

Figure S1

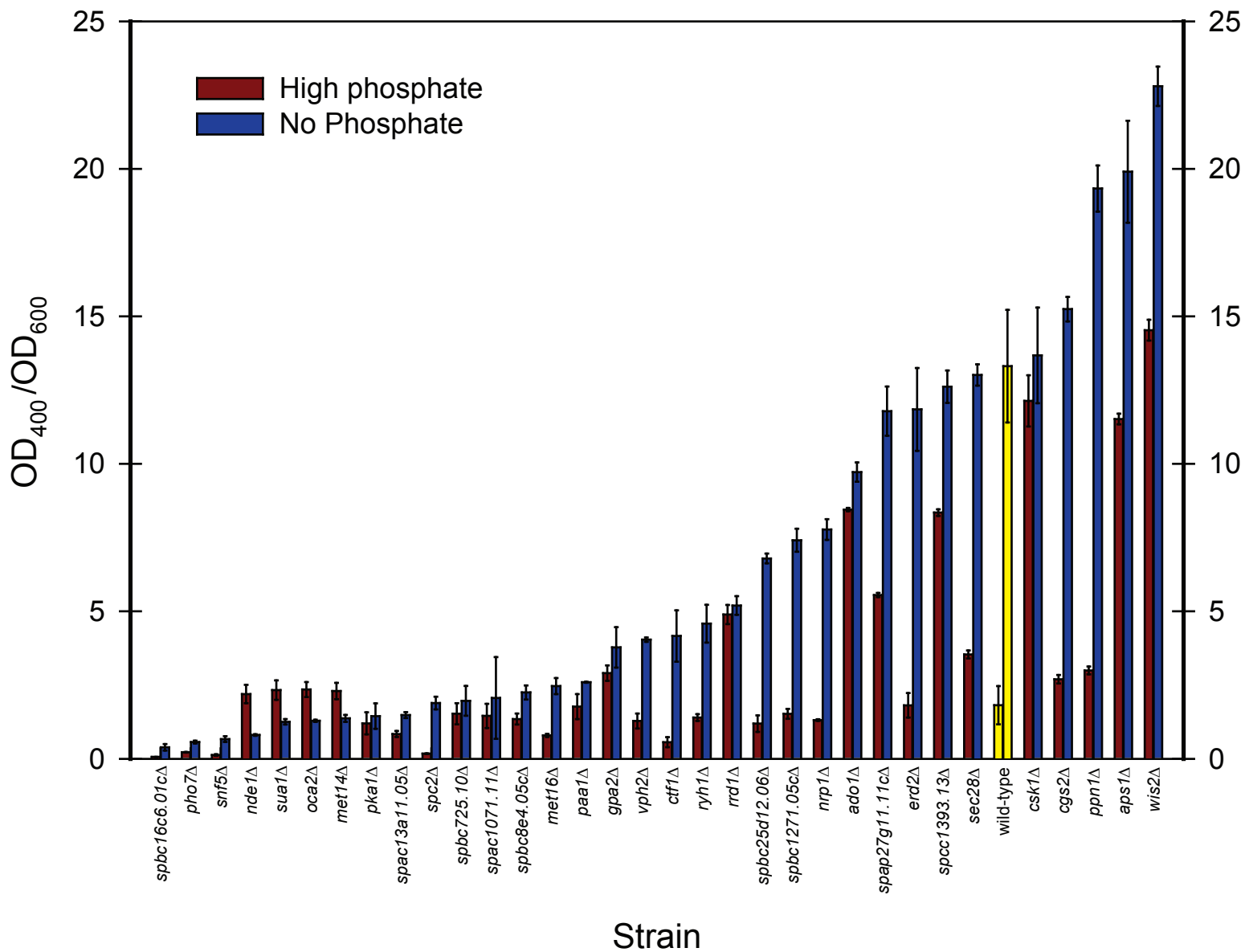


Figure S1. Histogram of acid-phosphatase activity. Mutants' phosphatase activity was measured using PNPP as a substrate after 16 hours of growth in high- and no-phosphate conditions. The strains were ordered by their phosphatase activity during phosphate starvation from least to most activity. All tests were performed in triplicate and the error is SE. Wild-type (DP3) is shown in yellow.

TABLE S1. All mutants scored.

| <i>S. pombe</i> Systematic Name | Product |
|---------------------------------------|--|
| Uninducible screen | |
| SPAC4G8.11c | F1-F0 ATPase assembly protein; similar to <i>S. cerevisiae</i> YLR393W |
| SPAC13A11.05 | peptidase family M17; no apparent <i>S. cerevisiae</i> ortholog |
| SPBC106.10 | cAMP-dependent protein kinase catalytic subunit Pka1 (PMID 8144551); non-essential (PMID 12618370); similar to <i>S. cerevisiae</i> YJL164C and YPL203W and YKL166C |
| SPBC530.01 | GTPase activating protein (predicted); TBC domain protein; target Rab-like GTPase (predicted); similar to <i>S. cerevisiae</i> YOR070C |
| SPBC1711.14 | meiotic recombination protein Rec15; no apparent orthologs |
| SPBC3B9.11c | mRNA cleavage and polyadenylation specificity factor complex subunit Ctf1; rrm RNA recognition motif; similar to <i>S. cerevisiae</i> YGL044C |
| SPBC1D7.04 | RNA annealing factor Mlo3; similar to <i>S. cerevisiae</i> YDR381W; non-essential (PMID 15990877); rrm RNA recognition motif |
| SPAC3H8.09c | poly(A) binding protein; rrm RNA recognition motif; similar to <i>S. cerevisiae</i> YPL190C |
| SPAC17H9.04c | RNA-binding protein; zinc finger protein; zf-ranBP; rrm RNA recognition motif; similar to <i>S. cerevisiae</i> YDL167C |
| SPAC2F7.08c | chromatin remodeling complex subunit Snf5 (predicted); similar to <i>S. cerevisiae</i> YBR289W |
| SPAC1782.11 | adenylyl-sulfate kinase (predicted); similar to <i>S. cerevisiae</i> YKL001C |
| SPAC1D4.01 | sequence orphan |
| SPBC1271.14 | glutamate N-acetyltransferase (predicted); non-essential (PMID 12618370); similar to <i>S. cerevisiae</i> YMR062C |
| SPAC1782.08c | exonuclease Rex3 (predicted); similar to <i>S. cerevisiae</i> YLR107W |
| SPAC16C9.07 | serine/threonine protein kinase Ppk5 (predicted); non-essential (PMID 15821139); related to <i>S. pombe</i> pom1; DYRK family; no apparent orthologs |
| SPAC31G5.17c | 40S ribosomal protein S10; similar to <i>S. cerevisiae</i> YOR293W and YMR230W |
| SPBC13E7.03c | post-transcriptional regulator Vts1 (predicted); RNA hairpin binding protein (predicted); SAM domain (sterile alpha motif); similar to <i>S. cerevisiae</i> YOR359W |
| SPAC3A11.07 | NADH dehydrogenase; similar to <i>S. cerevisiae</i> YMR145C and YDL085W and YML120C |
| SPBC14C8.05c | glucan- α -1,4-glucosidase; glycosyl hydrolase family 15; expressed during sporulation; meiotic expression upregulated; predicted N-terminal signal sequence; similar to <i>S. cerevisiae</i> YIL099W |
| SPBC1604.20c | kinesin-like protein Tea2; kinesin family; KIP2 subfamily; similar to <i>S. cerevisiae</i> YPL155C |
| SPAC9.02c | N-acetyltransferase; GNAT family; arylalkylamine N-acetyltransferase (predicted); similar to <i>S. cerevisiae</i> YDR071C |
| SPAC1093.01 | PPR domains; predicted N-terminal signal sequence; no apparent orthologs (cannot be distinguished) |
| SPBC1198.14c | fructose-1,6-bisphosphatase Fbp1 (PMID 2157626); similar to <i>S. cerevisiae</i> YLR377C |
| SPBC25H2.03 | HEAT repeat; similar to <i>S. cerevisiae</i> YLR386W |
| SPBC27B12.11c | transcription factor (predicted); zinc finger protein; zf-fungal Zn(2)-Cys(6) binuclear cluster domain; no apparent orthologs (cannot be distinguished) |
| SPBC27.08c | sulfate adenylyltransferase (ATP) (PMID 14723223); similar to <i>S. cerevisiae</i> YJR010W |
| SPBC29A3.02c | phosphoribosyl-AMP cyclohydrolase/phosphoribosyl-ATP pyrophosphohydrolase His07; similar to <i>S. cerevisiae</i> YCL030C; similarity to YCL030C is at the N-term, <i>S. pombe</i> his2 is similar to YCL030C at the C-term |

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|---------------|---|
| SPBC8E4.05c | 3-carboxy-cis,cis-muconate cycloisomerase (predicted); no apparent <i>S. cerevisiae</i> ortholog |
| SPBC2D10.05 | glucan 1,3-beta-glucosidase; glycosyl hydrolase family 5; similar to <i>S. cerevisiae</i> YBR056W |
| SPBP4G3.02 | acid phosphatase Pho1 (PMID 4092931); predicted N-terminal signal sequence; GPI anchored protein (predicted) (PMID 12845604); glycoprotein (PMID 2381421); similar to <i>S. cerevisiae</i> YAR071W and YHR215W and YDL024C and YBR093C and YBR092C; localization cell |
| SPBC30D10.16 | phrenate dehydratase (predicted); similar to <i>S. cerevisiae</i> YNL316C |
| SPCC1739.10 | conserved fungal protein; similar to <i>S. pombe</i> SPAC13G7.04c (paralog); 3 predicted transmembrane helices; similar to <i>S. cerevisiae</i> YOL019W and YFR012W and YMR063W; predicted N-terminal signal sequence |
| SPAC17A5.16 | conserved eukaryotic protein; no apparent <i>S. cerevisiae</i> ortholog |
| SPBC428.05c | argininosuccinate synthase (predicted); non- essential (PMID 12618370); similar to <i>S. cerevisiae</i> YOL058W |
| SPCC1672.04c | mitochondrial copper ion transport protein; CHCH domain; similar to <i>S. cerevisiae</i> YLL018C-A |
| SPBC24C6.05 | coatamer epsilon subunit (predicted); TPR repeat protein (inferred from context); similar to <i>S. cerevisiae</i> YIL076W |
| SPCC1739.06c | uroporphyrin methyltransferase (predicted); similar to <i>S. cerevisiae</i> YKR069W |
| SPCC285.09c | cAMP-specific phosphodiesterase Cgs2; similar to <i>S. cerevisiae</i> YGL248W |
| SPAC1071.04c | signal peptidase subunit (predicted); 2 predicted transmembrane helices; similar to <i>S. cerevisiae</i> YML055W |
| SPAC4C5.02c | GTPase Ryh1; similar to <i>S. cerevisiae</i> YLR262C |
| SPCC16A11.15c | sequence orphan |
| SPAC13D6.02c | zinc finger protein; zf-CCHC type (zinc knuckle) (7); similar to <i>S. cerevisiae</i> YNL255C |
| SPAC13G6.10c | conserved fungal protein; serine-rich protein; glycoprotein (predicted); predicted N-terminal signal sequence; similar to <i>N. crassa</i> B24p11.210; no apparent <i>S. cerevisiae</i> ortholog |
| SPAPB1A10.03 | Tap cofactor p15; NTF2 domain; non-essential (PMID 14963046); similar to <i>S. cerevisiae</i> YKL186C; ouble mutant rae1delta/nxt1delta lethal (PMID 14963046) |
| SPBC725.10 | similar to peripheral-type benzodiazepine receptor; 3 predicted transmembrane helices; no apparent <i>S. cerevisiae</i> ortholog; non-essential (PMID 12618370) |
| SPBC36.04 | cysteine synthase (PMID 14981292); similar to <i>S. cerevisiae</i> YGR012W |
| SPCC1020.10 | serine/threonine protein kinase Oca2 (predicted); similar to <i>S. cerevisiae</i> YNL183C and YOR267C and YDL025C and YDL214C; non-essential (PMID 15821139) |
| SPAC227.01c | EXS family protein; similar to <i>S. cerevisiae</i> YDR414C; 4 predicted transmembrane helices |
| SPBC660.11 | single-stranded telomeric binding protein Tgc1 (PMID 12519786); rrm RNA recognition motif; functionally complements <i>S. cerevisiae</i> cdc13-1 (PMID 12519786); similar to <i>N. crassa</i> NCU07734.1; no apparent <i>S. cerevisiae</i> ortholog (cannot be distinguished) |
| SPCC757.10 | endoplasmic reticulum membrane involved in assembly of the V-ATPase; similar to <i>S. cerevisiae</i> YKL119C |
| SPBC106.17c | homoserine O-acetyltransferase (predicted); abhydrolase family; non-essential (PMID 12618370); deletion could not be obtained (PMID 12618370); similar to <i>S. cerevisiae</i> YNL277W |
| SPAC23E2.01 | iron-sensing transcription factor Fep1; zinc finger protein; zf-GATA type; expression constitutive irrespective of the nitrogen source (PMID 8799335); no apparent <i>S. cerevisiae</i> ortholog (cannot be distinguished) |
| SPAC19A8.11c | sequence orphan |
| SPBC30D10.13c | pyruvate dehydrogenase e1 component (beta subunit); similar to <i>S. cerevisiae</i> YBR221C |
| SPCC736.07c | sequence orphan |
| SPAC4D7.06c | siroheme synthase (predicted); similar to <i>S. cerevisiae</i> YBR213W |
| SPBC428.02c | branched chain amino acid aminotransferase Eca49; non-essential (PMID 12618370); similar to <i>S. cerevisiae</i> YHR208W and YJR148W |

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| SPBP8B7.22 | HDEL receptor; similar to <i>S. cerevisiae</i> YBL040C; 6 predicted transmembrane helices; predicted N-terminal signal sequence |
| SPAC25B8.05 | pseudouridylate synthase (predicted); similar to <i>S. cerevisiae</i> YFL001W |
| SPAC22G7.07c | mRNA (N6-adenosine)-methyltransferase (predicted); conserved eukaryotic protein; similar to <i>S. cerevisiae</i> YGL192W |
| SPCC1281.04 | pyridoxal reductase (predicted); aldo/keto reductase family 8; similar to <i>S. pombe</i> SPAC9E9.11; similar to <i>S. cerevisiae</i> YPR127W |
| SPAC13G7.06 | phosphoadenosine phosphosulfate reductase; similar to <i>S. cerevisiae</i> YPR167C |
| SPBC16C6.01c | lysine methyltransferase (predicted); SET domain; no apparent <i>S. cerevisiae</i> ortholog |
| SPAC20H4.07 | RecA family ATPase Rhp57; RecA family; AAA family ATPase; helix-hairpin-helix (inferred from context); involved in the stimulation of Rad51 (Rhp51) mediated strand exchange; similar to <i>S. cerevisiae</i> YDR004W |
| SPBC25D12.06 | RNA helicase (predicted); similar to <i>A. thaliana</i> RH22; no apparent <i>S. cerevisiae</i> ortholog |
| SPAC1071.11 | NADH-dependent oxidoreductase (predicted); no apparent <i>S. cerevisiae</i> ortholog |
| SPAC17H9.13c | glutamate 5-kinase (predicted); PUA domain; similar to <i>S. cerevisiae</i> YDR300C and YHR033W |
| SPAC30.02c | elongator associated protein (predicted); similar to <i>S. cerevisiae</i> YKL110C |
| SPAC29B12.08 | sequence orphan; serine/proline-rich protein |
| SPAC23H3.13c | heterotrimeric G protein alpha-2 subunit Gpa2 (PMID 1340462); similar to <i>S. cerevisiae</i> YER020W |
| SPAC959.07 | 40S ribosomal protein S04; similar to <i>S. cerevisiae</i> YJR145C and YHR203C |
| SPCC1259.01c | 40S ribosomal protein S18; similar to <i>S. cerevisiae</i> YDR450W and YML026C |
| SPAC1F7.13c | 60S ribosomal protein L2A; similar to <i>S. cerevisiae</i> YFR031C-A and YIL018W |
| SPAC29B12.04 | pyridoxine biosynthesis protein; similar to <i>S. cerevisiae</i> YMR096W and YFL059W and YNL333W |
| SPCC24B10.06 | glycoprotein (predicted); possibly <i>S. pombe</i> specific; GPI anchored protein (predicted) (PMID 12845604) (pers. comm. Birgit Eisenhaber); predicted N-terminal signal sequence |
| SPCC24B10.21 | triosephosphate isomerase; similar to <i>S. cerevisiae</i> YDR050C |
| SPAPB1E7.02c | DNA polymerase alpha accessory factor Mcl1; WD repeat protein; essential (PMID 15643072); non-essential (PMID 15915339); similar to <i>S. cerevisiae</i> YPR135W |
| SPCC285.10c | hypothetical protein; similar to <i>S. cerevisiae</i> YMR171C and YKL124W; SPRY domain; predicted N-terminal signal sequence |
| SPAC22F3.10c | glutamate--cysteine ligase Gcs1 (PMID 8619315); similar to <i>S. cerevisiae</i> YJL101C |

Constitutive screen

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|---------------|--|
| SPAC1D4.06c | cyclin-dependent kinase activating kinase Csk1 (PMID 9857180); similar to <i>S. cerevisiae</i> YKL139W; non-essential (PMID 8467814) |
| SPAC513.03 | M-factor precursor (PMID 8196631); pheromone; no apparent orthologs |
| SPBC13G1.08c | Ash2-trithorax family protein; SPRY domain; zinc finger protein; zf-PHD finger; non-essential (PMID 12488447); similar to <i>S. cerevisiae</i> YLR015W |
| SPBC119.06 | copper chaperone Sco1; similar to <i>S. cerevisiae</i> YBR037C and YBR024W |
| SPAC3G9.15c | conserved eukaryotic protein; similar to <i>S. cerevisiae</i> YLR051C |
| SPBC354.09c | protease (predicted); peptidase family M28; similar to transferrin receptor protein; PA (protease associated) domain; similar to <i>S. cerevisiae</i> YJR126C and YPL176C and YOR256C; non-essential (PMID 12618370) |
| SPAC8E11.07c | tubulin specific chaperone (cofactor A) (PMID 10978278); non-essential (PMID 10978278); similar to <i>S. cerevisiae</i> YOR265W |
| SPAP27G11.11c | dubious; unusual amino acid sequence; below 100 amino acid size threshold |

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| SPCC1393.13 | conserved eukaryotic protein; DUF89; similar to <i>S. cerevisiae</i> YMR027W; similar to <i>S. pombe</i> SPAC806.04C (paralog) |
| SPBC713.07c | vacuolar polyphosphatase (predicted); similar to <i>S. cerevisiae</i> YDR452W; predicted N-terminal signal sequence |
| SPBC36.07 | RNA polymerase II (elongator subunit) (predicted); disease associated, familial dysautonomia; similar to <i>S. cerevisiae</i> YLR384C |
| SPBC17A3.10 | zinc finger protein; pex2/pex 12 family; zf- C3HC4 type (RING finger); ubiquitin-protein ligase (E3) (predicted); similar to <i>S. cerevisiae</i> YDR265W |
| SPAC13G6.14 | diadenosine 5',5'''-p1,p6-hexaphosphate hydrolase Aps1 (PMID 10090752); dual function MutT hydrolase; non-essential (PMID 12387729); deletion mutant results in decreased in vitro Ap6A hydrolase activity (PMID 12387729); degrades PP-InsP5 (PMID 12387729); |
| SPCC1450.07c | D-amino acid oxidase (predicted); no apparent <i>S. cerevisiae</i> ortholog |
| SPAC4F10.04 | protein phosphatase type 2A, intrinsic regulator (predicted); similar to <i>S. cerevisiae</i> YIL153W |
| SPAC637.07 | translation initiation factor eIF3d Moe1; no apparent <i>S. cerevisiae</i> ortholog |
| SPAC16E8.05c | sequence orphan; transcriptionally regulated by Mei4 |
| SPAC19G12.15c | trehalose-6-phosphate phosphatase Tpp1; glycosyl transferase family 20; similar to <i>S. pombe</i> SPAC3G6.09C; similar to <i>S. cerevisiae</i> YDR074W |
| SPAC1B3.03c | cyclophilin; TPR repeat protein (inferred from context); induced by heat shock; peptidyl-prolyl cis-trans isomerase; similar to <i>S. cerevisiae</i> YLR216C and YJR032W |
| SPCC338.14 | adenosine kinase (predicted); similar to <i>S. cerevisiae</i> YJR105W |
| SPAC24H6.06 | pre-initiation complex subunit Sld3 (PMID 12006645); interacts physically with MCM proteins (PMID 12006645); similar to <i>S. cerevisiae</i> YGL113W |
| SPAC22F8.12c | sequence orphan; serine-rich protein; predicted N-terminal signal sequence |
| SPAC21E11.06 | translation initiation factor eIF2B delta subunit; similar to <i>S. cerevisiae</i> YGR083C |

TABLE S2. Mutants identified in both screens

| <i>S. pombe</i> Systematic Name | <i>S. pombe</i> Standard Name | <i>S. cerevisiae</i> ortholog(s) | <i>S. cerevisiae</i> Standard Name | Product | Is the gene inactivated with KAN? | Is the phenotype linked to KAN knockout? |
|---------------------------------------|-------------------------------------|---|--|--|---|--|
| Uninducible | | | | | | |
| spbc16c6.01c | | none apparent | | lysine methyltransferase * | no | yes |
| spbc27b12.11c | Pho7 | none apparent | | zinc finger domain - transcription factor * | yes | yes |
| spac2f7.08c | Snf5 | YBR289W | Snf5 | SWI/SNF complex subunit Snf5 | yes | yes |
| spac3a11.07 | | YMR145C, YDL085W, YML120C | Nde1 | NADH dehydrogenase | yes | not determined |
| spbc27.08c | Sua1 | YJR010W | Met3 | sulfate adenylyltransferase | no | yes |
| spcc1020.10 | Oca2 | YNL183C, YOR267C, YDL025C, YDL214C | Npr1 | serine/threonine protein kinase Oca2 * | yes | no |
| spac1782.11 | Met14 | YKL001C | Met14 | adenylyl-sulfate kinase * | no | yes |
| spbc106.10 | Pka1 | YJL164C, YPL203W, YKL166C | Tpk1 | cAMP-dependent protein kinase catalytic subunit Pka1 | yes | yes |
| spac13a11.05 | | none apparent | | peptidase family M17 | no | yes |
| spac1071.04c | Spc2 | YML055W | Spc2 | signal peptidase subunit Spc2 * | yes | yes |
| spbc725.10 | | none apparent | | tspO homolog/ peripheral benzodiazepine receptor homolog, involved in the transport cytoplas/mitochondrial of haem * | yes | not determined |
| spac1071.11 | | none apparent | | NADH-dependent flavin oxidoreductase * | yes | no |
| spbc8e4.05c | | none apparent | | fumarate lyase superfamily | yes | no |
| spac13g7.06 | Met16 | YPR167C | Met16 | phosphoadenosine phosphosulfate reductase | yes | yes |
| spac9.02c | | YDR071C | Paa1 | polyamine N-acetyltransferase * | yes | no |
| spac23h3.13c | Gpa2 | YER020W | Gpa2 | heterotrimeric G protein alpha-2 subunit Gpa2 | yes | yes |
| spcc757.10 | Vph2 | YKL119C | Vph2 | endoplasmic reticulum membrane protein involved in assembly of the V-ATPase * | yes | yes |
| spbc3B9.11c | Ctf1 | YGL044C | Rna15 | mRNA cleavage and polyadenylation | yes | yes |

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|---------------|-------|---------------------|-------|---|-----|----------------|
| spac4c5.02c | Ryh1 | YLR262C | Ypt6 | specificity factor complex subunit Ctf1 | | |
| spac4f10.04 | | YIL153W | Rrd1 | GTPase Ryh1 | yes | yes |
| spbc25d12.06 | | none apparent | | protein phosphatase type 2A, intrinsic regulator * | yes | yes |
| spbc1271.05c | | YOR052C | | RNA helicase * | | no |
| spac17h9.04c | | YDL167C | Nrp1 | zf-AN1 type zinc finger protein | yes | not determined |
| | | | | RNA-binding protein | yes | yes |
| Constitutive | | | | | | |
| spcc338.14 | | YJR105W | Ado1 | adenosine kinase * | yes | yes |
| spap27g11.11c | | none apparent | | dubious; unusual amino acid sequence- below 100 amino acid size threshold | yes | no |
| spbp8b7.22 | Erd2 | YBL040C | Erd2 | HDEL receptor | no | yes |
| spcc1393.13 | | YMR027W | | DUF89 family protein | yes | yes |
| spbc24c6.05 | Sec28 | YIL076W | Sec28 | coatomer epsilon subunit * | yes | yes |
| spac1d4.06c | Csk1 | YKL139W | Ctk1 | cyclin-dependent kinase activating kinase Csk1 | yes | yes |
| spcc285.09c | Cgs2 | YGL248W | Pde1 | cAMP-specific phosphodiesterase Cgs2 | yes | not determined |
| spbc713.07c | | YDR452W | Ppn1 | vacuolar polyphosphatase * | yes | yes |
| spac13g6.14 | Aps1 | YOR163W | Ddp1 | diadenosine 5',5'''-p1,p6-hexaphosphate hydrolase Aps1 | yes | yes |
| spac1b3.03c | Wis2 | YLR216C, YJR032W | Cpr6 | cyclophilin family peptidyl-prolyl cis-trans isomerase Wis2 | yes | no |
| * = predicted | | | | | | |

TABLE S3. Primers used in this study.

| Primer | Sequence | Purpose |
|---|--|-------------------|
| Delete <i>pho1</i>⁺ (DP55) | | |
| DWO21 | ctgcttctttggttacaaccCACAGGAAACAGCTATGACC GGTCATAGCTGTTTCCTGTGggttgtaaccaagaagcag | |
| DWO22 | gcatttacaagtcgtacgcgtatg | |
| DWO23 | ggataaacagcagccacagcGTTGTAAAACGACGGCCAGT ACTGGCCGTCGTTTTACAACgctgtggctgctgtttatcc | |
| DWO24 | gtgcacgtataggtttgtac | |
| Delete <i>snf5</i>⁺ (DP82) | | |
| O400 | ctttacttttttttaaatct CGGATCCCCGGGTTAATTAA | core 5' |
| O401 | gataaagattcttccaaaattgta GAATTCGAGCTCGTTTAA AC | core 3' |
| O402 | cttcacgtcctatgaacctac | 5'end homology 5' |
| O403 | TTAATTAACCCGGGATCCGagatttaaaaaaaagtaaag | 5'end homology 3' |
| O404 | GTTTAAACGAGCTCGAATTCtacaattttggaagaatctttat c | 3'end homology 5' |
| O405 | gcaaagatgaatttaacgag | 3'end homology 3' |
| O406 | gttatttacaacttcccgtc | Chk primer 500 bp |
| Delete <i>pho7</i>⁺ (DP81) | | |
| O393 | CATATTTCTTTTGTCTTTTCGTTTGT CGGATCCCCGG GTTAATTAA | core 5' |
| O394 | gaaaaacaaaggtaatatgcgcaaaa GAATTCGAGCTCGTT TAAAC | core 3' |
| O395 | gtaccaagttgttgatcataaagg | 5'end homology 5' |
| O396 | ttaattaaccggggatccgacaaaagacaaaagaaat g | 5'end homology 3' |
| O397 | GTTTAAACGAGCTCGAATTCttttgcatattacctttgtttt c | 3'end homology 5' |
| O398 | catctgtacgatcacatttatcc | 3'end homology 3' |
| O399 | cgacttcgcctaacacgat | Chk primer 500 bp |
| Delete <i>asp1</i>⁺ (DP102) | | |
| O831 | AAGCGTTATTAAATATTTTAAACGTAGTTGAATAA TAAAGG CGGATCCCCGGGTTAATTAA | core 5' |
| O832 | GTTATCAAACATTCGTAAAAAGGGTAAAAGCGG TTAATT GAATTCGAGCTCGTTTAAAC | core 3' |
| O833 | GCTTTTACCCTTTTACGAATG | 3' homology 5' |
| O834 | GAATCATTTTGGCGCCAAGCACC | 3' homology 3' |
| O835 | CATAGAAGCATTACTGCGAAAC | check primer |
| O780 | TTAATTAACCCGGGATCCG | Pringle Chk |

| | | Confirming deletion of genes / qPCR primers |
|-------|-----------------------------|--|
| O444 | G AAT ATG GAA ACA ATG CAC C | <i>pho7⁺</i> (ZnFinger) |
| O445 | GAATCGGCTTGGTTTTGATGGAAG | |
| O448 | GAGTTTTGACTCACTAAACG | <i>snf5⁺</i> |
| O449 | CTCATTAAATGCAATCATGACAAC | |
| O450 | GCTGCTAAGCCAGGAGATG | SPAC13A11.05 |
| O451 | CCGCTGTACAACAACCAC | |
| O452 | GTCTTCCAGCTATATGCTG | SPBC25D12.06 |
| O453 | CTTAACCAGTACTCCATCAG | |
| O505 | GGT GAT AAG TCC GAG ACT GCC | SPAC1B3_03c |
| O506 | GTTACCAGCCTTAGCAAGTGC | |
| O507 | GGT TTA GTA GTC GAT GAA TAC | SPAC3A11_07 |
| O508 | GTTACGCAAGGAGTATAATTC | |
| O509a | GGCTGATGAATCTGTTCAGCA | SPAC13G6_14 |
| 510a | GCTTCCTCATCTCTGGGTAAT | |
| O511 | GCT CAG AAG TTT GGT GAG AAG | SPAC13G7_06 |
| O512 | CCAACGTCCGGCACGTTTCATC | |
| O513 | GGT TGT GGA TAT CAC AAT TTC | SPAC17H9_04c |
| O514 | CATATTAGAGTAATGCGGAGC | |
| O515 | GGC CTC GCA TTT GGC ATT GAG | SPAC1071_04c |
| O516 | GTACTTTGAAATTTCCGCCTC | |
| O517 | CGA GTA ATC GTT CAT CTT CTG | SPAC1071_11 |
| O518 | GGATGTGCTGCAGTAGTTCCG | |
| O519 | CCT ATT TCA TGC GTT TAC ATC | SPBC8E4_05c |
| O520 | GTAATTTGTAACCTGGCGCTC | |
| O521 | CCA ACT ACA TAC GCA AAT GAC | SPBC16C6_01c |
| O522 | GACTAAACGAGACCTATTCTC | |
| O523 | GCT CAG GAA ATC GGT ATC ACC | SPBC27_08c |
| O524 | GTTTACGGTAGTCCACTCAGC | |
| O525 | GAT TAT TTA GCC CCG GAA ATC | SPBC106_10 |
| O526 | CGTAGCTACATCAGCATAAGC | |
| O527 | CAG TCT CAA TCA GAT TAT GAG | SPBC713_07c |
| O528 | GCCACTCTGTAATTTGAATTG | |
| O529 | GCT TCT CTC GTT CCA GTC GCC | SPBC725_10 |
| O530 | GGAAGCCGTTGGTGCAAGAGG | |
| O531 | GCT GAT TAT GGC ATT ATC CAC | SPBC1271_05c |
| O532 | GCAATCATGATCTTCCATAAG | |
| O533 | CCC TAT ATC ATG AAT CTT AGC | SPCC338_14 |
| O534 | GCCGCTAACCTTGATGCATTC | |
| O535 | GAT CCT CGT GCA GTG GAT ATC | SPCC1020_10 |
| O536 | CATATGGCACATCGAAATATC | |
| O537 | ACT TTC GAC TTT CCC AGA TTG | SPAC1D4_06c-intronsx2 |

| | | |
|-------------|------------------------------|--|
| O538 | GCAGATACTTTAGGGAATGAC | |
| O539a | G CAA GTG ACT CAA GAA GAA GG | SPAC4C5_02c-intronsx3 |
| O540a | GCTTTCATTCTCGTTAGGCTG | |
| O541 | GAC TTT GGT ACG GGT CAT GAG | SPAC4F10_04-intron |
| O542 | GACCTTTGACCATATAGGAAC | |
| O543 | CTT GAC TTC TAG AAC AGG TAG | SPAC9_02c-intron |
| O544 | CAAGTTTCATCCCCAAACTTG | |
| O545 | GAT CAT TTG CAA ATT CGA ATG | SPAC23H3_13c-intron |
| O546 | CCGATTTATAGAAGGGTTCAC | |
| O547 | GCG TCT GGA AAG TCT ACA ATC | SPAC1782_11-intron |
| O548 | CTTGTACAAACCCTTTGGATC | |
| O549a | GTT TAA AAT TGA TTC ATA TTC | SPAP27G11_11c-intron |
| O550a | GGTTGATTTAATCCAATATTG | |
| O551 | CCG ACT TCT ATC CCA TTG GCC | SPBC3B9_11c-intronsx2 |
| O552 | CCGCTTCCCTTCATTGCCCTG | |
| O553 | CTG CTG AAC AGA CAT TGA AAC | SPBC24C6_05-intron |
| O554 | GATCGTTCAACTTCAGTGTAG | |
| O555 | GTC TTG ATA CTT TTC GAA CTG | SPBP8B7_22-intronsx2 |
| O556 | CTGTTCCGGCGATATACGACTG | |
| O557 | CGT CGA ACC CGA TAT GGT AGC | SPCC285_09c-intronsx2 |
| O558 | GAACTTTTGGGAAGACAACGAC | |
| O559a | CTA TGT GCG TTT TCA GCA ATC | SPCC757_10-intron |
| O560a | CTTCAAAGATGGAATGGCTCC | |
| O561 | CGA AGG ATG TAC CCT GGT TTG | SPCC1393_13-intron |
| O562 | CAACGACGGCGTATTTACCAG | |
| qPCR | | |
| O66 | ggtattcatgaggctacttacaac | qPCR on <i>act1</i> ⁺ 5' |
| O67 | ccgctctcatcatactcttgcttg | qPCR on <i>act1</i> ⁺ 3' |
| O69 | gctaatagccttgcaaattccctc | qPCR on <i>pho1</i> ⁺ 5' |
| O70 | ctagcattgcaaagagtgcaaag | qPCR on <i>pho1</i> ⁺ 3' |
| O72 | gatttgctgtttgttattgcc | qPCR on <i>pho84</i> ⁺ 5' |
| O73 | ccacttgctatcacattgaacttg | qPCR on <i>pho84</i> ⁺ 3' |
| O848 | CCTTGGACACTGATATTGGCG | qPCR on <i>fbp1</i> ⁺ 5' |
| O849 | TGAAATTAATATATTCCTCG | qPCR on <i>fbp1</i> ⁺ 3' |
| O850 | GAGTATGATGACGCTTGCTATTC | qPCR on <i>isp6</i> ⁺ 5' |
| O851 | CAGGAATAGACAAGAGTACATC | qPCR on <i>isp6</i> ⁺ 3' |
| O503 | GACATGGAGGCCCAAGATAAC | For amplifying the NAT cassette to switch KAN to NAT in delete strains |
| O504 | TGGATGGCGGCGTTAGTATC | |

| | | Mating type check |
|------|---|---|
| MT1 | AGAAGAGAGAGTAGTTGAAG | Mtype for <i>Sz. pombe</i> |
| MP | ACGGTAGTCATCGGTCTTCC | |
| MM | TACGTTCAGTAGACGTAGTG | |
| | | pUR18-YFP complementation plasmids |
| O495 | catgcctgcaggtcgactctagaggatCCCCGGGTTA ATTAAC <u>atgtctaaaggtgaagaatta</u> | PCR YFP (5') to put into pUR18 |
| O496 | <u>cacaggaacagctatgaccatgattacgaattcgag</u> <u>ctcggta</u> tatatattacccgtttatccc | PCR YFP (3') to put into pUR18 |
| O500 | <u>gccaagccttgcctgcaggtcgactctagaggat</u> <u>CCCCGGGCCGTATACGATACTTTTAAC</u> | PCR <i>pho7⁺</i> (5') with no stop for YFP tag in pUR18 |
| O502 | taattcttcacctttagacatTTGTCTAAAGGGATGA TTC | PCR <i>pho7⁺</i> (3') with no stop for YFP tag in pUR18 |
| O736 | gccaagccttgcctgcaggtcgactctagaggatATGGATAA GGATATAGGCTCTGC | PCR <i>snf5⁺</i> into pUR19YFP plasmid |
| O737 | taattcttcacctttagacatAGTATTTCTATCCAAAACC | |