | YHR191C   | N |
| BUB3 | DCC1      | YCL016C   | N |
| BUB3 | DYN1      | YKR054C   | N |
| BUB3 | ELP2      | YGR200C   | N |
| BUB3 | FAB1      | YFR019W   | N |
| BUB3 | GIM3      | YNL153C   | Y |
| BUB3 | GIM4      | YEL003W   | Y |



|      |           |           |   |
|------|-----------|-----------|---|
| BUB3 | GIM5      | YML094W   | Y |
| BUB3 | IES2      | YNL215W   | Y |
| BUB3 | IML3      | YBR107C   | Y |
| BUB3 | INP52     | YNL106C   | N |
| BUB3 | JNM1      | YMR294W   | N |
| BUB3 | KEM1      | YGL173C   | Y |
| BUB3 | KIP3      | YGL216W   | Y |
| BUB3 | MAD1      | YGL086W   | N |
| BUB3 | MAD2      | YJL030W   | N |
| BUB3 | MAD3      | YJL013C   | N |
| BUB3 | MCK1      | YNL307C   | N |
| BUB3 | MCM21     | YDR318W   | Y |
| BUB3 | MCM22     | YJR135C   | Y |
| BUB3 | MRC1      | YCL060C   | N |
| BUB3 | NBP2      | YDR162C   | N |
| BUB3 | NUM1      | YDR150W   | N |
| BUB3 | PAC1      | YOR269W   | N |
| BUB3 | PAC11     | YDR488C   | N |
| BUB3 | PHO23     | YNL097C   | N |
| BUB3 | PPZ1      | YML016C   | N |
| BUB3 | RAD54     | YGL163C   | N |
| BUB3 | RTT103    | YDR289C   | N |
| BUB3 | SAP30     | YMR263W   | N |
| BUB3 | SLK19     | YOR195W   | Y |
| BUB3 | SMI1      | YGR229C   | N |
| BUB3 | VAC14     | YLR386W   | Y |
| BUB3 | VID22     | YLR373C   | Y |
| BUB3 | RXT2      | RXT2      | N |
| BUB3 | YDR149C   | YDR149C   | N |
| BUB3 | YGL211W   | YGL211W   | N |
| BUB3 | YGL217C   | YGL217C   | Y |
| BUB3 | YML095C-A | YML095C-A | N |
| BUB3 | YNL170W   | YNL170W   | N |
| BUB3 | YPL017C   | YPL017C   | N |
| BUB3 | YTA7      | YGR270W   | Y |
| CHL4 | AOR1      | YBR231C   | N |
| CHL4 | ARP1      | YHR129C   | N |
| CHL4 | ARP6      | YLR085C   | N |
| CHL4 | ASE1      | YOR058C   | N |
| CHL4 | BEM1      | YBR200W   | N |
| CHL4 | BFA1      | YJR053W   | N |
| CHL4 | BIK1      | YCL029C   | N |
| CHL4 | BIM1      | YER016W   | Y |
| CHL4 | BUB1      | YGR188C   | Y |
| CHL4 | BUB2      | YMR055C   | N |
| CHL4 | BUB3      | YOR026W   | Y |
| CHL4 | CSM3      | YMR048W   | N |
| CHL4 | CTF19     | YPL018W   | N |
| CHL4 | CTF3      | YLR381W   | N |
| CHL4 | CTF8      | YHR191C   | N |
| CHL4 | DCC1      | YCL016C   | N |
| CHL4 | DYN1      | YKR054C   | N |
| CHL4 | ELP2      | YGR200C   | N |
| CHL4 | FAB1      | YFR019W   | N |
| CHL4 | GIM3      | YNL153C   | N |
| CHL4 | GIM4      | YEL003W   | N |
| CHL4 | GIM5      | YML094W   | Y |
| CHL4 | IES2      | YNL215W   | N |
| CHL4 | IML3      | YBR107C   | N |
| CHL4 | INP52     | YNL106C   | N |
| CHL4 | JNM1      | YMR294W   | N |
| CHL4 | KEM1      | YGL173C   | Y |
| CHL4 | KIP3      | YGL216W   | N |
| CHL4 | MAD1      | YGL086W   | Y |
| CHL4 | MAD2      | YJL030W   | Y |
| CHL4 | MAD3      | YJL013C   | N |

|      |           |           |   |
|------|-----------|-----------|---|
| CHL4 | MCK1      | YNL307C   | N |
| CHL4 | MCM21     | YDR318W   | N |
| CHL4 | MCM22     | YJR135C   | N |
| CHL4 | MRC1      | YCL060C   | N |
| CHL4 | NBP2      | YDR162C   | N |
| CHL4 | NUM1      | YDR150W   | N |
| CHL4 | PAC1      | YOR269W   | N |
| CHL4 | PAC11     | YDR488C   | N |
| CHL4 | PHO23     | YNL097C   | N |
| CHL4 | PPZ1      | YML016C   | N |
| CHL4 | RAD54     | YGL163C   | N |
| CHL4 | RTT103    | YDR289C   | Y |
| CHL4 | SAP30     | YMR263W   | N |
| CHL4 | SLK19     | YOR195W   | N |
| CHL4 | SMI1      | YGR229C   | N |
| CHL4 | VAC14     | YLR386W   | N |
| CHL4 | VID22     | YLR373C   | N |
| CHL4 | RXT2      | RXT2      | N |
| CHL4 | YDR149C   | YDR149C   | N |
| CHL4 | YGL211W   | YGL211W   | N |
| CHL4 | YGL217C   | YGL217C   | N |
| CHL4 | YML095C-A | YML095C-A | N |
| CHL4 | YNL170W   | YNL170W   | N |
| CHL4 | YPL017C   | YPL017C   | N |
| CHL4 | YTA7      | YGR270W   | N |
| CSM3 | AOR1      | YBR231C   | N |
| CSM3 | ARP1      | YHR129C   | N |
| CSM3 | ARP6      | YLR085C   | N |
| CSM3 | ASE1      | YOR058C   | N |
| CSM3 | BEM1      | YBR200W   | N |
| CSM3 | BFA1      | YJR053W   | N |
| CSM3 | BIK1      | YCL029C   | N |
| CSM3 | BIM1      | YER016W   | Y |
| CSM3 | BUB1      | YGR188C   | Y |
| CSM3 | BUB2      | YMR055C   | Y |
| CSM3 | BUB3      | YOR026W   | Y |
| CSM3 | CHL4      | YDR254W   | N |
| CSM3 | CTF19     | YPL018W   | N |
| CSM3 | CTF3      | YLR381W   | N |
| CSM3 | CTF8      | YHR191C   | Y |
| CSM3 | DCC1      | YCL016C   | Y |
| CSM3 | DYN1      | YKR054C   | N |
| CSM3 | ELP2      | YGR200C   | N |
| CSM3 | FAB1      | YFR019W   | N |
| CSM3 | GIM3      | YNL153C   | N |
| CSM3 | GIM4      | YEL003W   | N |
| CSM3 | GIM5      | YML094W   | N |
| CSM3 | IES2      | YNL215W   | N |
| CSM3 | IML3      | YBR107C   | N |
| CSM3 | INP52     | YNL106C   | N |
| CSM3 | JNM1      | YMR294W   | N |
| CSM3 | KEM1      | YGL173C   | N |
| CSM3 | KIP3      | YGL216W   | N |
| CSM3 | MAD1      | YGL086W   | N |
| CSM3 | MAD2      | YJL030W   | N |
| CSM3 | MAD3      | YJL013C   | N |
| CSM3 | MCK1      | YNL307C   | N |
| CSM3 | MCM21     | YDR318W   | N |
| CSM3 | MCM22     | YJR135C   | N |
| CSM3 | MRC1      | YCL060C   | Y |
| CSM3 | NBP2      | YDR162C   | N |
| CSM3 | NUM1      | YDR150W   | N |
| CSM3 | PAC1      | YOR269W   | N |
| CSM3 | PAC11     | YDR488C   | N |
| CSM3 | PHO23     | YNL097C   | N |
| CSM3 | PPZ1      | YML016C   | N |

|       |           |           |   |
|-------|-----------|-----------|---|
| CSM3  | RAD54     | YGL163C   | N |
| CSM3  | RTT103    | YDR289C   | N |
| CSM3  | SAP30     | YMR263W   | N |
| CSM3  | SLK19     | YOR195W   | N |
| CSM3  | SMI1      | YGR229C   | N |
| CSM3  | VAC14     | YLR386W   | N |
| CSM3  | VID22     | YLR373C   | N |
| CSM3  | RXT2      | RXT2      | N |
| CSM3  | YDR149C   | YDR149C   | N |
| CSM3  | YGL211W   | YGL211W   | N |
| CSM3  | YGL217C   | YGL217C   | N |
| CSM3  | YML095C-A | YML095C-A | N |
| CSM3  | YNL170W   | YNL170W   | N |
| CSM3  | YPL017C   | YPL017C   | N |
| CSM3  | YTA7      | YGR270W   | N |
| CTF19 | AOR1      | YBR231C   | N |
| CTF19 | ARP1      | YHR129C   | N |
| CTF19 | ARP6      | YLR085C   | N |
| CTF19 | ASE1      | YOR058C   | N |
| CTF19 | BEM1      | YBR200W   | N |
| CTF19 | BFA1      | YJR053W   | N |
| CTF19 | BIK1      | YCL029C   | N |
| CTF19 | BIM1      | YER016W   | Y |
| CTF19 | BUB1      | YGR188C   | Y |
| CTF19 | BUB2      | YMR055C   | N |
| CTF19 | BUB3      | YOR026W   | Y |
| CTF19 | CHL4      | YDR254W   | N |
| CTF19 | CSM3      | YMR048W   | N |
| CTF19 | CTF3      | YLR381W   | N |
| CTF19 | CTF8      | YHR191C   | N |
| CTF19 | DCC1      | YCL016C   | N |
| CTF19 | DYN1      | YKR054C   | N |
| CTF19 | ELP2      | YGR200C   | N |
| CTF19 | FAB1      | YFR019W   | N |
| CTF19 | GIM3      | YNL153C   | Y |
| CTF19 | GIM4      | YEL003W   | N |
| CTF19 | GIM5      | YML094W   | Y |
| CTF19 | IES2      | YNL215W   | N |
| CTF19 | IML3      | YBR107C   | N |
| CTF19 | INP52     | YNL106C   | Y |
| CTF19 | JNM1      | YMR294W   | N |
| CTF19 | KEM1      | YGL173C   | N |
| CTF19 | KIP3      | YGL216W   | N |
| CTF19 | MAD1      | YGL086W   | Y |
| CTF19 | MAD2      | YJL030W   | Y |
| CTF19 | MAD3      | YJL013C   | N |
| CTF19 | MCK1      | YNL307C   | N |
| CTF19 | MCM21     | YDR318W   | N |
| CTF19 | MCM22     | YJR135C   | N |
| CTF19 | MRC1      | YCL060C   | N |
| CTF19 | NBP2      | YDR162C   | N |
| CTF19 | NUM1      | YDR150W   | N |
| CTF19 | PAC1      | YOR269W   | N |
| CTF19 | PAC11     | YDR488C   | N |
| CTF19 | PHO23     | YNL097C   | N |
| CTF19 | PPZ1      | YML016C   | N |
| CTF19 | RAD54     | YGL163C   | N |
| CTF19 | RTT103    | YDR289C   | N |
| CTF19 | SAP30     | YMR263W   | N |
| CTF19 | SLK19     | YOR195W   | N |
| CTF19 | SMI1      | YGR229C   | N |
| CTF19 | VAC14     | YLR386W   | N |
| CTF19 | VID22     | YLR373C   | N |
| CTF19 | RXT2      | RXT2      | N |
| CTF19 | YDR149C   | YDR149C   | N |
| CTF19 | YGL211W   | YGL211W   | N |

|       |           |           |   |
|-------|-----------|-----------|---|
| CTF19 | YGL217C   | YGL217C   | N |
| CTF19 | YML095C-A | YML095C-A | N |
| CTF19 | YNL170W   | YNL170W   | N |
| CTF19 | YPL017C   | YPL017C   | Y |
| CTF19 | YTA7      | YGR270W   | N |
| CTF3  | AOR1      | YBR231C   | N |
| CTF3  | ARP1      | YHR129C   | N |
| CTF3  | ARP6      | YLR085C   | N |
| CTF3  | ASE1      | YOR058C   | N |
| CTF3  | BEM1      | YBR200W   | N |
| CTF3  | BFA1      | YJR053W   | N |
| CTF3  | BIK1      | YCL029C   | N |
| CTF3  | BIM1      | YER016W   | Y |
| CTF3  | BUB1      | YGR188C   | Y |
| CTF3  | BUB2      | YMR055C   | N |
| CTF3  | BUB3      | YOR026W   | N |
| CTF3  | CHL4      | YDR254W   | N |
| CTF3  | CSM3      | YMR048W   | N |
| CTF3  | CTF19     | YPL018W   | N |
| CTF3  | CTF8      | YHR191C   | N |
| CTF3  | DCC1      | YCL016C   | N |
| CTF3  | DYN1      | YKR054C   | N |
| CTF3  | ELP2      | YGR200C   | N |
| CTF3  | FAB1      | YFR019W   | Y |
| CTF3  | GIM3      | YNL153C   | N |
| CTF3  | GIM4      | YEL003W   | N |
| CTF3  | GIM5      | YML094W   | N |
| CTF3  | IES2      | YNL215W   | N |
| CTF3  | IML3      | YBR107C   | N |
| CTF3  | INP52     | YNL106C   | Y |
| CTF3  | JNM1      | YMR294W   | N |
| CTF3  | KEM1      | YGL173C   | N |
| CTF3  | KIP3      | YGL216W   | N |
| CTF3  | MAD1      | YGL086W   | N |
| CTF3  | MAD2      | YJL030W   | N |
| CTF3  | MAD3      | YJL013C   | N |
| CTF3  | MCK1      | YNL307C   | N |
| CTF3  | MCM21     | YDR318W   | N |
| CTF3  | MCM22     | YJR135C   | N |
| CTF3  | MRC1      | YCL060C   | N |
| CTF3  | NBP2      | YDR162C   | N |
| CTF3  | NUM1      | YDR150W   | N |
| CTF3  | PAC1      | YOR269W   | N |
| CTF3  | PAC11     | YDR488C   | N |
| CTF3  | PHO23     | YNL097C   | N |
| CTF3  | PPZ1      | YML016C   | N |
| CTF3  | RAD54     | YGL163C   | N |
| CTF3  | RTT103    | YDR289C   | N |
| CTF3  | SAP30     | YMR263W   | N |
| CTF3  | SLK19     | YOR195W   | N |
| CTF3  | SMI1      | YGR229C   | N |
| CTF3  | VAC14     | YLR386W   | Y |
| CTF3  | VID22     | YLR373C   | Y |
| CTF3  | RXT2      | RXT2      | N |
| CTF3  | YDR149C   | YDR149C   | N |
| CTF3  | YGL211W   | YGL211W   | N |
| CTF3  | YGL217C   | YGL217C   | N |
| CTF3  | YML095C-A | YML095C-A | Y |
| CTF3  | YNL170W   | YNL170W   | N |
| CTF3  | YPL017C   | YPL017C   | N |
| CTF3  | YTA7      | YGR270W   | N |
| CTF8  | AOR1      | YBR231C   | N |
| CTF8  | ARP1      | YHR129C   | N |
| CTF8  | ARP6      | YLR085C   | N |
| CTF8  | ASE1      | YOR058C   | N |
| CTF8  | BEM1      | YBR200W   | N |

|      |           |           |   |
|------|-----------|-----------|---|
| CTF8 | BFA1      | YJR053W   | N |
| CTF8 | BIK1      | YCL029C   | N |
| CTF8 | BIM1      | YER016W   | Y |
| CTF8 | BUB1      | YGR188C   | Y |
| CTF8 | BUB2      | YMR055C   | N |
| CTF8 | BUB3      | YOR026W   | N |
| CTF8 | CHL4      | YDR254W   | N |
| CTF8 | CSM3      | YMR048W   | Y |
| CTF8 | CTF19     | YPL018W   | N |
| CTF8 | CTF3      | YLR381W   | N |
| CTF8 | DCC1      | YCL016C   | N |
| CTF8 | DYN1      | YKR054C   | N |
| CTF8 | ELP2      | YGR200C   | N |
| CTF8 | FAB1      | YFR019W   | N |
| CTF8 | GIM3      | YNL153C   | Y |
| CTF8 | GIM4      | YEL003W   | N |
| CTF8 | GIM5      | YML094W   | Y |
| CTF8 | IES2      | YNL215W   | N |
| CTF8 | IML3      | YBR107C   | N |
| CTF8 | INP52     | YNL106C   | Y |
| CTF8 | JNM1      | YMR294W   | N |
| CTF8 | KEM1      | YGL173C   | N |
| CTF8 | KIP3      | YGL216W   | N |
| CTF8 | MAD1      | YGL086W   | N |
| CTF8 | MAD2      | YJL030W   | N |
| CTF8 | MAD3      | YJL013C   | N |
| CTF8 | MCK1      | YNL307C   | N |
| CTF8 | MCM21     | YDR318W   | N |
| CTF8 | MCM22     | YJR135C   | N |
| CTF8 | MRC1      | YCL060C   | Y |
| CTF8 | NBP2      | YDR162C   | N |
| CTF8 | NUM1      | YDR150W   | N |
| CTF8 | PAC1      | YOR269W   | N |
| CTF8 | PAC11     | YDR488C   | N |
| CTF8 | PHO23     | YNL097C   | N |
| CTF8 | PPZ1      | YML016C   | N |
| CTF8 | RAD54     | YGL163C   | N |
| CTF8 | RTT103    | YDR289C   | N |
| CTF8 | SAP30     | YMR263W   | N |
| CTF8 | SLK19     | YOR195W   | N |
| CTF8 | SMI1      | YGR229C   | N |
| CTF8 | VAC14     | YLR386W   | N |
| CTF8 | VID22     | YLR373C   | N |
| CTF8 | RXT2      | RXT2      | N |
| CTF8 | YDR149C   | YDR149C   | N |
| CTF8 | YGL211W   | YGL211W   | N |
| CTF8 | YGL217C   | YGL217C   | N |
| CTF8 | YML095C-A | YML095C-A | N |
| CTF8 | YNL170W   | YNL170W   | N |
| CTF8 | YPL017C   | YPL017C   | N |
| CTF8 | YTA7      | YGR270W   | N |
| DCC1 | AOR1      | YBR231C   | N |
| DCC1 | ARP1      | YHR129C   | N |
| DCC1 | ARP6      | YLR085C   | N |
| DCC1 | ASE1      | YOR058C   | N |
| DCC1 | BEM1      | YBR200W   | N |
| DCC1 | BFA1      | YJR053W   | N |
| DCC1 | BIK1      | YCL029C   | Y |
| DCC1 | BIM1      | YER016W   | Y |
| DCC1 | BUB1      | YGR188C   | Y |
| DCC1 | BUB2      | YMR055C   | N |
| DCC1 | BUB3      | YOR026W   | Y |
| DCC1 | CHL4      | YDR254W   | N |
| DCC1 | CSM3      | YMR048W   | Y |
| DCC1 | CTF19     | YPL018W   | N |
| DCC1 | CTF3      | YLR381W   | N |

|      |           |           |   |
|------|-----------|-----------|---|
| DCC1 | CTF8      | YHR191C   | N |
| DCC1 | DYN1      | YKR054C   | N |
| DCC1 | ELP2      | YGR200C   | N |
| DCC1 | FAB1      | YFR019W   | Y |
| DCC1 | GIM3      | YNL153C   | Y |
| DCC1 | GIM4      | YEL003W   | N |
| DCC1 | GIM5      | YML094W   | Y |
| DCC1 | IES2      | YNL215W   | N |
| DCC1 | IML3      | YBR107C   | N |
| DCC1 | INP52     | YNL106C   | Y |
| DCC1 | JNM1      | YMR294W   | N |
| DCC1 | KEM1      | YGL173C   | Y |
| DCC1 | KIP3      | YGL216W   | Y |
| DCC1 | MAD1      | YGL086W   | N |
| DCC1 | MAD2      | YJL030W   | N |
| DCC1 | MAD3      | YJL013C   | N |
| DCC1 | MCK1      | YNL307C   | N |
| DCC1 | MCM21     | YDR318W   | Y |
| DCC1 | MCM22     | YJR135C   | N |
| DCC1 | MRC1      | YCL060C   | Y |
| DCC1 | NBP2      | YDR162C   | N |
| DCC1 | NUM1      | YDR150W   | N |
| DCC1 | PAC1      | YOR269W   | N |
| DCC1 | PAC11     | YDR488C   | N |
| DCC1 | PHO23     | YNL097C   | Y |
| DCC1 | PPZ1      | YML016C   | N |
| DCC1 | RAD54     | YGL163C   | N |
| DCC1 | RTT103    | YDR289C   | N |
| DCC1 | SAP30     | YMR263W   | Y |
| DCC1 | SLK19     | YOR195W   | N |
| DCC1 | SMI1      | YGR229C   | Y |
| DCC1 | VAC14     | YLR386W   | N |
| DCC1 | VID22     | YLR373C   | N |
| DCC1 | RXT2      | RXT2      | N |
| DCC1 | YDR149C   | YDR149C   | N |
| DCC1 | YGL211W   | YGL211W   | N |
| DCC1 | YGL217C   | YGL217C   | N |
| DCC1 | YML095C-A | YML095C-A | Y |
| DCC1 | YNL170W   | YNL170W   | N |
| DCC1 | YPL017C   | YPL017C   | N |
| DCC1 | YTA7      | YGR270W   | N |
| DYN1 | AOR1      | YBR231C   | N |
| DYN1 | ARP1      | YHR129C   | N |
| DYN1 | ARP6      | YLR085C   | N |
| DYN1 | ASE1      | YOR058C   | N |
| DYN1 | BEM1      | YBR200W   | N |
| DYN1 | BFA1      | YJR053W   | N |
| DYN1 | BIK1      | YCL029C   | N |
| DYN1 | BIM1      | YER016W   | Y |
| DYN1 | BUB1      | YGR188C   | N |
| DYN1 | BUB2      | YMR055C   | N |
| DYN1 | BUB3      | YOR026W   | N |
| DYN1 | CHL4      | YDR254W   | N |
| DYN1 | CSM3      | YMR048W   | N |
| DYN1 | CTF19     | YPL018W   | N |
| DYN1 | CTF3      | YLR381W   | N |
| DYN1 | CTF8      | YHR191C   | N |
| DYN1 | DCC1      | YCL016C   | N |
| DYN1 | ELP2      | YGR200C   | N |
| DYN1 | FAB1      | YFR019W   | Y |
| DYN1 | GIM3      | YNL153C   | Y |
| DYN1 | GIM4      | YEL003W   | N |
| DYN1 | GIM5      | YML094W   | Y |
| DYN1 | IES2      | YNL215W   | N |
| DYN1 | IML3      | YBR107C   | N |
| DYN1 | INP52     | YNL106C   | N |

|      |           |           |   |
|------|-----------|-----------|---|
| DYN1 | JNM1      | YMR294W   | N |
| DYN1 | KEM1      | YGL173C   | N |
| DYN1 | KIP3      | YGL216W   | Y |
| DYN1 | MAD1      | YGL086W   | N |
| DYN1 | MAD2      | YJL030W   | N |
| DYN1 | MAD3      | YJL013C   | N |
| DYN1 | MCK1      | YNL307C   | N |
| DYN1 | MCM21     | YDR318W   | N |
| DYN1 | MCM22     | YJR135C   | N |
| DYN1 | MRC1      | YCL060C   | N |
| DYN1 | NBP2      | YDR162C   | N |
| DYN1 | NUM1      | YDR150W   | N |
| DYN1 | PAC1      | YOR269W   | N |
| DYN1 | PAC11     | YDR488C   | N |
| DYN1 | PHO23     | YNL097C   | N |
| DYN1 | PPZ1      | YML016C   | N |
| DYN1 | RAD54     | YGL163C   | N |
| DYN1 | RTT103    | YDR289C   | N |
| DYN1 | SAP30     | YMR263W   | N |
| DYN1 | SLK19     | YOR195W   | N |
| DYN1 | SMI1      | YGR229C   | N |
| DYN1 | VAC14     | YLR386W   | N |
| DYN1 | VID22     | YLR373C   | N |
| DYN1 | RXT2      | RXT2      | N |
| DYN1 | YDR149C   | YDR149C   | N |
| DYN1 | YGL211W   | YGL211W   | N |
| DYN1 | YGL217C   | YGL217C   | Y |
| DYN1 | YML095C-A | YML095C-A | N |
| DYN1 | YNL170W   | YNL170W   | N |
| DYN1 | YPL017C   | YPL017C   | N |
| DYN1 | YTA7      | YGR270W   | N |
| ELP2 | AOR1      | YBR231C   | N |
| ELP2 | ARP1      | YHR129C   | N |
| ELP2 | ARP6      | YLR085C   | N |
| ELP2 | ASE1      | YOR058C   | N |
| ELP2 | BEM1      | YBR200W   | Y |
| ELP2 | BFA1      | YJR053W   | N |
| ELP2 | BIK1      | YCL029C   | N |
| ELP2 | BIM1      | YER016W   | Y |
| ELP2 | BUB1      | YGR188C   | Y |
| ELP2 | BUB2      | YMR055C   | N |
| ELP2 | BUB3      | YOR026W   | Y |
| ELP2 | CHL4      | YDR254W   | N |
| ELP2 | CSM3      | YMR048W   | N |
| ELP2 | CTF19     | YPL018W   | N |
| ELP2 | CTF3      | YLR381W   | N |
| ELP2 | CTF8      | YHR191C   | N |
| ELP2 | DCC1      | YCL016C   | N |
| ELP2 | DYN1      | YKR054C   | N |
| ELP2 | FAB1      | YFR019W   | N |
| ELP2 | GIM3      | YNL153C   | N |
| ELP2 | GIM4      | YEL003W   | N |
| ELP2 | GIM5      | YML094W   | N |
| ELP2 | IES2      | YNL215W   | N |
| ELP2 | IML3      | YBR107C   | N |
| ELP2 | INP52     | YNL106C   | N |
| ELP2 | JNM1      | YMR294W   | N |
| ELP2 | KEM1      | YGL173C   | N |
| ELP2 | KIP3      | YGL216W   | N |
| ELP2 | MAD1      | YGL086W   | N |
| ELP2 | MAD2      | YJL030W   | N |
| ELP2 | MAD3      | YJL013C   | N |
| ELP2 | MCK1      | YNL307C   | N |
| ELP2 | MCM21     | YDR318W   | N |
| ELP2 | MCM22     | YJR135C   | N |
| ELP2 | MRC1      | YCL060C   | N |

|      |           |           |   |
|------|-----------|-----------|---|
| ELP2 | NBP2      | YDR162C   | Y |
| ELP2 | NUM1      | YDR150W   | N |
| ELP2 | PAC1      | YOR269W   | N |
| ELP2 | PAC11     | YDR488C   | N |
| ELP2 | PHO23     | YNL097C   | N |
| ELP2 | PPZ1      | YML016C   | N |
| ELP2 | RAD54     | YGL163C   | N |
| ELP2 | RTT103    | YDR289C   | N |
| ELP2 | SAP30     | YMR263W   | N |
| ELP2 | SLK19     | YOR195W   | N |
| ELP2 | SMI1      | YGR229C   | Y |
| ELP2 | VAC14     | YLR386W   | N |
| ELP2 | VID22     | YLR373C   | N |
| ELP2 | RXT2      | RXT2      | N |
| ELP2 | YDR149C   | YDR149C   | N |
| ELP2 | YGL211W   | YGL211W   | Y |
| ELP2 | YGL217C   | YGL217C   | N |
| ELP2 | YML095C-A | YML095C-A | N |
| ELP2 | YNL170W   | YNL170W   | N |
| ELP2 | YPL017C   | YPL017C   | N |
| ELP2 | YTA7      | YGR270W   | N |
| FAB1 | AOR1      | YBR231C   | N |
| FAB1 | ARP1      | YHR129C   | Y |
| FAB1 | ARP6      | YLR085C   | N |
| FAB1 | ASE1      | YOR058C   | N |
| FAB1 | BEM1      | YBR200W   | N |
| FAB1 | BFA1      | YJR053W   | N |
| FAB1 | BIK1      | YCL029C   | Y |
| FAB1 | BIM1      | YER016W   | Y |
| FAB1 | BUB1      | YGR188C   | N |
| FAB1 | BUB2      | YMR055C   | N |
| FAB1 | BUB3      | YOR026W   | N |
| FAB1 | CHL4      | YDR254W   | N |
| FAB1 | CSM3      | YMR048W   | N |
| FAB1 | CTF19     | YPL018W   | N |
| FAB1 | CTF3      | YLR381W   | N |
| FAB1 | CTF8      | YHR191C   | N |
| FAB1 | DCC1      | YCL016C   | Y |
| FAB1 | DYN1      | YKR054C   | Y |
| FAB1 | ELP2      | YGR200C   | N |
| FAB1 | GIM3      | YNL153C   | Y |
| FAB1 | GIM4      | YEL003W   | Y |
| FAB1 | GIM5      | YML094W   | Y |
| FAB1 | IES2      | YNL215W   | N |
| FAB1 | IML3      | YBR107C   | N |
| FAB1 | INP52     | YNL106C   | N |
| FAB1 | JNM1      | YMR294W   | Y |
| FAB1 | KEM1      | YGL173C   | Y |
| FAB1 | KIP3      | YGL216W   | N |
| FAB1 | MAD1      | YGL086W   | N |
| FAB1 | MAD2      | YJL030W   | N |
| FAB1 | MAD3      | YJL013C   | N |
| FAB1 | MCK1      | YNL307C   | Y |
| FAB1 | MCM21     | YDR318W   | N |
| FAB1 | MCM22     | YJR135C   | N |
| FAB1 | MRC1      | YCL060C   | Y |
| FAB1 | NBP2      | YDR162C   | N |
| FAB1 | NUM1      | YDR150W   | Y |
| FAB1 | PAC1      | YOR269W   | N |
| FAB1 | PAC11     | YDR488C   | Y |
| FAB1 | PHO23     | YNL097C   | N |
| FAB1 | PPZ1      | YML016C   | N |
| FAB1 | RAD54     | YGL163C   | N |
| FAB1 | RTT103    | YDR289C   | N |
| FAB1 | SAP30     | YMR263W   | N |
| FAB1 | SLK19     | YOR195W   | N |



|      |           |           |   |
|------|-----------|-----------|---|
| FAB1 | SMI1      | YGR229C   | N |
| FAB1 | VAC14     | YLR386W   | N |
| FAB1 | VID22     | YLR373C   | N |
| FAB1 | RXT2      | RXT2      | N |
| FAB1 | YDR149C   | YDR149C   | Y |
| FAB1 | YGL211W   | YGL211W   | N |
| FAB1 | YGL217C   | YGL217C   | N |
| FAB1 | YML095C-A | YML095C-A | N |
| FAB1 | YNL170W   | YNL170W   | N |
| FAB1 | YPL017C   | YPL017C   | N |
| FAB1 | YTA7      | YGR270W   | N |
| GIM3 | AOR1      | YBR231C   | Y |
| GIM3 | ARP1      | YHR129C   | N |
| GIM3 | ARP6      | YLR085C   | Y |
| GIM3 | ASE1      | YOR058C   | N |
| GIM3 | BEM1      | YBR200W   | Y |
| GIM3 | BFA1      | YJR053W   | N |
| GIM3 | BIK1      | YCL029C   | Y |
| GIM3 | BIM1      | YER016W   | Y |
| GIM3 | BUB1      | YGR188C   | Y |
| GIM3 | BUB2      | YMR055C   | N |
| GIM3 | BUB3      | YOR026W   | N |
| GIM3 | CHL4      | YDR254W   | N |
| GIM3 | CSM3      | YMR048W   | N |
| GIM3 | CTF19     | YPL018W   | Y |
| GIM3 | CTF3      | YLR381W   | N |
| GIM3 | CTF8      | YHR191C   | Y |
| GIM3 | DCC1      | YCL016C   | Y |
| GIM3 | DYN1      | YKR054C   | N |
| GIM3 | ELP2      | YGR200C   | N |
| GIM3 | FAB1      | YFR019W   | Y |
| GIM3 | GIM4      | YEL003W   | N |
| GIM3 | GIM5      | YML094W   | N |
| GIM3 | IES2      | YNL215W   | N |
| GIM3 | IML3      | YBR107C   | N |
| GIM3 | INP52     | YNL106C   | Y |
| GIM3 | JNM1      | YMR294W   | N |
| GIM3 | KEM1      | YGL173C   | Y |
| GIM3 | KIP3      | YGL216W   | N |
| GIM3 | MAD1      | YGL086W   | N |
| GIM3 | MAD2      | YJL030W   | N |
| GIM3 | MAD3      | YJL013C   | N |
| GIM3 | MCK1      | YNL307C   | N |
| GIM3 | MCM21     | YDR318W   | N |
| GIM3 | MCM22     | YJR135C   | N |
| GIM3 | MRC1      | YCL060C   | N |
| GIM3 | NBP2      | YDR162C   | N |
| GIM3 | NUM1      | YDR150W   | Y |
| GIM3 | PAC1      | YOR269W   | N |
| GIM3 | PAC11     | YDR488C   | N |
| GIM3 | PHO23     | YNL097C   | N |
| GIM3 | PPZ1      | YML016C   | N |
| GIM3 | RAD54     | YGL163C   | N |
| GIM3 | RTT103    | YDR289C   | N |
| GIM3 | SAP30     | YMR263W   | N |
| GIM3 | SLK19     | YOR195W   | N |
| GIM3 | SMI1      | YGR229C   | N |
| GIM3 | VAC14     | YLR386W   | N |
| GIM3 | VID22     | YLR373C   | N |
| GIM3 | RXT2      | RXT2      | N |
| GIM3 | YDR149C   | YDR149C   | N |
| GIM3 | YGL211W   | YGL211W   | N |
| GIM3 | YGL217C   | YGL217C   | N |
| GIM3 | YML095C-A | YML095C-A | N |
| GIM3 | YNL170W   | YNL170W   | Y |
| GIM3 | YPL017C   | YPL017C   | N |

|      |           |           |   |
|------|-----------|-----------|---|
| GIM3 | YTA7      | YGR270W   | N |
| GIM4 | AOR1      | YBR231C   | Y |
| GIM4 | ARP1      | YHR129C   | N |
| GIM4 | ARP6      | YLR085C   | Y |
| GIM4 | ASE1      | YOR058C   | N |
| GIM4 | BEM1      | YBR200W   | N |
| GIM4 | BFA1      | YJR053W   | N |
| GIM4 | BIK1      | YCL029C   | Y |
| GIM4 | BIM1      | YER016W   | Y |
| GIM4 | BUB1      | YGR188C   | Y |
| GIM4 | BUB2      | YMR055C   | Y |
| GIM4 | BUB3      | YOR026W   | Y |
| GIM4 | CHL4      | YDR254W   | N |
| GIM4 | CSM3      | YMR048W   | N |
| GIM4 | CTF19     | YPL018W   | N |
| GIM4 | CTF3      | YLR381W   | N |
| GIM4 | CTF8      | YHR191C   | N |
| GIM4 | DCC1      | YCL016C   | N |
| GIM4 | DYN1      | YKR054C   | N |
| GIM4 | ELP2      | YGR200C   | N |
| GIM4 | FAB1      | YFR019W   | Y |
| GIM4 | GIM3      | YNL153C   | N |
| GIM4 | GIM5      | YML094W   | N |
| GIM4 | IES2      | YNL215W   | N |
| GIM4 | IML3      | YBR107C   | N |
| GIM4 | INP52     | YNL106C   | Y |
| GIM4 | JNM1      | YMR294W   | N |
| GIM4 | KEM1      | YGL173C   | N |
| GIM4 | KIP3      | YGL216W   | N |
| GIM4 | MAD1      | YGL086W   | Y |
| GIM4 | MAD2      | YJL030W   | Y |
| GIM4 | MAD3      | YJL013C   | N |
| GIM4 | MCK1      | YNL307C   | N |
| GIM4 | MCM21     | YDR318W   | N |
| GIM4 | MCM22     | YJR135C   | N |
| GIM4 | MRC1      | YCL060C   | N |
| GIM4 | NBP2      | YDR162C   | N |
| GIM4 | NUM1      | YDR150W   | N |
| GIM4 | PAC1      | YOR269W   | N |
| GIM4 | PAC11     | YDR488C   | N |
| GIM4 | PHO23     | YNL097C   | N |
| GIM4 | PPZ1      | YML016C   | N |
| GIM4 | RAD54     | YGL163C   | N |
| GIM4 | RTT103    | YDR289C   | N |
| GIM4 | SAP30     | YMR263W   | N |
| GIM4 | SLK19     | YOR195W   | N |
| GIM4 | SMI1      | YGR229C   | N |
| GIM4 | VAC14     | YLR386W   | N |
| GIM4 | VID22     | YLR373C   | N |
| GIM4 | RXT2      | RXT2      | N |
| GIM4 | YDR149C   | YDR149C   | N |
| GIM4 | YGL211W   | YGL211W   | N |
| GIM4 | YGL217C   | YGL217C   | N |
| GIM4 | YML095C-A | YML095C-A | N |
| GIM4 | YNL170W   | YNL170W   | N |
| GIM4 | YPL017C   | YPL017C   | N |
| GIM4 | YTA7      | YGR270W   | N |
| GIM5 | AOR1      | YBR231C   | Y |
| GIM5 | ARP1      | YHR129C   | Y |
| GIM5 | ARP6      | YLR085C   | Y |
| GIM5 | ASE1      | YOR058C   | Y |
| GIM5 | BEM1      | YBR200W   | Y |
| GIM5 | BFA1      | YJR053W   | Y |
| GIM5 | BIK1      | YCL029C   | Y |
| GIM5 | BIM1      | YER016W   | Y |
| GIM5 | BUB1      | YGR188C   | Y |

|      |           |           |   |
|------|-----------|-----------|---|
| GIM5 | BUB2      | YMR055C   | Y |
| GIM5 | BUB3      | YOR026W   | Y |
| GIM5 | CHL4      | YDR254W   | Y |
| GIM5 | CSM3      | YMR048W   | N |
| GIM5 | CTF19     | YPL018W   | Y |
| GIM5 | CTF3      | YLR381W   | N |
| GIM5 | CTF8      | YHR191C   | Y |
| GIM5 | DCC1      | YCL016C   | Y |
| GIM5 | DYN1      | YKR054C   | Y |
| GIM5 | ELP2      | YGR200C   | N |
| GIM5 | FAB1      | YFR019W   | Y |
| GIM5 | GIM3      | YNL153C   | N |
| GIM5 | GIM4      | YEL003W   | N |
| GIM5 | IES2      | YNL215W   | N |
| GIM5 | IML3      | YBR107C   | N |
| GIM5 | INP52     | YNL106C   | N |
| GIM5 | JNM1      | YMR294W   | Y |
| GIM5 | KEM1      | YGL173C   | Y |
| GIM5 | KIP3      | YGL216W   | N |
| GIM5 | MAD1      | YGL086W   | Y |
| GIM5 | MAD2      | YJL030W   | Y |
| GIM5 | MAD3      | YJL013C   | N |
| GIM5 | MCK1      | YNL307C   | N |
| GIM5 | MCM21     | YDR318W   | Y |
| GIM5 | MCM22     | YJR135C   | N |
| GIM5 | MRC1      | YCL060C   | N |
| GIM5 | NBP2      | YDR162C   | Y |
| GIM5 | NUM1      | YDR150W   | Y |
| GIM5 | PAC1      | YOR269W   | N |
| GIM5 | PAC11     | YDR488C   | Y |
| GIM5 | PHO23     | YNL097C   | N |
| GIM5 | PPZ1      | YML016C   | N |
| GIM5 | RAD54     | YGL163C   | N |
| GIM5 | RTT103    | YDR289C   | N |
| GIM5 | SAP30     | YMR263W   | N |
| GIM5 | SLK19     | YOR195W   | N |
| GIM5 | SMI1      | YGR229C   | N |
| GIM5 | VAC14     | YLR386W   | Y |
| GIM5 | VID22     | YLR373C   | N |
| GIM5 | RXT2      | RXT2      | N |
| GIM5 | YDR149C   | YDR149C   | Y |
| GIM5 | YGL211W   | YGL211W   | N |
| GIM5 | YGL217C   | YGL217C   | N |
| GIM5 | YML095C-A | YML095C-A | Y |
| GIM5 | YNL170W   | YNL170W   | N |
| GIM5 | YPL017C   | YPL017C   | N |
| GIM5 | YTA7      | YGR270W   | N |
| IES2 | AOR1      | YBR231C   | N |
| IES2 | ARP1      | YHR129C   | N |
| IES2 | ARP6      | YLR085C   | N |
| IES2 | ASE1      | YOR058C   | N |
| IES2 | BEM1      | YBR200W   | N |
| IES2 | BFA1      | YJR053W   | N |
| IES2 | BIK1      | YCL029C   | N |
| IES2 | BIM1      | YER016W   | Y |
| IES2 | BUB1      | YGR188C   | N |
| IES2 | BUB2      | YMR055C   | N |
| IES2 | BUB3      | YOR026W   | Y |
| IES2 | CHL4      | YDR254W   | N |
| IES2 | CSM3      | YMR048W   | N |
| IES2 | CTF19     | YPL018W   | N |
| IES2 | CTF3      | YLR381W   | Y |
| IES2 | CTF8      | YHR191C   | N |
| IES2 | DCC1      | YCL016C   | N |
| IES2 | DYN1      | YKR054C   | N |
| IES2 | ELP2      | YGR200C   | N |

|      |           |           |   |
|------|-----------|-----------|---|
| IES2 | FAB1      | YFR019W   | N |
| IES2 | GIM3      | YNL153C   | Y |
| IES2 | GIM4      | YEL003W   | N |
| IES2 | GIM5      | YML094W   | N |
| IES2 | IML3      | YBR107C   | N |
| IES2 | INP52     | YNL106C   | N |
| IES2 | JNM1      | YMR294W   | N |
| IES2 | KEM1      | YGL173C   | N |
| IES2 | KIP3      | YGL216W   | N |
| IES2 | MAD1      | YGL086W   | N |
| IES2 | MAD2      | YJL030W   | N |
| IES2 | MAD3      | YJL013C   | N |
| IES2 | MCK1      | YNL307C   | N |
| IES2 | MCM21     | YDR318W   | N |
| IES2 | MCM22     | YJR135C   | N |
| IES2 | MRC1      | YCL060C   | N |
| IES2 | NBP2      | YDR162C   | N |
| IES2 | NUM1      | YDR150W   | N |
| IES2 | PAC1      | YOR269W   | N |
| IES2 | PAC11     | YDR488C   | N |
| IES2 | PHO23     | YNL097C   | N |
| IES2 | PPZ1      | YML016C   | N |
| IES2 | RAD54     | YGL163C   | N |
| IES2 | RTT103    | YDR289C   | N |
| IES2 | SAP30     | YMR263W   | N |
| IES2 | SLK19     | YOR195W   | N |
| IES2 | SMI1      | YGR229C   | N |
| IES2 | VAC14     | YLR386W   | Y |
| IES2 | VID22     | YLR373C   | N |
| IES2 | RXT2      | RXT2      | N |
| IES2 | YDR149C   | YDR149C   | N |
| IES2 | YGL211W   | YGL211W   | N |
| IES2 | YGL217C   | YGL217C   | N |
| IES2 | YML095C-A | YML095C-A | N |
| IES2 | YNL170W   | YNL170W   | N |
| IES2 | YPL017C   | YPL017C   | N |
| IES2 | YTA7      | YGR270W   | N |
| IML3 | AOR1      | YBR231C   | N |
| IML3 | ARP1      | YHR129C   | N |
| IML3 | ARP6      | YLR085C   | N |
| IML3 | ASE1      | YOR058C   | N |
| IML3 | BEM1      | YBR200W   | N |
| IML3 | BFA1      | YJR053W   | N |
| IML3 | BIK1      | YCL029C   | N |
| IML3 | BIM1      | YER016W   | Y |
| IML3 | BUB1      | YGR188C   | Y |
| IML3 | BUB2      | YMR055C   | N |
| IML3 | BUB3      | YOR026W   | Y |
| IML3 | CHL4      | YDR254W   | N |
| IML3 | CSM3      | YMR048W   | N |
| IML3 | CTF19     | YPL018W   | N |
| IML3 | CTF3      | YLR381W   | N |
| IML3 | CTF8      | YHR191C   | N |
| IML3 | DCC1      | YCL016C   | N |
| IML3 | DYN1      | YKR054C   | N |
| IML3 | ELP2      | YGR200C   | N |
| IML3 | FAB1      | YFR019W   | N |
| IML3 | GIM3      | YNL153C   | N |
| IML3 | GIM4      | YEL003W   | N |
| IML3 | GIM5      | YML094W   | N |
| IML3 | IES2      | YNL215W   | N |
| IML3 | INP52     | YNL106C   | N |
| IML3 | JNM1      | YMR294W   | N |
| IML3 | KEM1      | YGL173C   | N |
| IML3 | KIP3      | YGL216W   | N |
| IML3 | MAD1      | YGL086W   | N |

|       |           |           |   |
|-------|-----------|-----------|---|
| IML3  | MAD2      | YJL030W   | N |
| IML3  | MAD3      | YJL013C   | N |
| IML3  | MCK1      | YNL307C   | N |
| IML3  | MCM21     | YDR318W   | N |
| IML3  | MCM22     | YJR135C   | N |
| IML3  | MRC1      | YCL060C   | N |
| IML3  | NBP2      | YDR162C   | N |
| IML3  | NUM1      | YDR150W   | N |
| IML3  | PAC1      | YOR269W   | N |
| IML3  | PAC11     | YDR488C   | N |
| IML3  | PHO23     | YNL097C   | N |
| IML3  | PPZ1      | YML016C   | N |
| IML3  | RAD54     | YGL163C   | N |
| IML3  | RTT103    | YDR289C   | N |
| IML3  | SAP30     | YMR263W   | N |
| IML3  | SLK19     | YOR195W   | N |
| IML3  | SMI1      | YGR229C   | N |
| IML3  | VAC14     | YLR386W   | N |
| IML3  | VID22     | YLR373C   | N |
| IML3  | RXT2      | RXT2      | Y |
| IML3  | YDR149C   | YDR149C   | N |
| IML3  | YGL211W   | YGL211W   | N |
| IML3  | YGL217C   | YGL217C   | N |
| IML3  | YML095C-A | YML095C-A | Y |
| IML3  | YNL170W   | YNL170W   | N |
| IML3  | YPL017C   | YPL017C   | N |
| IML3  | YTA7      | YGR270W   | N |
| INP52 | AOR1      | YBR231C   | N |
| INP52 | ARP1      | YHR129C   | N |
| INP52 | ARP6      | YLR085C   | N |
| INP52 | ASE1      | YOR058C   | N |
| INP52 | BEM1      | YBR200W   | N |
| INP52 | BFA1      | YJR053W   | N |
| INP52 | BIK1      | YCL029C   | Y |
| INP52 | BIM1      | YER016W   | Y |
| INP52 | BUB1      | YGR188C   | Y |
| INP52 | BUB2      | YMR055C   | N |
| INP52 | BUB3      | YOR026W   | Y |
| INP52 | CHL4      | YDR254W   | N |
| INP52 | CSM3      | YMR048W   | N |
| INP52 | CTF19     | YPL018W   | N |
| INP52 | CTF3      | YLR381W   | N |
| INP52 | CTF8      | YHR191C   | N |
| INP52 | DCC1      | YCL016C   | Y |
| INP52 | DYN1      | YKR054C   | N |
| INP52 | ELP2      | YGR200C   | N |
| INP52 | FAB1      | YFR019W   | N |
| INP52 | GIM3      | YNL153C   | Y |
| INP52 | GIM4      | YEL003W   | Y |
| INP52 | GIM5      | YML094W   | Y |
| INP52 | IES2      | YNL215W   | N |
| INP52 | IML3      | YBR107C   | N |
| INP52 | JNM1      | YMR294W   | N |
| INP52 | KEM1      | YGL173C   | Y |
| INP52 | KIP3      | YGL216W   | N |
| INP52 | MAD1      | YGL086W   | Y |
| INP52 | MAD2      | YJL030W   | N |
| INP52 | MAD3      | YJL013C   | N |
| INP52 | MCK1      | YNL307C   | N |
| INP52 | MCM21     | YDR318W   | N |
| INP52 | MCM22     | YJR135C   | N |
| INP52 | MRC1      | YCL060C   | Y |
| INP52 | NBP2      | YDR162C   | N |
| INP52 | NUM1      | YDR150W   | N |
| INP52 | PAC1      | YOR269W   | N |
| INP52 | PAC11     | YDR488C   | N |

|       |           |           |   |
|-------|-----------|-----------|---|
| INP52 | PHO23     | YNL097C   | Y |
| INP52 | PPZ1      | YML016C   | N |
| INP52 | RAD54     | YGL163C   | N |
| INP52 | RTT103    | YDR289C   | Y |
| INP52 | SAP30     | YMR263W   | Y |
| INP52 | SLK19     | YOR195W   | N |
| INP52 | SMI1      | YGR229C   | N |
| INP52 | VAC14     | YLR386W   | N |
| INP52 | VID22     | YLR373C   | Y |
| INP52 | RXT2      | RXT2      | Y |
| INP52 | YDR149C   | YDR149C   | N |
| INP52 | YGL211W   | YGL211W   | N |
| INP52 | YGL217C   | YGL217C   | N |
| INP52 | YML095C-A | YML095C-A | N |
| INP52 | YNL170W   | YNL170W   | N |
| INP52 | YPL017C   | YPL017C   | N |
| INP52 | YTA7      | YGR270W   | N |
| JNM1  | AOR1      | YBR231C   | N |
| JNM1  | ARP1      | YHR129C   | N |
| JNM1  | ARP6      | YLR085C   | N |
| JNM1  | ASE1      | YOR058C   | Y |
| JNM1  | BEM1      | YBR200W   | N |
| JNM1  | BFA1      | YJR053W   | N |
| JNM1  | BIK1      | YCL029C   | N |
| JNM1  | BIM1      | YER016W   | Y |
| JNM1  | BUB1      | YGR188C   | N |
| JNM1  | BUB2      | YMR055C   | N |
| JNM1  | BUB3      | YOR026W   | N |
| JNM1  | CHL4      | YDR254W   | N |
| JNM1  | CSM3      | YMR048W   | N |
| JNM1  | CTF19     | YPL018W   | N |
| JNM1  | CTF3      | YLR381W   | N |
| JNM1  | CTF8      | YHR191C   | N |
| JNM1  | DCC1      | YCL016C   | N |
| JNM1  | DYN1      | YKR054C   | N |
| JNM1  | ELP2      | YGR200C   | N |
| JNM1  | FAB1      | YFR019W   | Y |
| JNM1  | GIM3      | YNL153C   | Y |
| JNM1  | GIM4      | YEL003W   | Y |
| JNM1  | GIM5      | YML094W   | Y |
| JNM1  | IES2      | YNL215W   | N |
| JNM1  | IML3      | YBR107C   | N |
| JNM1  | INP52     | YNL106C   | N |
| JNM1  | KEM1      | YGL173C   | N |
| JNM1  | KIP3      | YGL216W   | Y |
| JNM1  | MAD1      | YGL086W   | N |
| JNM1  | MAD2      | YJL030W   | N |
| JNM1  | MAD3      | YJL013C   | N |
| JNM1  | MCK1      | YNL307C   | N |
| JNM1  | MCM21     | YDR318W   | N |
| JNM1  | MCM22     | YJR135C   | N |
| JNM1  | MRC1      | YCL060C   | N |
| JNM1  | NBP2      | YDR162C   | N |
| JNM1  | NUM1      | YDR150W   | N |
| JNM1  | PAC1      | YOR269W   | N |
| JNM1  | PAC11     | YDR488C   | N |
| JNM1  | PHO23     | YNL097C   | N |
| JNM1  | PPZ1      | YML016C   | N |
| JNM1  | RAD54     | YGL163C   | N |
| JNM1  | RTT103    | YDR289C   | N |
| JNM1  | SAP30     | YMR263W   | N |
| JNM1  | SLK19     | YOR195W   | N |
| JNM1  | SMI1      | YGR229C   | N |
| JNM1  | VAC14     | YLR386W   | N |
| JNM1  | VID22     | YLR373C   | N |
| JNM1  | RXT2      | RXT2      | N |

|      |           |           |   |
|------|-----------|-----------|---|
| JNM1 | YDR149C   | YDR149C   | N |
| JNM1 | YGL211W   | YGL211W   | N |
| JNM1 | YGL217C   | YGL217C   | Y |
| JNM1 | YML095C-A | YML095C-A | N |
| JNM1 | YNL170W   | YNL170W   | N |
| JNM1 | YPL017C   | YPL017C   | N |
| JNM1 | YTA7      | YGR270W   | N |
| KEM1 | AOR1      | YBR231C   | N |
| KEM1 | ARP1      | YHR129C   | N |
| KEM1 | ARP6      | YLR085C   | N |
| KEM1 | ASE1      | YOR058C   | N |
| KEM1 | BEM1      | YBR200W   | Y |
| KEM1 | BFA1      | YJR053W   | N |
| KEM1 | BIK1      | YCL029C   | N |
| KEM1 | BIM1      | YER016W   | Y |
| KEM1 | BUB1      | YGR188C   | Y |
| KEM1 | BUB2      | YMR055C   | N |
| KEM1 | BUB3      | YOR026W   | Y |
| KEM1 | CHL4      | YDR254W   | N |
| KEM1 | CSM3      | YMR048W   | N |
| KEM1 | CTF19     | YPL018W   | N |
| KEM1 | CTF3      | YLR381W   | Y |
| KEM1 | CTF8      | YHR191C   | N |
| KEM1 | DCC1      | YCL016C   | N |
| KEM1 | DYN1      | YKR054C   | N |
| KEM1 | ELP2      | YGR200C   | Y |
| KEM1 | FAB1      | YFR019W   | Y |
| KEM1 | GIM3      | YNL153C   | Y |
| KEM1 | GIM4      | YEL003W   | N |
| KEM1 | GIM5      | YML094W   | Y |
| KEM1 | IES2      | YNL215W   | Y |
| KEM1 | IML3      | YBR107C   | N |
| KEM1 | INP52     | YNL106C   | N |
| KEM1 | JNM1      | YMR294W   | N |
| KEM1 | KIP3      | YGL216W   | N |
| KEM1 | MAD1      | YGL086W   | N |
| KEM1 | MAD2      | YJL030W   | N |
| KEM1 | MAD3      | YJL013C   | N |
| KEM1 | MCK1      | YNL307C   | N |
| KEM1 | MCM21     | YDR318W   | N |
| KEM1 | MCM22     | YJR135C   | N |
| KEM1 | MRC1      | YCL060C   | N |
| KEM1 | NBP2      | YDR162C   | Y |
| KEM1 | NUM1      | YDR150W   | N |
| KEM1 | PAC1      | YOR269W   | N |
| KEM1 | PAC11     | YDR488C   | N |
| KEM1 | PHO23     | YNL097C   | Y |
| KEM1 | PPZ1      | YML016C   | N |
| KEM1 | RAD54     | YGL163C   | Y |
| KEM1 | RTT103    | YDR289C   | N |
| KEM1 | SAP30     | YMR263W   | Y |
| KEM1 | SLK19     | YOR195W   | N |
| KEM1 | SMI1      | YGR229C   | N |
| KEM1 | VAC14     | YLR386W   | N |
| KEM1 | VID22     | YLR373C   | Y |
| KEM1 | RXT2      | RXT2      | N |
| KEM1 | YDR149C   | YDR149C   | N |
| KEM1 | YGL211W   | YGL211W   | Y |
| KEM1 | YGL217C   | YGL217C   | N |
| KEM1 | YML095C-A | YML095C-A | N |
| KEM1 | YNL170W   | YNL170W   | N |
| KEM1 | YPL017C   | YPL017C   | N |
| KEM1 | YTA7      | YGR270W   | N |
| KIP3 | AOR1      | YBR231C   | N |
| KIP3 | ARP1      | YHR129C   | Y |
| KIP3 | ARP6      | YLR085C   | N |

|      |           |           |   |
|------|-----------|-----------|---|
| KIP3 | ASE1      | YOR058C   | N |
| KIP3 | BEM1      | YBR200W   | N |
| KIP3 | BFA1      | YJR053W   | N |
| KIP3 | BIK1      | YCL029C   | N |
| KIP3 | BIM1      | YER016W   | Y |
| KIP3 | BUB1      | YGR188C   | N |
| KIP3 | BUB2      | YMR055C   | N |
| KIP3 | BUB3      | YOR026W   | Y |
| KIP3 | CHL4      | YDR254W   | N |
| KIP3 | CSM3      | YMR048W   | N |
| KIP3 | CTF19     | YPL018W   | N |
| KIP3 | CTF3      | YLR381W   | N |
| KIP3 | CTF8      | YHR191C   | N |
| KIP3 | DCC1      | YCL016C   | N |
| KIP3 | DYN1      | YKR054C   | Y |
| KIP3 | ELP2      | YGR200C   | N |
| KIP3 | FAB1      | YFR019W   | N |
| KIP3 | GIM3      | YNL153C   | N |
| KIP3 | GIM4      | YEL003W   | N |
| KIP3 | GIM5      | YML094W   | N |
| KIP3 | IES2      | YNL215W   | N |
| KIP3 | IML3      | YBR107C   | N |
| KIP3 | INP52     | YNL106C   | N |
| KIP3 | JNM1      | YMR294W   | Y |
| KIP3 | KEM1      | YGL173C   | N |
| KIP3 | MAD1      | YGL086W   | N |
| KIP3 | MAD2      | YJL030W   | N |
| KIP3 | MAD3      | YJL013C   | N |
| KIP3 | MCK1      | YNL307C   | N |
| KIP3 | MCM21     | YDR318W   | N |
| KIP3 | MCM22     | YJR135C   | N |
| KIP3 | MRC1      | YCL060C   | N |
| KIP3 | NBP2      | YDR162C   | Y |
| KIP3 | NUM1      | YDR150W   | Y |
| KIP3 | PAC1      | YOR269W   | Y |
| KIP3 | PAC11     | YDR488C   | Y |
| KIP3 | PHO23     | YNL097C   | N |
| KIP3 | PPZ1      | YML016C   | N |
| KIP3 | RAD54     | YGL163C   | N |
| KIP3 | RTT103    | YDR289C   | N |
| KIP3 | SAP30     | YMR263W   | N |
| KIP3 | SLK19     | YOR195W   | N |
| KIP3 | SMI1      | YGR229C   | N |
| KIP3 | VAC14     | YLR386W   | N |
| KIP3 | VID22     | YLR373C   | N |
| KIP3 | RXT2      | RXT2      | N |
| KIP3 | YDR149C   | YDR149C   | Y |
| KIP3 | YGL211W   | YGL211W   | Y |
| KIP3 | YGL217C   | YGL217C   | Y |
| KIP3 | YML095C-A | YML095C-A | N |
| KIP3 | YNL170W   | YNL170W   | N |
| KIP3 | YPL017C   | YPL017C   | N |
| KIP3 | YTA7      | YGR270W   | N |
| MAD1 | AOR1      | YBR231C   | N |
| MAD1 | ARP1      | YHR129C   | N |
| MAD1 | ARP6      | YLR085C   | N |
| MAD1 | ASE1      | YOR058C   | N |
| MAD1 | BEM1      | YBR200W   | N |
| MAD1 | BFA1      | YJR053W   | N |
| MAD1 | BIK1      | YCL029C   | N |
| MAD1 | BIM1      | YER016W   | Y |
| MAD1 | BUB1      | YGR188C   | N |
| MAD1 | BUB2      | YMR055C   | N |
| MAD1 | BUB3      | YOR026W   | N |
| MAD1 | CHL4      | YDR254W   | N |
| MAD1 | CSM3      | YMR048W   | N |



|      |           |           |   |
|------|-----------|-----------|---|
| MAD1 | CTF19     | YPL018W   | Y |
| MAD1 | CTF3      | YLR381W   | N |
| MAD1 | CTF8      | YHR191C   | N |
| MAD1 | DCC1      | YCL016C   | N |
| MAD1 | DYN1      | YKR054C   | N |
| MAD1 | ELP2      | YGR200C   | N |
| MAD1 | FAB1      | YFR019W   | N |
| MAD1 | GIM3      | YNL153C   | N |
| MAD1 | GIM4      | YEL003W   | Y |
| MAD1 | GIM5      | YML094W   | Y |
| MAD1 | IES2      | YNL215W   | N |
| MAD1 | IML3      | YBR107C   | N |
| MAD1 | INP52     | YNL106C   | Y |
| MAD1 | JNM1      | YMR294W   | N |
| MAD1 | KEM1      | YGL173C   | N |
| MAD1 | KIP3      | YGL216W   | N |
| MAD1 | MAD2      | YJL030W   | N |
| MAD1 | MAD3      | YJL013C   | N |
| MAD1 | MCK1      | YNL307C   | N |
| MAD1 | MCM21     | YDR318W   | Y |
| MAD1 | MCM22     | YJR135C   | N |
| MAD1 | MRC1      | YCL060C   | N |
| MAD1 | NBP2      | YDR162C   | N |
| MAD1 | NUM1      | YDR150W   | N |
| MAD1 | PAC1      | YOR269W   | N |
| MAD1 | PAC11     | YDR488C   | N |
| MAD1 | PHO23     | YNL097C   | N |
| MAD1 | PPZ1      | YML016C   | N |
| MAD1 | RAD54     | YGL163C   | N |
| MAD1 | RTT103    | YDR289C   | N |
| MAD1 | SAP30     | YMR263W   | N |
| MAD1 | SLK19     | YOR195W   | N |
| MAD1 | SMI1      | YGR229C   | N |
| MAD1 | VAC14     | YLR386W   | N |
| MAD1 | VID22     | YLR373C   | N |
| MAD1 | RXT2      | RXT2      | N |
| MAD1 | YDR149C   | YDR149C   | N |
| MAD1 | YGL211W   | YGL211W   | N |
| MAD1 | YGL217C   | YGL217C   | N |
| MAD1 | YML095C-A | YML095C-A | N |
| MAD1 | YNL170W   | YNL170W   | N |
| MAD1 | YPL017C   | YPL017C   | N |
| MAD1 | YTA7      | YGR270W   | N |
| MAD2 | AOR1      | YBR231C   | N |
| MAD2 | ARP1      | YHR129C   | N |
| MAD2 | ARP6      | YLR085C   | N |
| MAD2 | ASE1      | YOR058C   | N |
| MAD2 | BEM1      | YBR200W   | N |
| MAD2 | BFA1      | YJR053W   | N |
| MAD2 | BIK1      | YCL029C   | N |
| MAD2 | BIM1      | YER016W   | Y |
| MAD2 | BUB1      | YGR188C   | N |
| MAD2 | BUB2      | YMR055C   | N |
| MAD2 | BUB3      | YOR026W   | N |
| MAD2 | CHL4      | YDR254W   | N |
| MAD2 | CSM3      | YMR048W   | N |
| MAD2 | CTF19     | YPL018W   | Y |
| MAD2 | CTF3      | YLR381W   | N |
| MAD2 | CTF8      | YHR191C   | N |
| MAD2 | DCC1      | YCL016C   | N |
| MAD2 | DYN1      | YKR054C   | N |
| MAD2 | ELP2      | YGR200C   | N |
| MAD2 | FAB1      | YFR019W   | N |
| MAD2 | GIM3      | YNL153C   | N |
| MAD2 | GIM4      | YEL003W   | Y |
| MAD2 | GIM5      | YML094W   | N |

|      |           |           |   |
|------|-----------|-----------|---|
| MAD2 | IES2      | YNL215W   | N |
| MAD2 | IML3      | YBR107C   | N |
| MAD2 | INP52     | YNL106C   | N |
| MAD2 | JNM1      | YMR294W   | N |
| MAD2 | KEM1      | YGL173C   | N |
| MAD2 | KIP3      | YGL216W   | N |
| MAD2 | MAD1      | YGL086W   | N |
| MAD2 | MAD3      | YJL013C   | Y |
| MAD2 | MCK1      | YNL307C   | N |
| MAD2 | MCM21     | YDR318W   | Y |
| MAD2 | MCM22     | YJR135C   | N |
| MAD2 | MRC1      | YCL060C   | N |
| MAD2 | NBP2      | YDR162C   | N |
| MAD2 | NUM1      | YDR150W   | N |
| MAD2 | PAC1      | YOR269W   | N |
| MAD2 | PAC11     | YDR488C   | N |
| MAD2 | PHO23     | YNL097C   | N |
| MAD2 | PPZ1      | YML016C   | N |
| MAD2 | RAD54     | YGL163C   | N |
| MAD2 | RTT103    | YDR289C   | N |
| MAD2 | SAP30     | YMR263W   | N |
| MAD2 | SLK19     | YOR195W   | N |
| MAD2 | SMI1      | YGR229C   | N |
| MAD2 | VAC14     | YLR386W   | N |
| MAD2 | VID22     | YLR373C   | N |
| MAD2 | RXT2      | RXT2      | N |
| MAD2 | YDR149C   | YDR149C   | N |
| MAD2 | YGL211W   | YGL211W   | N |
| MAD2 | YGL217C   | YGL217C   | N |
| MAD2 | YML095C-A | YML095C-A | N |
| MAD2 | YNL170W   | YNL170W   | N |
| MAD2 | YPL017C   | YPL017C   | N |
| MAD2 | YTA7      | YGR270W   | N |
| MAD3 | AOR1      | YBR231C   | N |
| MAD3 | ARP1      | YHR129C   | N |
| MAD3 | ARP6      | YLR085C   | N |
| MAD3 | ASE1      | YOR058C   | N |
| MAD3 | BEM1      | YBR200W   | N |
| MAD3 | BFA1      | YJR053W   | N |
| MAD3 | BIK1      | YCL029C   | N |
| MAD3 | BIM1      | YER016W   | Y |
| MAD3 | BUB1      | YGR188C   | N |
| MAD3 | BUB2      | YMR055C   | N |
| MAD3 | BUB3      | YOR026W   | N |
| MAD3 | CHL4      | YDR254W   | N |
| MAD3 | CSM3      | YMR048W   | N |
| MAD3 | CTF19     | YPL018W   | N |
| MAD3 | CTF3      | YLR381W   | N |
| MAD3 | CTF8      | YHR191C   | N |
| MAD3 | DCC1      | YCL016C   | N |
| MAD3 | DYN1      | YKR054C   | N |
| MAD3 | ELP2      | YGR200C   | N |
| MAD3 | FAB1      | YFR019W   | N |
| MAD3 | GIM3      | YNL153C   | N |
| MAD3 | GIM4      | YEL003W   | N |
| MAD3 | GIM5      | YML094W   | N |
| MAD3 | IES2      | YNL215W   | N |
| MAD3 | IML3      | YBR107C   | N |
| MAD3 | INP52     | YNL106C   | N |
| MAD3 | JNM1      | YMR294W   | N |
| MAD3 | KEM1      | YGL173C   | N |
| MAD3 | KIP3      | YGL216W   | N |
| MAD3 | MAD1      | YGL086W   | N |
| MAD3 | MAD2      | YJL030W   | Y |
| MAD3 | MCK1      | YNL307C   | N |
| MAD3 | MCM21     | YDR318W   | N |

|      |           |           |   |
|------|-----------|-----------|---|
| MAD3 | MCM22     | YJR135C   | N |
| MAD3 | MRC1      | YCL060C   | N |
| MAD3 | NBP2      | YDR162C   | N |
| MAD3 | NUM1      | YDR150W   | N |
| MAD3 | PAC1      | YOR269W   | N |
| MAD3 | PAC11     | YDR488C   | N |
| MAD3 | PHO23     | YNL097C   | N |
| MAD3 | PPZ1      | YML016C   | N |
| MAD3 | RAD54     | YGL163C   | N |
| MAD3 | RTT103    | YDR289C   | N |
| MAD3 | SAP30     | YMR263W   | N |
| MAD3 | SLK19     | YOR195W   | N |
| MAD3 | SMI1      | YGR229C   | N |
| MAD3 | VAC14     | YLR386W   | N |
| MAD3 | VID22     | YLR373C   | N |
| MAD3 | RXT2      | RXT2      | N |
| MAD3 | YDR149C   | YDR149C   | N |
| MAD3 | YGL211W   | YGL211W   | N |
| MAD3 | YGL217C   | YGL217C   | N |
| MAD3 | YML095C-A | YML095C-A | N |
| MAD3 | YNL170W   | YNL170W   | N |
| MAD3 | YPL017C   | YPL017C   | N |
| MAD3 | YTA7      | YGR270W   | N |
| MCK1 | AOR1      | YBR231C   | N |
| MCK1 | ARP1      | YHR129C   | N |
| MCK1 | ARP6      | YLR085C   | N |
| MCK1 | ASE1      | YOR058C   | N |
| MCK1 | BEM1      | YBR200W   | N |
| MCK1 | BFA1      | YJR053W   | N |
| MCK1 | BIK1      | YCL029C   | N |
| MCK1 | BIM1      | YER016W   | Y |
| MCK1 | BUB1      | YGR188C   | N |
| MCK1 | BUB2      | YMR055C   | N |
| MCK1 | BUB3      | YOR026W   | Y |
| MCK1 | CHL4      | YDR254W   | N |
| MCK1 | CSM3      | YMR048W   | N |
| MCK1 | CTF19     | YPL018W   | N |
| MCK1 | CTF3      | YLR381W   | N |
| MCK1 | CTF8      | YHR191C   | Y |
| MCK1 | DCC1      | YCL016C   | N |
| MCK1 | DYN1      | YKR054C   | N |
| MCK1 | ELP2      | YGR200C   | N |
| MCK1 | FAB1      | YFR019W   | Y |
| MCK1 | GIM3      | YNL153C   | N |
| MCK1 | GIM4      | YEL003W   | N |
| MCK1 | GIM5      | YML094W   | N |
| MCK1 | IES2      | YNL215W   | N |
| MCK1 | IML3      | YBR107C   | N |
| MCK1 | INP52     | YNL106C   | N |
| MCK1 | JNM1      | YMR294W   | N |
| MCK1 | KEM1      | YGL173C   | N |
| MCK1 | KIP3      | YGL216W   | N |
| MCK1 | MAD1      | YGL086W   | N |
| MCK1 | MAD2      | YJL030W   | N |
| MCK1 | MAD3      | YJL013C   | N |
| MCK1 | MCM21     | YDR318W   | N |
| MCK1 | MCM22     | YJR135C   | N |
| MCK1 | MRC1      | YCL060C   | N |
| MCK1 | NBP2      | YDR162C   | Y |
| MCK1 | NUM1      | YDR150W   | N |
| MCK1 | PAC1      | YOR269W   | N |
| MCK1 | PAC11     | YDR488C   | N |
| MCK1 | PHO23     | YNL097C   | Y |
| MCK1 | PPZ1      | YML016C   | N |
| MCK1 | RAD54     | YGL163C   | N |
| MCK1 | RTT103    | YDR289C   | N |

|       |           |           |   |
|-------|-----------|-----------|---|
| MCK1  | SAP30     | YMR263W   | N |
| MCK1  | SLK19     | YOR195W   | N |
| MCK1  | SMI1      | YGR229C   | N |
| MCK1  | VAC14     | YLR386W   | N |
| MCK1  | VID22     | YLR373C   | N |
| MCK1  | RXT2      | RXT2      | N |
| MCK1  | YDR149C   | YDR149C   | N |
| MCK1  | YGL211W   | YGL211W   | N |
| MCK1  | YGL217C   | YGL217C   | N |
| MCK1  | YML095C-A | YML095C-A | N |
| MCK1  | YNL170W   | YNL170W   | N |
| MCK1  | YPL017C   | YPL017C   | N |
| MCK1  | YTA7      | YGR270W   | N |
| MCM21 | AOR1      | YBR231C   | N |
| MCM21 | ARP1      | YHR129C   | N |
| MCM21 | ARP6      | YLR085C   | N |
| MCM21 | ASE1      | YOR058C   | N |
| MCM21 | BEM1      | YBR200W   | N |
| MCM21 | BFA1      | YJR053W   | N |
| MCM21 | BIK1      | YCL029C   | N |
| MCM21 | BIM1      | YER016W   | Y |
| MCM21 | BUB1      | YGR188C   | Y |
| MCM21 | BUB2      | YMR055C   | N |
| MCM21 | BUB3      | YOR026W   | Y |
| MCM21 | CHL4      | YDR254W   | N |
| MCM21 | CSM3      | YMR048W   | N |
| MCM21 | CTF19     | YPL018W   | N |
| MCM21 | CTF3      | YLR381W   | N |
| MCM21 | CTF8      | YHR191C   | N |
| MCM21 | DCC1      | YCL016C   | N |
| MCM21 | DYN1      | YKR054C   | N |
| MCM21 | ELP2      | YGR200C   | N |
| MCM21 | FAB1      | YFR019W   | N |
| MCM21 | GIM3      | YNL153C   | Y |
| MCM21 | GIM4      | YEL003W   | N |
| MCM21 | GIM5      | YML094W   | Y |
| MCM21 | IES2      | YNL215W   | N |
| MCM21 | IML3      | YBR107C   | N |
| MCM21 | INP52     | YNL106C   | N |
| MCM21 | JNM1      | YMR294W   | N |
| MCM21 | KEM1      | YGL173C   | N |
| MCM21 | KIP3      | YGL216W   | N |
| MCM21 | MAD1      | YGL086W   | Y |
| MCM21 | MAD2      | YJL030W   | Y |
| MCM21 | MAD3      | YJL013C   | N |
| MCM21 | MCK1      | YNL307C   | N |
| MCM21 | MCM22     | YJR135C   | N |
| MCM21 | MRC1      | YCL060C   | N |
| MCM21 | NBP2      | YDR162C   | N |
| MCM21 | NUM1      | YDR150W   | N |
| MCM21 | PAC1      | YOR269W   | N |
| MCM21 | PAC11     | YDR488C   | N |
| MCM21 | PHO23     | YNL097C   | N |
| MCM21 | PPZ1      | YML016C   | N |
| MCM21 | RAD54     | YGL163C   | N |
| MCM21 | RTT103    | YDR289C   | N |
| MCM21 | SAP30     | YMR263W   | N |
| MCM21 | SLK19     | YOR195W   | N |
| MCM21 | SMI1      | YGR229C   | N |
| MCM21 | VAC14     | YLR386W   | N |
| MCM21 | VID22     | YLR373C   | N |
| MCM21 | RXT2      | RXT2      | N |
| MCM21 | YDR149C   | YDR149C   | N |
| MCM21 | YGL211W   | YGL211W   | N |
| MCM21 | YGL217C   | YGL217C   | N |
| MCM21 | YML095C-A | YML095C-A | Y |

|       |           |           |   |
|-------|-----------|-----------|---|
| MCM21 | YNL170W   | YNL170W   | N |
| MCM21 | YPL017C   | YPL017C   | N |
| MCM21 | YTA7      | YGR270W   | N |
| MCM22 | AOR1      | YBR231C   | N |
| MCM22 | ARP1      | YHR129C   | N |
| MCM22 | ARP6      | YLR085C   | N |
| MCM22 | ASE1      | YOR058C   | N |
| MCM22 | BEM1      | YBR200W   | N |
| MCM22 | BFA1      | YJR053W   | N |
| MCM22 | BIK1      | YCL029C   | N |
| MCM22 | BIM1      | YER016W   | Y |
| MCM22 | BUB1      | YGR188C   | Y |
| MCM22 | BUB2      | YMR055C   | N |
| MCM22 | BUB3      | YOR026W   | Y |
| MCM22 | CHL4      | YDR254W   | N |
| MCM22 | CSM3      | YMR048W   | N |
| MCM22 | CTF19     | YPL018W   | N |
| MCM22 | CTF3      | YLR381W   | N |
| MCM22 | CTF8      | YHR191C   | N |
| MCM22 | DCC1      | YCL016C   | N |
| MCM22 | DYN1      | YKR054C   | N |
| MCM22 | ELP2      | YGR200C   | N |
| MCM22 | FAB1      | YFR019W   | N |
| MCM22 | GIM3      | YNL153C   | N |
| MCM22 | GIM4      | YEL003W   | N |
| MCM22 | GIM5      | YML094W   | N |
| MCM22 | IES2      | YNL215W   | N |
| MCM22 | IML3      | YBR107C   | N |
| MCM22 | INP52     | YNL106C   | N |
| MCM22 | JNM1      | YMR294W   | N |
| MCM22 | KEM1      | YGL173C   | N |
| MCM22 | KIP3      | YGL216W   | N |
| MCM22 | MAD1      | YGL086W   | N |
| MCM22 | MAD2      | YJL030W   | N |
| MCM22 | MAD3      | YJL013C   | N |
| MCM22 | MCK1      | YNL307C   | N |
| MCM22 | MCM21     | YDR318W   | N |
| MCM22 | MRC1      | YCL060C   | N |
| MCM22 | NBP2      | YDR162C   | N |
| MCM22 | NUM1      | YDR150W   | N |
| MCM22 | PAC1      | YOR269W   | N |
| MCM22 | PAC11     | YDR488C   | N |
| MCM22 | PHO23     | YNL097C   | N |
| MCM22 | PPZ1      | YML016C   | N |
| MCM22 | RAD54     | YGL163C   | N |
| MCM22 | RTT103    | YDR289C   | N |
| MCM22 | SAP30     | YMR263W   | N |
| MCM22 | SLK19     | YOR195W   | N |
| MCM22 | SMI1      | YGR229C   | N |
| MCM22 | VAC14     | YLR386W   | N |
| MCM22 | VID22     | YLR373C   | N |
| MCM22 | RXT2      | RXT2      | N |
| MCM22 | YDR149C   | YDR149C   | N |
| MCM22 | YGL211W   | YGL211W   | N |
| MCM22 | YGL217C   | YGL217C   | N |
| MCM22 | YML095C-A | YML095C-A | N |
| MCM22 | YNL170W   | YNL170W   | N |
| MCM22 | YPL017C   | YPL017C   | N |
| MCM22 | YTA7      | YGR270W   | N |
| MRC1  | AOR1      | YBR231C   | N |
| MRC1  | ARP1      | YHR129C   | N |
| MRC1  | ARP6      | YLR085C   | N |
| MRC1  | ASE1      | YOR058C   | N |
| MRC1  | BEM1      | YBR200W   | N |
| MRC1  | BFA1      | YJR053W   | N |
| MRC1  | BIK1      | YCL029C   | N |

|      |           |           |   |
|------|-----------|-----------|---|
| MRC1 | BIM1      | YER016W   | Y |
| MRC1 | BUB1      | YGR188C   | N |
| MRC1 | BUB2      | YMR055C   | N |
| MRC1 | BUB3      | YOR026W   | N |
| MRC1 | CHL4      | YDR254W   | N |
| MRC1 | CSM3      | YMR048W   | Y |
| MRC1 | CTF19     | YPL018W   | N |
| MRC1 | CTF3      | YLR381W   | N |
| MRC1 | CTF8      | YHR191C   | Y |
| MRC1 | DCC1      | YCL016C   | Y |
| MRC1 | DYN1      | YKR054C   | N |
| MRC1 | ELP2      | YGR200C   | N |
| MRC1 | FAB1      | YFR019W   | N |
| MRC1 | GIM3      | YNL153C   | N |
| MRC1 | GIM4      | YEL003W   | N |
| MRC1 | GIM5      | YML094W   | N |
| MRC1 | IES2      | YNL215W   | N |
| MRC1 | IML3      | YBR107C   | N |
| MRC1 | INP52     | YNL106C   | Y |
| MRC1 | JNM1      | YMR294W   | N |
| MRC1 | KEM1      | YGL173C   | N |
| MRC1 | KIP3      | YGL216W   | N |
| MRC1 | MAD1      | YGL086W   | N |
| MRC1 | MAD2      | YJL030W   | N |
| MRC1 | MAD3      | YJL013C   | N |
| MRC1 | MCK1      | YNL307C   | N |
| MRC1 | MCM21     | YDR318W   | N |
| MRC1 | MCM22     | YJR135C   | N |
| MRC1 | NBP2      | YDR162C   | N |
| MRC1 | NUM1      | YDR150W   | N |
| MRC1 | PAC1      | YOR269W   | N |
| MRC1 | PAC11     | YDR488C   | N |
| MRC1 | PHO23     | YNL097C   | N |
| MRC1 | PPZ1      | YML016C   | N |
| MRC1 | RAD54     | YGL163C   | N |
| MRC1 | RTT103    | YDR289C   | N |
| MRC1 | SAP30     | YMR263W   | N |
| MRC1 | SLK19     | YOR195W   | N |
| MRC1 | SMI1      | YGR229C   | N |
| MRC1 | VAC14     | YLR386W   | N |
| MRC1 | VID22     | YLR373C   | N |
| MRC1 | RXT2      | RXT2      | N |
| MRC1 | YDR149C   | YDR149C   | N |
| MRC1 | YGL211W   | YGL211W   | N |
| MRC1 | YGL217C   | YGL217C   | N |
| MRC1 | YML095C-A | YML095C-A | N |
| MRC1 | YNL170W   | YNL170W   | N |
| MRC1 | YPL017C   | YPL017C   | N |
| MRC1 | YTA7      | YGR270W   | N |
| NBP2 | AOR1      | YBR231C   | N |
| NBP2 | ARP1      | YHR129C   | N |
| NBP2 | ARP6      | YLR085C   | N |
| NBP2 | ASE1      | YOR058C   | N |
| NBP2 | BEM1      | YBR200W   | N |
| NBP2 | BFA1      | YJR053W   | N |
| NBP2 | BIK1      | YCL029C   | N |
| NBP2 | BIM1      | YER016W   | Y |
| NBP2 | BUB1      | YGR188C   | N |
| NBP2 | BUB2      | YMR055C   | N |
| NBP2 | BUB3      | YOR026W   | N |
| NBP2 | CHL4      | YDR254W   | N |
| NBP2 | CSM3      | YMR048W   | N |
| NBP2 | CTF19     | YPL018W   | N |
| NBP2 | CTF3      | YLR381W   | N |
| NBP2 | CTF8      | YHR191C   | N |
| NBP2 | DCC1      | YCL016C   | N |

|      |           |           |   |
|------|-----------|-----------|---|
| NBP2 | DYN1      | YKR054C   | N |
| NBP2 | ELP2      | YGR200C   | N |
| NBP2 | FAB1      | YFR019W   | N |
| NBP2 | GIM3      | YNL153C   | N |
| NBP2 | GIM4      | YEL003W   | N |
| NBP2 | GIM5      | YML094W   | N |
| NBP2 | IES2      | YNL215W   | N |
| NBP2 | IML3      | YBR107C   | N |
| NBP2 | INP52     | YNL106C   | N |
| NBP2 | JNM1      | YMR294W   | N |
| NBP2 | KEM1      | YGL173C   | N |
| NBP2 | KIP3      | YGL216W   | Y |
| NBP2 | MAD1      | YGL086W   | N |
| NBP2 | MAD2      | YJL030W   | N |
| NBP2 | MAD3      | YJL013C   | N |
| NBP2 | MCK1      | YNL307C   | N |
| NBP2 | MCM21     | YDR318W   | N |
| NBP2 | MCM22     | YJR135C   | N |
| NBP2 | MRC1      | YCL060C   | N |
| NBP2 | NUM1      | YDR150W   | N |
| NBP2 | PAC1      | YOR269W   | N |
| NBP2 | PAC11     | YDR488C   | N |
| NBP2 | PHO23     | YNL097C   | N |
| NBP2 | PPZ1      | YML016C   | N |
| NBP2 | RAD54     | YGL163C   | N |
| NBP2 | RTT103    | YDR289C   | N |
| NBP2 | SAP30     | YMR263W   | N |
| NBP2 | SLK19     | YOR195W   | N |
| NBP2 | SMI1      | YGR229C   | N |
| NBP2 | VAC14     | YLR386W   | N |
| NBP2 | VID22     | YLR373C   | N |
| NBP2 | RXT2      | RXT2      | N |
| NBP2 | YDR149C   | YDR149C   | N |
| NBP2 | YGL211W   | YGL211W   | Y |
| NBP2 | YGL217C   | YGL217C   | Y |
| NBP2 | YML095C-A | YML095C-A | N |
| NBP2 | YNL170W   | YNL170W   | N |
| NBP2 | YPL017C   | YPL017C   | N |
| NBP2 | YTA7      | YGR270W   | N |
| NUM1 | AOR1      | YBR231C   | N |
| NUM1 | ARP1      | YHR129C   | N |
| NUM1 | ARP6      | YLR085C   | N |
| NUM1 | ASE1      | YOR058C   | N |
| NUM1 | BEM1      | YBR200W   | N |
| NUM1 | BFA1      | YJR053W   | Y |
| NUM1 | BIK1      | YCL029C   | N |
| NUM1 | BIM1      | YER016W   | Y |
| NUM1 | BUB1      | YGR188C   | N |
| NUM1 | BUB2      | YMR055C   | N |
| NUM1 | BUB3      | YOR026W   | N |
| NUM1 | CHL4      | YDR254W   | N |
| NUM1 | CSM3      | YMR048W   | N |
| NUM1 | CTF19     | YPL018W   | N |
| NUM1 | CTF3      | YLR381W   | N |
| NUM1 | CTF8      | YHR191C   | N |
| NUM1 | DCC1      | YCL016C   | N |
| NUM1 | DYN1      | YKR054C   | N |
| NUM1 | ELP2      | YGR200C   | N |
| NUM1 | FAB1      | YFR019W   | Y |
| NUM1 | GIM3      | YNL153C   | Y |
| NUM1 | GIM4      | YEL003W   | Y |
| NUM1 | GIM5      | YML094W   | Y |
| NUM1 | IES2      | YNL215W   | N |
| NUM1 | IML3      | YBR107C   | N |
| NUM1 | INP52     | YNL106C   | N |
| NUM1 | JNM1      | YMR294W   | N |

|      |           |           |   |
|------|-----------|-----------|---|
| NUM1 | KEM1      | YGL173C   | N |
| NUM1 | KIP3      | YGL216W   | Y |
| NUM1 | MAD1      | YGL086W   | N |
| NUM1 | MAD2      | YJL030W   | N |
| NUM1 | MAD3      | YJL013C   | N |
| NUM1 | MCK1      | YNL307C   | N |
| NUM1 | MCM21     | YDR318W   | N |
| NUM1 | MCM22     | YJR135C   | N |
| NUM1 | MRC1      | YCL060C   | N |
| NUM1 | NBP2      | YDR162C   | Y |
| NUM1 | PAC1      | YOR269W   | N |
| NUM1 | PAC11     | YDR488C   | N |
| NUM1 | PHO23     | YNL097C   | N |
| NUM1 | PPZ1      | YML016C   | N |
| NUM1 | RAD54     | YGL163C   | N |
| NUM1 | RTT103    | YDR289C   | N |
| NUM1 | SAP30     | YMR263W   | N |
| NUM1 | SLK19     | YOR195W   | N |
| NUM1 | SMI1      | YGR229C   | N |
| NUM1 | VAC14     | YLR386W   | N |
| NUM1 | VID22     | YLR373C   | N |
| NUM1 | RXT2      | RXT2      | N |
| NUM1 | YDR149C   | YDR149C   | Y |
| NUM1 | YGL211W   | YGL211W   | N |
| NUM1 | YGL217C   | YGL217C   | N |
| NUM1 | YML095C-A | YML095C-A | N |
| NUM1 | YNL170W   | YNL170W   | N |
| NUM1 | YPL017C   | YPL017C   | N |
| NUM1 | YTA7      | YGR270W   | N |
| PAC1 | AOR1      | YBR231C   | N |
| PAC1 | ARP1      | YHR129C   | N |
| PAC1 | ARP6      | YLR085C   | N |
| PAC1 | ASE1      | YOR058C   | Y |
| PAC1 | BEM1      | YBR200W   | N |
| PAC1 | BFA1      | YJR053W   | N |
| PAC1 | BIK1      | YCL029C   | N |
| PAC1 | BIM1      | YER016W   | Y |
| PAC1 | BUB1      | YGR188C   | N |
| PAC1 | BUB2      | YMR055C   | N |
| PAC1 | BUB3      | YOR026W   | N |
| PAC1 | CHL4      | YDR254W   | N |
| PAC1 | CSM3      | YMR048W   | N |
| PAC1 | CTF19     | YPL018W   | N |
| PAC1 | CTF3      | YLR381W   | N |
| PAC1 | CTF8      | YHR191C   | N |
| PAC1 | DCC1      | YCL016C   | N |
| PAC1 | DYN1      | YKR054C   | N |
| PAC1 | ELP2      | YGR200C   | N |
| PAC1 | FAB1      | YFR019W   | N |
| PAC1 | GIM3      | YNL153C   | Y |
| PAC1 | GIM4      | YEL003W   | N |
| PAC1 | GIM5      | YML094W   | Y |
| PAC1 | IES2      | YNL215W   | N |
| PAC1 | IML3      | YBR107C   | N |
| PAC1 | INP52     | YNL106C   | N |
| PAC1 | JNM1      | YMR294W   | N |
| PAC1 | KEM1      | YGL173C   | N |
| PAC1 | KIP3      | YGL216W   | N |
| PAC1 | MAD1      | YGL086W   | N |
| PAC1 | MAD2      | YJL030W   | N |
| PAC1 | MAD3      | YJL013C   | N |
| PAC1 | MCK1      | YNL307C   | N |
| PAC1 | MCM21     | YDR318W   | N |
| PAC1 | MCM22     | YJR135C   | N |
| PAC1 | MRC1      | YCL060C   | N |
| PAC1 | NBP2      | YDR162C   | N |



|       |           |           |   |
|-------|-----------|-----------|---|
| PAC1  | NUM1      | YDR150W   | N |
| PAC1  | PAC11     | YDR488C   | N |
| PAC1  | PHO23     | YNL097C   | N |
| PAC1  | PPZ1      | YML016C   | N |
| PAC1  | RAD54     | YGL163C   | N |
| PAC1  | RTT103    | YDR289C   | N |
| PAC1  | SAP30     | YMR263W   | N |
| PAC1  | SLK19     | YOR195W   | N |
| PAC1  | SMI1      | YGR229C   | N |
| PAC1  | VAC14     | YLR386W   | N |
| PAC1  | VID22     | YLR373C   | N |
| PAC1  | RXT2      | RXT2      | N |
| PAC1  | YDR149C   | YDR149C   | N |
| PAC1  | YGL211W   | YGL211W   | N |
| PAC1  | YGL217C   | YGL217C   | Y |
| PAC1  | YML095C-A | YML095C-A | Y |
| PAC1  | YNL170W   | YNL170W   | N |
| PAC1  | YPL017C   | YPL017C   | N |
| PAC1  | YTA7      | YGR270W   | N |
| PAC11 | AOR1      | YBR231C   | N |
| PAC11 | ARP1      | YHR129C   | N |
| PAC11 | ARP6      | YLR085C   | N |
| PAC11 | ASE1      | YOR058C   | Y |
| PAC11 | BEM1      | YBR200W   | N |
| PAC11 | BFA1      | YJR053W   | N |
| PAC11 | BIK1      | YCL029C   | N |
| PAC11 | BIM1      | YER016W   | Y |
| PAC11 | BUB1      | YGR188C   | N |
| PAC11 | BUB2      | YMR055C   | N |
| PAC11 | BUB3      | YOR026W   | N |
| PAC11 | CHL4      | YDR254W   | N |
| PAC11 | CSM3      | YMR048W   | N |
| PAC11 | CTF19     | YPL018W   | N |
| PAC11 | CTF3      | YLR381W   | N |
| PAC11 | CTF8      | YHR191C   | N |
| PAC11 | DCC1      | YCL016C   | N |
| PAC11 | DYN1      | YKR054C   | N |
| PAC11 | ELP2      | YGR200C   | N |
| PAC11 | FAB1      | YFR019W   | Y |
| PAC11 | GIM3      | YNL153C   | Y |
| PAC11 | GIM4      | YEL003W   | N |
| PAC11 | GIM5      | YML094W   | Y |
| PAC11 | IES2      | YNL215W   | N |
| PAC11 | IML3      | YBR107C   | N |
| PAC11 | INP52     | YNL106C   | N |
| PAC11 | JNM1      | YMR294W   | N |
| PAC11 | KEM1      | YGL173C   | N |
| PAC11 | KIP3      | YGL216W   | Y |
| PAC11 | MAD1      | YGL086W   | N |
| PAC11 | MAD2      | YJL030W   | N |
| PAC11 | MAD3      | YJL013C   | N |
| PAC11 | MCK1      | YNL307C   | Y |
| PAC11 | MCM21     | YDR318W   | N |
| PAC11 | MCM22     | YJR135C   | N |
| PAC11 | MRC1      | YCL060C   | N |
| PAC11 | NBP2      | YDR162C   | N |
| PAC11 | NUM1      | YDR150W   | N |
| PAC11 | PAC1      | YOR269W   | N |
| PAC11 | PHO23     | YNL097C   | N |
| PAC11 | PPZ1      | YML016C   | N |
| PAC11 | RAD54     | YGL163C   | N |
| PAC11 | RTT103    | YDR289C   | N |
| PAC11 | SAP30     | YMR263W   | N |
| PAC11 | SLK19     | YOR195W   | N |
| PAC11 | SMI1      | YGR229C   | N |
| PAC11 | VAC14     | YLR386W   | N |

|       |           |           |   |
|-------|-----------|-----------|---|
| PAC11 | VID22     | YLR373C   | N |
| PAC11 | RXT2      | RXT2      | N |
| PAC11 | YDR149C   | YDR149C   | N |
| PAC11 | YGL211W   | YGL211W   | N |
| PAC11 | YGL217C   | YGL217C   | Y |
| PAC11 | YML095C-A | YML095C-A | N |
| PAC11 | YNL170W   | YNL170W   | N |
| PAC11 | YPL017C   | YPL017C   | N |
| PAC11 | YTA7      | YGR270W   | N |
| PHO23 | AOR1      | YBR231C   | Y |
| PHO23 | ARP1      | YHR129C   | N |
| PHO23 | ARP6      | YLR085C   | Y |
| PHO23 | ASE1      | YOR058C   | N |
| PHO23 | BEM1      | YBR200W   | N |
| PHO23 | BFA1      | YJR053W   | N |
| PHO23 | BIK1      | YCL029C   | N |
| PHO23 | BIM1      | YER016W   | Y |
| PHO23 | BUB1      | YGR188C   | N |
| PHO23 | BUB2      | YMR055C   | N |
| PHO23 | BUB3      | YOR026W   | N |
| PHO23 | CHL4      | YDR254W   | N |
| PHO23 | CSM3      | YMR048W   | N |
| PHO23 | CTF19     | YPL018W   | N |
| PHO23 | CTF3      | YLR381W   | N |
| PHO23 | CTF8      | YHR191C   | N |
| PHO23 | DCC1      | YCL016C   | N |
| PHO23 | DYN1      | YKR054C   | N |
| PHO23 | ELP2      | YGR200C   | N |
| PHO23 | FAB1      | YFR019W   | N |
| PHO23 | GIM3      | YNL153C   | N |
| PHO23 | GIM4      | YEL003W   | N |
| PHO23 | GIM5      | YML094W   | N |
| PHO23 | IES2      | YNL215W   | Y |
| PHO23 | IML3      | YBR107C   | N |
| PHO23 | INP52     | YNL106C   | Y |
| PHO23 | JNM1      | YMR294W   | N |
| PHO23 | KEM1      | YGL173C   | N |
| PHO23 | KIP3      | YGL216W   | N |
| PHO23 | MAD1      | YGL086W   | N |
| PHO23 | MAD2      | YJL030W   | N |
| PHO23 | MAD3      | YJL013C   | N |
| PHO23 | MCK1      | YNL307C   | Y |
| PHO23 | MCM21     | YDR318W   | N |
| PHO23 | MCM22     | YJR135C   | N |
| PHO23 | MRC1      | YCL060C   | N |
| PHO23 | NBP2      | YDR162C   | N |
| PHO23 | NUM1      | YDR150W   | N |
| PHO23 | PAC1      | YOR269W   | N |
| PHO23 | PAC11     | YDR488C   | N |
| PHO23 | PPZ1      | YML016C   | N |
| PHO23 | RAD54     | YGL163C   | N |
| PHO23 | RTT103    | YDR289C   | N |
| PHO23 | SAP30     | YMR263W   | N |
| PHO23 | SLK19     | YOR195W   | N |
| PHO23 | SMI1      | YGR229C   | N |
| PHO23 | VAC14     | YLR386W   | N |
| PHO23 | VID22     | YLR373C   | N |
| PHO23 | RXT2      | RXT2      | N |
| PHO23 | YDR149C   | YDR149C   | N |
| PHO23 | YGL211W   | YGL211W   | N |
| PHO23 | YGL217C   | YGL217C   | N |
| PHO23 | YML095C-A | YML095C-A | N |
| PHO23 | YNL170W   | YNL170W   | N |
| PHO23 | YPL017C   | YPL017C   | N |
| PHO23 | YTA7      | YGR270W   | N |
| PPZ1  | AOR1      | YBR231C   | N |

|       |           |           |     |
|-------|-----------|-----------|-----|
| PPZ1  | ARP1      | YHR129C   | N   |
| PPZ1  | ARP6      | YLR085C   | N   |
| PPZ1  | ASE1      | YOR058C   | N   |
| PPZ1  | BEM1      | YBR200W   | N   |
| PPZ1  | BFA1      | YJR053W   | N   |
| PPZ1  | BIK1      | YCL029C   | N   |
| PPZ1  | BIM1      | YER016W   | Y   |
| PPZ1  | BUB1      | YGR188C   | N   |
| PPZ1  | BUB2      | YMR055C   | N   |
| PPZ1  | BUB3      | YOR026W   | N   |
| PPZ1  | CHL4      | YDR254W   | N   |
| PPZ1  | CSM3      | YMR048W   | N   |
| PPZ1  | CTF19     | YPL018W   | N   |
| PPZ1  | CTF3      | YLR381W   | N   |
| PPZ1  | CTF8      | YHR191C   | N   |
| PPZ1  | DCC1      | YCL016C   | N   |
| PPZ1  | DYN1      | YKR054C   | N   |
| PPZ1  | ELP2      | YGR200C   | N   |
| PPZ1  | FAB1      | YFR019W   | N   |
| PPZ1  | GIM3      | YNL153C   | N   |
| PPZ1  | GIM4      | YEL003W   | N   |
| PPZ1  | GIM5      | YML094W   | N   |
| PPZ1  | IES2      | YNL215W   | N   |
| PPZ1  | IML3      | YBR107C   | N   |
| PPZ1  | INP52     | YNL106C   | N   |
| PPZ1  | JNM1      | YMR294W   | N   |
| PPZ1  | KEM1      | YGL173C   | N   |
| PPZ1  | KIP3      | YGL216W   | N   |
| PPZ1  | MAD1      | YGL086W   | N   |
| PPZ1  | MAD2      | YJL030W   | N   |
| PPZ1  | MAD3      | YJL013C   | N   |
| PPZ1  | MCK1      | YNL307C   | N   |
| PPZ1  | MCM21     | YDR318W   | N   |
| PPZ1  | MCM22     | YJR135C   | N   |
| PPZ1  | MRC1      | YCL060C   | N   |
| PPZ1  | NBP2      | YDR162C   | N   |
| PPZ1  | NUM1      | YDR150W   | N   |
| PPZ1  | PAC1      | YOR269W   | N   |
| PPZ1  | PAC11     | YDR488C   | N   |
| PPZ1  | PHO23     | YNL097C   | N   |
| PPZ1  | RAD54     | YGL163C   | N   |
| PPZ1  | RTT103    | YDR289C   | N   |
| PPZ1  | SAP30     | YMR263W   | N   |
| PPZ1  | SLK19     | YOR195W   | N   |
| PPZ1  | SMI1      | YGR229C   | N   |
| PPZ1  | VAC14     | YLR386W   | N   |
| PPZ1  | VID22     | YLR373C   | N   |
| PPZ1  | RXT2      | RXT2      | N   |
| PPZ1  | YDR149C   | YDR149C   | N   |
| PPZ1  | YGL211W   | YGL211W   | N   |
| PPZ1  | YGL217C   | YGL217C   | N   |
| PPZ1  | YML095C-A | YML095C-A | N   |
| PPZ1  | YNL170W   | YNL170W   | N   |
| PPZ1  | YPL017C   | YPL017C   | N   |
| PPZ1  | YTA7      | YGR270W   | N   |
| RAD54 | AOR1      | YBR231C   | N/D |
| RAD54 | ARP1      | YHR129C   | N/D |
| RAD54 | ARP6      | YLR085C   | N/D |
| RAD54 | ASE1      | YOR058C   | N/D |
| RAD54 | BEM1      | YBR200W   | N/D |
| RAD54 | BFA1      | YJR053W   | N/D |
| RAD54 | BIK1      | YCL029C   | N/D |
| RAD54 | BIM1      | YER016W   | N/D |
| RAD54 | BUB1      | YGR188C   | N/D |
| RAD54 | BUB2      | YMR055C   | N/D |
| RAD54 | BUB3      | YOR026W   | N/D |

|        |           |           |     |
|--------|-----------|-----------|-----|
| RAD54  | CHL4      | YDR254W   | N/D |
| RAD54  | CSM3      | YMR048W   | N/D |
| RAD54  | CTF19     | YPL018W   | N/D |
| RAD54  | CTF3      | YLR381W   | N/D |
| RAD54  | CTF8      | YHR191C   | N/D |
| RAD54  | DCC1      | YCL016C   | N/D |
| RAD54  | DYN1      | YKR054C   | N/D |
| RAD54  | ELP2      | YGR200C   | N/D |
| RAD54  | FAB1      | YFR019W   | N/D |
| RAD54  | GIM3      | YNL153C   | N/D |
| RAD54  | GIM4      | YEL003W   | N/D |
| RAD54  | GIM5      | YML094W   | N/D |
| RAD54  | IES2      | YNL215W   | N/D |
| RAD54  | IML3      | YBR107C   | N/D |
| RAD54  | INP52     | YNL106C   | N/D |
| RAD54  | JNM1      | YMR294W   | N/D |
| RAD54  | KEM1      | YGL173C   | N/D |
| RAD54  | KIP3      | YGL216W   | N/D |
| RAD54  | MAD1      | YGL086W   | N/D |
| RAD54  | MAD2      | YJL030W   | N/D |
| RAD54  | MAD3      | YJL013C   | N/D |
| RAD54  | MCK1      | YNL307C   | N/D |
| RAD54  | MCM21     | YDR318W   | N/D |
| RAD54  | MCM22     | YJR135C   | N/D |
| RAD54  | MRC1      | YCL060C   | N/D |
| RAD54  | NBP2      | YDR162C   | N/D |
| RAD54  | NUM1      | YDR150W   | N/D |
| RAD54  | PAC1      | YOR269W   | N/D |
| RAD54  | PAC11     | YDR488C   | N/D |
| RAD54  | PHO23     | YNL097C   | N/D |
| RAD54  | PPZ1      | YML016C   | N/D |
| RAD54  | RTT103    | YDR289C   | N/D |
| RAD54  | SAP30     | YMR263W   | N/D |
| RAD54  | SLK19     | YOR195W   | N/D |
| RAD54  | SMI1      | YGR229C   | N/D |
| RAD54  | VAC14     | YLR386W   | N/D |
| RAD54  | VID22     | YLR373C   | N/D |
| RAD54  | RXT2      | RXT2      | N/D |
| RAD54  | YDR149C   | YDR149C   | N/D |
| RAD54  | YGL211W   | YGL211W   | N/D |
| RAD54  | YGL217C   | YGL217C   | N/D |
| RAD54  | YML095C-A | YML095C-A | N/D |
| RAD54  | YNL170W   | YNL170W   | N/D |
| RAD54  | YPL017C   | YPL017C   | N/D |
| RAD54  | YTA7      | YGR270W   | N/D |
| RTT103 | AOR1      | YBR231C   | N   |
| RTT103 | ARP1      | YHR129C   | N   |
| RTT103 | ARP6      | YLR085C   | N   |
| RTT103 | ASE1      | YOR058C   | N   |
| RTT103 | BEM1      | YBR200W   | N   |
| RTT103 | BFA1      | YJR053W   | N   |
| RTT103 | BIK1      | YCL029C   | Y   |
| RTT103 | BIM1      | YER016W   | Y   |
| RTT103 | BUB1      | YGR188C   | N   |
| RTT103 | BUB2      | YMR055C   | N   |
| RTT103 | BUB3      | YOR026W   | N   |
| RTT103 | CHL4      | YDR254W   | Y   |
| RTT103 | CSM3      | YMR048W   | N   |
| RTT103 | CTF19     | YPL018W   | N   |
| RTT103 | CTF3      | YLR381W   | N   |
| RTT103 | CTF8      | YHR191C   | N   |
| RTT103 | DCC1      | YCL016C   | N   |
| RTT103 | DYN1      | YKR054C   | N   |
| RTT103 | ELP2      | YGR200C   | N   |
| RTT103 | FAB1      | YFR019W   | N   |
| RTT103 | GIM3      | YNL153C   | N   |

|        |           |           |   |
|--------|-----------|-----------|---|
| RTT103 | GIM4      | YEL003W   | N |
| RTT103 | GIM5      | YML094W   | N |
| RTT103 | IES2      | YNL215W   | N |
| RTT103 | IML3      | YBR107C   | N |
| RTT103 | INP52     | YNL106C   | Y |
| RTT103 | JNM1      | YMR294W   | N |
| RTT103 | KEM1      | YGL173C   | N |
| RTT103 | KIP3      | YGL216W   | N |
| RTT103 | MAD1      | YGL086W   | N |
| RTT103 | MAD2      | YJL030W   | N |
| RTT103 | MAD3      | YJL013C   | N |
| RTT103 | MCK1      | YNL307C   | N |
| RTT103 | MCM21     | YDR318W   | N |
| RTT103 | MCM22     | YJR135C   | N |
| RTT103 | MRC1      | YCL060C   | N |
| RTT103 | NBP2      | YDR162C   | N |
| RTT103 | NUM1      | YDR150W   | N |
| RTT103 | PAC1      | YOR269W   | N |
| RTT103 | PAC11     | YDR488C   | N |
| RTT103 | PHO23     | YNL097C   | N |
| RTT103 | PPZ1      | YML016C   | N |
| RTT103 | RAD54     | YGL163C   | N |
| RTT103 | SAP30     | YMR263W   | N |
| RTT103 | SLK19     | YOR195W   | N |
| RTT103 | SMI1      | YGR229C   | N |
| RTT103 | VAC14     | YLR386W   | N |
| RTT103 | VID22     | YLR373C   | N |
| RTT103 | RXT2      | RXT2      | N |
| RTT103 | YDR149C   | YDR149C   | N |
| RTT103 | YGL211W   | YGL211W   | N |
| RTT103 | YGL217C   | YGL217C   | N |
| RTT103 | YML095C-A | YML095C-A | N |
| RTT103 | YNL170W   | YNL170W   | N |
| RTT103 | YPL017C   | YPL017C   | N |
| RTT103 | YTA7      | YGR270W   | N |
| SAP30  | AOR1      | YBR231C   | N |
| SAP30  | ARP1      | YHR129C   | N |
| SAP30  | ARP6      | YLR085C   | Y |
| SAP30  | ASE1      | YOR058C   | N |
| SAP30  | BEM1      | YBR200W   | N |
| SAP30  | BFA1      | YJR053W   | N |
| SAP30  | BIK1      | YCL029C   | N |
| SAP30  | BIM1      | YER016W   | Y |
| SAP30  | BUB1      | YGR188C   | N |
| SAP30  | BUB2      | YMR055C   | N |
| SAP30  | BUB3      | YOR026W   | N |
| SAP30  | CHL4      | YDR254W   | N |
| SAP30  | CSM3      | YMR048W   | N |
| SAP30  | CTF19     | YPL018W   | N |
| SAP30  | CTF3      | YLR381W   | N |
| SAP30  | CTF8      | YHR191C   | N |
| SAP30  | DCC1      | YCL016C   | N |
| SAP30  | DYN1      | YKR054C   | N |
| SAP30  | ELP2      | YGR200C   | N |
| SAP30  | FAB1      | YFR019W   | N |
| SAP30  | GIM3      | YNL153C   | N |
| SAP30  | GIM4      | YEL003W   | N |
| SAP30  | GIM5      | YML094W   | N |
| SAP30  | IES2      | YNL215W   | Y |
| SAP30  | IML3      | YBR107C   | N |
| SAP30  | INP52     | YNL106C   | N |
| SAP30  | JNM1      | YMR294W   | N |
| SAP30  | KEM1      | YGL173C   | Y |
| SAP30  | KIP3      | YGL216W   | N |
| SAP30  | MAD1      | YGL086W   | N |
| SAP30  | MAD2      | YJL030W   | N |

|       |           |           |   |
|-------|-----------|-----------|---|
| SAP30 | MAD3      | YJL013C   | N |
| SAP30 | MCK1      | YNL307C   | N |
| SAP30 | MCM21     | YDR318W   | N |
| SAP30 | MCM22     | YJR135C   | N |
| SAP30 | MRC1      | YCL060C   | N |
| SAP30 | NBP2      | YDR162C   | N |
| SAP30 | NUM1      | YDR150W   | N |
| SAP30 | PAC1      | YOR269W   | N |
| SAP30 | PAC11     | YDR488C   | N |
| SAP30 | PHO23     | YNL097C   | N |
| SAP30 | PPZ1      | YML016C   | N |
| SAP30 | RAD54     | YGL163C   | N |
| SAP30 | RTT103    | YDR289C   | N |
| SAP30 | SLK19     | YOR195W   | N |
| SAP30 | SMI1      | YGR229C   | N |
| SAP30 | VAC14     | YLR386W   | N |
| SAP30 | VID22     | YLR373C   | N |
| SAP30 | RXT2      | RXT2      | N |
| SAP30 | YDR149C   | YDR149C   | N |
| SAP30 | YGL211W   | YGL211W   | N |
| SAP30 | YGL217C   | YGL217C   | N |
| SAP30 | YML095C-A | YML095C-A | N |
| SAP30 | YNL170W   | YNL170W   | N |
| SAP30 | YPL017C   | YPL017C   | N |
| SAP30 | YTA7      | YGR270W   | N |
| SLK19 | AOR1      | YBR231C   | N |
| SLK19 | ARP1      | YHR129C   | N |
| SLK19 | ARP6      | YLR085C   | N |
| SLK19 | ASE1      | YOR058C   | N |
| SLK19 | BEM1      | YBR200W   | N |
| SLK19 | BFA1      | YJR053W   | N |
| SLK19 | BIK1      | YCL029C   | N |
| SLK19 | BIM1      | YER016W   | Y |
| SLK19 | BUB1      | YGR188C   | Y |
| SLK19 | BUB2      | YMR055C   | N |
| SLK19 | BUB3      | YOR026W   | Y |
| SLK19 | CHL4      | YDR254W   | N |
| SLK19 | CSM3      | YMR048W   | N |
| SLK19 | CTF19     | YPL018W   | N |
| SLK19 | CTF3      | YLR381W   | N |
| SLK19 | CTF8      | YHR191C   | Y |
| SLK19 | DCC1      | YCL016C   | N |
| SLK19 | DYN1      | YKR054C   | N |
| SLK19 | ELP2      | YGR200C   | N |
| SLK19 | FAB1      | YFR019W   | N |
| SLK19 | GIM3      | YNL153C   | N |
| SLK19 | GIM4      | YEL003W   | N |
| SLK19 | GIM5      | YML094W   | N |
| SLK19 | IES2      | YNL215W   | N |
| SLK19 | IML3      | YBR107C   | N |
| SLK19 | INP52     | YNL106C   | N |
| SLK19 | JNM1      | YMR294W   | N |
| SLK19 | KEM1      | YGL173C   | N |
| SLK19 | KIP3      | YGL216W   | N |
| SLK19 | MAD1      | YGL086W   | Y |
| SLK19 | MAD2      | YJL030W   | N |
| SLK19 | MAD3      | YJL013C   | N |
| SLK19 | MCK1      | YNL307C   | N |
| SLK19 | MCM21     | YDR318W   | N |
| SLK19 | MCM22     | YJR135C   | N |
| SLK19 | MRC1      | YCL060C   | N |
| SLK19 | NBP2      | YDR162C   | N |
| SLK19 | NUM1      | YDR150W   | N |
| SLK19 | PAC1      | YOR269W   | N |
| SLK19 | PAC11     | YDR488C   | N |
| SLK19 | PHO23     | YNL097C   | N |

|       |           |           |   |
|-------|-----------|-----------|---|
| SLK19 | PPZ1      | YML016C   | N |
| SLK19 | RAD54     | YGL163C   | N |
| SLK19 | RTT103    | YDR289C   | N |
| SLK19 | SAP30     | YMR263W   | N |
| SLK19 | SMI1      | YGR229C   | N |
| SLK19 | VAC14     | YLR386W   | N |
| SLK19 | VID22     | YLR373C   | N |
| SLK19 | RXT2      | RXT2      | N |
| SLK19 | YDR149C   | YDR149C   | N |
| SLK19 | YGL211W   | YGL211W   | N |
| SLK19 | YGL217C   | YGL217C   | N |
| SLK19 | YML095C-A | YML095C-A | N |
| SLK19 | YNL170W   | YNL170W   | N |
| SLK19 | YPL017C   | YPL017C   | N |
| SLK19 | YTA7      | YGR270W   | N |
| SMI1  | AOR1      | YBR231C   | N |
| SMI1  | ARP1      | YHR129C   | N |
| SMI1  | ARP6      | YLR085C   | N |
| SMI1  | ASE1      | YOR058C   | N |
| SMI1  | BEM1      | YBR200W   | Y |
| SMI1  | BFA1      | YJR053W   | N |
| SMI1  | BIK1      | YCL029C   | N |
| SMI1  | BIM1      | YER016W   | Y |
| SMI1  | BUB1      | YGR188C   | N |
| SMI1  | BUB2      | YMR055C   | N |
| SMI1  | BUB3      | YOR026W   | N |
| SMI1  | CHL4      | YDR254W   | N |
| SMI1  | CSM3      | YMR048W   | N |
| SMI1  | CTF19     | YPL018W   | N |
| SMI1  | CTF3      | YLR381W   | N |
| SMI1  | CTF8      | YHR191C   | N |
| SMI1  | DCC1      | YCL016C   | N |
| SMI1  | DYN1      | YKR054C   | N |
| SMI1  | ELP2      | YGR200C   | N |
| SMI1  | FAB1      | YFR019W   | N |
| SMI1  | GIM3      | YNL153C   | N |
| SMI1  | GIM4      | YEL003W   | N |
| SMI1  | GIM5      | YML094W   | N |
| SMI1  | IES2      | YNL215W   | N |
| SMI1  | IML3      | YBR107C   | N |
| SMI1  | INP52     | YNL106C   | N |
| SMI1  | JNM1      | YMR294W   | N |
| SMI1  | KEM1      | YGL173C   | N |
| SMI1  | KIP3      | YGL216W   | N |
| SMI1  | MAD1      | YGL086W   | N |
| SMI1  | MAD2      | YJL030W   | N |
| SMI1  | MAD3      | YJL013C   | N |
| SMI1  | MCK1      | YNL307C   | N |
| SMI1  | MCM21     | YDR318W   | N |
| SMI1  | MCM22     | YJR135C   | N |
| SMI1  | MRC1      | YCL060C   | N |
| SMI1  | NBP2      | YDR162C   | N |
| SMI1  | NUM1      | YDR150W   | N |
| SMI1  | PAC1      | YOR269W   | N |
| SMI1  | PAC11     | YDR488C   | N |
| SMI1  | PHO23     | YNL097C   | N |
| SMI1  | PPZ1      | YML016C   | N |
| SMI1  | RAD54     | YGL163C   | N |
| SMI1  | RTT103    | YDR289C   | N |
| SMI1  | SAP30     | YMR263W   | N |
| SMI1  | SLK19     | YOR195W   | N |
| SMI1  | VAC14     | YLR386W   | N |
| SMI1  | VID22     | YLR373C   | N |
| SMI1  | RXT2      | RXT2      | N |
| SMI1  | YDR149C   | YDR149C   | N |
| SMI1  | YGL211W   | YGL211W   | N |

|       |           |           |   |
|-------|-----------|-----------|---|
| SMI1  | YGL217C   | YGL217C   | N |
| SMI1  | YML095C-A | YML095C-A | N |
| SMI1  | YNL170W   | YNL170W   | N |
| SMI1  | YPL017C   | YPL017C   | N |
| SMI1  | YTA7      | YGR270W   | N |
| VAC14 | AOR1      | YBR231C   | N |
| VAC14 | ARP1      | YHR129C   | N |
| VAC14 | ARP6      | YLR085C   | N |
| VAC14 | ASE1      | YOR058C   | N |
| VAC14 | BEM1      | YBR200W   | N |
| VAC14 | BFA1      | YJR053W   | N |
| VAC14 | BIK1      | YCL029C   | N |
| VAC14 | BIM1      | YER016W   | Y |
| VAC14 | BUB1      | YGR188C   | N |
| VAC14 | BUB2      | YMR055C   | N |
| VAC14 | BUB3      | YOR026W   | N |
| VAC14 | CHL4      | YDR254W   | N |
| VAC14 | CSM3      | YMR048W   | N |
| VAC14 | CTF19     | YPL018W   | N |
| VAC14 | CTF3      | YLR381W   | Y |
| VAC14 | CTF8      | YHR191C   | N |
| VAC14 | DCC1      | YCL016C   | N |
| VAC14 | DYN1      | YKR054C   | N |
| VAC14 | ELP2      | YGR200C   | N |
| VAC14 | FAB1      | YFR019W   | N |
| VAC14 | GIM3      | YNL153C   | Y |
| VAC14 | GIM4      | YEL003W   | N |
| VAC14 | GIM5      | YML094W   | N |
| VAC14 | IES2      | YNL215W   | N |
| VAC14 | IML3      | YBR107C   | N |
| VAC14 | INP52     | YNL106C   | N |
| VAC14 | JNM1      | YMR294W   | N |
| VAC14 | KEM1      | YGL173C   | N |
| VAC14 | KIP3      | YGL216W   | N |
| VAC14 | MAD1      | YGL086W   | N |
| VAC14 | MAD2      | YJL030W   | N |
| VAC14 | MAD3      | YJL013C   | N |
| VAC14 | MCK1      | YNL307C   | N |
| VAC14 | MCM21     | YDR318W   | N |
| VAC14 | MCM22     | YJR135C   | N |
| VAC14 | MRC1      | YCL060C   | N |
| VAC14 | NBP2      | YDR162C   | N |
| VAC14 | NUM1      | YDR150W   | N |
| VAC14 | PAC1      | YOR269W   | N |
| VAC14 | PAC11     | YDR488C   | N |
| VAC14 | PHO23     | YNL097C   | N |
| VAC14 | PPZ1      | YML016C   | N |
| VAC14 | RAD54     | YGL163C   | N |
| VAC14 | RTT103    | YDR289C   | N |
| VAC14 | SAP30     | YMR263W   | N |
| VAC14 | SLK19     | YOR195W   | N |
| VAC14 | SMI1      | YGR229C   | N |
| VAC14 | VID22     | YLR373C   | N |
| VAC14 | RXT2      | RXT2      | N |
| VAC14 | YDR149C   | YDR149C   | N |
| VAC14 | YGL211W   | YGL211W   | N |
| VAC14 | YGL217C   | YGL217C   | N |
| VAC14 | YML095C-A | YML095C-A | N |
| VAC14 | YNL170W   | YNL170W   | N |
| VAC14 | YPL017C   | YPL017C   | N |
| VAC14 | YTA7      | YGR270W   | N |
| VID22 | AOR1      | YBR231C   | N |
| VID22 | ARP1      | YHR129C   | N |
| VID22 | ARP6      | YLR085C   | N |
| VID22 | ASE1      | YOR058C   | N |
| VID22 | BEM1      | YBR200W   | Y |



|       |           |           |   |
|-------|-----------|-----------|---|
| VID22 | BFA1      | YJR053W   | N |
| VID22 | BIK1      | YCL029C   | N |
| VID22 | BIM1      | YER016W   | Y |
| VID22 | BUB1      | YGR188C   | Y |
| VID22 | BUB2      | YMR055C   | N |
| VID22 | BUB3      | YOR026W   | Y |
| VID22 | CHL4      | YDR254W   | N |
| VID22 | CSM3      | YMR048W   | N |
| VID22 | CTF19     | YPL018W   | N |
| VID22 | CTF3      | YLR381W   | Y |
| VID22 | CTF8      | YHR191C   | Y |
| VID22 | DCC1      | YCL016C   | N |
| VID22 | DYN1      | YKR054C   | N |
| VID22 | ELP2      | YGR200C   | N |
| VID22 | FAB1      | YFR019W   | N |
| VID22 | GIM3      | YNL153C   | N |
| VID22 | GIM4      | YEL003W   | N |
| VID22 | GIM5      | YML094W   | N |
| VID22 | IES2      | YNL215W   | N |
| VID22 | IML3      | YBR107C   | N |
| VID22 | INP52     | YNL106C   | N |
| VID22 | JNM1      | YMR294W   | N |
| VID22 | KEM1      | YGL173C   | Y |
| VID22 | KIP3      | YGL216W   | N |
| VID22 | MAD1      | YGL086W   | N |
| VID22 | MAD2      | YJL030W   | N |
| VID22 | MAD3      | YJL013C   | N |
| VID22 | MCK1      | YNL307C   | N |
| VID22 | MCM21     | YDR318W   | N |
| VID22 | MCM22     | YJR135C   | N |
| VID22 | MRC1      | YCL060C   | N |
| VID22 | NBP2      | YDR162C   | N |
| VID22 | NUM1      | YDR150W   | N |
| VID22 | PAC1      | YOR269W   | N |
| VID22 | PAC11     | YDR488C   | N |
| VID22 | PHO23     | YNL097C   | N |
| VID22 | PPZ1      | YML016C   | N |
| VID22 | RAD54     | YGL163C   | N |
| VID22 | RTT103    | YDR289C   | N |
| VID22 | SAP30     | YMR263W   | N |
| VID22 | SLK19     | YOR195W   | N |
| VID22 | SMI1      | YGR229C   | N |
| VID22 | VAC14     | YLR386W   | Y |
| VID22 | RXT2      | RXT2      | N |
| VID22 | YDR149C   | YDR149C   | N |
| VID22 | YGL211W   | YGL211W   | N |
| VID22 | YGL217C   | YGL217C   | N |
| VID22 | YML095C-A | YML095C-A | N |
| VID22 | YNL170W   | YNL170W   | Y |
| VID22 | YPL017C   | YPL017C   | N |
| VID22 | YTA7      | YGR270W   | N |
| RXT2  | AOR1      | YBR231C   | N |
| RXT2  | ARP1      | YHR129C   | N |
| RXT2  | ARP6      | YLR085C   | Y |
| RXT2  | ASE1      | YOR058C   | N |
| RXT2  | BEM1      | YBR200W   | N |
| RXT2  | BFA1      | YJR053W   | N |
| RXT2  | BIK1      | YCL029C   | N |
| RXT2  | BIM1      | YER016W   | Y |
| RXT2  | BUB1      | YGR188C   | N |
| RXT2  | BUB2      | YMR055C   | N |
| RXT2  | BUB3      | YOR026W   | N |
| RXT2  | CHL4      | YDR254W   | N |
| RXT2  | CSM3      | YMR048W   | N |
| RXT2  | CTF19     | YPL018W   | N |
| RXT2  | CTF3      | YLR381W   | N |

|         |           |           |   |
|---------|-----------|-----------|---|
| RXT2    | CTF8      | YHR191C   | N |
| RXT2    | DCC1      | YCL016C   | N |
| RXT2    | DYN1      | YKR054C   | N |
| RXT2    | ELP2      | YGR200C   | N |
| RXT2    | FAB1      | YFR019W   | N |
| RXT2    | GIM3      | YNL153C   | Y |
| RXT2    | GIM4      | YEL003W   | N |
| RXT2    | GIM5      | YML094W   | N |
| RXT2    | IES2      | YNL215W   | Y |
| RXT2    | IML3      | YBR107C   | Y |
| RXT2    | INP52     | YNL106C   | N |
| RXT2    | JNM1      | YMR294W   | N |
| RXT2    | KEM1      | YGL173C   | N |
| RXT2    | KIP3      | YGL216W   | N |
| RXT2    | MAD1      | YGL086W   | N |
| RXT2    | MAD2      | YJL030W   | N |
| RXT2    | MAD3      | YJL013C   | N |
| RXT2    | MCK1      | YNL307C   | N |
| RXT2    | MCM21     | YDR318W   | N |
| RXT2    | MCM22     | YJR135C   | N |
| RXT2    | MRC1      | YCL060C   | N |
| RXT2    | NBP2      | YDR162C   | N |
| RXT2    | NUM1      | YDR150W   | N |
| RXT2    | PAC1      | YOR269W   | N |
| RXT2    | PAC11     | YDR488C   | N |
| RXT2    | PHO23     | YNL097C   | N |
| RXT2    | PPZ1      | YML016C   | N |
| RXT2    | RAD54     | YGL163C   | N |
| RXT2    | RTT103    | YDR289C   | N |
| RXT2    | SAP30     | YMR263W   | N |
| RXT2    | SLK19     | YOR195W   | N |
| RXT2    | SMI1      | YGR229C   | N |
| RXT2    | VAC14     | YLR386W   | N |
| RXT2    | VID22     | YLR373C   | N |
| RXT2    | YDR149C   | YDR149C   | N |
| RXT2    | YGL211W   | YGL211W   | N |
| RXT2    | YGL217C   | YGL217C   | N |
| RXT2    | YML095C-A | YML095C-A | N |
| RXT2    | YNL170W   | YNL170W   | N |
| RXT2    | YPL017C   | YPL017C   | N |
| RXT2    | YTA7      | YGR270W   | N |
| YDR149C | AOR1      | YBR231C   | N |
| YDR149C | ARP1      | YHR129C   | N |
| YDR149C | ARP6      | YLR085C   | N |
| YDR149C | ASE1      | YOR058C   | N |
| YDR149C | BEM1      | YBR200W   | N |
| YDR149C | BFA1      | YJR053W   | N |
| YDR149C | BIK1      | YCL029C   | N |
| YDR149C | BIM1      | YER016W   | Y |
| YDR149C | BUB1      | YGR188C   | N |
| YDR149C | BUB2      | YMR055C   | N |
| YDR149C | BUB3      | YOR026W   | N |
| YDR149C | CHL4      | YDR254W   | N |
| YDR149C | CSM3      | YMR048W   | N |
| YDR149C | CTF19     | YPL018W   | N |
| YDR149C | CTF3      | YLR381W   | N |
| YDR149C | CTF8      | YHR191C   | N |
| YDR149C | DCC1      | YCL016C   | N |
| YDR149C | DYN1      | YKR054C   | N |
| YDR149C | ELP2      | YGR200C   | N |
| YDR149C | FAB1      | YFR019W   | Y |
| YDR149C | GIM3      | YNL153C   | N |
| YDR149C | GIM4      | YEL003W   | N |
| YDR149C | GIM5      | YML094W   | Y |
| YDR149C | IES2      | YNL215W   | N |
| YDR149C | IML3      | YBR107C   | N |

|         |           |           |   |
|---------|-----------|-----------|---|
| YDR149C | INP52     | YNL106C   | N |
| YDR149C | JNM1      | YMR294W   | N |
| YDR149C | KEM1      | YGL173C   | N |
| YDR149C | KIP3      | YGL216W   | Y |
| YDR149C | MAD1      | YGL086W   | N |
| YDR149C | MAD2      | YJL030W   | N |
| YDR149C | MAD3      | YJL013C   | N |
| YDR149C | MCK1      | YNL307C   | N |
| YDR149C | MCM21     | YDR318W   | N |
| YDR149C | MCM22     | YJR135C   | N |
| YDR149C | MRC1      | YCL060C   | N |
| YDR149C | NBP2      | YDR162C   | Y |
| YDR149C | NUM1      | YDR150W   | Y |
| YDR149C | PAC1      | YOR269W   | N |
| YDR149C | PAC11     | YDR488C   | N |
| YDR149C | PHO23     | YNL097C   | N |
| YDR149C | PPZ1      | YML016C   | N |
| YDR149C | RAD54     | YGL163C   | N |
| YDR149C | RTT103    | YDR289C   | N |
| YDR149C | SAP30     | YMR263W   | N |
| YDR149C | SLK19     | YOR195W   | N |
| YDR149C | SMI1      | YGR229C   | N |
| YDR149C | VAC14     | YLR386W   | N |
| YDR149C | VID22     | YLR373C   | N |
| YDR149C | RXT2      | RXT2      | N |
| YDR149C | YGL211W   | YGL211W   | N |
| YDR149C | YGL217C   | YGL217C   | Y |
| YDR149C | YML095C-A | YML095C-A | N |
| YDR149C | YNL170W   | YNL170W   | N |
| YDR149C | YPL017C   | YPL017C   | N |
| YDR149C | YTA7      | YGR270W   | N |
| YGL211w | AOR1      | YBR231C   | N |
| YGL211w | ARP1      | YHR129C   | N |
| YGL211w | ARP6      | YLR085C   | N |
| YGL211w | ASE1      | YOR058C   | N |
| YGL211w | BEM1      | YBR200W   | Y |
| YGL211w | BFA1      | YJR053W   | N |
| YGL211w | BIK1      | YCL029C   | N |
| YGL211w | BIM1      | YER016W   | Y |
| YGL211w | BUB1      | YGR188C   | N |
| YGL211w | BUB2      | YMR055C   | N |
| YGL211w | BUB3      | YOR026W   | N |
| YGL211w | CHL4      | YDR254W   | N |
| YGL211w | CSM3      | YMR048W   | N |
| YGL211w | CTF19     | YPL018W   | N |
| YGL211w | CTF3      | YLR381W   | N |
| YGL211w | CTF8      | YHR191C   | N |
| YGL211w | DCC1      | YCL016C   | N |
| YGL211w | DYN1      | YKR054C   | N |
| YGL211w | ELP2      | YGR200C   | N |
| YGL211w | FAB1      | YFR019W   | N |
| YGL211w | GIM3      | YNL153C   | N |
| YGL211w | GIM4      | YEL003W   | N |
| YGL211w | GIM5      | YML094W   | N |
| YGL211w | IES2      | YNL215W   | N |
| YGL211w | IML3      | YBR107C   | N |
| YGL211w | INP52     | YNL106C   | N |
| YGL211w | JNM1      | YMR294W   | N |
| YGL211w | KEM1      | YGL173C   | Y |
| YGL211w | KIP3      | YGL216W   | Y |
| YGL211w | MAD1      | YGL086W   | N |
| YGL211w | MAD2      | YJL030W   | N |
| YGL211w | MAD3      | YJL013C   | N |
| YGL211w | MCK1      | YNL307C   | N |
| YGL211w | MCM21     | YDR318W   | N |
| YGL211w | MCM22     | YJR135C   | N |

|         |           |           |   |
|---------|-----------|-----------|---|
| YGL211w | MRC1      | YCL060C   | N |
| YGL211w | NBP2      | YDR162C   | Y |
| YGL211w | NUM1      | YDR150W   | N |
| YGL211w | PAC1      | YOR269W   | N |
| YGL211w | PAC11     | YDR488C   | N |
| YGL211w | PHO23     | YNL097C   | N |
| YGL211w | PPZ1      | YML016C   | N |
| YGL211w | RAD54     | YGL163C   | N |
| YGL211w | RTT103    | YDR289C   | N |
| YGL211w | SAP30     | YMR263W   | N |
| YGL211w | SLK19     | YOR195W   | N |
| YGL211w | SMI1      | YGR229C   | N |
| YGL211w | VAC14     | YLR386W   | N |
| YGL211w | VID22     | YLR373C   | N |
| YGL211w | RXT2      | RXT2      | N |
| YGL211w | YDR149C   | YDR149C   | N |
| YGL211w | YGL217C   | YGL217C   | Y |
| YGL211w | YML095C-A | YML095C-A | N |
| YGL211w | YNL170W   | YNL170W   | N |
| YGL211w | YPL017C   | YPL017C   | N |
| YGL211w | YTA7      | YGR270W   | N |
| YGL217C | AOR1      | YBR231C   | N |
| YGL217C | ARP1      | YHR129C   | Y |
| YGL217C | ARP6      | YLR085C   | N |
| YGL217C | ASE1      | YOR058C   | N |
| YGL217C | BEM1      | YBR200W   | N |
| YGL217C | BFA1      | YJR053W   | N |
| YGL217C | BIK1      | YCL029C   | N |
| YGL217C | BIM1      | YER016W   | Y |
| YGL217C | BUB1      | YGR188C   | Y |
| YGL217C | BUB2      | YMR055C   | N |
| YGL217C | BUB3      | YOR026W   | Y |
| YGL217C | CHL4      | YDR254W   | N |
| YGL217C | CSM3      | YMR048W   | N |
| YGL217C | CTF19     | YPL018W   | N |
| YGL217C | CTF3      | YLR381W   | N |
| YGL217C | CTF8      | YHR191C   | N |
| YGL217C | DCC1      | YCL016C   | N |
| YGL217C | DYN1      | YKR054C   | N |
| YGL217C | ELP2      | YGR200C   | N |
| YGL217C | FAB1      | YFR019W   | N |
| YGL217C | GIM3      | YNL153C   | N |
| YGL217C | GIM4      | YEL003W   | N |
| YGL217C | GIM5      | YML094W   | N |
| YGL217C | IES2      | YNL215W   | N |
| YGL217C | IML3      | YBR107C   | N |
| YGL217C | INP52     | YNL106C   | N |
| YGL217C | JNM1      | YMR294W   | Y |
| YGL217C | KEM1      | YGL173C   | Y |
| YGL217C | KIP3      | YGL216W   | Y |
| YGL217C | MAD1      | YGL086W   | N |
| YGL217C | MAD2      | YJL030W   | N |
| YGL217C | MAD3      | YJL013C   | N |
| YGL217C | MCK1      | YNL307C   | N |
| YGL217C | MCM21     | YDR318W   | N |
| YGL217C | MCM22     | YJR135C   | N |
| YGL217C | MRC1      | YCL060C   | N |
| YGL217C | NBP2      | YDR162C   | Y |
| YGL217C | NUM1      | YDR150W   | Y |
| YGL217C | PAC1      | YOR269W   | Y |
| YGL217C | PAC11     | YDR488C   | N |
| YGL217C | PHO23     | YNL097C   | N |
| YGL217C | PPZ1      | YML016C   | N |
| YGL217C | RAD54     | YGL163C   | N |
| YGL217C | RTT103    | YDR289C   | N |
| YGL217C | SAP30     | YMR263W   | N |

|           |           |           |   |
|-----------|-----------|-----------|---|
| YGL217C   | SLK19     | YOR195W   | N |
| YGL217C   | SMI1      | YGR229C   | N |
| YGL217C   | VAC14     | YLR386W   | N |
| YGL217C   | VID22     | YLR373C   | N |
| YGL217C   | RXT2      | RXT2      | N |
| YGL217C   | YDR149C   | YDR149C   | Y |
| YGL217C   | YGL211W   | YGL211W   | Y |
| YGL217C   | YML095C-A | YML095C-A | N |
| YGL217C   | YNL170W   | YNL170W   | N |
| YGL217C   | YPL017C   | YPL017C   | N |
| YGL217C   | YTA7      | YGR270W   | N |
| YML095C-A | AOR1      | YBR231C   | Y |
| YML095C-A | ARP1      | YHR129C   | Y |
| YML095C-A | ARP6      | YLR085C   | Y |
| YML095C-A | ASE1      | YOR058C   | Y |
| YML095C-A | BEM1      | YBR200W   | Y |
| YML095C-A | BFA1      | YJR053W   | Y |
| YML095C-A | BIK1      | YCL029C   | Y |
| YML095C-A | BIM1      | YER016W   | Y |
| YML095C-A | BUB1      | YGR188C   | Y |
| YML095C-A | BUB2      | YMR055C   | Y |
| YML095C-A | BUB3      | YOR026W   | Y |
| YML095C-A | CHL4      | YDR254W   | N |
| YML095C-A | CSM3      | YMR048W   | N |
| YML095C-A | CTF19     | YPL018W   | Y |
| YML095C-A | CTF3      | YLR381W   | N |
| YML095C-A | CTF8      | YHR191C   | Y |
| YML095C-A | DCC1      | YCL016C   | Y |
| YML095C-A | DYN1      | YKR054C   | Y |
| YML095C-A | ELP2      | YGR200C   | N |
| YML095C-A | FAB1      | YFR019W   | Y |
| YML095C-A | GIM3      | YNL153C   | N |
| YML095C-A | GIM4      | YEL003W   | N |
| YML095C-A | GIM5      | YML094W   | Y |
| YML095C-A | IES2      | YNL215W   | N |
| YML095C-A | IML3      | YBR107C   | N |
| YML095C-A | INP52     | YNL106C   | Y |
| YML095C-A | JNM1      | YMR294W   | Y |
| YML095C-A | KEM1      | YGL173C   | Y |
| YML095C-A | KIP3      | YGL216W   | N |
| YML095C-A | MAD1      | YGL086W   | Y |
| YML095C-A | MAD2      | YJL030W   | Y |
| YML095C-A | MAD3      | YJL013C   | N |
| YML095C-A | MCK1      | YNL307C   | N |
| YML095C-A | MCM21     | YDR318W   | Y |
| YML095C-A | MCM22     | YJR135C   | N |
| YML095C-A | MRC1      | YCL060C   | N |
| YML095C-A | NBP2      | YDR162C   | N |
| YML095C-A | NUM1      | YDR150W   | Y |
| YML095C-A | PAC1      | YOR269W   | N |
| YML095C-A | PAC11     | YDR488C   | Y |
| YML095C-A | PHO23     | YNL097C   | N |
| YML095C-A | PPZ1      | YML016C   | N |
| YML095C-A | RAD54     | YGL163C   | N |
| YML095C-A | RTT103    | YDR289C   | N |
| YML095C-A | SAP30     | YMR263W   | N |
| YML095C-A | SLK19     | YOR195W   | N |
| YML095C-A | SMI1      | YGR229C   | Y |
| YML095C-A | VAC14     | YLR386W   | Y |
| YML095C-A | VID22     | YLR373C   | N |
| YML095C-A | RXT2      | RXT2      | N |
| YML095C-A | YDR149C   | YDR149C   | Y |
| YML095C-A | YGL211W   | YGL211W   | N |
| YML095C-A | YGL217C   | YGL217C   | N |
| YML095C-A | YNL170W   | YNL170W   | N |
| YML095C-A | YPL017C   | YPL017C   | N |

|           |           |           |   |
|-----------|-----------|-----------|---|
| YML095C-A | YTA7      | YGR270W   | N |
| YNL170W   | AOR1      | YBR231C   | N |
| YNL170W   | ARP1      | YHR129C   | N |
| YNL170W   | ARP6      | YLR085C   | N |
| YNL170W   | ASE1      | YOR058C   | N |
| YNL170W   | BEM1      | YBR200W   | N |
| YNL170W   | BFA1      | YJR053W   | N |
| YNL170W   | BIK1      | YCL029C   | N |
| YNL170W   | BIM1      | YER016W   | Y |
| YNL170W   | BUB1      | YGR188C   | N |
| YNL170W   | BUB2      | YMR055C   | N |
| YNL170W   | BUB3      | YOR026W   | N |
| YNL170W   | CHL4      | YDR254W   | N |
| YNL170W   | CSM3      | YMR048W   | N |
| YNL170W   | CTF19     | YPL018W   | N |
| YNL170W   | CTF3      | YLR381W   | N |
| YNL170W   | CTF8      | YHR191C   | N |
| YNL170W   | DCC1      | YCL016C   | N |
| YNL170W   | DYN1      | YKR054C   | N |
| YNL170W   | ELP2      | YGR200C   | N |
| YNL170W   | FAB1      | YFR019W   | N |
| YNL170W   | GIM3      | YNL153C   | Y |
| YNL170W   | GIM4      | YEL003W   | N |
| YNL170W   | GIM5      | YML094W   | N |
| YNL170W   | IES2      | YNL215W   | Y |
| YNL170W   | IML3      | YBR107C   | N |
| YNL170W   | INP52     | YNL106C   | Y |
| YNL170W   | JNM1      | YMR294W   | N |
| YNL170W   | KEM1      | YGL173C   | N |
| YNL170W   | KIP3      | YGL216W   | N |
| YNL170W   | MAD1      | YGL086W   | N |
| YNL170W   | MAD2      | YJL030W   | N |
| YNL170W   | MAD3      | YJL013C   | N |
| YNL170W   | MCK1      | YNL307C   | N |
| YNL170W   | MCM21     | YDR318W   | N |
| YNL170W   | MCM22     | YJR135C   | N |
| YNL170W   | MRC1      | YCL060C   | N |
| YNL170W   | NBP2      | YDR162C   | Y |
| YNL170W   | NUM1      | YDR150W   | N |
| YNL170W   | PAC1      | YOR269W   | N |
| YNL170W   | PAC11     | YDR488C   | N |
| YNL170W   | PHO23     | YNL097C   | N |
| YNL170W   | PPZ1      | YML016C   | N |
| YNL170W   | RAD54     | YGL163C   | N |
| YNL170W   | RTT103    | YDR289C   | N |
| YNL170W   | SAP30     | YMR263W   | N |
| YNL170W   | SLK19     | YOR195W   | N |
| YNL170W   | SMI1      | YGR229C   | N |
| YNL170W   | VAC14     | YLR386W   | N |
| YNL170W   | VID22     | YLR373C   | Y |
| YNL170W   | RXT2      | RXT2      | N |
| YNL170W   | YDR149C   | YDR149C   | N |
| YNL170W   | YGL211W   | YGL211W   | N |
| YNL170W   | YGL217C   | YGL217C   | N |
| YNL170W   | YML095C-A | YML095C-A | N |
| YNL170W   | YPL017C   | YPL017C   | N |
| YNL170W   | YTA7      | YGR270W   | N |
| YPL017C   | AOR1      | YBR231C   | N |
| YPL017C   | ARP1      | YHR129C   | N |
| YPL017C   | ARP6      | YLR085C   | N |
| YPL017C   | ASE1      | YOR058C   | N |
| YPL017C   | BEM1      | YBR200W   | N |
| YPL017C   | BFA1      | YJR053W   | N |
| YPL017C   | BIK1      | YCL029C   | N |
| YPL017C   | BIM1      | YER016W   | Y |
| YPL017C   | BUB1      | YGR188C   | N |

|         |           |           |   |
|---------|-----------|-----------|---|
| YPL017C | BUB2      | YMR055C   | N |
| YPL017C | BUB3      | YOR026W   | N |
| YPL017C | CHL4      | YDR254W   | N |
| YPL017C | CSM3      | YMR048W   | N |
| YPL017C | CTF19     | YPL018W   | Y |
| YPL017C | CTF3      | YLR381W   | N |
| YPL017C | CTF8      | YHR191C   | N |
| YPL017C | DCC1      | YCL016C   | N |
| YPL017C | DYN1      | YKR054C   | N |
| YPL017C | ELP2      | YGR200C   | N |
| YPL017C | FAB1      | YFR019W   | N |
| YPL017C | GIM3      | YNL153C   | N |
| YPL017C | GIM4      | YEL003W   | N |
| YPL017C | GIM5      | YML094W   | N |
| YPL017C | IES2      | YNL215W   | N |
| YPL017C | IML3      | YBR107C   | N |
| YPL017C | INP52     | YNL106C   | N |
| YPL017C | JNM1      | YMR294W   | N |
| YPL017C | KEM1      | YGL173C   | N |
| YPL017C | KIP3      | YGL216W   | N |
| YPL017C | MAD1      | YGL086W   | N |
| YPL017C | MAD2      | YJL030W   | N |
| YPL017C | MAD3      | YJL013C   | N |
| YPL017C | MCK1      | YNL307C   | N |
| YPL017C | MCM21     | YDR318W   | N |
| YPL017C | MCM22     | YJR135C   | N |
| YPL017C | MRC1      | YCL060C   | N |
| YPL017C | NBP2      | YDR162C   | N |
| YPL017C | NUM1      | YDR150W   | N |
| YPL017C | PAC1      | YOR269W   | N |
| YPL017C | PAC11     | YDR488C   | N |
| YPL017C | PHO23     | YNL097C   | N |
| YPL017C | PPZ1      | YML016C   | N |
| YPL017C | RAD54     | YGL163C   | N |
| YPL017C | RTT103    | YDR289C   | N |
| YPL017C | SAP30     | YMR263W   | N |
| YPL017C | SLK19     | YOR195W   | N |
| YPL017C | SMI1      | YGR229C   | N |
| YPL017C | VAC14     | YLR386W   | N |
| YPL017C | VID22     | YLR373C   | N |
| YPL017C | RXT2      | RXT2      | N |
| YPL017C | YDR149C   | YDR149C   | N |
| YPL017C | YGL211W   | YGL211W   | N |
| YPL017C | YGL217C   | YGL217C   | N |
| YPL017C | YML095C-A | YML095C-A | N |
| YPL017C | YNL170W   | YNL170W   | N |
| YPL017C | YTA7      | YGR270W   | N |
| YTA7    | AOR1      | YBR231C   | Y |
| YTA7    | ARP1      | YHR129C   | N |
| YTA7    | ARP6      | YLR085C   | Y |
| YTA7    | ASE1      | YOR058C   | N |
| YTA7    | BEM1      | YBR200W   | N |
| YTA7    | BFA1      | YJR053W   | N |
| YTA7    | BIK1      | YCL029C   | N |
| YTA7    | BIM1      | YER016W   | Y |
| YTA7    | BUB1      | YGR188C   | Y |
| YTA7    | BUB2      | YMR055C   | N |
| YTA7    | BUB3      | YOR026W   | Y |
| YTA7    | CHL4      | YDR254W   | N |
| YTA7    | CSM3      | YMR048W   | N |
| YTA7    | CTF19     | YPL018W   | N |
| YTA7    | CTF3      | YLR381W   | N |
| YTA7    | CTF8      | YHR191C   | N |
| YTA7    | DCC1      | YCL016C   | N |
| YTA7    | DYN1      | YKR054C   | N |
| YTA7    | ELP2      | YGR200C   | N |

|       |           |           |   |
|-------|-----------|-----------|---|
| YTA7  | FAB1      | YFR019W   | N |
| YTA7  | GIM3      | YNL153C   | N |
| YTA7  | GIM4      | YEL003W   | N |
| YTA7  | GIM5      | YML094W   | Y |
| YTA7  | IES2      | YNL215W   | N |
| YTA7  | IML3      | YBR107C   | N |
| YTA7  | INP52     | YNL106C   | N |
| YTA7  | JNM1      | YMR294W   | N |
| YTA7  | KEM1      | YGL173C   | N |
| YTA7  | KIP3      | YGL216W   | N |
| YTA7  | MAD1      | YGL086W   | N |
| YTA7  | MAD2      | YJL030W   | N |
| YTA7  | MAD3      | YJL013C   | N |
| YTA7  | MCK1      | YNL307C   | N |
| YTA7  | MCM21     | YDR318W   | N |
| YTA7  | MCM22     | YJR135C   | N |
| YTA7  | MRC1      | YCL060C   | N |
| YTA7  | NBP2      | YDR162C   | N |
| YTA7  | NUM1      | YDR150W   | N |
| YTA7  | PAC1      | YOR269W   | N |
| YTA7  | PAC11     | YDR488C   | N |
| YTA7  | PHO23     | YNL097C   | N |
| YTA7  | PPZ1      | YML016C   | N |
| YTA7  | RAD54     | YGL163C   | N |
| YTA7  | RTT103    | YDR289C   | N |
| YTA7  | SAP30     | YMR263W   | N |
| YTA7  | SLK19     | YOR195W   | N |
| YTA7  | SMI1      | YGR229C   | N |
| YTA7  | VAC14     | YLR386W   | N |
| YTA7  | VID22     | YLR373C   | N |
| YTA7  | RXT2      | RXT2      | N |
| YTA7  | YDR149C   | YDR149C   | N |
| YTA7  | YGL211W   | YGL211W   | N |
| YTA7  | YGL217C   | YGL217C   | N |
| YTA7  | YML095C-A | YML095C-A | N |
| YTA7  | YNL170W   | YNL170W   | N |
| YTA7  | YPL017C   | YPL017C   | N |
| BUD27 | CAC2      | YML102W   | N |
| BUD27 | CSM3      | YMR048W   | N |
| BUD27 | CTF4      | YPR135W   | N |
| BUD27 | DDC1      | YPL194W   | N |
| BUD27 | DOC1      | YGL240W   | N |
| BUD27 | ESC2      | YDR363W   | N |
| BUD27 | EXO1      | YOR033C   | N |
| BUD27 | HPC2      | YBR215W   | N |
| BUD27 | HPR5      | YJL092W   | N |
| BUD27 | HST1      | YOL068C   | N |
| BUD27 | HST3      | YOR025W   | N |
| BUD27 | LYS7      | YMR038C   | N |
| BUD27 | MMS4      | YBR098W   | N |
| BUD27 | MRE11     | YMR224C   | N |
| BUD27 | MUS81     | YDR386W   | N |
| BUD27 | RAD17     | YOR368W   | N |
| BUD27 | RAD24     | YER173W   | N |
| BUD27 | RAD27     | YKL113C   | Y |
| BUD27 | RAD50     | YNL250W   | N |
| BUD27 | RAD51     | YER095W   | N |
| BUD27 | RAD52     | YML032C   | N |
| BUD27 | RAD54     | YGL163C   | N |
| BUD27 | RAD55     | YDR076W   | N |
| BUD27 | RAD57     | YDR004W   | N |
| BUD27 | RAD9      | YDR217C   | N |
| BUD27 | RPL27A    | YHR010W   | N |
| BUD27 | RPS30B    | YOR182C   | N |
| BUD27 | SAE2      | YGL175C   | N |
| BUD27 | SGS1      | YMR190C   | N |



|       |         |         |     |
|-------|---------|---------|-----|
| BUD27 | SIS2    | YKR072C | N   |
| BUD27 | SOD1    | YJR104C | Y   |
| BUD27 | XRS2    | YDR369C | N   |
| BUD27 | YDJ1    | YNL064C | Y   |
| BUD27 | YLR352W | YLR352W | N   |
| BUD27 | YNL171C | YNL171C | N   |
| BUD27 | YPR116W | YPR116W | N/D |
| CAC2  | BUD27   | YFL023W | N   |
| CAC2  | CSM3    | YMR048W | N   |
| CAC2  | CTF4    | YPR135W | N   |
| CAC2  | DDC1    | YPL194W | N   |
| CAC2  | DOC1    | YGL240W | N   |
| CAC2  | ESC2    | YDR363W | N   |
| CAC2  | EXO1    | YOR033C | N   |
| CAC2  | HPC2    | YBR215W | N   |
| CAC2  | HPR5    | YJL092W | N   |
| CAC2  | HST1    | YOL068C | N   |
| CAC2  | HST3    | YOR025W | N   |
| CAC2  | LYS7    | YMR038C | N   |
| CAC2  | MMS4    | YBR098W | N   |
| CAC2  | MRE11   | YMR224C | Y   |
| CAC2  | MUS81   | YDR386W | N   |
| CAC2  | RAD17   | YOR368W | N   |
| CAC2  | RAD24   | YER173W | N   |
| CAC2  | RAD27   | YKL113C | Y   |
| CAC2  | RAD50   | YNL250W | N   |
| CAC2  | RAD51   | YER095W | N   |
| CAC2  | RAD52   | YML032C | N   |
| CAC2  | RAD54   | YGL163C | N   |
| CAC2  | RAD55   | YDR076W | N   |
| CAC2  | RAD57   | YDR004W | N   |
| CAC2  | RAD9    | YDR217C | N   |
| CAC2  | RPL27A  | YHR010W | N   |
| CAC2  | RPS30B  | YOR182C | N   |
| CAC2  | SAE2    | YGL175C | N   |
| CAC2  | SGS1    | YMR190C | N   |
| CAC2  | SIS2    | YKR072C | N   |
| CAC2  | SOD1    | YJR104C | N   |
| CAC2  | XRS2    | YDR369C | Y   |
| CAC2  | YDJ1    | YNL064C | N   |
| CAC2  | YLR352W | YLR352W | N   |
| CAC2  | YNL171C | YNL171C | Y   |
| CAC2  | YPR116W | YPR116W | N/D |
| CSM3  | BUD27   | YFL023W | N   |
| CSM3  | CAC2    | YML102W | N   |
| CSM3  | CTF4    | YPR135W | Y   |
| CSM3  | DDC1    | YPL194W | N   |
| CSM3  | DOC1    | YGL240W | N   |
| CSM3  | ESC2    | YDR363W | N   |
| CSM3  | EXO1    | YOR033C | N   |
| CSM3  | HPC2    | YBR215W | N   |
| CSM3  | HPR5    | YJL092W | Y   |
| CSM3  | HST1    | YOL068C | N   |
| CSM3  | HST3    | YOR025W | N   |
| CSM3  | LYS7    | YMR038C | Y   |
| CSM3  | MMS4    | YBR098W | N   |
| CSM3  | MRE11   | YMR224C | N   |
| CSM3  | MUS81   | YDR386W | N   |
| CSM3  | RAD17   | YOR368W | N   |
| CSM3  | RAD24   | YER173W | N   |
| CSM3  | RAD27   | YKL113C | Y   |
| CSM3  | RAD50   | YNL250W | N   |
| CSM3  | RAD51   | YER095W | N   |
| CSM3  | RAD52   | YML032C | N   |
| CSM3  | RAD54   | YGL163C | N   |
| CSM3  | RAD55   | YDR076W | N   |

|      |         |         |     |
|------|---------|---------|-----|
| CSM3 | RAD57   | YDR004W | N   |
| CSM3 | RAD9    | YDR217C | N   |
| CSM3 | RPL27A  | YHR010W | N   |
| CSM3 | RPS30B  | YOR182C | N   |
| CSM3 | SAE2    | YGL175C | N   |
| CSM3 | SGS1    | YMR190C | Y   |
| CSM3 | SIS2    | YKR072C | N   |
| CSM3 | SOD1    | YJR104C | N   |
| CSM3 | XRS2    | YDR369C | N   |
| CSM3 | YDJ1    | YNL064C | N   |
| CSM3 | YLR352W | YLR352W | N   |
| CSM3 | YNL171C | YNL171C | Y   |
| CSM3 | YPR116W | YPR116W | N/D |
| CTF4 | BUD27   | YFL023W | N   |
| CTF4 | CAC2    | YML102W | Y   |
| CTF4 | CSM3    | YMR048W | Y   |
| CTF4 | DDC1    | YPL194W | N   |
| CTF4 | DOC1    | YGL240W | N   |
| CTF4 | ESC2    | YDR363W | N   |
| CTF4 | EXO1    | YOR033C | N   |
| CTF4 | HPC2    | YBR215W | N   |
| CTF4 | HPR5    | YJL092W | Y   |
| CTF4 | HST1    | YOL068C | N   |
| CTF4 | HST3    | YOR025W | N   |
| CTF4 | LYS7    | YMR038C | N   |
| CTF4 | MMS4    | YBR098W | N   |
| CTF4 | MRE11   | YMR224C | Y   |
| CTF4 | MUS81   | YDR386W | N   |
| CTF4 | RAD17   | YOR368W | N   |
| CTF4 | RAD24   | YER173W | N   |
| CTF4 | RAD27   | YKL113C | Y   |
| CTF4 | RAD50   | YNL250W | Y   |
| CTF4 | RAD51   | YER095W | N   |
| CTF4 | RAD52   | YML032C | N   |
| CTF4 | RAD54   | YGL163C | N   |
| CTF4 | RAD55   | YDR076W | N   |
| CTF4 | RAD57   | YDR004W | N   |
| CTF4 | RAD9    | YDR217C | N   |
| CTF4 | RPL27A  | YHR010W | Y   |
| CTF4 | RPS30B  | YOR182C | N   |
| CTF4 | SAE2    | YGL175C | N   |
| CTF4 | SGS1    | YMR190C | N   |
| CTF4 | SIS2    | YKR072C | N   |
| CTF4 | SOD1    | YJR104C | Y   |
| CTF4 | XRS2    | YDR369C | Y   |
| CTF4 | YDJ1    | YNL064C | N   |
| CTF4 | YLR352W | YLR352W | N   |
| CTF4 | YNL171C | YNL171C | Y   |
| CTF4 | YPR116W | YPR116W | N/D |
| DDC1 | BUD27   | YFL023W | N   |
| DDC1 | CAC2    | YML102W | N   |
| DDC1 | CSM3    | YMR048W | N   |
| DDC1 | CTF4    | YPR135W | N   |
| DDC1 | DOC1    | YGL240W | N   |
| DDC1 | ESC2    | YDR363W | N   |
| DDC1 | EXO1    | YOR033C | N   |
| DDC1 | HPC2    | YBR215W | N   |
| DDC1 | HPR5    | YJL092W | N   |
| DDC1 | HST1    | YOL068C | N   |
| DDC1 | HST3    | YOR025W | N   |
| DDC1 | LYS7    | YMR038C | N   |
| DDC1 | MMS4    | YBR098W | N   |
| DDC1 | MRE11   | YMR224C | N   |
| DDC1 | MUS81   | YDR386W | N   |
| DDC1 | RAD17   | YOR368W | N   |
| DDC1 | RAD24   | YER173W | N   |

|      |         |         |     |
|------|---------|---------|-----|
| DDC1 | RAD27   | YKL113C | Y   |
| DDC1 | RAD50   | YNL250W | N   |
| DDC1 | RAD51   | YER095W | N   |
| DDC1 | RAD52   | YML032C | N   |
| DDC1 | RAD54   | YGL163C | N   |
| DDC1 | RAD55   | YDR076W | N   |
| DDC1 | RAD57   | YDR004W | N   |
| DDC1 | RAD9    | YDR217C | N   |
| DDC1 | RPL27A  | YHR010W | N   |
| DDC1 | RPS30B  | YOR182C | N   |
| DDC1 | SAE2    | YGL175C | N   |
| DDC1 | SGS1    | YMR190C | N   |
| DDC1 | SIS2    | YKR072C | N   |
| DDC1 | SOD1    | YJR104C | Y   |
| DDC1 | XRS2    | YDR369C | N   |
| DDC1 | YDJ1    | YNL064C | N   |
| DDC1 | YLR352W | YLR352W | N   |
| DDC1 | YNL171C | YNL171C | N   |
| DDC1 | YPR116W | YPR116W | N/D |
| DOC1 | BUD27   | YFL023W | N   |
| DOC1 | CAC2    | YML102W | N   |
| DOC1 | CSM3    | YMR048W | N   |
| DOC1 | CTF4    | YPR135W | Y   |
| DOC1 | DDC1    | YPL194W | N   |
| DOC1 | ESC2    | YDR363W | N   |
| DOC1 | EXO1    | YOR033C | N   |
| DOC1 | HPC2    | YBR215W | N   |
| DOC1 | HPR5    | YJL092W | Y   |
| DOC1 | HST1    | YOL068C | N   |
| DOC1 | HST3    | YOR025W | N   |
| DOC1 | LYS7    | YMR038C | N   |
| DOC1 | MMS4    | YBR098W | N   |
| DOC1 | MRE11   | YMR224C | Y   |
| DOC1 | MUS81   | YDR386W | N   |
| DOC1 | RAD17   | YOR368W | N   |
| DOC1 | RAD24   | YER173W | N   |
| DOC1 | RAD27   | YKL113C | Y   |
| DOC1 | RAD50   | YNL250W | N   |
| DOC1 | RAD51   | YER095W | N   |
| DOC1 | RAD52   | YML032C | Y   |
| DOC1 | RAD54   | YGL163C | N   |
| DOC1 | RAD55   | YDR076W | N   |
| DOC1 | RAD57   | YDR004W | N   |
| DOC1 | RAD9    | YDR217C | N   |
| DOC1 | RPL27A  | YHR010W | Y   |
| DOC1 | RPS30B  | YOR182C | N   |
| DOC1 | SAE2    | YGL175C | N   |
| DOC1 | SGS1    | YMR190C | N   |
| DOC1 | SIS2    | YKR072C | N   |
| DOC1 | SOD1    | YJR104C | N   |
| DOC1 | XRS2    | YDR369C | N   |
| DOC1 | YDJ1    | YNL064C | N   |
| DOC1 | YLR352W | YLR352W | N   |
| DOC1 | YNL171C | YNL171C | Y   |
| DOC1 | YPR116W | YPR116W | N/D |
| ESC2 | BUD27   | YFL023W | N   |
| ESC2 | CAC2    | YML102W | N   |
| ESC2 | CSM3    | YMR048W | N   |
| ESC2 | CTF4    | YPR135W | N   |
| ESC2 | DDC1    | YPL194W | N   |
| ESC2 | DOC1    | YGL240W | N   |
| ESC2 | EXO1    | YOR033C | N   |
| ESC2 | HPC2    | YBR215W | Y   |
| ESC2 | HPR5    | YJL092W | Y   |
| ESC2 | HST1    | YOL068C | N   |
| ESC2 | HST3    | YOR025W | N   |

|      |         |         |     |
|------|---------|---------|-----|
| ESC2 | LYS7    | YMR038C | Y   |
| ESC2 | MMS4    | YBR098W | Y   |
| ESC2 | MRE11   | YMR224C | N   |
| ESC2 | MUS81   | YDR386W | Y   |
| ESC2 | RAD17   | YOR368W | N   |
| ESC2 | RAD24   | YER173W | N   |
| ESC2 | RAD27   | YKL113C | Y   |
| ESC2 | RAD50   | YNL250W | N   |
| ESC2 | RAD51   | YER095W | N   |
| ESC2 | RAD52   | YML032C | N   |
| ESC2 | RAD54   | YGL163C | N   |
| ESC2 | RAD55   | YDR076W | N   |
| ESC2 | RAD57   | YDR004W | N   |
| ESC2 | RAD9    | YDR217C | N   |
| ESC2 | RPL27A  | YHR010W | N   |
| ESC2 | RPS30B  | YOR182C | N   |
| ESC2 | SAE2    | YGL175C | N   |
| ESC2 | SGS1    | YMR190C | Y   |
| ESC2 | SIS2    | YKR072C | N   |
| ESC2 | SOD1    | YJR104C | N   |
| ESC2 | XRS2    | YDR369C | Y   |
| ESC2 | YDJ1    | YNL064C | N   |
| ESC2 | YLR352W | YLR352W | N   |
| ESC2 | YNL171C | YNL171C | N   |
| ESC2 | YPR116W | YPR116W | N/D |
| EXO1 | BUD27   | YFL023W | N   |
| EXO1 | CAC2    | YML102W | N   |
| EXO1 | CSM3    | YMR048W | N   |
| EXO1 | CTF4    | YPR135W | N   |
| EXO1 | DDC1    | YPL194W | N   |
| EXO1 | DOC1    | YGL240W | N   |
| EXO1 | ESC2    | YDR363W | N   |
| EXO1 | HPC2    | YBR215W | N   |
| EXO1 | HPR5    | YJL092W | N   |
| EXO1 | HST1    | YOL068C | N   |
| EXO1 | HST3    | YOR025W | Y   |
| EXO1 | LYS7    | YMR038C | N   |
| EXO1 | MMS4    | YBR098W | N   |
| EXO1 | MRE11   | YMR224C | N   |
| EXO1 | MUS81   | YDR386W | N   |
| EXO1 | RAD17   | YOR368W | N   |
| EXO1 | RAD24   | YER173W | N   |
| EXO1 | RAD27   | YKL113C | Y   |
| EXO1 | RAD50   | YNL250W | N   |
| EXO1 | RAD51   | YER095W | N   |
| EXO1 | RAD52   | YML032C | N   |
| EXO1 | RAD54   | YGL163C | N   |
| EXO1 | RAD55   | YDR076W | N   |
| EXO1 | RAD57   | YDR004W | N   |
| EXO1 | RAD9    | YDR217C | N   |
| EXO1 | RPL27A  | YHR010W | N   |
| EXO1 | RPS30B  | YOR182C | N   |
| EXO1 | SAE2    | YGL175C | N   |
| EXO1 | SGS1    | YMR190C | N   |
| EXO1 | SIS2    | YKR072C | N   |
| EXO1 | SOD1    | YJR104C | N   |
| EXO1 | XRS2    | YDR369C | N   |
| EXO1 | YDJ1    | YNL064C | N   |
| EXO1 | YLR352W | YLR352W | N   |
| EXO1 | YNL171C | YNL171C | N   |
| EXO1 | YPR116W | YPR116W | N/D |
| HPC2 | BUD27   | YFL023W | N   |
| HPC2 | CAC2    | YML102W | Y   |
| HPC2 | CSM3    | YMR048W | N   |
| HPC2 | CTF4    | YPR135W | N   |
| HPC2 | DDC1    | YPL194W | N   |

|      |         |         |     |
|------|---------|---------|-----|
| HPC2 | DOC1    | YGL240W | N   |
| HPC2 | ESC2    | YDR363W | N   |
| HPC2 | EXO1    | YOR033C | N   |
| HPC2 | HPR5    | YJL092W | N   |
| HPC2 | HST1    | YOL068C | N   |
| HPC2 | HST3    | YOR025W | N   |
| HPC2 | LYS7    | YMR038C | N   |
| HPC2 | MMS4    | YBR098W | N   |
| HPC2 | MRE11   | YMR224C | N   |
| HPC2 | MUS81   | YDR386W | N   |
| HPC2 | RAD17   | YOR368W | N   |
| HPC2 | RAD24   | YER173W | N   |
| HPC2 | RAD27   | YKL113C | Y   |
| HPC2 | RAD50   | YNL250W | Y   |
| HPC2 | RAD51   | YER095W | N   |
| HPC2 | RAD52   | YML032C | N   |
| HPC2 | RAD54   | YGL163C | N   |
| HPC2 | RAD55   | YDR076W | N   |
| HPC2 | RAD57   | YDR004W | N   |
| HPC2 | RAD9    | YDR217C | N   |
| HPC2 | RPL27A  | YHR010W | N   |
| HPC2 | RPS30B  | YOR182C | N   |
| HPC2 | SAE2    | YGL175C | N   |
| HPC2 | SGS1    | YMR190C | N   |
| HPC2 | SIS2    | YKR072C | N   |
| HPC2 | SOD1    | YJR104C | Y   |
| HPC2 | XRS2    | YDR369C | N   |
| HPC2 | YDJ1    | YNL064C | N   |
| HPC2 | YLR352W | YLR352W | N   |
| HPC2 | YNL171C | YNL171C | N   |
| HPC2 | YPR116W | YPR116W | N/D |
| HPR5 | BUD27   | YFL023W | N   |
| HPR5 | CAC2    | YML102W | N   |
| HPR5 | CSM3    | YMR048W | Y   |
| HPR5 | CTF4    | YPR135W | Y   |
| HPR5 | DDC1    | YPL194W | N   |
| HPR5 | DOC1    | YGL240W | N   |
| HPR5 | ESC2    | YDR363W | Y   |
| HPR5 | EXO1    | YOR033C | N   |
| HPR5 | HPC2    | YBR215W | N   |
| HPR5 | HST1    | YOL068C | N   |
| HPR5 | HST3    | YOR025W | N   |
| HPR5 | LYS7    | YMR038C | N   |
| HPR5 | MMS4    | YBR098W | N   |
| HPR5 | MRE11   | YMR224C | N   |
| HPR5 | MUS81   | YDR386W | N   |
| HPR5 | RAD17   | YOR368W | N   |
| HPR5 | RAD24   | YER173W | N   |
| HPR5 | RAD27   | YKL113C | Y   |
| HPR5 | RAD50   | YNL250W | N   |
| HPR5 | RAD51   | YER095W | N   |
| HPR5 | RAD52   | YML032C | N   |
| HPR5 | RAD54   | YGL163C | Y   |
| HPR5 | RAD55   | YDR076W | N   |
| HPR5 | RAD57   | YDR004W | N   |
| HPR5 | RAD9    | YDR217C | N   |
| HPR5 | RPL27A  | YHR010W | N   |
| HPR5 | RPS30B  | YOR182C | N   |
| HPR5 | SAE2    | YGL175C | N   |
| HPR5 | SGS1    | YMR190C | Y   |
| HPR5 | SIS2    | YKR072C | N   |
| HPR5 | SOD1    | YJR104C | N   |
| HPR5 | XRS2    | YDR369C | Y   |
| HPR5 | YDJ1    | YNL064C | N   |
| HPR5 | YLR352W | YLR352W | N   |
| HPR5 | YNL171C | YNL171C | N   |

|      |         |         |     |
|------|---------|---------|-----|
| HPR5 | YPR116W | YPR116W | N/D |
| HST1 | BUD27   | YFL023W | N   |
| HST1 | CAC2    | YML102W | N   |
| HST1 | CSM3    | YMR048W | N   |
| HST1 | CTF4    | YPR135W | N   |
| HST1 | DDC1    | YPL194W | N   |
| HST1 | DOC1    | YGL240W | N   |
| HST1 | ESC2    | YDR363W | N   |
| HST1 | EXO1    | YOR033C | N   |
| HST1 | HPC2    | YBR215W | N   |
| HST1 | HPR5    | YJL092W | N   |
| HST1 | HST3    | YOR025W | N   |
| HST1 | LYS7    | YMR038C | N   |
| HST1 | MMS4    | YBR098W | N   |
| HST1 | MRE11   | YMR224C | N   |
| HST1 | MUS81   | YDR386W | N   |
| HST1 | RAD17   | YOR368W | N   |
| HST1 | RAD24   | YER173W | N   |
| HST1 | RAD27   | YKL113C | Y   |
| HST1 | RAD50   | YNL250W | N   |
| HST1 | RAD51   | YER095W | N   |
| HST1 | RAD52   | YML032C | N   |
| HST1 | RAD54   | YGL163C | N   |
| HST1 | RAD55   | YDR076W | N   |
| HST1 | RAD57   | YDR004W | N   |
| HST1 | RAD9    | YDR217C | N   |
| HST1 | RPL27A  | YHR010W | N   |
| HST1 | RPS30B  | YOR182C | N   |
| HST1 | SAE2    | YGL175C | N   |
| HST1 | SGS1    | YMR190C | N   |
| HST1 | SIS2    | YKR072C | N   |
| HST1 | SOD1    | YJR104C | N   |
| HST1 | XRS2    | YDR369C | N   |
| HST1 | YDJ1    | YNL064C | N   |
| HST1 | YLR352W | YLR352W | N   |
| HST1 | YNL171C | YNL171C | Y   |
| HST1 | YPR116W | YPR116W | N/D |
| HST3 | BUD27   | YFL023W | N   |
| HST3 | CAC2    | YML102W | N   |
| HST3 | CSM3    | YMR048W | Y   |
| HST3 | CTF4    | YPR135W | N   |
| HST3 | DDC1    | YPL194W | N   |
| HST3 | DOC1    | YGL240W | N   |
| HST3 | ESC2    | YDR363W | N   |
| HST3 | EXO1    | YOR033C | Y   |
| HST3 | HPC2    | YBR215W | N   |
| HST3 | HPR5    | YJL092W | N   |
| HST3 | HST1    | YOL068C | N   |
| HST3 | LYS7    | YMR038C | N   |
| HST3 | MMS4    | YBR098W | N   |
| HST3 | MRE11   | YMR224C | N   |
| HST3 | MUS81   | YDR386W | N   |
| HST3 | RAD17   | YOR368W | N   |
| HST3 | RAD24   | YER173W | N   |
| HST3 | RAD27   | YKL113C | Y   |
| HST3 | RAD50   | YNL250W | N   |
| HST3 | RAD51   | YER095W | N   |
| HST3 | RAD52   | YML032C | N   |
| HST3 | RAD54   | YGL163C | N   |
| HST3 | RAD55   | YDR076W | N   |
| HST3 | RAD57   | YDR004W | N   |
| HST3 | RAD9    | YDR217C | N   |
| HST3 | RPL27A  | YHR010W | N   |
| HST3 | RPS30B  | YOR182C | N   |
| HST3 | SAE2    | YGL175C | N   |
| HST3 | SGS1    | YMR190C | N   |

|      |         |         |     |
|------|---------|---------|-----|
| HST3 | SIS2    | YKR072C | N   |
| HST3 | SOD1    | YJR104C | N   |
| HST3 | XRS2    | YDR369C | N   |
| HST3 | YDJ1    | YNL064C | N   |
| HST3 | YLR352W | YLR352W | N   |
| HST3 | YNL171C | YNL171C | N   |
| HST3 | YPR116W | YPR116W | N/D |
| LYS7 | BUD27   | YFL023W | N   |
| LYS7 | CAC2    | YML102W | N   |
| LYS7 | CSM3    | YMR048W | Y   |
| LYS7 | CTF4    | YPR135W | N   |
| LYS7 | DDC1    | YPL194W | N   |
| LYS7 | DOC1    | YGL240W | N   |
| LYS7 | ESC2    | YDR363W | N   |
| LYS7 | EXO1    | YOR033C | N   |
| LYS7 | HPC2    | YBR215W | N   |
| LYS7 | HPR5    | YJL092W | N   |
| LYS7 | HST1    | YOL068C | N   |
| LYS7 | HST3    | YOR025W | N   |
| LYS7 | MMS4    | YBR098W | N   |
| LYS7 | MRE11   | YMR224C | Y   |
| LYS7 | MUS81   | YDR386W | N   |
| LYS7 | RAD17   | YOR368W | N   |
| LYS7 | RAD24   | YER173W | N   |
| LYS7 | RAD27   | YKL113C | Y   |
| LYS7 | RAD50   | YNL250W | Y   |
| LYS7 | RAD51   | YER095W | Y   |
| LYS7 | RAD52   | YML032C | Y   |
| LYS7 | RAD54   | YGL163C | Y   |
| LYS7 | RAD55   | YDR076W | N/D |
| LYS7 | RAD57   | YDR004W | N   |
| LYS7 | RAD9    | YDR217C | N   |
| LYS7 | RPL27A  | YHR010W | N   |
| LYS7 | RPS30B  | YOR182C | N   |
| LYS7 | SAE2    | YGL175C | N   |
| LYS7 | SGS1    | YMR190C | N   |
| LYS7 | SIS2    | YKR072C | N   |
| LYS7 | SOD1    | YJR104C | N   |
| LYS7 | XRS2    | YDR369C | Y   |
| LYS7 | YDJ1    | YNL064C | N   |
| LYS7 | YLR352W | YLR352W | N   |
| LYS7 | YNL171C | YNL171C | N   |
| LYS7 | YPR116W | YPR116W | N/D |
| MMS4 | BUD27   | YFL023W | N   |
| MMS4 | CAC2    | YML102W | N   |
| MMS4 | CSM3    | YMR048W | N   |
| MMS4 | CTF4    | YPR135W | N   |
| MMS4 | DDC1    | YPL194W | N   |
| MMS4 | DOC1    | YGL240W | N   |
| MMS4 | ESC2    | YDR363W | Y   |
| MMS4 | EXO1    | YOR033C | N   |
| MMS4 | HPC2    | YBR215W | N   |
| MMS4 | HPR5    | YJL092W | N   |
| MMS4 | HST1    | YOL068C | N   |
| MMS4 | HST3    | YOR025W | N   |
| MMS4 | LYS7    | YMR038C | N   |
| MMS4 | MRE11   | YMR224C | N   |
| MMS4 | MUS81   | YDR386W | N   |
| MMS4 | RAD17   | YOR368W | N   |
| MMS4 | RAD24   | YER173W | N   |
| MMS4 | RAD27   | YKL113C | Y   |
| MMS4 | RAD50   | YNL250W | N   |
| MMS4 | RAD51   | YER095W | N   |
| MMS4 | RAD52   | YML032C | N   |
| MMS4 | RAD54   | YGL163C | N   |
| MMS4 | RAD55   | YDR076W | N   |

|       |         |         |     |
|-------|---------|---------|-----|
| MMS4  | RAD57   | YDR004W | N   |
| MMS4  | RAD9    | YDR217C | N   |
| MMS4  | RPL27A  | YHR010W | N   |
| MMS4  | RPS30B  | YOR182C | N   |
| MMS4  | SAE2    | YGL175C | N   |
| MMS4  | SGS1    | YMR190C | Y   |
| MMS4  | SIS2    | YKR072C | N   |
| MMS4  | SOD1    | YJR104C | N   |
| MMS4  | XRS2    | YDR369C | N   |
| MMS4  | YDJ1    | YNL064C | N   |
| MMS4  | YLR352W | YLR352W | N   |
| MMS4  | YNL171C | YNL171C | N   |
| MMS4  | YPR116W | YPR116W | N/D |
| MRE11 | BUD27   | YFL023W | N   |
| MRE11 | CAC2    | YML102W | Y   |
| MRE11 | CSM3    | YMR048W | N   |
| MRE11 | CTF4    | YPR135W | Y   |
| MRE11 | DDC1    | YPL194W | N   |
| MRE11 | DOC1    | YGL240W | N   |
| MRE11 | ESC2    | YDR363W | N   |
| MRE11 | EXO1    | YOR033C | Y   |
| MRE11 | HPC2    | YBR215W | N   |
| MRE11 | HPR5    | YJL092W | Y   |
| MRE11 | HST1    | YOL068C | N   |
| MRE11 | HST3    | YOR025W | N   |
| MRE11 | LYS7    | YMR038C | Y   |
| MRE11 | MMS4    | YBR098W | N   |
| MRE11 | MUS81   | YDR386W | N   |
| MRE11 | RAD17   | YOR368W | N   |
| MRE11 | RAD24   | YER173W | N   |
| MRE11 | RAD27   | YKL113C | Y   |
| MRE11 | RAD50   | YNL250W | N   |
| MRE11 | RAD51   | YER095W | N   |
| MRE11 | RAD52   | YML032C | N   |
| MRE11 | RAD54   | YGL163C | N   |
| MRE11 | RAD55   | YDR076W | N   |
| MRE11 | RAD57   | YDR004W | N   |
| MRE11 | RAD9    | YDR217C | N   |
| MRE11 | RPL27A  | YHR010W | Y   |
| MRE11 | RPS30B  | YOR182C | N   |
| MRE11 | SAE2    | YGL175C | N   |
| MRE11 | SGS1    | YMR190C | Y   |
| MRE11 | SIS2    | YKR072C | N   |
| MRE11 | SOD1    | YJR104C | Y   |
| MRE11 | XRS2    | YDR369C | N   |
| MRE11 | YDJ1    | YNL064C | Y   |
| MRE11 | YLR352W | YLR352W | N   |
| MRE11 | YNL171C | YNL171C | Y   |
| MRE11 | YPR116W | YPR116W | N/D |
| MUS81 | BUD27   | YFL023W | N   |
| MUS81 | CAC2    | YML102W | N   |
| MUS81 | CSM3    | YMR048W | N   |
| MUS81 | CTF4    | YPR135W | N   |
| MUS81 | DDC1    | YPL194W | N   |
| MUS81 | DOC1    | YGL240W | N   |
| MUS81 | ESC2    | YDR363W | Y   |
| MUS81 | EXO1    | YOR033C | N   |
| MUS81 | HPC2    | YBR215W | N   |
| MUS81 | HPR5    | YJL092W | N   |
| MUS81 | HST1    | YOL068C | N   |
| MUS81 | HST3    | YOR025W | N   |
| MUS81 | LYS7    | YMR038C | Y   |
| MUS81 | MMS4    | YBR098W | N   |
| MUS81 | MRE11   | YMR224C | N   |
| MUS81 | RAD17   | YOR368W | N   |
| MUS81 | RAD24   | YER173W | N   |



|       |         |         |     |
|-------|---------|---------|-----|
| MUS81 | RAD27   | YKL113C | Y   |
| MUS81 | RAD50   | YNL250W | N   |
| MUS81 | RAD51   | YER095W | N   |
| MUS81 | RAD52   | YML032C | N   |
| MUS81 | RAD54   | YGL163C | N   |
| MUS81 | RAD55   | YDR076W | N   |
| MUS81 | RAD57   | YDR004W | N   |
| MUS81 | RAD9    | YDR217C | N   |
| MUS81 | RPL27A  | YHR010W | N   |
| MUS81 | RPS30B  | YOR182C | N   |
| MUS81 | SAE2    | YGL175C | N   |
| MUS81 | SGS1    | YMR190C | Y   |
| MUS81 | SIS2    | YKR072C | N   |
| MUS81 | SOD1    | YJR104C | Y   |
| MUS81 | XRS2    | YDR369C | Y   |
| MUS81 | YDJ1    | YNL064C | N   |
| MUS81 | YLR352W | YLR352W | N   |
| MUS81 | YNL171C | YNL171C | N   |
| MUS81 | YPR116W | YPR116W | N/D |
| RAD17 | BUD27   | YFL023W | N   |
| RAD17 | CAC2    | YML102W | N   |
| RAD17 | CSM3    | YMR048W | N   |
| RAD17 | CTF4    | YPR135W | N   |
| RAD17 | DDC1    | YPL194W | N   |
| RAD17 | DOC1    | YGL240W | N   |
| RAD17 | ESC2    | YDR363W | N   |
| RAD17 | EXO1    | YOR033C | N   |
| RAD17 | HPC2    | YBR215W | N   |
| RAD17 | HPR5    | YJL092W | N   |
| RAD17 | HST1    | YOL068C | N   |
| RAD17 | HST3    | YOR025W | N   |
| RAD17 | LYS7    | YMR038C | N   |
| RAD17 | MMS4    | YBR098W | N   |
| RAD17 | MRE11   | YMR224C | N   |
| RAD17 | MUS81   | YDR386W | N   |
| RAD17 | RAD24   | YER173W | N   |
| RAD17 | RAD27   | YKL113C | Y   |
| RAD17 | RAD50   | YNL250W | N   |
| RAD17 | RAD51   | YER095W | N   |
| RAD17 | RAD52   | YML032C | N   |
| RAD17 | RAD54   | YGL163C | N   |
| RAD17 | RAD55   | YDR076W | N   |
| RAD17 | RAD57   | YDR004W | N   |
| RAD17 | RAD9    | YDR217C | N   |
| RAD17 | RPL27A  | YHR010W | N   |
| RAD17 | RPS30B  | YOR182C | N   |
| RAD17 | SAE2    | YGL175C | N   |
| RAD17 | SGS1    | YMR190C | N   |
| RAD17 | SIS2    | YKR072C | N   |
| RAD17 | SOD1    | YJR104C | N   |
| RAD17 | XRS2    | YDR369C | N   |
| RAD17 | YDJ1    | YNL064C | N   |
| RAD17 | YLR352W | YLR352W | N   |
| RAD17 | YNL171C | YNL171C | N   |
| RAD17 | YPR116W | YPR116W | N/D |
| RAD24 | BUD27   | YFL023W | N   |
| RAD24 | CAC2    | YML102W | N   |
| RAD24 | CSM3    | YMR048W | N   |
| RAD24 | CTF4    | YPR135W | N   |
| RAD24 | DDC1    | YPL194W | N   |
| RAD24 | DOC1    | YGL240W | N   |
| RAD24 | ESC2    | YDR363W | N   |
| RAD24 | EXO1    | YOR033C | N   |
| RAD24 | HPC2    | YBR215W | N   |
| RAD24 | HPR5    | YJL092W | N   |
| RAD24 | HST1    | YOL068C | N   |

|       |         |         |     |
|-------|---------|---------|-----|
| RAD24 | HST3    | YOR025W | N   |
| RAD24 | LYS7    | YMR038C | N   |
| RAD24 | MMS4    | YBR098W | N   |
| RAD24 | MRE11   | YMR224C | N   |
| RAD24 | MUS81   | YDR386W | N   |
| RAD24 | RAD17   | YOR368W | N   |
| RAD24 | RAD27   | YKL113C | Y   |
| RAD24 | RAD50   | YNL250W | N   |
| RAD24 | RAD51   | YER095W | N   |
| RAD24 | RAD52   | YML032C | N   |
| RAD24 | RAD54   | YGL163C | N   |
| RAD24 | RAD55   | YDR076W | N   |
| RAD24 | RAD57   | YDR004W | N   |
| RAD24 | RAD9    | YDR217C | N   |
| RAD24 | RPL27A  | YHR010W | N   |
| RAD24 | RPS30B  | YOR182C | N   |
| RAD24 | SAE2    | YGL175C | N   |
| RAD24 | SGS1    | YMR190C | N   |
| RAD24 | SIS2    | YKR072C | N   |
| RAD24 | SOD1    | YJR104C | N   |
| RAD24 | XRS2    | YDR369C | N   |
| RAD24 | YDJ1    | YNL064C | N   |
| RAD24 | YLR352W | YLR352W | N   |
| RAD24 | YNL171C | YNL171C | N   |
| RAD24 | YPR116W | YPR116W | N/D |
| RAD27 | BUD27   | YFL023W | Y   |
| RAD27 | CAC2    | YML102W | Y   |
| RAD27 | CSM3    | YMR048W | Y   |
| RAD27 | CTF4    | YPR135W | Y   |
| RAD27 | DDC1    | YPL194W | Y   |
| RAD27 | DOC1    | YGL240W | Y   |
| RAD27 | ESC2    | YDR363W | Y   |
| RAD27 | EXO1    | YOR033C | Y   |
| RAD27 | HPC2    | YBR215W | Y   |
| RAD27 | HPR5    | YJL092W | Y   |
| RAD27 | HST1    | YOL068C | Y   |
| RAD27 | HST3    | YOR025W | Y   |
| RAD27 | LYS7    | YMR038C | Y   |
| RAD27 | MMS4    | YBR098W | Y   |
| RAD27 | MRE11   | YMR224C | Y   |
| RAD27 | MUS81   | YDR386W | Y   |
| RAD27 | RAD17   | YOR368W | Y   |
| RAD27 | RAD24   | YER173W | Y   |
| RAD27 | RAD50   | YNL250W | Y   |
| RAD27 | RAD51   | YER095W | Y   |
| RAD27 | RAD52   | YML032C | Y   |
| RAD27 | RAD54   | YGL163C | Y   |
| RAD27 | RAD55   | YDR076W | Y   |
| RAD27 | RAD57   | YDR004W | Y   |
| RAD27 | RAD9    | YDR217C | Y   |
| RAD27 | RPL27A  | YHR010W | Y   |
| RAD27 | RPS30B  | YOR182C | Y   |
| RAD27 | SAE2    | YGL175C | Y   |
| RAD27 | SGS1    | YMR190C | Y   |
| RAD27 | SIS2    | YKR072C | Y   |
| RAD27 | SOD1    | YJR104C | Y   |
| RAD27 | XRS2    | YDR369C | Y   |
| RAD27 | YDJ1    | YNL064C | Y   |
| RAD27 | YLR352W | YLR352W | Y   |
| RAD27 | YNL171C | YNL171C | Y   |
| RAD27 | YPR116W | YPR116W | Y   |
| RAD50 | BUD27   | YFL023W | N   |
| RAD50 | CAC2    | YML102W | Y   |
| RAD50 | CSM3    | YMR048W | N   |
| RAD50 | CTF4    | YPR135W | Y   |
| RAD50 | DDC1    | YPL194W | N   |

|       |         |         |     |
|-------|---------|---------|-----|
| RAD50 | DOC1    | YGL240W | N   |
| RAD50 | ESC2    | YDR363W | N   |
| RAD50 | EXO1    | YOR033C | Y   |
| RAD50 | HPC2    | YBR215W | Y   |
| RAD50 | HPR5    | YJL092W | N   |
| RAD50 | HST1    | YOL068C | N   |
| RAD50 | HST3    | YOR025W | Y   |
| RAD50 | LYS7    | YMR038C | Y   |
| RAD50 | MMS4    | YBR098W | N   |
| RAD50 | MRE11   | YMR224C | N   |
| RAD50 | MUS81   | YDR386W | N   |
| RAD50 | RAD17   | YOR368W | Y   |
| RAD50 | RAD24   | YER173W | N   |
| RAD50 | RAD27   | YKL113C | Y   |
| RAD50 | RAD51   | YER095W | N   |
| RAD50 | RAD52   | YML032C | N   |
| RAD50 | RAD54   | YGL163C | N   |
| RAD50 | RAD55   | YDR076W | Y   |
| RAD50 | RAD57   | YDR004W | N   |
| RAD50 | RAD9    | YDR217C | N   |
| RAD50 | RPL27A  | YHR010W | Y   |
| RAD50 | RPS30B  | YOR182C | N   |
| RAD50 | SAE2    | YGL175C | N   |
| RAD50 | SGS1    | YMR190C | Y   |
| RAD50 | SIS2    | YKR072C | N   |
| RAD50 | SOD1    | YJR104C | Y   |
| RAD50 | XRS2    | YDR369C | N   |
| RAD50 | YDJ1    | YNL064C | Y   |
| RAD50 | YLR352W | YLR352W | N   |
| RAD50 | YNL171C | YNL171C | N   |
| RAD50 | YPR116W | YPR116W | N/D |
| RAD51 | BUD27   | YFL023W | N   |
| RAD51 | CAC2    | YML102W | N   |
| RAD51 | CSM3    | YMR048W | N   |
| RAD51 | CTF4    | YPR135W | N   |
| RAD51 | DDC1    | YPL194W | N   |
| RAD51 | DOC1    | YGL240W | N   |
| RAD51 | ESC2    | YDR363W | N   |
| RAD51 | EXO1    | YOR033C | N   |
| RAD51 | HPC2    | YBR215W | N   |
| RAD51 | HPR5    | YJL092W | N   |
| RAD51 | HST1    | YOL068C | N   |
| RAD51 | HST3    | YOR025W | N   |
| RAD51 | LYS7    | YMR038C | Y   |
| RAD51 | MMS4    | YBR098W | N   |
| RAD51 | MRE11   | YMR224C | N   |
| RAD51 | MUS81   | YDR386W | N   |
| RAD51 | RAD17   | YOR368W | N   |
| RAD51 | RAD24   | YER173W | N   |
| RAD51 | RAD27   | YKL113C | Y   |
| RAD51 | RAD50   | YNL250W | N   |
| RAD51 | RAD52   | YML032C | N   |
| RAD51 | RAD54   | YGL163C | N   |
| RAD51 | RAD55   | YDR076W | N   |
| RAD51 | RAD57   | YDR004W | N   |
| RAD51 | RAD9    | YDR217C | N   |
| RAD51 | RPL27A  | YHR010W | N   |
| RAD51 | RPS30B  | YOR182C | N   |
| RAD51 | SAE2    | YGL175C | N   |
| RAD51 | SGS1    | YMR190C | N   |
| RAD51 | SIS2    | YKR072C | N   |
| RAD51 | SOD1    | YJR104C | Y   |
| RAD51 | XRS2    | YDR369C | N   |
| RAD51 | YDJ1    | YNL064C | N   |
| RAD51 | YLR352W | YLR352W | N   |
| RAD51 | YNL171C | YNL171C | Y   |

|       |         |         |     |
|-------|---------|---------|-----|
| RAD51 | YPR116W | YPR116W | N/D |
| RAD52 | BUD27   | YFL023W | N   |
| RAD52 | CAC2    | YML102W | N   |
| RAD52 | CSM3    | YMR048W | N   |
| RAD52 | CTF4    | YPR135W | Y   |
| RAD52 | DDC1    | YPL194W | N   |
| RAD52 | DOC1    | YGL240W | N   |
| RAD52 | ESC2    | YDR363W | N   |
| RAD52 | EXO1    | YOR033C | N   |
| RAD52 | HPC2    | YBR215W | N   |
| RAD52 | HPR5    | YJL092W | N   |
| RAD52 | HST1    | YOL068C | N   |
| RAD52 | HST3    | YOR025W | N   |
| RAD52 | LYS7    | YMR038C | Y   |
| RAD52 | MMS4    | YBR098W | N   |
| RAD52 | MRE11   | YMR224C | N   |
| RAD52 | MUS81   | YDR386W | N   |
| RAD52 | RAD17   | YOR368W | N   |
| RAD52 | RAD24   | YER173W | N   |
| RAD52 | RAD27   | YKL113C | Y   |
| RAD52 | RAD50   | YNL250W | N   |
| RAD52 | RAD51   | YER095W | N   |
| RAD52 | RAD54   | YGL163C | N   |
| RAD52 | RAD55   | YDR076W | N   |
| RAD52 | RAD57   | YDR004W | N   |
| RAD52 | RAD9    | YDR217C | N   |
| RAD52 | RPL27A  | YHR010W | Y   |
| RAD52 | RPS30B  | YOR182C | N   |
| RAD52 | SAE2    | YGL175C | N   |
| RAD52 | SGS1    | YMR190C | N   |
| RAD52 | SIS2    | YKR072C | N   |
| RAD52 | SOD1    | YJR104C | Y   |
| RAD52 | XRS2    | YDR369C | N   |
| RAD52 | YDJ1    | YNL064C | N   |
| RAD52 | YLR352W | YLR352W | N   |
| RAD52 | YNL171C | YNL171C | Y   |
| RAD52 | YPR116W | YPR116W | N/D |
| RAD54 | BUD27   | YFL023W | N/D |
| RAD54 | CAC2    | YML102W | N/D |
| RAD54 | CSM3    | YMR048W | N/D |
| RAD54 | CTF4    | YPR135W | N/D |
| RAD54 | DDC1    | YPL194W | N/D |
| RAD54 | DOC1    | YGL240W | N/D |
| RAD54 | ESC2    | YDR363W | N/D |
| RAD54 | EXO1    | YOR033C | N/D |
| RAD54 | HPC2    | YBR215W | N/D |
| RAD54 | HPR5    | YJL092W | N/D |
| RAD54 | HST1    | YOL068C | N/D |
| RAD54 | HST3    | YOR025W | N/D |
| RAD54 | LYS7    | YMR038C | N/D |
| RAD54 | MMS4    | YBR098W | N/D |
| RAD54 | MRE11   | YMR224C | N/D |
| RAD54 | MUS81   | YDR386W | N/D |
| RAD54 | RAD17   | YOR368W | N/D |
| RAD54 | RAD24   | YER173W | N/D |
| RAD54 | RAD27   | YKL113C | N/D |
| RAD54 | RAD50   | YNL250W | N/D |
| RAD54 | RAD51   | YER095W | N/D |
| RAD54 | RAD52   | YML032C | N/D |
| RAD54 | RAD55   | YDR076W | N/D |
| RAD54 | RAD57   | YDR004W | N/D |
| RAD54 | RAD9    | YDR217C | N/D |
| RAD54 | RPL27A  | YHR010W | N/D |
| RAD54 | RPS30B  | YOR182C | N/D |
| RAD54 | SAE2    | YGL175C | N/D |
| RAD54 | SGS1    | YMR190C | N/D |

|       |         |         |     |
|-------|---------|---------|-----|
| RAD54 | SIS2    | YKR072C | N/D |
| RAD54 | SOD1    | YJR104C | N/D |
| RAD54 | XRS2    | YDR369C | N/D |
| RAD54 | YDJ1    | YNL064C | N/D |
| RAD54 | YLR352W | YLR352W | N/D |
| RAD54 | YNL171C | YNL171C | N/D |
| RAD54 | YPR116W | YPR116W | N/D |
| RAD55 | BUD27   | YFL023W | N/D |
| RAD55 | CAC2    | YML102W | N/D |
| RAD55 | CSM3    | YMR048W | N/D |
| RAD55 | CTF4    | YPR135W | N/D |
| RAD55 | DDC1    | YPL194W | N/D |
| RAD55 | DOC1    | YGL240W | N/D |
| RAD55 | ESC2    | YDR363W | N/D |
| RAD55 | EXO1    | YOR033C | N/D |
| RAD55 | HPC2    | YBR215W | N/D |
| RAD55 | HPR5    | YJL092W | N/D |
| RAD55 | HST1    | YOL068C | N/D |
| RAD55 | HST3    | YOR025W | N/D |
| RAD55 | LYS7    | YMR038C | N/D |
| RAD55 | MMS4    | YBR098W | N/D |
| RAD55 | MRE11   | YMR224C | N/D |
| RAD55 | MUS81   | YDR386W | N/D |
| RAD55 | RAD17   | YOR368W | N/D |
| RAD55 | RAD24   | YER173W | N/D |
| RAD55 | RAD27   | YKL113C | N/D |
| RAD55 | RAD50   | YNL250W | N/D |
| RAD55 | RAD51   | YER095W | N/D |
| RAD55 | RAD52   | YML032C | N/D |
| RAD55 | RAD54   | YGL163C | N/D |
| RAD55 | RAD57   | YDR004W | N/D |
| RAD55 | RAD9    | YDR217C | N/D |
| RAD55 | RPL27A  | YHR010W | N/D |
| RAD55 | RPS30B  | YOR182C | N/D |
| RAD55 | SAE2    | YGL175C | N/D |
| RAD55 | SGS1    | YMR190C | N/D |
| RAD55 | SIS2    | YKR072C | N/D |
| RAD55 | SOD1    | YJR104C | N/D |
| RAD55 | XRS2    | YDR369C | N/D |
| RAD55 | YDJ1    | YNL064C | N/D |
| RAD55 | YLR352W | YLR352W | N/D |
| RAD55 | YNL171C | YNL171C | N/D |
| RAD55 | YPR116W | YPR116W | N/D |
| RAD57 | BUD27   | YFL023W | N   |
| RAD57 | CAC2    | YML102W | N   |
| RAD57 | CSM3    | YMR048W | N   |
| RAD57 | CTF4    | YPR135W | N   |
| RAD57 | DDC1    | YPL194W | N   |
| RAD57 | DOC1    | YGL240W | N   |
| RAD57 | ESC2    | YDR363W | N   |
| RAD57 | EXO1    | YOR033C | N   |
| RAD57 | HPC2    | YBR215W | N   |
| RAD57 | HPR5    | YJL092W | N   |
| RAD57 | HST1    | YOL068C | N   |
| RAD57 | HST3    | YOR025W | N   |
| RAD57 | LYS7    | YMR038C | Y   |
| RAD57 | MMS4    | YBR098W | N   |
| RAD57 | MRE11   | YMR224C | N   |
| RAD57 | MUS81   | YDR386W | N   |
| RAD57 | RAD17   | YOR368W | N   |
| RAD57 | RAD24   | YER173W | N   |
| RAD57 | RAD27   | YKL113C | Y   |
| RAD57 | RAD50   | YNL250W | N   |
| RAD57 | RAD51   | YER095W | N   |
| RAD57 | RAD52   | YML032C | N   |
| RAD57 | RAD54   | YGL163C | N   |

|        |         |         |     |
|--------|---------|---------|-----|
| RAD57  | RAD55   | YDR076W | N   |
| RAD57  | RAD9    | YDR217C | N   |
| RAD57  | RPL27A  | YHR010W | N   |
| RAD57  | RPS30B  | YOR182C | N   |
| RAD57  | SAE2    | YGL175C | N   |
| RAD57  | SGS1    | YMR190C | N   |
| RAD57  | SIS2    | YKR072C | N   |
| RAD57  | SOD1    | YJR104C | N   |
| RAD57  | XRS2    | YDR369C | N   |
| RAD57  | YDJ1    | YNL064C | N   |
| RAD57  | YLR352W | YLR352W | N   |
| RAD57  | YNL171C | YNL171C | N   |
| RAD57  | YPR116W | YPR116W | N/D |
| RAD9   | BUD27   | YFL023W | N   |
| RAD9   | CAC2    | YML102W | N   |
| RAD9   | CSM3    | YMR048W | Y   |
| RAD9   | CTF4    | YPR135W | N   |
| RAD9   | DDC1    | YPL194W | N   |
| RAD9   | DOC1    | YGL240W | N   |
| RAD9   | ESC2    | YDR363W | N   |
| RAD9   | EXO1    | YOR033C | N   |
| RAD9   | HPC2    | YBR215W | N   |
| RAD9   | HPR5    | YJL092W | N   |
| RAD9   | HST1    | YOL068C | N   |
| RAD9   | HST3    | YOR025W | N   |
| RAD9   | LYS7    | YMR038C | N   |
| RAD9   | MMS4    | YBR098W | N   |
| RAD9   | MRE11   | YMR224C | N   |
| RAD9   | MUS81   | YDR386W | N   |
| RAD9   | RAD17   | YOR368W | N   |
| RAD9   | RAD24   | YER173W | N   |
| RAD9   | RAD27   | YKL113C | Y   |
| RAD9   | RAD50   | YNL250W | N   |
| RAD9   | RAD51   | YER095W | N   |
| RAD9   | RAD52   | YML032C | N   |
| RAD9   | RAD54   | YGL163C | N   |
| RAD9   | RAD55   | YDR076W | N   |
| RAD9   | RAD57   | YDR004W | N   |
| RAD9   | RPL27A  | YHR010W | N   |
| RAD9   | RPS30B  | YOR182C | N   |
| RAD9   | SAE2    | YGL175C | N   |
| RAD9   | SGS1    | YMR190C | N   |
| RAD9   | SIS2    | YKR072C | N   |
| RAD9   | SOD1    | YJR104C | N   |
| RAD9   | XRS2    | YDR369C | N   |
| RAD9   | YDJ1    | YNL064C | N   |
| RAD9   | YLR352W | YLR352W | N   |
| RAD9   | YNL171C | YNL171C | N   |
| RAD9   | YPR116W | YPR116W | N/D |
| RPL27A | BUD27   | YFL023W | N   |
| RPL27A | CAC2    | YML102W | N   |
| RPL27A | CSM3    | YMR048W | N   |
| RPL27A | CTF4    | YPR135W | Y   |
| RPL27A | DDC1    | YPL194W | N   |
| RPL27A | DOC1    | YGL240W | N   |
| RPL27A | ESC2    | YDR363W | N   |
| RPL27A | EXO1    | YOR033C | N   |
| RPL27A | HPC2    | YBR215W | Y   |
| RPL27A | HPR5    | YJL092W | N   |
| RPL27A | HST1    | YOL068C | N   |
| RPL27A | HST3    | YOR025W | N   |
| RPL27A | LYS7    | YMR038C | N   |
| RPL27A | MMS4    | YBR098W | N   |
| RPL27A | MRE11   | YMR224C | Y   |
| RPL27A | MUS81   | YDR386W | N   |
| RPL27A | RAD17   | YOR368W | N   |

|        |         |         |     |
|--------|---------|---------|-----|
| RPL27A | RAD24   | YER173W | N   |
| RPL27A | RAD27   | YKL113C | Y   |
| RPL27A | RAD50   | YNL250W | Y   |
| RPL27A | RAD51   | YER095W | N   |
| RPL27A | RAD52   | YML032C | Y   |
| RPL27A | RAD54   | YGL163C | N   |
| RPL27A | RAD55   | YDR076W | N   |
| RPL27A | RAD57   | YDR004W | N   |
| RPL27A | RAD9    | YDR217C | N   |
| RPL27A | RPS30B  | YOR182C | N   |
| RPL27A | SAE2    | YGL175C | N   |
| RPL27A | SGS1    | YMR190C | Y   |
| RPL27A | SIS2    | YKR072C | N   |
| RPL27A | SOD1    | YJR104C | Y   |
| RPL27A | XRS2    | YDR369C | N   |
| RPL27A | YDJ1    | YNL064C | N   |
| RPL27A | YLR352W | YLR352W | N   |
| RPL27A | YNL171C | YNL171C | Y   |
| RPL27A | YPR116W | YPR116W | N/D |
| RPS30B | BUD27   | YFL023W | N   |
| RPS30B | CAC2    | YML102W | N   |
| RPS30B | CSM3    | YMR048W | N   |
| RPS30B | CTF4    | YPR135W | N   |
| RPS30B | DDC1    | YPL194W | N   |
| RPS30B | DOC1    | YGL240W | N   |
| RPS30B | ESC2    | YDR363W | N   |
| RPS30B | EXO1    | YOR033C | N   |
| RPS30B | HPC2    | YBR215W | N   |
| RPS30B | HPR5    | YJL092W | N   |
| RPS30B | HST1    | YOL068C | N   |
| RPS30B | HST3    | YOR025W | N   |
| RPS30B | LYS7    | YMR038C | N   |
| RPS30B | MMS4    | YBR098W | N   |
| RPS30B | MRE11   | YMR224C | N   |
| RPS30B | MUS81   | YDR386W | N   |
| RPS30B | RAD17   | YOR368W | N   |
| RPS30B | RAD24   | YER173W | N   |
| RPS30B | RAD27   | YKL113C | Y   |
| RPS30B | RAD50   | YNL250W | N   |
| RPS30B | RAD51   | YER095W | N   |
| RPS30B | RAD52   | YML032C | N   |
| RPS30B | RAD54   | YGL163C | N   |
| RPS30B | RAD55   | YDR076W | N   |
| RPS30B | RAD57   | YDR004W | N   |
| RPS30B | RAD9    | YDR217C | N   |
| RPS30B | RPL27A  | YHR010W | N   |
| RPS30B | SAE2    | YGL175C | N   |
| RPS30B | SGS1    | YMR190C | N   |
| RPS30B | SIS2    | YKR072C | N   |
| RPS30B | SOD1    | YJR104C | N   |
| RPS30B | XRS2    | YDR369C | N   |
| RPS30B | YDJ1    | YNL064C | N   |
| RPS30B | YLR352W | YLR352W | N   |
| RPS30B | YNL171C | YNL171C | Y   |
| RPS30B | YPR116W | YPR116W | N/D |
| SAE2   | BUD27   | YFL023W | N   |
| SAE2   | CAC2    | YML102W | N   |
| SAE2   | CSM3    | YMR048W | N   |
| SAE2   | CTF4    | YPR135W | N   |
| SAE2   | DDC1    | YPL194W | N   |
| SAE2   | DOC1    | YGL240W | N   |
| SAE2   | ESC2    | YDR363W | N   |
| SAE2   | EXO1    | YOR033C | N   |
| SAE2   | HPC2    | YBR215W | N   |
| SAE2   | HPR5    | YJL092W | N   |
| SAE2   | HST1    | YOL068C | N   |

|      |         |         |     |
|------|---------|---------|-----|
| SAE2 | HST3    | YOR025W | N   |
| SAE2 | LYS7    | YMR038C | N   |
| SAE2 | MMS4    | YBR098W | N   |
| SAE2 | MRE11   | YMR224C | N   |
| SAE2 | MUS81   | YDR386W | N   |
| SAE2 | RAD17   | YOR368W | N   |
| SAE2 | RAD24   | YER173W | N   |
| SAE2 | RAD27   | YKL113C | Y   |
| SAE2 | RAD50   | YNL250W | N   |
| SAE2 | RAD51   | YER095W | N   |
| SAE2 | RAD52   | YML032C | N   |
| SAE2 | RAD54   | YGL163C | Y   |
| SAE2 | RAD55   | YDR076W | N   |
| SAE2 | RAD57   | YDR004W | N   |
| SAE2 | RAD9    | YDR217C | N   |
| SAE2 | RPL27A  | YHR010W | N   |
| SAE2 | RPS30B  | YOR182C | N   |
| SAE2 | SGS1    | YMR190C | Y   |
| SAE2 | SIS2    | YKR072C | N   |
| SAE2 | SOD1    | YJR104C | N   |
| SAE2 | XRS2    | YDR369C | N   |
| SAE2 | YDJ1    | YNL064C | N   |
| SAE2 | YLR352W | YLR352W | N   |
| SAE2 | YNL171C | YNL171C | N   |
| SAE2 | YPR116W | YPR116W | N/D |
| SGS1 | BUD27   | YFL023W | N   |
| SGS1 | CAC2    | YML102W | N   |
| SGS1 | CSM3    | YMR048W | Y   |
| SGS1 | CTF4    | YPR135W | N   |
| SGS1 | DDC1    | YPL194W | N   |
| SGS1 | DOC1    | YGL240W | N   |
| SGS1 | ESC2    | YDR363W | Y   |
| SGS1 | EXO1    | YOR033C | N   |
| SGS1 | HPC2    | YBR215W | N   |
| SGS1 | HPR5    | YJL092W | Y   |
| SGS1 | HST1    | YOL068C | N   |
| SGS1 | HST3    | YOR025W | N   |
| SGS1 | LYS7    | YMR038C | N   |
| SGS1 | MMS4    | YBR098W | Y   |
| SGS1 | MRE11   | YMR224C | N   |
| SGS1 | MUS81   | YDR386W | Y   |
| SGS1 | RAD17   | YOR368W | N   |
| SGS1 | RAD24   | YER173W | N   |
| SGS1 | RAD27   | YKL113C | Y   |
| SGS1 | RAD50   | YNL250W | Y   |
| SGS1 | RAD51   | YER095W | N   |
| SGS1 | RAD52   | YML032C | N   |
| SGS1 | RAD54   | YGL163C | N   |
| SGS1 | RAD55   | YDR076W | N   |
| SGS1 | RAD57   | YDR004W | N   |
| SGS1 | RAD9    | YDR217C | N   |
| SGS1 | RPL27A  | YHR010W | N   |
| SGS1 | RPS30B  | YOR182C | N   |
| SGS1 | SAE2    | YGL175C | Y   |
| SGS1 | SIS2    | YKR072C | Y   |
| SGS1 | SOD1    | YJR104C | N   |
| SGS1 | XRS2    | YDR369C | N   |
| SGS1 | YDJ1    | YNL064C | N   |
| SGS1 | YLR352W | YLR352W | N   |
| SGS1 | YNL171C | YNL171C | N   |
| SGS1 | YPR116W | YPR116W | N   |
| SIS2 | BUD27   | YFL023W | N   |
| SIS2 | CAC2    | YML102W | N   |
| SIS2 | CSM3    | YMR048W | N   |
| SIS2 | CTF4    | YPR135W | N   |
| SIS2 | DDC1    | YPL194W | N   |



|      |         |         |     |
|------|---------|---------|-----|
| SIS2 | DOC1    | YGL240W | N   |
| SIS2 | ESC2    | YDR363W | N   |
| SIS2 | EXO1    | YOR033C | N   |
| SIS2 | HPC2    | YBR215W | N   |
| SIS2 | HPR5    | YJL092W | N   |
| SIS2 | HST1    | YOL068C | N   |
| SIS2 | HST3    | YOR025W | N   |
| SIS2 | LYS7    | YMR038C | N   |
| SIS2 | MMS4    | YBR098W | N   |
| SIS2 | MRE11   | YMR224C | N   |
| SIS2 | MUS81   | YDR386W | N   |
| SIS2 | RAD17   | YOR368W | N   |
| SIS2 | RAD24   | YER173W | N   |
| SIS2 | RAD27   | YKL113C | Y   |
| SIS2 | RAD50   | YNL250W | N   |
| SIS2 | RAD51   | YER095W | N   |
| SIS2 | RAD52   | YML032C | N   |
| SIS2 | RAD54   | YGL163C | N   |
| SIS2 | RAD55   | YDR076W | N   |
| SIS2 | RAD57   | YDR004W | N   |
| SIS2 | RAD9    | YDR217C | N   |
| SIS2 | RPL27A  | YHR010W | N   |
| SIS2 | RPS30B  | YOR182C | N   |
| SIS2 | SAE2    | YGL175C | N   |
| SIS2 | SGS1    | YMR190C | Y   |
| SIS2 | SOD1    | YJR104C | Y   |
| SIS2 | XRS2    | YDR369C | N   |
| SIS2 | YDJ1    | YNL064C | N   |
| SIS2 | YLR352W | YLR352W | N   |
| SIS2 | YNL171C | YNL171C | N   |
| SIS2 | YPR116W | YPR116W | N/D |
| SOD1 | BUD27   | YFL023W | Y   |
| SOD1 | CAC2    | YML102W | N   |
| SOD1 | CSM3    | YMR048W | N   |
| SOD1 | CTF4    | YPR135W | N   |
| SOD1 | DDC1    | YPL194W | N   |
| SOD1 | DOC1    | YGL240W | N   |
| SOD1 | ESC2    | YDR363W | N   |
| SOD1 | EXO1    | YOR033C | N   |
| SOD1 | HPC2    | YBR215W | N   |
| SOD1 | HPR5    | YJL092W | N   |
| SOD1 | HST1    | YOL068C | N   |
| SOD1 | HST3    | YOR025W | N   |
| SOD1 | LYS7    | YMR038C | N   |
| SOD1 | MMS4    | YBR098W | N   |
| SOD1 | MRE11   | YMR224C | Y   |
| SOD1 | MUS81   | YDR386W | N   |
| SOD1 | RAD17   | YOR368W | N   |
| SOD1 | RAD24   | YER173W | N   |
| SOD1 | RAD27   | YKL113C | Y   |
| SOD1 | RAD50   | YNL250W | Y   |
| SOD1 | RAD51   | YER095W | Y   |
| SOD1 | RAD52   | YML032C | Y   |
| SOD1 | RAD54   | YGL163C | Y   |
| SOD1 | RAD55   | YDR076W | Y   |
| SOD1 | RAD57   | YDR004W | N   |
| SOD1 | RAD9    | YDR217C | N   |
| SOD1 | RPL27A  | YHR010W | Y   |
| SOD1 | RPS30B  | YOR182C | N   |
| SOD1 | SAE2    | YGL175C | N   |
| SOD1 | SGS1    | YMR190C | Y   |
| SOD1 | SIS2    | YKR072C | N   |
| SOD1 | XRS2    | YDR369C | N   |
| SOD1 | YDJ1    | YNL064C | N   |
| SOD1 | YLR352W | YLR352W | N   |
| SOD1 | YNL171C | YNL171C | Y   |

|      |         |         |     |
|------|---------|---------|-----|
| SOD1 | YPR116W | YPR116W | N/D |
| XRS2 | BUD27   | YFL023W | N   |
| XRS2 | CAC2    | YML102W | Y   |
| XRS2 | CSM3    | YMR048W | N   |
| XRS2 | CTF4    | YPR135W | Y   |
| XRS2 | DDC1    | YPL194W | N   |
| XRS2 | DOC1    | YGL240W | N   |
| XRS2 | ESC2    | YDR363W | Y   |
| XRS2 | EXO1    | YOR033C | Y   |
| XRS2 | HPC2    | YBR215W | N   |
| XRS2 | HPR5    | YJL092W | Y   |
| XRS2 | HST1    | YOL068C | N   |
| XRS2 | HST3    | YOR025W | N   |
| XRS2 | LYS7    | YMR038C | Y   |
| XRS2 | MMS4    | YBR098W | N   |
| XRS2 | MRE11   | YMR224C | N   |
| XRS2 | MUS81   | YDR386W | Y   |
| XRS2 | RAD17   | YOR368W | N   |
| XRS2 | RAD24   | YER173W | N   |
| XRS2 | RAD27   | YKL113C | Y   |
| XRS2 | RAD50   | YNL250W | N   |
| XRS2 | RAD51   | YER095W | N   |
| XRS2 | RAD52   | YML032C | N   |
| XRS2 | RAD54   | YGL163C | N   |
| XRS2 | RAD55   | YDR076W | N   |
| XRS2 | RAD57   | YDR004W | N   |
| XRS2 | RAD9    | YDR217C | N   |
| XRS2 | RPL27A  | YHR010W | N   |
| XRS2 | RPS30B  | YOR182C | Y   |
| XRS2 | SAE2    | YGL175C | N   |
| XRS2 | SGS1    | YMR190C | N   |
| XRS2 | SIS2    | YKR072C | N   |
| XRS2 | SOD1    | YJR104C | Y   |
| XRS2 | YDJ1    | YNL064C | Y   |
| XRS2 | YLR352W | YLR352W | N   |
| XRS2 | YNL171C | YNL171C | Y   |
| XRS2 | YPR116W | YPR116W | N/D |
| YDJ1 | BUD27   | YFL023W | Y   |
| YDJ1 | CAC2    | YML102W | N   |
| YDJ1 | CSM3    | YMR048W | N   |
| YDJ1 | CTF4    | YPR135W | N   |
| YDJ1 | DDC1    | YPL194W | N   |
| YDJ1 | DOC1    | YGL240W | N   |
| YDJ1 | ESC2    | YDR363W | N   |
| YDJ1 | EXO1    | YOR033C | N   |
| YDJ1 | HPC2    | YBR215W | N   |
| YDJ1 | HPR5    | YJL092W | N   |
| YDJ1 | HST1    | YOL068C | N   |
| YDJ1 | HST3    | YOR025W | N   |
| YDJ1 | LYS7    | YMR038C | N   |
| YDJ1 | MMS4    | YBR098W | N   |
| YDJ1 | MRE11   | YMR224C | Y   |
| YDJ1 | MUS81   | YDR386W | N   |
| YDJ1 | RAD17   | YOR368W | N   |
| YDJ1 | RAD24   | YER173W | N   |
| YDJ1 | RAD27   | YKL113C | Y   |
| YDJ1 | RAD50   | YNL250W | Y   |
| YDJ1 | RAD51   | YER095W | N   |
| YDJ1 | RAD52   | YML032C | Y   |
| YDJ1 | RAD54   | YGL163C | N   |
| YDJ1 | RAD55   | YDR076W | N   |
| YDJ1 | RAD57   | YDR004W | N   |
| YDJ1 | RAD9    | YDR217C | N   |
| YDJ1 | RPL27A  | YHR010W | N   |
| YDJ1 | RPS30B  | YOR182C | N   |
| YDJ1 | SAE2    | YGL175C | N   |

|         |         |         |     |
|---------|---------|---------|-----|
| YDJ1    | SGS1    | YMR190C | N   |
| YDJ1    | SIS2    | YKR072C | N   |
| YDJ1    | SOD1    | YJR104C | Y   |
| YDJ1    | XRS2    | YDR369C | N   |
| YDJ1    | YLR352W | YLR352W | N   |
| YDJ1    | YNL171C | YNL171C | Y   |
| YDJ1    | YPR116W | YPR116W | N/D |
| YLR352W | BUD27   | YFL023W | N   |
| YLR352W | CAC2    | YML102W | N   |
| YLR352W | CSM3    | YMR048W | N   |
| YLR352W | CTF4    | YPR135W | N   |
| YLR352W | DDC1    | YPL194W | N   |
| YLR352W | DOC1    | YGL240W | N   |
| YLR352W | ESC2    | YDR363W | N   |
| YLR352W | EXO1    | YOR033C | N   |
| YLR352W | HPC2    | YBR215W | N   |
| YLR352W | HPR5    | YJL092W | N   |
| YLR352W | HST1    | YOL068C | N   |
| YLR352W | HST3    | YOR025W | N   |
| YLR352W | LYS7    | YMR038C | N   |
| YLR352W | MMS4    | YBR098W | N   |
| YLR352W | MRE11   | YMR224C | N   |
| YLR352W | MUS81   | YDR386W | N   |
| YLR352W | RAD17   | YOR368W | N   |
| YLR352W | RAD24   | YER173W | N   |
| YLR352W | RAD27   | YKL113C | Y   |
| YLR352W | RAD50   | YNL250W | N   |
| YLR352W | RAD51   | YER095W | N   |
| YLR352W | RAD52   | YML032C | N   |
| YLR352W | RAD54   | YGL163C | N   |
| YLR352W | RAD55   | YDR076W | N   |
| YLR352W | RAD57   | YDR004W | N   |
| YLR352W | RAD9    | YDR217C | N   |
| YLR352W | RPL27A  | YHR010W | N   |
| YLR352W | RPS30B  | YOR182C | N   |
| YLR352W | SAE2    | YGL175C | N   |
| YLR352W | SGS1    | YMR190C | N   |
| YLR352W | SIS2    | YKR072C | N   |
| YLR352W | SOD1    | YJR104C | N   |
| YLR352W | XRS2    | YDR369C | N   |
| YLR352W | YDJ1    | YNL064C | N   |
| YLR352W | YNL171C | YNL171C | N   |
| YLR352W | YPR116W | YPR116W | N/D |
| YNL171C | BUD27   | YFL023W | N   |
| YNL171C | CAC2    | YML102W | Y   |
| YNL171C | CSM3    | YMR048W | N   |
| YNL171C | CTF4    | YPR135W | N   |
| YNL171C | DDC1    | YPL194W | N   |
| YNL171C | DOC1    | YGL240W | N   |
| YNL171C | ESC2    | YDR363W | N   |
| YNL171C | EXO1    | YOR033C | N   |
| YNL171C | HPC2    | YBR215W | N   |
| YNL171C | HPR5    | YJL092W | N   |
| YNL171C | HST1    | YOL068C | N   |
| YNL171C | HST3    | YOR025W | N   |
| YNL171C | LYS7    | YMR038C | N   |
| YNL171C | MMS4    | YBR098W | N   |
| YNL171C | MRE11   | YMR224C | Y   |
| YNL171C | MUS81   | YDR386W | N   |
| YNL171C | RAD17   | YOR368W | N   |
| YNL171C | RAD24   | YER173W | N   |
| YNL171C | RAD27   | YKL113C | Y   |
| YNL171C | RAD50   | YNL250W | N   |
| YNL171C | RAD51   | YER095W | N   |
| YNL171C | RAD52   | YML032C | N   |
| YNL171C | RAD54   | YGL163C | N   |

|         |         |         |     |
|---------|---------|---------|-----|
| YNL171C | RAD55   | YDR076W | N   |
| YNL171C | RAD57   | YDR004W | N   |
| YNL171C | RAD9    | YDR217C | N   |
| YNL171C | RPL27A  | YHR010W | N   |
| YNL171C | RPS30B  | YOR182C | N   |
| YNL171C | SAE2    | YGL175C | N   |
| YNL171C | SGS1    | YMR190C | N   |
| YNL171C | SIS2    | YKR072C | N   |
| YNL171C | SOD1    | YJR104C | N   |
| YNL171C | XRS2    | YDR369C | N   |
| YNL171C | YDJ1    | YNL064C | N   |
| YNL171C | YLR352W | YLR352W | N   |
| YNL171C | YPR116W | YPR116W | N/D |
| YPR116W | BUD27   | YFL023W | N   |
| YPR116W | CAC2    | YML102W | N   |
| YPR116W | CSM3    | YMR048W | N   |
| YPR116W | CTF4    | YPR135W | Y   |
| YPR116W | DDC1    | YPL194W | N   |
| YPR116W | DOC1    | YGL240W | N   |
| YPR116W | ESC2    | YDR363W | N   |
| YPR116W | EXO1    | YOR033C | N   |
| YPR116W | HPC2    | YBR215W | N   |
| YPR116W | HPR5    | YJL092W | N   |
| YPR116W | HST1    | YOL068C | N   |
| YPR116W | HST3    | YOR025W | N   |
| YPR116W | LYS7    | YMR038C | N   |
| YPR116W | MMS4    | YBR098W | N   |
| YPR116W | MRE11   | YMR224C | N   |
| YPR116W | MUS81   | YDR386W | N   |
| YPR116W | RAD17   | YOR368W | N   |
| YPR116W | RAD24   | YER173W | N   |
| YPR116W | RAD27   | YKL113C | Y   |
| YPR116W | RAD50   | YNL250W | N   |
| YPR116W | RAD51   | YER095W | N   |
| YPR116W | RAD52   | YML032C | N   |
| YPR116W | RAD54   | YGL163C | N   |
| YPR116W | RAD55   | YDR076W | N   |
| YPR116W | RAD57   | YDR004W | N   |
| YPR116W | RAD9    | YDR217C | N   |
| YPR116W | RPL27A  | YHR010W | N   |
| YPR116W | RPS30B  | YOR182C | N   |
| YPR116W | SAE2    | YGL175C | N   |
| YPR116W | SGS1    | YMR190C | N   |
| YPR116W | SIS2    | YKR072C | N   |
| YPR116W | SOD1    | YJR104C | N   |
| YPR116W | XRS2    | YDR369C | N   |
| YPR116W | YDJ1    | YNL064C | N   |
| YPR116W | YLR352W | YLR352W | N   |
| YPR116W | YNL171C | YNL171C | N   |
| ASF1    | CSM3    | YMR048W | N   |
| ASF1    | ESC2    | YDR363W | N   |
| ASF1    | HPR5    | YJL092W | N   |
| ASF1    | MGS1    | YNL218W | N   |
| ASF1    | MMS4    | YBR098W | N   |
| ASF1    | MUS81   | YDR386W | N   |
| ASF1    | POL32   | YJR043C | N   |
| ASF1    | PUB1    | YNL016W | N   |
| ASF1    | RAD27   | YKL113C | Y   |
| ASF1    | RAD50   | YNL250W | N   |
| ASF1    | RNR1    | YER070W | N/D |
| ASF1    | RPL24A  | YGL031C | N   |
| ASF1    | RRM3    | YHR031C | N   |
| ASF1    | RTT107  | YHR154W | N   |
| ASF1    | SAE2    | YGL175C | N   |
| ASF1    | SGS1    | YMR190C | Y   |
| ASF1    | SIS2    | YKR072C | N   |

|      |         |         |     |
|------|---------|---------|-----|
| ASF1 | SLX1    | YBR228W | N   |
| ASF1 | SLX4    | YLR135W | N   |
| ASF1 | SOD1    | YJR104C | N   |
| ASF1 | SWE1    | YJL187C | N   |
| ASF1 | TOP1    | YOL006C | N   |
| ASF1 | WSS1    | YHR134W | N   |
| ASF1 | YBR094W | YBR094W | N   |
| CSM3 | ASF1    | YJL115W | N   |
| CSM3 | ESC2    | YDR363W | N   |
| CSM3 | HPR5    | YJL092W | Y   |
| CSM3 | MGS1    | YNL218W | N   |
| CSM3 | MMS4    | YBR098W | N   |
| CSM3 | MUS81   | YDR386W | N   |
| CSM3 | POL32   | YJR043C | Y   |
| CSM3 | PUB1    | YNL016W | N   |
| CSM3 | RAD27   | YKL113C | Y   |
| CSM3 | RAD50   | YNL250W | N   |
| CSM3 | RNR1    | YER070W | N/D |
| CSM3 | RPL24A  | YGL031C | N   |
| CSM3 | RRM3    | YHR031C | N   |
| CSM3 | RTT107  | YHR154W | N   |
| CSM3 | SAE2    | YGL175C | N   |
| CSM3 | SGS1    | YMR190C | Y   |
| CSM3 | SIS2    | YKR072C | N   |
| CSM3 | SLX1    | YBR228W | N   |
| CSM3 | SLX4    | YLR135W | N   |
| CSM3 | SOD1    | YJR104C | N   |
| CSM3 | SWE1    | YJL187C | N   |
| CSM3 | TOP1    | YOL006C | N   |
| CSM3 | WSS1    | YHR134W | N   |
| CSM3 | YBR094W | YBR094W | N   |
| ESC2 | ASF1    | YJL115W | N   |
| ESC2 | CSM3    | YMR048W | N   |
| ESC2 | HPR5    | YJL092W | Y   |
| ESC2 | MGS1    | YNL218W | Y   |
| ESC2 | MMS4    | YBR098W | Y   |
| ESC2 | MUS81   | YDR386W | Y   |
| ESC2 | POL32   | YJR043C | N   |
| ESC2 | PUB1    | YNL016W | N   |
| ESC2 | RAD27   | YKL113C | Y   |
| ESC2 | RAD50   | YNL250W | N   |
| ESC2 | RNR1    | YER070W | N/D |
| ESC2 | RPL24A  | YGL031C | N   |
| ESC2 | RRM3    | YHR031C | Y   |
| ESC2 | RTT107  | YHR154W | N   |
| ESC2 | SAE2    | YGL175C | N   |
| ESC2 | SGS1    | YMR190C | Y   |
| ESC2 | SIS2    | YKR072C | N   |
| ESC2 | SLX1    | YBR228W | Y   |
| ESC2 | SLX4    | YLR135W | Y   |
| ESC2 | SOD1    | YJR104C | N   |
| ESC2 | SWE1    | YJL187C | N   |
| ESC2 | TOP1    | YOL006C | N   |
| ESC2 | WSS1    | YHR134W | Y   |
| ESC2 | YBR094W | YBR094W | Y   |
| HPR5 | ASF1    | YJL115W | Y   |
| HPR5 | CSM3    | YMR048W | Y   |
| HPR5 | ESC2    | YDR363W | Y   |
| HPR5 | MGS1    | YNL218W | N   |
| HPR5 | MMS4    | YBR098W | N   |
| HPR5 | MUS81   | YDR386W | N   |
| HPR5 | POL32   | YJR043C | Y   |
| HPR5 | PUB1    | YNL016W | N   |
| HPR5 | RAD27   | YKL113C | Y   |
| HPR5 | RAD50   | YNL250W | N   |
| HPR5 | RNR1    | YER070W | N/D |

|       |         |         |     |
|-------|---------|---------|-----|
| HPR5  | RPL24A  | YGL031C | N   |
| HPR5  | RRM3    | YHR031C | Y   |
| HPR5  | RTT107  | YHR154W | N   |
| HPR5  | SAE2    | YGL175C | N   |
| HPR5  | SGS1    | YMR190C | Y   |
| HPR5  | SIS2    | YKR072C | N   |
| HPR5  | SLX1    | YBR228W | N   |
| HPR5  | SLX4    | YLR135W | N   |
| HPR5  | SOD1    | YJR104C | N   |
| HPR5  | SWE1    | YJL187C | N   |
| HPR5  | TOP1    | YOL006C | N   |
| HPR5  | WSS1    | YHR134W | N   |
| HPR5  | YBR094W | YBR094W | N   |
| MGS1  | ASF1    | YJL115W | N   |
| MGS1  | CSM3    | YMR048W | N   |
| MGS1  | ESC2    | YDR363W | Y   |
| MGS1  | HPR5    | YJL092W | N   |
| MGS1  | MMS4    | YBR098W | N   |
| MGS1  | MUS81   | YDR386W | N   |
| MGS1  | POL32   | YJR043C | N   |
| MGS1  | PUB1    | YNL016W | N   |
| MGS1  | RAD27   | YKL113C | N   |
| MGS1  | RAD50   | YNL250W | Y   |
| MGS1  | RNR1    | YER070W | N/D |
| MGS1  | RPL24A  | YGL031C | N   |
| MGS1  | RRM3    | YHR031C | N   |
| MGS1  | RTT107  | YHR154W | N   |
| MGS1  | SAE2    | YGL175C | N   |
| MGS1  | SGS1    | YMR190C | Y   |
| MGS1  | SIS2    | YKR072C | N   |
| MGS1  | SLX1    | YBR228W | N   |
| MGS1  | SLX4    | YLR135W | N   |
| MGS1  | SOD1    | YJR104C | N   |
| MGS1  | SWE1    | YJL187C | N   |
| MGS1  | TOP1    | YOL006C | N   |
| MGS1  | WSS1    | YHR134W | N   |
| MGS1  | YBR094W | YBR094W | N   |
| MMS4  | ASF1    | YJL115W | Y   |
| MMS4  | CSM3    | YMR048W | N   |
| MMS4  | ESC2    | YDR363W | Y   |
| MMS4  | HPR5    | YJL092W | N   |
| MMS4  | MGS1    | YNL218W | N   |
| MMS4  | MUS81   | YDR386W | N   |
| MMS4  | POL32   | YJR043C | Y   |
| MMS4  | PUB1    | YNL016W | N   |
| MMS4  | RAD27   | YKL113C | Y   |
| MMS4  | RAD50   | YNL250W | N   |
| MMS4  | RNR1    | YER070W | N/D |
| MMS4  | RPL24A  | YGL031C | N   |
| MMS4  | RRM3    | YHR031C | N   |
| MMS4  | RTT107  | YHR154W | N   |
| MMS4  | SAE2    | YGL175C | N   |
| MMS4  | SGS1    | YMR190C | Y   |
| MMS4  | SIS2    | YKR072C | N   |
| MMS4  | SLX1    | YBR228W | N   |
| MMS4  | SLX4    | YLR135W | N   |
| MMS4  | SOD1    | YJR104C | N   |
| MMS4  | SWE1    | YJL187C | N   |
| MMS4  | TOP1    | YOL006C | N   |
| MMS4  | WSS1    | YHR134W | N   |
| MMS4  | YBR094W | YBR094W | Y   |
| MUS81 | ASF1    | YJL115W | N   |
| MUS81 | CSM3    | YMR048W | N   |
| MUS81 | ESC2    | YDR363W | Y   |
| MUS81 | HPR5    | YJL092W | N   |
| MUS81 | MGS1    | YNL218W | N   |

|       |         |         |     |
|-------|---------|---------|-----|
| MUS81 | MMS4    | YBR098W | N   |
| MUS81 | POL32   | YJR043C | Y   |
| MUS81 | PUB1    | YNL016W | N   |
| MUS81 | RAD27   | YKL113C | Y   |
| MUS81 | RAD50   | YNL250W | N   |
| MUS81 | RNR1    | YER070W | N/D |
| MUS81 | RPL24A  | YGL031C | N   |
| MUS81 | RRM3    | YHR031C | N   |
| MUS81 | RTT107  | YHR154W | N   |
| MUS81 | SAE2    | YGL175C | N   |
| MUS81 | SGS1    | YMR190C | Y   |
| MUS81 | SIS2    | YKR072C | N   |
| MUS81 | SLX1    | YBR228W | N   |
| MUS81 | SLX4    | YLR135W | N   |
| MUS81 | SOD1    | YJR104C | Y   |
| MUS81 | SWE1    | YJL187C | N   |
| MUS81 | TOP1    | YOL006C | N   |
| MUS81 | WSS1    | YHR134W | N   |
| MUS81 | YBR094W | YBR094W | N   |
| POL32 | ASF1    | YJL115W | N   |
| POL32 | CSM3    | YMR048W | Y   |
| POL32 | ESC2    | YDR363W | Y   |
| POL32 | HPR5    | YJL092W | Y   |
| POL32 | MGS1    | YNL218W | N   |
| POL32 | MMS4    | YBR098W | Y   |
| POL32 | MUS81   | YDR386W | N   |
| POL32 | PUB1    | YNL016W | N   |
| POL32 | RAD27   | YKL113C | Y   |
| POL32 | RAD50   | YNL250W | Y   |
| POL32 | RNR1    | YER070W | N/D |
| POL32 | RPL24A  | YGL031C | N   |
| POL32 | RRM3    | YHR031C | N   |
| POL32 | RTT107  | YHR154W | N   |
| POL32 | SAE2    | YGL175C | N   |
| POL32 | SGS1    | YMR190C | Y   |
| POL32 | SIS2    | YKR072C | N   |
| POL32 | SLX1    | YBR228W | N   |
| POL32 | SLX4    | YLR135W | N   |
| POL32 | SOD1    | YJR104C | Y   |
| POL32 | SWE1    | YJL187C | N   |
| POL32 | TOP1    | YOL006C | N   |
| POL32 | WSS1    | YHR134W | N   |
| POL32 | YBR094W | YBR094W | Y   |
| PUB1  | ASF1    | YJL115W | N   |
| PUB1  | CSM3    | YMR048W | N   |
| PUB1  | ESC2    | YDR363W | N   |
| PUB1  | HPR5    | YJL092W | N   |
| PUB1  | MGS1    | YNL218W | N   |
| PUB1  | MMS4    | YBR098W | N   |
| PUB1  | MUS81   | YDR386W | N   |
| PUB1  | POL32   | YJR043C | N   |
| PUB1  | RAD27   | YKL113C | N   |
| PUB1  | RAD50   | YNL250W | N   |
| PUB1  | RNR1    | YER070W | N/D |
| PUB1  | RPL24A  | YGL031C | N   |
| PUB1  | RRM3    | YHR031C | N   |
| PUB1  | RTT107  | YHR154W | N   |
| PUB1  | SAE2    | YGL175C | N   |
| PUB1  | SGS1    | YMR190C | Y   |
| PUB1  | SIS2    | YKR072C | N   |
| PUB1  | SLX1    | YBR228W | N   |
| PUB1  | SLX4    | YLR135W | N   |
| PUB1  | SOD1    | YJR104C | N   |
| PUB1  | SWE1    | YJL187C | N   |
| PUB1  | TOP1    | YOL006C | N   |
| PUB1  | WSS1    | YHR134W | N   |

|       |         |         |     |
|-------|---------|---------|-----|
| PUB1  | YBR094W | YBR094W | N   |
| RAD27 | ASF1    | YJL115W | N   |
| RAD27 | CSM3    | YMR048W | Y   |
| RAD27 | ESC2    | YDR363W | Y   |
| RAD27 | HPR5    | YJL092W | Y   |
| RAD27 | MGS1    | YNL218W | N   |
| RAD27 | MMS4    | YBR098W | Y   |
| RAD27 | MUS81   | YDR386W | Y   |
| RAD27 | POL32   | YJR043C | N   |
| RAD27 | PUB1    | YNL016W | N   |
| RAD27 | RAD27   | YKL113C | N   |
| RAD27 | RAD50   | YNL250W | Y   |
| RAD27 | RNR1    | YER070W | N   |
| RAD27 | RPL24A  | YGL031C | N   |
| RAD27 | RRM3    | YHR031C | N   |
| RAD27 | RTT107  | YHR154W | N   |
| RAD27 | SAE2    | YGL175C | Y   |
| RAD27 | SGS1    | YMR190C | Y   |
| RAD27 | SIS2    | YKR072C | Y   |
| RAD27 | SLX1    | YBR228W | N   |
| RAD27 | SLX4    | YLR135W | N   |
| RAD27 | SOD1    | YJR104C | Y   |
| RAD27 | SWE1    | YJL187C | N   |
| RAD27 | TOP1    | YOL006C | N   |
| RAD27 | WSS1    | YHR134W | N   |
| RAD50 | ASF1    | YJL115W | Y   |
| RAD50 | CSM3    | YMR048W | N   |
| RAD50 | ESC2    | YDR363W | N   |
| RAD50 | HPR5    | YJL092W | N   |
| RAD50 | MGS1    | YNL218W | Y   |
| RAD50 | MMS4    | YBR098W | N   |
| RAD50 | MUS81   | YDR386W | N   |
| RAD50 | POL32   | YJR043C | Y   |
| RAD50 | PUB1    | YNL016W | N   |
| RAD50 | RAD27   | YKL113C | Y   |
| RAD50 | RNR1    | YER070W | N/D |
| RAD50 | RPL24A  | YGL031C | N   |
| RAD50 | RRM3    | YHR031C | Y   |
| RAD50 | RTT107  | YHR154W | Y   |
| RAD50 | SAE2    | YGL175C | N   |
| RAD50 | SGS1    | YMR190C | Y   |
| RAD50 | SIS2    | YKR072C | N   |
| RAD50 | SLX1    | YBR228W | N   |
| RAD50 | SLX4    | YLR135W | Y   |
| RAD50 | SOD1    | YJR104C | Y   |
| RAD50 | SWE1    | YJL187C | N   |
| RAD50 | TOP1    | YOL006C | Y   |
| RAD50 | WSS1    | YHR134W | Y   |
| RAD50 | YBR094W | YBR094W | N   |
| RNR1  | ASF1    | YJL115W | N   |
| RNR1  | CSM3    | YMR048W | Y   |
| RNR1  | ESC2    | YDR363W | Y   |
| RNR1  | HPR5    | YJL092W | N   |
| RNR1  | MGS1    | YNL218W | N   |
| RNR1  | MMS4    | YBR098W | N   |
| RNR1  | MUS81   | YDR386W | N   |
| RNR1  | POL32   | YJR043C | N   |
| RNR1  | PUB1    | YNL016W | N   |
| RNR1  | RAD27   | YKL113C | N   |
| RNR1  | RAD50   | YNL250W | N   |
| RNR1  | RPL24A  | YGL031C | N   |
| RNR1  | RRM3    | YHR031C | N   |
| RNR1  | RTT107  | YHR154W | N   |
| RNR1  | SAE2    | YGL175C | N   |
| RNR1  | SGS1    | YMR190C | Y   |
| RNR1  | SIS2    | YKR072C | N   |



|        |         |         |     |
|--------|---------|---------|-----|
| RNR1   | SLX1    | YBR228W | N   |
| RNR1   | SLX4    | YLR135W | N   |
| RNR1   | SOD1    | YJR104C | N/D |
| RNR1   | SWE1    | YJL187C | N   |
| RNR1   | TOP1    | YOL006C | N   |
| RNR1   | WSS1    | YHR134W | N   |
| RNR1   | YBR094W | YBR094W | N   |
| RPL24A | ASF1    | YJL115W | N   |
| RPL24A | CSM3    | YMR048W | N   |
| RPL24A | ESC2    | YDR363W | N   |
| RPL24A | HPR5    | YJL092W | N   |
| RPL24A | MGS1    | YNL218W | N   |
| RPL24A | MMS4    | YBR098W | N   |
| RPL24A | MUS81   | YDR386W | N   |
| RPL24A | POL32   | YJR043C | N   |
| RPL24A | PUB1    | YNL016W | N   |
| RPL24A | RAD27   | YKL113C | N   |
| RPL24A | RAD50   | YNL250W | N   |
| RPL24A | RNR1    | YER070W | N/D |
| RPL24A | RRM3    | YHR031C | N   |
| RPL24A | RTT107  | YHR154W | N   |
| RPL24A | SAE2    | YGL175C | N   |
| RPL24A | SGS1    | YMR190C | Y   |
| RPL24A | SIS2    | YKR072C | N   |
| RPL24A | SLX1    | YBR228W | N   |
| RPL24A | SLX4    | YLR135W | N   |
| RPL24A | SOD1    | YJR104C | N   |
| RPL24A | SWE1    | YJL187C | N   |
| RPL24A | TOP1    | YOL006C | N   |
| RPL24A | WSS1    | YHR134W | N   |
| RPL24A | YBR094W | YBR094W | N   |
| RRM3   | ASF1    | YJL115W | Y   |
| RRM3   | CSM3    | YMR048W | N   |
| RRM3   | ESC2    | YDR363W | Y   |
| RRM3   | HPR5    | YJL092W | Y   |
| RRM3   | MGS1    | YNL218W | N   |
| RRM3   | MMS4    | YBR098W | N   |
| RRM3   | MUS81   | YDR386W | N   |
| RRM3   | POL32   | YJR043C | N   |
| RRM3   | PUB1    | YNL016W | N   |
| RRM3   | RAD27   | YKL113C | N   |
| RRM3   | RAD50   | YNL250W | Y   |
| RRM3   | RNR1    | YER070W | N/D |
| RRM3   | RPL24A  | YGL031C | N   |
| RRM3   | RTT107  | YHR154W | Y   |
| RRM3   | SAE2    | YGL175C | N   |
| RRM3   | SGS1    | YMR190C | Y   |
| RRM3   | SIS2    | YKR072C | N   |
| RRM3   | SLX1    | YBR228W | N   |
| RRM3   | SLX4    | YLR135W | N   |
| RRM3   | SOD1    | YJR104C | N   |
| RRM3   | SWE1    | YJL187C | N   |
| RRM3   | TOP1    | YOL006C | N   |
| RRM3   | WSS1    | YHR134W | N   |
| RRM3   | YBR094W | YBR094W | N   |
| RTT107 | ASF1    | YJL115W | N   |
| RTT107 | CSM3    | YMR048W | N   |
| RTT107 | ESC2    | YDR363W | N   |
| RTT107 | HPR5    | YJL092W | N   |
| RTT107 | MGS1    | YNL218W | N   |
| RTT107 | MMS4    | YBR098W | N   |
| RTT107 | MUS81   | YDR386W | N   |
| RTT107 | POL32   | YJR043C | N   |
| RTT107 | PUB1    | YNL016W | N   |
| RTT107 | RAD27   | YKL113C | N   |
| RTT107 | RAD50   | YNL250W | N   |

|        |         |         |     |
|--------|---------|---------|-----|
| RTT107 | RNR1    | YER070W | N/D |
| RTT107 | RPL24A  | YGL031C | N   |
| RTT107 | RRM3    | YHR031C | Y   |
| RTT107 | SAE2    | YGL175C | N   |
| RTT107 | SGS1    | YMR190C | Y   |
| RTT107 | SIS2    | YKR072C | N   |
| RTT107 | SLX1    | YBR228W | N   |
| RTT107 | SLX4    | YLR135W | N   |
| RTT107 | SOD1    | YJR104C | Y   |
| RTT107 | SWE1    | YJL187C | N   |
| RTT107 | TOP1    | YOL006C | N   |
| RTT107 | WSS1    | YHR134W | Y   |
| RTT107 | YBR094W | YBR094W | N   |
| SAE2   | ASF1    | YJL115W | N   |
| SAE2   | CSM3    | YMR048W | N   |
| SAE2   | ESC2    | YDR363W | N   |
| SAE2   | HPR5    | YJL092W | N   |
| SAE2   | MGS1    | YNL218W | N   |
| SAE2   | MMS4    | YBR098W | N   |
| SAE2   | MUS81   | YDR386W | N   |
| SAE2   | POL32   | YJR043C | N   |
| SAE2   | PUB1    | YNL016W | N   |
| SAE2   | RAD27   | YKL113C | Y   |
| SAE2   | RAD50   | YNL250W | N   |
| SAE2   | RNR1    | YER070W | N/D |
| SAE2   | RPL24A  | YGL031C | N   |
| SAE2   | RRM3    | YHR031C | Y   |
| SAE2   | RTT107  | YHR154W | N   |
| SAE2   | SGS1    | YMR190C | Y   |
| SAE2   | SIS2    | YKR072C | N   |
| SAE2   | SLX1    | YBR228W | N   |
| SAE2   | SLX4    | YLR135W | N   |
| SAE2   | SOD1    | YJR104C | N   |
| SAE2   | SWE1    | YJL187C | N   |
| SAE2   | TOP1    | YOL006C | N   |
| SAE2   | WSS1    | YHR134W | N   |
| SAE2   | YBR094W | YBR094W | N   |
| SGS1   | ASF1    | YJL115W | Y   |
| SGS1   | CSM3    | YMR048W | Y   |
| SGS1   | ESC2    | YDR363W | Y   |
| SGS1   | HPR5    | YJL092W | Y   |
| SGS1   | MGS1    | YNL218W | Y   |
| SGS1   | MMS4    | YBR098W | Y   |
| SGS1   | MUS81   | YDR386W | Y   |
| SGS1   | POL32   | YJR043C | Y   |
| SGS1   | PUB1    | YNL016W | Y   |
| SGS1   | RAD27   | YKL113C | Y   |
| SGS1   | RAD50   | YNL250W | Y   |
| SGS1   | RNR1    | YER070W | Y   |
| SGS1   | RPL24A  | YGL031C | Y   |
| SGS1   | RRM3    | YHR031C | Y   |
| SGS1   | RTT107  | YHR154W | Y   |
| SGS1   | SAE2    | YGL175C | Y   |
| SGS1   | SIS2    | YKR072C | Y   |
| SGS1   | SLX1    | YBR228W | Y   |
| SGS1   | SLX4    | YLR135W | Y   |
| SGS1   | SOD1    | YJR104C | Y   |
| SGS1   | SWE1    | YJL187C | Y   |
| SGS1   | TOP1    | YOL006C | Y   |
| SGS1   | WSS1    | YHR134W | Y   |
| SGS1   | YBR094W | YBR094W | Y   |
| SIS2   | ASF1    | YJL115W | N   |
| SIS2   | CSM3    | YMR048W | N   |
| SIS2   | ESC2    | YDR363W | N   |
| SIS2   | HPR5    | YJL092W | N   |
| SIS2   | MGS1    | YNL218W | N   |

|      |         |         |     |
|------|---------|---------|-----|
| SIS2 | MMS4    | YBR098W | N   |
| SIS2 | MUS81   | YDR386W | N   |
| SIS2 | POL32   | YJR043C | N   |
| SIS2 | PUB1    | YNL016W | N   |
| SIS2 | RAD27   | YKL113C | Y   |
| SIS2 | RAD50   | YNL250W | N   |
| SIS2 | RNR1    | YER070W | N/D |
| SIS2 | RPL24A  | YGL031C | N   |
| SIS2 | RRM3    | YHR031C | N   |
| SIS2 | RTT107  | YHR154W | N   |
| SIS2 | SAE2    | YGL175C | N   |
| SIS2 | SGS1    | YMR190C | Y   |
| SIS2 | SLX1    | YBR228W | N   |
| SIS2 | SLX4    | YLR135W | N   |
| SIS2 | SOD1    | YJR104C | Y   |
| SIS2 | SWE1    | YJL187C | N   |
| SIS2 | TOP1    | YOL006C | N   |
| SIS2 | WSS1    | YHR134W | N   |
| SIS2 | YBR094W | YBR094W | N   |
| SLX1 | ASF1    | YJL115W | N   |
| SLX1 | CSM3    | YMR048W | N   |
| SLX1 | ESC2    | YDR363W | Y   |
| SLX1 | HPR5    | YJL092W | N   |
| SLX1 | MGS1    | YNL218W | N   |
| SLX1 | MMS4    | YBR098W | N   |
| SLX1 | MUS81   | YDR386W | N   |
| SLX1 | POL32   | YJR043C | N   |
| SLX1 | PUB1    | YNL016W | N   |
| SLX1 | RAD27   | YKL113C | N   |
| SLX1 | RAD50   | YNL250W | N   |
| SLX1 | RNR1    | YER070W | N/D |
| SLX1 | RPL24A  | YGL031C | N   |
| SLX1 | RRM3    | YHR031C | N   |
| SLX1 | RTT107  | YHR154W | N   |
| SLX1 | SAE2    | YGL175C | N   |
| SLX1 | SGS1    | YMR190C | Y   |
| SLX1 | SIS2    | YKR072C | N   |
| SLX1 | SLX4    | YLR135W | N   |
| SLX1 | SOD1    | YJR104C | N   |
| SLX1 | SWE1    | YJL187C | N   |
| SLX1 | TOP1    | YOL006C | N   |
| SLX1 | WSS1    | YHR134W | N   |
| SLX1 | YBR094W | YBR094W | N   |
| SLX4 | ASF1    | YJL115W | N   |
| SLX4 | CSM3    | YMR048W | N   |
| SLX4 | ESC2    | YDR363W | Y   |
| SLX4 | HPR5    | YJL092W | N   |
| SLX4 | MGS1    | YNL218W | N   |
| SLX4 | MMS4    | YBR098W | N   |
| SLX4 | MUS81   | YDR386W | N   |
| SLX4 | POL32   | YJR043C | N   |
| SLX4 | PUB1    | YNL016W | N   |
| SLX4 | RAD27   | YKL113C | N   |
| SLX4 | RAD50   | YNL250W | N   |
| SLX4 | RNR1    | YER070W | N/D |
| SLX4 | RPL24A  | YGL031C | N   |
| SLX4 | RRM3    | YHR031C | N   |
| SLX4 | RTT107  | YHR154W | N   |
| SLX4 | SAE2    | YGL175C | N   |
| SLX4 | SGS1    | YMR190C | Y   |
| SLX4 | SIS2    | YKR072C | N   |
| SLX4 | SLX1    | YBR228W | N   |
| SLX4 | SOD1    | YJR104C | N   |
| SLX4 | SWE1    | YJL187C | N   |
| SLX4 | TOP1    | YOL006C | N   |
| SLX4 | WSS1    | YHR134W | N   |

|      |         |         |     |
|------|---------|---------|-----|
| SLX4 | YBR094W | YBR094W | N   |
| SOD1 | ASF1    | YJL115W | Y   |
| SOD1 | CSM3    | YMR048W | N   |
| SOD1 | ESC2    | YDR363W | N   |
| SOD1 | HPR5    | YJL092W | N   |
| SOD1 | MGS1    | YNL218W | N   |
| SOD1 | MMS4    | YBR098W | N   |
| SOD1 | MUS81   | YDR386W | N   |
| SOD1 | POL32   | YJR043C | Y   |
| SOD1 | PUB1    | YNL016W | N   |
| SOD1 | RAD27   | YKL113C | Y   |
| SOD1 | RAD50   | YNL250W | Y   |
| SOD1 | RNR1    | YER070W | N/D |
| SOD1 | RPL24A  | YGL031C | N   |
| SOD1 | RRM3    | YHR031C | N   |
| SOD1 | RTT107  | YHR154W | Y   |
| SOD1 | SAE2    | YGL175C | N   |
| SOD1 | SGS1    | YMR190C | Y   |
| SOD1 | SIS2    | YKR072C | N   |
| SOD1 | SLX1    | YBR228W | N   |
| SOD1 | SLX4    | YLR135W | N   |
| SOD1 | SWE1    | YJL187C | N   |
| SOD1 | TOP1    | YOL006C | N   |
| SOD1 | WSS1    | YHR134W | N   |
| SOD1 | YBR094W | YBR094W | N   |
| SWE1 | ASF1    | YJL115W | N/D |
| SWE1 | CSM3    | YMR048W | N/D |
| SWE1 | ESC2    | YDR363W | N/D |
| SWE1 | HPR5    | YJL092W | N/D |
| SWE1 | MGS1    | YNL218W | N/D |
| SWE1 | MMS4    | YBR098W | N/D |
| SWE1 | MUS81   | YDR386W | N/D |
| SWE1 | POL32   | YJR043C | N/D |
| SWE1 | PUB1    | YNL016W | N/D |
| SWE1 | RAD27   | YKL113C | N/D |
| SWE1 | RAD50   | YNL250W | N/D |
| SWE1 | RNR1    | YER070W | N/D |
| SWE1 | RPL24A  | YGL031C | N/D |
| SWE1 | RRM3    | YHR031C | N/D |
| SWE1 | RTT107  | YHR154W | N/D |
| SWE1 | SAE2    | YGL175C | N/D |
| SWE1 | SGS1    | YMR190C | N/D |
| SWE1 | SIS2    | YKR072C | N/D |
| SWE1 | SLX1    | YBR228W | N/D |
| SWE1 | SLX4    | YLR135W | N/D |
| SWE1 | SOD1    | YJR104C | N/D |
| SWE1 | TOP1    | YOL006C | N/D |
| SWE1 | WSS1    | YHR134W | N/D |
| SWE1 | YBR094W | YBR094W | N/D |
| TOP1 | ASF1    | YJL115W | N   |
| TOP1 | CSM3    | YMR048W | N   |
| TOP1 | ESC2    | YDR363W | N   |
| TOP1 | HPR5    | YJL092W | N   |
| TOP1 | MGS1    | YNL218W | N   |
| TOP1 | MMS4    | YBR098W | N   |
| TOP1 | MUS81   | YDR386W | N   |
| TOP1 | POL32   | YJR043C | N   |
| TOP1 | PUB1    | YNL016W | N   |
| TOP1 | RAD27   | YKL113C | N   |
| TOP1 | RAD50   | YNL250W | Y   |
| TOP1 | RNR1    | YER070W | N/D |
| TOP1 | RPL24A  | YGL031C | N   |
| TOP1 | RRM3    | YHR031C | N   |
| TOP1 | RTT107  | YHR154W | N   |
| TOP1 | SAE2    | YGL175C | N   |
| TOP1 | SGS1    | YMR190C | Y   |

|         |         |         |     |
|---------|---------|---------|-----|
| TOP1    | SIS2    | YKR072C | N   |
| TOP1    | SLX1    | YBR228W | N   |
| TOP1    | SLX4    | YLR135W | N   |
| TOP1    | SOD1    | YJR104C | N   |
| TOP1    | SWE1    | YJL187C | N   |
| TOP1    | WSS1    | YHR134W | N   |
| TOP1    | YBR094W | YBR094W | N   |
| WSS1    | ASF1    | YJL115W | N   |
| WSS1    | CSM3    | YMR048W | N   |
| WSS1    | ESC2    | YDR363W | N   |
| WSS1    | HPR5    | YJL092W | N   |
| WSS1    | MGS1    | YNL218W | N   |
| WSS1    | MMS4    | YBR098W | N   |
| WSS1    | MUS81   | YDR386W | N   |
| WSS1    | POL32   | YJR043C | N   |
| WSS1    | PUB1    | YNL016W | N   |
| WSS1    | RAD27   | YKL113C | N   |
| WSS1    | RAD50   | YNL250W | N   |
| WSS1    | RNR1    | YER070W | N/D |
| WSS1    | RPL24A  | YGL031C | N   |
| WSS1    | RRM3    | YHR031C | N   |
| WSS1    | RTT107  | YHR154W | Y   |
| WSS1    | SAE2    | YGL175C | N   |
| WSS1    | SGS1    | YMR190C | Y   |
| WSS1    | SIS2    | YKR072C | N   |
| WSS1    | SLX1    | YBR228W | N   |
| WSS1    | SLX4    | YLR135W | N   |
| WSS1    | SOD1    | YJR104C | N   |
| WSS1    | SWE1    | YJL187C | N   |
| WSS1    | TOP1    | YOL006C | N   |
| WSS1    | YBR094W | YBR094W | N   |
| YBR094W | ASF1    | YJL115W | N   |
| YBR094W | CSM3    | YMR048W | N   |
| YBR094W | ESC2    | YDR363W | Y   |
| YBR094W | HPR5    | YJL092W | N   |
| YBR094W | MGS1    | YNL218W | N   |
| YBR094W | MMS4    | YBR098W | N   |
| YBR094W | MUS81   | YDR386W | N   |
| YBR094W | POL32   | YJR043C | N   |
| YBR094W | PUB1    | YNL016W | N   |
| YBR094W | RAD27   | YKL113C | N   |
| YBR094W | RAD50   | YNL250W | N   |
| YBR094W | RNR1    | YER070W | N/D |
| YBR094W | RPL24A  | YGL031C | N   |
| YBR094W | RRM3    | YHR031C | N   |
| YBR094W | RTT107  | YHR154W | N   |
| YBR094W | SAE2    | YGL175C | N   |
| YBR094W | SGS1    | YMR190C | Y   |
| YBR094W | SIS2    | YKR072C | N   |
| YBR094W | SLX1    | YBR228W | N   |
| YBR094W | SLX4    | YLR135W | N   |
| YBR094W | SOD1    | YJR104C | Y   |
| YBR094W | SWE1    | YJL187C | N   |
| YBR094W | TOP1    | YOL006C | N   |
| YBR094W | WSS1    | YHR134W | N   |