Expression Analysis: Pivot Tab

JJ52 rich **Descriptions** Avg Diff Abs Call Diff Call Avg Diff Change B=A Fold Change Sort Score AFFX-MurIL2 at 17.7 M16762 Mouse interleukin 2 (IL-2) gene, exon 4 AFFX-MurlL10 at -12.4 M37897 Mouse interleukin 10 mRNA, complete cds AFFX-MurlL4 at 306.4 M25892 Mus musculus interleukin 4 (II-4) mRNA, complete cds AFFX-MurFAS at -126.0M83649 Mus musculus Fas antigen mRNA, complete cds AFFX-BioB-5 at 176787.0 J04423 E coli bioB gene biotin synthetase (-5, -M, -3 represent transcript regions 5 prime, Middle, and 3 prime respectively) AFFX-BioB-M at 253845.0 J04423 E coli bioB gene biotin synthetase (-5, -M, -3 represent transcript regions 5 prime, Middle, and 3 prime respectively) AFFX-BioB-3 at 226116.0 J04423 E coli bioB gene biotin synthetase (-5, -M, -3 represent transcript regions 5 prime, Middle, and 3 prime respectively) AFFX-BioC-5 at 262629.7 J04423 E coli bioC protein (-5 and -3 represent transcript regions 5 prime and 3 prime respectively) AFFX-BioC-3_at 204890.1 J04423 E coli bioC protein (-5 and -3 represent transcript regions 5 prime and 3 prime respectively) 252648.0 AFFX-BioDn-5 at J04423 E coli bioD gene dethiobiotin synthetase (-5 and -3 represent transcript regions 5 prime and 3 prime respectively) AFFX-BioDn-3 at 118007.7 J04423 E coli bioD gene dethiobiotin synthetase (-5 and -3 represent transcript regions 5 prime and 3 prime respectively) AFFX-CreX-5_at 250670.8 X03453 Bacteriophage P1 cre recombinase protein (-5 and -3 represent transcript regions 5 prime and 3 prime respectively) AFFX-CreX-3 at 265636.0 X03453 Bacteriophage P1 cre recombinase protein (-5 and -3 represent transcript regions 5 prime and 3 prime respectively) AFFX-BioB-5_st 3424.9 J04423 E coli bioB gene biotin synthetase (-5, -M, -3 represent transcript regions 5 prime, Middle, and 3 prime respectively) AFFX-BioB-M_st 9166.9 J04423 E coli bioB gene biotin synthetase (-5, -M, -3 represent transcript regions 5 prime, Middle, and 3 prime respectively) AFFX-BioB-3 st 6380.4 J04423 E coli bioB gene biotin synthetase (-5, -M, -3 represent transcript regions 5 prime, Middle, and 3 prime respectively) AFFX-BioC-5 st 1506.5 J04423 E coli bioC protein (-5 and -3 represent transcript regions 5 prime and 3 prime respectively) AFFX-BioC-3 st 2656.6 J04423 E coli bioC protein (-5 and -3 represent transcript regions 5 prime and 3 prime respectively) AFFX-BioDn-5 st 10664.2 J04423 E coli bioD gene dethiobiotin synthetase (-5 and -3 represent transcript regions 5 prime and 3 prime respectively) AFFX-BioDn-3_st 18132.9 Ρ

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J04423 E coli bioD gene dethiobiotin synthetase (-5 and -3 represent transcript regions 5 prime and 3
prime respectively)
AFFX-CreX-5 st
                         1333.5
X03453 Bacteriophage P1 cre recombinase protein (-5 and -3 represent transcript regions 5 prime and 3
prime respectively)
                                      Ρ
AFFX-CreX-3 st
                         809.3
X03453 Bacteriophage P1 cre recombinase protein (-5 and -3 represent transcript regions 5 prime and 3
prime respectively)
AFFX-DapX-5 at
                         101.0
L38424 B subtilis dapB, jojF, jojG genes corresponding to nucleotides 1358-3197 of L38424 (-5, -M, -3
represent transcript regions 5 prime, Middle, and 3 prime respectively)
                         235.4
AFFX-DapX-M at
L38424 B subtilis dapB, jojF, jojG genes corresponding to nucleotides 1358-3197 of L38424 (-5, -M, -3
represent transcript regions 5 prime, Middle, and 3 prime respectively)
AFFX-DapX-3 at
                         -126.8
L38424 B subtilis dapB, jojF, jojG genes corresponding to nucleotides 1358-3197 of L38424 (-5, -M, -3
represent transcript regions 5 prime, Middle, and 3 prime respectively)
AFFX-LysX-5 at
                         49.2
X17013 B subtilis lys gene for diaminopimelate decarboxylase corresponding to nucleotides 350-1345 of
X17013 (-5, -M, -3 represent transcript regions 5 prime, Middle, and 3 prime respectively)
AFFX-LysX-M at
                         -115.8
X17013 B subtilis lys gene for diaminopimelate decarboxylase corresponding to nucleotides 350-1345 of
X17013 (-5, -M, -3 represent transcript regions 5 prime, Middle, and 3 prime respectively)
AFFX-LysX-3 at
                         259.3
X17013 B subtilis lys gene for diaminopimelate decarboxylase corresponding to nucleotides 350-1345 of
X17013 (-5, -M, -3 represent transcript regions 5 prime, Middle, and 3 prime respectively)
AFFX-PheX-5 at
                         -168.7
M24537B subtilis pheB, pheA genes corresponding to nucleotides 2017-3334 of M24537 (-5, -M, -3
represent transcript regions 5 prime, Middle, and 3 prime respectively)
AFFX-PheX-M_at
                         -61.2
M24537B subtilis pheB, pheA genes corresponding to nucleotides 2017-3334 of M24537 (-5, -M, -3
represent transcript regions 5 prime, Middle, and 3 prime respectively)
AFFX-PheX-3 at
                         34.8
M24537B subtilis pheB, pheA genes corresponding to nucleotides 2017-3334 of M24537 (-5, -M, -3
represent transcript regions 5 prime, Middle, and 3 prime respectively)
AFFX-ThrX-5 at
                         296.7
X04603 B subtilis thrC, thrB genes corresponding to nucleotides 248-2229 of X04603 (-5, -M, -3
represent transcript regions 5 prime, Middle, and 3 prime respectively)
AFFX-ThrX-M at
                         -6.8
X04603 B subtilis thrC, thrB genes corresponding to nucleotides 248-2229 of X04603 (-5, -M, -3
represent transcript regions 5 prime, Middle, and 3 prime respectively)
AFFX-ThrX-3 at
                         -39.0
X04603 B subtilis thrC, thrB genes corresponding to nucleotides 248-2229 of X04603 (-5, -M, -3
represent transcript regions 5 prime, Middle, and 3 prime respectively)
AFFX-TrpnX-5 at
                         -514.7
K01391 B subtilis TrpE protein, TrpD protein, TrpC protein corresponding to nucleotides 1883-4400 of
K01391 (-5, -M, -3 represent transcript regions 5 prime, Middle, and 3 prime respectively)
AFFX-TrpnX-M at
                         -486.2
K01391 B subtilis TrpE protein, TrpD protein, TrpC protein corresponding to nucleotides 1883-4400 of
K01391 (-5, -M, -3 represent transcript regions 5 prime, Middle, and 3 prime respectively)
AFFX-TrpnX-3 at
                         -186.8
K01391 B subtilis TrpE protein, TrpD protein, TrpC protein corresponding to nucleotides 1883-4400 of
K01391 (-5, -M, -3 represent transcript regions 5 prime, Middle, and 3 prime respectively)
AFFX-YFL039C5 at
                         19463.6
Saccharomyces cerevisiae /REF=V01288 /DEF=SGD:YFL039C Yeast S. cerevisiae gene for actin
/LEN=1118 (5, M, 3 represent transcript regions 5 prime, Middle, and 3 prime respectively)
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AFFX-YFL039CM_at 40954.8 P

Saccharomyces cerevisiae /REF=V01288 /DEF=SGD:YFL039C Yeast S. cerevisiae gene for actin /LEN=1118 (5, M, 3 represent transcript regions 5 prime, Middle, and 3 prime respectively)

AFFX-YFL039C3_at 86637.8 F

Saccharomyces cerevisiae /REF=V01288 /DEF=SGD:YFL039C Yeast S. cerevisiae gene for actin /LEN=1118 (5, M, 3 represent transcript regions 5 prime, Middle, and 3 prime respectively)

AFFX-YER148w5 at 1522.8 P

Saccharomyces cerevisiae /REF=X16860 /DEF=SGD:YER148W Yeast S. cervisiae TATA-binding protein (tfIId) /LEN=723 (5, M, 3 represent transcript regions 5 prime, Middle, and 3 prime respectively)

AFFX-YER148wM at 2850.5 P

Saccharomyces cerevisiae /REF=X16860 /DEF=SGD:YER148W Yeast S. cervisiae TATA-binding protein (tfIId) /LEN=723 (5, M, 3 represent transcript regions 5 prime, Middle, and 3 prime respectively)

AFFX-YER148w3 at 6668.1 P

Saccharomyces cerevisiae /REF=X16860 /DEF=SGD:YER148W Yeast S. cervisiae TATA-binding protein (tfIId) /LEN=723 (5, M, 3 represent transcript regions 5 prime, Middle, and 3 prime respectively)

AFFX-YER022w5_at 46.0 A

Saccharomyces cerevisiae /REF=L12026 /DEF=SGD:YER022W Yeast S. cerevisiae subunit of RNA polymerase II holoenzyme/mediator complex /LEN=2064 (5, M, 3 represent transcript regions 5 prime, Middle and 3 prime respectively)

AFFX-YER022wM_at 273.4 A

Saccharomyces cerevisiae /REF=L12026 /DEF=SGD:YER022W Yeast S. cerevisiae subunit of RNA polymerase II holoenzyme/mediator complex /LEN=2064 (5, M, 3 represent transcript regions 5 prime, Middle and 3 prime respectively)

AFFX-YER022w3 at 532.5 A

Saccharomyces cerevisiae /REF=L12026 /DEF=SGD:YER022W Yeast S. cerevisiae subunit of RNA polymerase II holoenzyme/mediator complex /LEN=2064 (5, M, 3 represent transcript regions 5 prime, Middle and 3 prime respectively)

AFFX-18srRnaa at 111370.5 P

Saccharomyces cerevisiae /REF=Z75578 /DEF=SGD:YLR154C Yeast S. cerevisiae 18S ribosomal RNA corresponds to 1-1799 in Z75578 /LEN=1799 (regions a-e represent transcript regions 5 prime to 3 prime respectively)

AFFX-18srRnab_at 160956.5 P

Saccharomyces cerevisiae /REF=Z75578 /DEF=SGD:YLR154C Yeast S. cerevisiae 18S ribosomal RNA corresponds to 1-1799 in Z75578 /LEN=1799 (regions a-e represent transcript regions 5 prime to 3 prime respectively)

AFFX-18srRnac at 35804.7 P

Saccharomyces cerevisiae /REF=Z75578 /DEF=SGD:YLR154C Yeast S. cerevisiae 18S ribosomal RNA corresponds to 1-1799 in Z75578 /LEN=1799 (regions a-e represent transcript regions 5 prime to 3 prime respectively)

AFFX-18srRnad_at 45685.7 F

Saccharomyces cerevisiae /REF=Z75578 /DEF=SGD:YLR154C Yeast S. cerevisiae 18S ribosomal RNA corresponds to 1-1799 in Z75578 /LEN=1799 (regions a-e represent transcript regions 5 prime to 3 prime respectively)

AFFX-18srRnae_at 56643.9 P

Saccharomyces cerevisiae /REF=Z75578 /DEF=SGD:YLR154C Yeast S. cerevisiae 18S ribosomal RNA corresponds to 1-1799 in Z75578 /LEN=1799 (regions a-e represent transcript regions 5 prime to 3 prime respectively)

AFFX-25srRnaa_at 197319.8 P

Saccharomyces cerevisiae /REF=J01355 /DEF=Z73326 SGD:YLR154C Yeast S.cerevisiae 25S ribosomal RNA corresponds to complement of 4212-7605 in Z73326 /LEN=3394 (regions a-e represent transcript regions 5 prime to 3 prime respectively)

AFFX-25srRnab at 27638.3 P

Saccharomyces cerevisiae /REF=J01355 /DEF=Z73326 SGD:YLR154C Yeast S.cerevisiae 25S ribosomal RNA corresponds to complement of 4212-7605 in Z73326 /LEN=3394 (regions a-e represent transcript regions 5 prime to 3 prime respectively)

AFFX-25srRnac_at 29526.4 F

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ribosomal RNA corresponds to complement of 4212-7605 in Z73326 /LEN=3394 (regions a-e represent
transcript regions 5 prime to 3 prime respectively)
AFFX-25srRnad at
                        22560.6
Saccharomyces cerevisiae /REF=J01355 /DEF=Z73326 SGD:YLR154C Yeast S.cerevisiae 25S
ribosomal RNA corresponds to complement of 4212-7605 in Z73326 /LEN=3394 (regions a-e represent
transcript regions 5 prime to 3 prime respectively)
AFFX-25srRnae at
                        109930.2
Saccharomyces cerevisiae /REF=J01355 /DEF=Z73326 SGD:YLR154C Yeast S.cerevisiae 25S
ribosomal RNA corresponds to complement of 4212-7605 in Z73326 /LEN=3394 (regions a-e represent
transcript regions 5 prime to 3 prime respectively)
AFFX-YEL002c/WBP1 at5288.8
X61388 SGD: YEL002C Yeast S.cerevisiae WBP1 Oligosaccharyltransferase beta subunit
AFFX-YEL018w/ at
                        627.7
U18530 SGD:YEL018W Yeast S. cerevisiae Protein of unknown function
AFFX-YEL024w/RIP1 at 1279.9
M23316 SGD:YEL024C Yeast S.cerevisiae RIP1 Rieske iron-sulfur protein of the mitochondrial
cytochrome bc1 complex.
AFFX-YEL021w/URA3 at3857.3
K02207 SGD:YEL021W Yeast S.cerevisiae URA3 gene coding for OMP decarboxylase
11378 at
           -58.6
Aldehyde dehydrogenase 1, mitochondrial
11379 at
           -39.0
Suppressor of Sulfoxyde Ethionine resistance
11380 at
            114.0
                        Α
hypothetical protein
11381 at
           -7.6
                        Α
putative pseudogene
11382 at
           7.2
                        Α
putative pseudogene
11383 at
           -81.0
                        Α
putative pseudogene
11384 at
           -107.2
                        Α
hypothetical protein
11385 s at 191.2
                        Α
putative Flo1p homolog
11386 at
           513.6
NADP-linked glutamate dehydrogenase
11387 at
           11.9
similarity to alcohol/sorbitol dehydrogenase
11388 at
           2999.2
similarity to alcohol/sorbitol dehydrogenase
11389 at
           1232.5
ExtraCellular Mutant
11390 at
            -367.6
Calnexin and calreticulin homolog
11391 at
           82.1
                        Α
questionable ORF
11392 at
           419.6
similarity to hypothetical protein YOR371c
11393 at
           974.8
hypothetical protein
11356 at
            752.9
                        Μ
inducible acetyl-coenzyme A synthetase
            4068.7
11357 at
```

strong similarity to hypothetical proteins YOR365c, YGL139w, YPL221w

Saccharomyces cerevisiae /REF=J01355 /DEF=Z73326 SGD:YLR154C Yeast S.cerevisiae 25S

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11358_at
            822.9
peroxisome proliferating transcription factor
11359 at
            2772.7
weak similarity to Legionella small basic protein sbpA
11360 at
            153.6
weak similarity to GTP-binding proteins
11361 at
            354.4
Spc72p interacts with Stu2p in the two-hybrid assay\; Spc72p localizes to the spindle pole bodies.
Molecular weight is 72 kD
11362_at
            716.9
hypothetical protein
11363 at
            172.3
                        Α
hypothetical protein
                        Ρ
11364 at
            11274.2
H-protein subunit of the glycine cleavage system
11365 at
            1706.6
pre-tRNA processing
11366 at
           -171.8
                        Α
questionable ORF
11367_at
            5926.8
                        Ρ
Function unknown now
11368 at
            994.3
Guanine nucleotide exchange factor (a.k.a. GDP-release factor) for cdc42
11369 at
            1525.5
G(sub)1 cyclin
11370_at
            2115.3
cytochrome c heme lyase (CCHL)
11371 at
            198177.8
Pyruvate kinase
11372 at
            229.9
strong similarity to GTP-binding proteins
11373_at
            8512.2
Function unknown now
11374 at
            20549.9
                        Ρ
97 kDa protein
11375 at
            273.8
                        Α
questionable ORF
11376_at
                        Α
            81.0
hypothetical protein
11377_at
            75.3
                        Α
Function unknown now
                        Р
11333 at
            819.9
An integral subunit of RNase P and apparent subunit of RNase MRP
11334_at
            244.8
                        Α
Function unknown now
11335 at
            0.1
                        Α
FUN21
11336 at
            366.9
homolog of Snc2p, vesicle-associated membrane protein (synaptobrevin) homolog, forms a complex with
Snc2p and Sec9p
11337_at
            3329.8
homolog of Snc2p, vesicle-associated membrane protein (synaptobrevin) homolog, forms a complex with
Snc2p and Sec9p
11338_at
            1761.6
myosin
11339_at
            -0.3
                        Α
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similarity to hypothetical protein YOR324c
11340 at
            -96.7
hypothetical protein
11341 at
            1072.4
Membrane-spanning Ca-ATPase (P-type), member of the cation transport (E1-E2) ATPases
11342 at
            1925.6
putative nuclear protein
11343_at
            236.7
putative GTP-exchange protein
11344_at
            17572.6
dolichyl phosphate-D-mannose:protein O-D-mannosyltransferase
11345 at
            1142.6
predicted membrane protein
11346 at
            2010.8
95 kDa containing leucine rich tandem repeats
11347 at
            259.1
Protein with similarity to human RCC1 protein
11348 at
            1163.9
                        Р
Shows homology to SNF2 transcriptional regulator
11349 at
            64.2
                                                                                                  3
transmembrane domains
11350 at
            2041.8
                        Ρ
Serine\/threonine kinase
11351 at
            4974.7
protein phosphatase 2A regulatory subunit A
11352_at
            306.3
                        Α
DNA glycosylase
11353 at
            638.4
                        Р
protein of unknown function
11354 at
            1140.2
regulation of phospholipid metabolism
11355_at
            18924.2
cystathionine gamma-lyase
11310_at
            137.5
possible mitochondrial transit peptide
11311 at
            27.6
Mitochondrial outer membrane protein involved in mitochondrial morphology and inheritance
11312_at
            591.5
sporulation protein
            1127.7
11313_at
                        Ρ
protein of unknown function
11314 at
            2650.9
p24 protein involved in membrane trafficking
11315_i_at 157893.5
Heat shock protein of HSP70 family, cytoplasmic
11316 r at 115445.3
Heat shock protein of HSP70 family, cytoplasmic
11317 s at 65474.6
                        Ρ
Heat shock protein of HSP70 family, cytoplasmic
11318 at
            541.9
strong similarity to A.klebsiana glutamate dehydrogenase
11319 at
            26462.0
Translation elongation factor EF-1beta, GDPVGTP exchange factor for Tef1pVTef2p
11320 at
            55988.1
Translation elongation factor EF-1beta, GDPVGTP exchange factor for Tef1pVTef2p
11321_at
            845.7
```

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Vps8p is a membrane-associated hydrophilic protein which contains a C-terminal cysteine-rich region that
conforms to the H2 variant of the RING finger Zn2+ binding motif.
11322 at
            708.9
transcription factor tau (TFIIIC) subunit 138
11323 at
            308.8
transcription factor tau (TFIIIC) subunit 138
11324_at
            3361.4
protein of unknown function
11325 at
            4368.1
p24 protein involved in membrane trafficking
11326 at
            346.0
                        Α
beta transducin domain
11327 at
            4043.1
69 kDa subunit of the heterotrimeric RPA (RF-A) single-stranded DNA binding protein, binds URS1 and
CAR1
11328 at
            935.6
34kDa subunit of the tetrameric tRNA splicing endonuclease
11329 at
            1685.1
maximal growth
11330_at
            5440.6
phosphoribosyl amino imidazolesuccinocarbozamide synthetase
11331_at
            587.5
protein kinase
                        Ρ
11332 at
            538.8
protein kinase domain
11287_f_at 6909.5
strong similarity to members of the srp1p/Tip1p family
11288 at
            114.7
membrane protein
                        Α
11289 at
            755.5
membrane protein
11290_at
            460.5
                        Α
membrane protein
11291_at
            -5.9
                        Α
membrane protein
11292 at
            335.2
                        Α
hypothetical protein
11293_at
            418.6
                        Α
membrane protein
11294_g_at 843.6
                        Ρ
membrane protein
11295_r_at 284.8
                        Α
membrane protein
11296_s_at 597.9
                        Α
membrane protein
11297 at
            102.5
                        Α
Outer carnitine acetyltransferase, mitochondrial
11298 at
            35.4
                        Α
ankyrin repeat
                        Ρ
11299 at
            698.7
Shows homology to the human oxysterol binding protein (OSBP)
11300_at
            72.2
predicted nuclear targeting signal
11301_i_at 620.1
FLO1 putative cell wall glycoprotein
11302_at
            230.2
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predicted membrane protein
11303 s at 176.0
strong similarity to hypothetical protein YHR212c
11304 at
            170.7
                         Α
putative pseudogene
11305 s at 66.9
                         Α
putative pseudogene
11306 at
           24.2
Potential membrane protein
11307_s_at 726.5
identical to YHR214w hypothetical protein, similarity to Sta1p
11308 s at 7263.0
Potential membrane protein
11309 at
            -163.1
Potential membrane protein
11261 at
            23.7
potential mitochondrial transit peptide
11262 s at 49652.6
Acid phosphatase, secreted
11263_f_at 5573.1
strong similarity to IMP dehydrogenases
11264 f at 11754.0
strong similarity to IMP dehydrogenases
11265 i at -223.9
                         Α
hypothetical protein
11266_f_at 2217.7
                         Ρ
hypothetical protein
11267 at
            344.3
                         Α
identified by SAGE
11268 at
                         Α
            327.7
hypothetical protein
11269_at
            232.2
non-annotated SAGE orf Found forward in NC 001133 between 101217 and 101354 with 100% identity.
See citation Velculescu, V.E., et al. (1997) Characterization of the yeast transcriptome. Cell 8:243-251
11270 at
            -64.7
non-annotated SAGE orf Found forward in NC 001133 between 23764 and 23898 with 100% identity.
See citation Velculescu, V.E., et al. (1997) Characterization of the yeast transcriptome. Cell 8:243-251
11271 at
non-annotated SAGE orf Found reverse in NC 001133 between 31215 and 31373 with 100% identity.
See citation Velculescu, V.E., et al. (1997) Characterization of the yeast transcriptome. Cell 8:243-251
11272 at
            478.4
non-annotated SAGE orf Found reverse in NC 001133 between 222994 and 223152 with 100% identity.
See citation Velculescu, V.E., et al. (1997) Characterization of the yeast transcriptome. Cell 8:243-251
11273 at
            132.3
non-annotated SAGE orf Found forward in NC 001133 between 73444 and 73614 with 100% identity.
See citation Velculescu, V.E., et al. (1997) Characterization of the yeast transcriptome. Cell 8:243-251
non-annotated SAGE orf Found reverse in NC 001133 between 139298 and 139468 with 100% identity.
See citation Velculescu, V.E., et al. (1997) Characterization of the yeast transcriptome. Cell 8:243-251
11275 at
non-annotated SAGE orf Found reverse in NC 001133 between 166468 and 166617 with 100% identity.
See citation Velculescu, V.E., et al. (1997) Characterization of the yeast transcriptome. Cell 8:243-251
11276 at
            94.7
non-annotated SAGE orf Found reverse in NC_001133 between 3170 and 3394 with 100% identity. See
citation Velculescu, V.E., et al. (1997) Characterization of the yeast transcriptome. Cell 8:243-251
11277_at
            50.7
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See citation Velculescu, V.E., et al. (1997) Characterization of the yeast transcriptome. Cell 8:243-251
11278 f at -0.2
non-annotated SAGE orf Found reverse in NC 001133 between 19977 and 20123 with 100% identity.
See citation Velculescu, V.E., et al. (1997) Characterization of the yeast transcriptome. Cell 8:243-251
11279 s at 231.8
non-annotated SAGE orf Found reverse in NC_001133 between 22397 and 22687 with 100% identity.
See citation Velculescu, V.E., et al. (1997) Characterization of the yeast transcriptome. Cell 8:243-251
11280 at
non-annotated SAGE orf Found reverse in NC_001133 between 29012 and 29179 with 100% identity.
See citation Velculescu, V.E., et al. (1997) Characterization of the yeast transcriptome. Cell 8:243-251
            -173.3
non-annotated SAGE orf Found forward in NC 001133 between 29954 and 30166 with 100% identity.
See citation Velculescu, V.E., et al. (1997) Characterization of the yeast transcriptome. Cell 8:243-251
11282 i at -2709.5
non-annotated SAGE orf Found reverse in NC 001133 between 182850 and 183005 with 100% identity.
See citation Velculescu, V.E., et al. (1997) Characterization of the yeast transcriptome. Cell 8:243-251
11283 r at 211.1
non-annotated SAGE orf Found reverse in NC 001133 between 182850 and 183005 with 100% identity.
See citation Velculescu, V.E., et al. (1997) Characterization of the yeast transcriptome. Cell 8:243-251
11284 f at 11012.9
non-annotated SAGE orf Found reverse in NC_001133 between 182850 and 183005 with 100% identity.
See citation Velculescu, V.E., et al. (1997) Characterization of the yeast transcriptome. Cell 8:243-251
11285 at
            -95.9
non-annotated SAGE orf Found forward in NC 001133 between 198205 and 198339 with 100% identity.
See citation Velculescu, V.E., et al. (1997) Characterization of the yeast transcriptome. Cell 8:243-251
non-annotated SAGE orf Found reverse in NC 001133 between 199737 and 199886 with 100% identity.
See citation Velculescu, V.E., et al. (1997) Characterization of the yeast transcriptome. Cell 8:243-251
11238 at
non-annotated SAGE orf Found forward in NC_001133 between 200934 and 201074 with 100% identity.
See citation Velculescu, V.E., et al. (1997) Characterization of the yeast transcriptome. Cell 8:243-251
11239 at
non-annotated SAGE orf Found reverse in NC_001133 between 203077 and 203223 with 100% identity.
See citation Velculescu, V.E., et al. (1997) Characterization of the yeast transcriptome. Cell 8:243-251
11240 s at 268.5
non-annotated SAGE orf Found reverse in NC_001133 between 219555 and 219719 with 100% identity.
See citation Velculescu, V.E., et al. (1997) Characterization of the yeast transcriptome. Cell 8:243-251
11241 at
non-annotated SAGE orf Found reverse in NC_001133 between 138484 and 138627 with 100% identity.
See citation Velculescu, V.E., et al. (1997) Characterization of the yeast transcriptome. Cell 8:243-251
11242 f at 286.5
non-annotated SAGE orf Found forward in NC_001133 between 223093 and 223230 with 100% identity.
See citation Velculescu, V.E., et al. (1997) Characterization of the yeast transcriptome. Cell 8:243-251
11243 s at 96.8
non-annotated SAGE orf Found forward in NC 001133 between 223253 and 223423 with 100% identity.
See citation Velculescu, V.E., et al. (1997) Characterization of the yeast transcriptome. Cell 8:243-251
11244 s at 510.3
non-annotated SAGE orf Found forward in NC_001133 between 223333 and 223476 with 100% identity.
See citation Velculescu, V.E., et al. (1997) Characterization of the yeast transcriptome. Cell 8:243-251
11245_i_at -236.9
Centromere
11246 r at -157.0
                         Α
Centromere
11247_s_at 6674.6
strong similarity to members of the Sir1p/Tip1p family
```

non-annotated SAGE orf Found forward in NC_001133 between 19729 and 19968 with 100% identity.

```
11248_s_at 151.6
strong similarity to members of the Sir1p/Tip1p family
11249 f at -992.9
                         Α
strong similarity to members of the Srp1p/Tip1p family
11250 s at 366.4
strong similarity to Pep1p
11251_s_at 286.9
homology to maltase(alpha-D-glucosidase)
11252_s_at -145.3
                         Α
questionable ORF
11253 s at 78.5
                         Α
High-affinity hexose transporter
11254 at
            274.5
strong similarity to E.coli galactoside O-acetyltransferase
11255 at
            302.4
                         Α
hypothetical protein
11256 at
            84.3
                         Α
strong similarity to Mal62p
11257 at
            -46.2
hypothetical protein
11258 at
            -103.5
                         Α
High-affinity hexose transporter
11259 at
            597.6
similarity to Methanobacterium aryldialkylphosphatase related protein
11260 at
            317.7
strong similarity to S.pombe isp4 protein
11215 at
            259.3
questionable ORF
11216 at
            1886.5
                         Ρ
CH3HC4 zinc-binding integral peroxisomal membrane protein
11217 at
            1801.6
Protein required for COB mRNA stability or 5 processing
11218 at
            495.4
mitochondrial nuclease
11219 at
            1049.3
weak similarity to rat omega-conotoxin-sensitive calcium channel alpha-1 subunit rbB-I
11220 at
            359.8
                         Ρ
similarity to YIL130p and Put3p
11221 at
            1105.6
involved in secretion of proteins that lack classical secretory signal sequences
11222 at
            649.5
weak similarity to Tor2p
11223_at
            331.0
                         Α
RNA splicing factor
11224 at
            197.2
                         Α
questionable ORF
11225 at
            472.8
                         Α
ExtraCellular Mutant
11226_at
            12405.1
strong similarity to aconitate hydratase
11227_at
            590.5
hypothetical protein
                         Ρ
11228 at
            3417.9
strong similarity to Pho87p
11229_at
            948.6
ubiquitin carboxyl-terminal hydrolase
```

```
11230_at
            5960.8
Elongation enzyme 1, required for the elongation of the saturated fatty acid tetradecanoic acid (14:0) to
that of hexadecanoic acid (16:0)
11231_at
            248.1
questionable ORF
11232 at
            366.6
                        Α
Protein involved in initiation of DNA replication
11233 at
            703.4
similarity to Sly41p
                         Ρ
11234_at
            1103.8
hypothetical protein
                        Р
11235 at
            3577.4
Ribosomal protein S14B (rp59B)
11236 at
            64673.6
Ribosomal protein S22A (S24A) (rp50) (YS22)
11237 at
            43126.7
Ribosomal protein L39 (L46) (YL40)
11192 at
            5353.2
questionable ORF
11193_at
            998.1
                        Ρ
protein kinase homolog
                         Ρ
11194_at
            1257.2
putative mannosyltransferase
11195 at
            -29.3
                        Α
hypothetical protein
                        Ρ
11196_at
            1068.0
hypothetical protein
11197_at
                        Ρ
            3181.9
A new gene encoding a protein that is related to Mnn10p, and that is in a complex containing other MNN
gene products.
11198 at
            -64.5
                         Α
questionable ORF
                         Ρ
11199 at
            770.2
similarity to hypothetical protein YJR030c
11200 at
            292.4
essential for assembly of a functional F1-ATPase
11201 at
            813.8
Putative homolog of subunit 1 of bovine prefoldin, a chaperone comprised of six subunits
11202 at
            1731.4
hypothetical protein
11203 i at 22852.0
Ribosomal protein L17B (L20B) (YL17)
11204_s_at 42250.8
Ribosomal protein L17B (L20B) (YL17)
11205 i at 66068.9
Ribosomal protein L17B (L20B) (YL17)
11206 f at 55270.8
Ribosomal protein L17B (L20B) (YL17)
11207_at
            275.5
transcription factor
11208_at
            198.8
                        Α
questionable ORF
11209 at
            4517.9
Cell wall beta-glucan assembly
11210_at
            2998.8
subunit 3 of replication factor-A
```

```
11211_at
                         Ρ
            1833.2
carboxypeptidase yscS
                        Ρ
11212 at
            3074.6
similarity to YBR162c
11213 at
            -42.6
An a-specific gene that is induced to a higher expression level by alpha factor
11214_at
            -81.5
questionable ORF
11170_at
            233.8
                         Α
transcription factor containing a SET domain
11171 at
            15375.9
Farnesyl diphosphate synthetase (FPP synthetase)
11172 at
            7266.9
Ubiquinol cytochrome-c reductase subunit 8 (11 kDa protein)
11173 at
            818.9
Protein kinase homolog, mutant is salt and pH sensitive
11174 at
            674.3
putative catalytic subunit of cAMP-dependent protein kinase
11175 at
            346.6
hypothetical protein
11176_at
            69.3
weak similarity to dnaJ proteins
11177 at
            112.0
hypothetical protein
11178 at
            90.4
                         Α
member of the Pir1p/Hsp150p/Pir3p family
11179 at
            43257.8
Heat shock protein, secretory glycoprotein
11180 at
            28091.6
Protein with homology to Hsp150p and Pir1p, Pir2p, and Pir3p
11181 at
            4223.7
Factor arrest protein
11182 at
            827.1
sensitive to sulfonylurea herbicides on complex media (YPD)
11183 at
            721.0
Fructose-2,6-bisphosphatase
11184 at
            935.8
Protein involved in vacuolar sorting
11185 at
            117.6
L-myo-inositol-1-phosphate synthase
11186 at
            731.6
questionable ORF
11187_at
            6728.2
similarity to hypothetical protein YDL123w
11188 at
            85.6
                         Α
questionable ORF
11189 at
            863.0
similarity to hypothetical protein YDR131c
11190_at
            2350.8
RNA polymerase I subunit, not shared (A34.5)
11191_at
            349.2
weak similarity to C.elegans hypothetical protein C43G2.4
11147 at
            654.9
IME2-Dependent Signalling
11148_at
            2221.9
weak similarity to T.pacificus retinal-binding protein
```

```
11149_at
            444.4
                        Α
hypothetical protein
                        Ρ
11150 at
            2658.9
16.5 kDa inner membrane protein required for import of mitochondrial precursor proteins
11151 at
            328.4
questionable ORF
                        Ρ
11152_g_at 1217.4
questionable ORF
11153 at
            235.0
                        Α
Serine-threonine protein kinase
11154 at
            1268.8
fourth-largest subunit of RNA polymerase II
11155 at
            985.3
Probable glycosyltransferase of KRE2VKTR1VYUR1 family\; located in the Golgi
11156 s at 36215.6
translation initiation factor eIF4A
11157 at
            576.0
self-glucosylating initiator of glycogen synthesis\; similar to mammalian glycogenin
11158 i at 84678.4
Ribosomal protein S21B (S26B) (YS25)
11159_s_at 43247.5
Ribosomal protein S21B (S26B) (YS25)
11160 at
            208.2
                        Α
questionable ORF
11161 at
            2058.8
                        Ρ
putative plasma membrane transporter capable of transporting sphingoid long chain bases into cells
11162 at
            434.8
                        Μ
mitochondrial carrier protein
11163 at
            147.6
weak similarity to human phospholipase D
11164 at
            266.0
weak similarity to nonepidermal Xenopus keratin, type I
11165 at
            43642.8
carbamoyl-phophate synthetase, aspartate transcarbamylase, and glutamine amidotransferase
11166 at
            768.5
180 kDa high affinity potassium transporter
11167 at
            1075.4
MAP kinase kinase (MEK), may act as a scaffolding protein for Sho1p, Ste11p, and Hog1p
11168 at
            138.7
negative transcriptional regulator
11169 at
            242.8
Nit2 nitrilase
            1005.2
11124_at
translational repressor of GCN4
            659.6
11125 at
Like Sm-B protein\; contains the Sm consensus motifs and most closely resembles Sm-B
(Fromont-Racine et al, 1997 Nature Genetics 16:277-282)
11126 at
            6137.4
weak similarity to D.melanogaster troponin T and human nucleolin
11127 at
            1599.4
weak similarity to dog-fish transition protein S2
11128 at
            4342.5
D-ribulose-5-Phosphate 3-epimerase
11129 at
            -42.5
                        Α
questionable ORF
11130_at
            -677.7
                        Α
```

```
questionable ORF
                         Ρ
11131 at
            660.9
hypothetical protein
11132 at
            6618.0
Putative inorganic phosphate transporter
11133 at
            1260.7
With NCA2, regulates proper expression of subunits 6 (Atp6p) and 8 (Atp8p) of the Fo-F1 ATP synthase
11134 at
            2387.1
Anti-silencing protein that causes depression of silent loci when overexpressed
11135 at
            714.5
similarity to Met30p and N.crassa sulfur controller-2
11136 at
            1853.6
Component of Chaperonin Containing T-complex subunit seven
11137 at
            555.9
GATA zinc finger protein 3 homologous to Dal80 in structure and function
11138 at
            6538.0
weak similarity to ATPase Drs2p
11139 at
            1409.3
strong similarity to hypothetical S. pombe protein
11140_at
            74.0
similarity to hypothetical S. pombe protein
11141 at
            430.1
Serine\Threonine protein kinase, positively regulated by IME1
11142 at
            -12.3
similarity to hypothetical protein YKR029c
11143 at
            671.0
weak similarity to C.elegans hypothetical protein F45G2.c
11144 at
            85.3
putative regulatory protein
11145 at
            705.9
mitochondrial elongation factor G-like protein
11146_at
            1282.4
gamma-glutamylcysteine synthetase
11102_at
            1323.7
similarity to hypothetical C. elegans protein C56A3.8
11103 at
            755.5
Involved in chitin biosynthesis and Vor its regulation
11104 at
            1249.6
SIT4 associated protein, MW of 185 kDa
11105_at
            2414.6
similarity to hypothetical C. elegans protein T15B7.2
11106 at
            862.6
ribosomal protein YmL49, mitochondrial
11107_at
            662.3
putative 163 kDa protein kinase
11108 at
            905.7
similarity to E.hirae NaH-antiporter NapA
11109 at
            491.6
                         Α
outward-rectifier potassium channel
11110 at
            712.8
DNA helicase
11111 at
            1571.7
weak similarity to human G protein-coupled receptor
11112 at
            414.6
Part of the DNA polymerase II complex, acts in a checkpoiint pathway during S-phase
11113_at
            157.3
```

```
shows homology to DNA binding domain of Gal4p, has a leucine zipper motif and acidic region\;
lexA-Sip4p activates transcription
11114 at
            427.4
Ornithine carbamovltransferase
11115 at
            261.4
tRNA ligase
11116_at
            -239.1
                         Α
questionable ORF
11117 at
            584.5
70 kD component of the Exocyst complex\; required for exocytosis
11118 at
            -832.3
similarity to hypothetical protein YKR021w
11119 at
            487.1
similarity to hypothetical protein YKR019c
11120 at
            1315.1
                        Р
strong similarity to hypothetical protein YKR018c
11121 at
            2566.6
54.8 kDa actin-related protein
11122 at
            10408.6
May be required during cell division for faithful partitioning of the ER-nuclear envelope membranes,
involved in control of mitotic chromsome transmission
11123 at
            1751.5
Similar to plant PR-1 class of pathogen related proteins
11079 at
            1743.8
Similar to plant PR-1 class of pathogen related proteins
11080_at
            202.8
hypothetical protein
11081 at
            5295.2
                         Р
Establishes Silent omatin\; homolog of TOF2
11082 at
            928.8
questionable ORF
11083_at
            926.9
required for structural maintenance of chromosomes
11084_at
            823.1
DnaJ-like protein of the endoplasmic reticulum membrane
11085 at
            582.3
                         Ρ
hypothetical protein
11086_at
            515.4
                         Α
Acetylglutamate Synthase
11087_at
            -27.6
similarity to AMP deaminases
11088 at
            2403.2
similarity to C.elegans hypothetical protein
11089_at
            2176.8
strong similarity to human esterase D
11090 at
            108.9
                        Α
questionable ORF
11091 at
            399.6
                         Ρ
hypothetical protein
11092 at
            1244.5
weak similarity to DNA-directed DNA polymerase II chain C
11093_at
            -49.9
hypothetical protein
11094_at
            1418.8
Mitochondrial ribosomal protein MRPL8 (YmL8) (E. coli L17)
11095_at
            1474.2
```

```
similarity to S.pombe SPAC13G6.3 protein
11096 at
            295.8
82-kDa protein, with putative coiled-coil domain, has carboxy-terminal domain, containing heptad repeats,
that binds Nsp1p\; nucleoporin
11097 at
            972.1
similarity to kynurenine aminotransferase and glutamine-phenylpyruvate transaminase
11098 at
            437.4
Homolog of human CLN3
11099 at
            146.9
strong similarity to hypothetical protein YBR270c
11100 at
            98.6
probable serine Vthreonine kinase
11101 at
            577.9
Metalloregulatory protein involved in zinc-responsive transcriptional regulation
11057 at
            5851.5
similarity to R.fascians hypothetical protein 6
11058 at
            795.0
Translocase for the insertion of proteins into the mitochondrial inner membrane.
11059 at
            506.4
Vacuolar protein similar to mouse gene H<br/>beta>58
11060 at
            8881.0
Glyceraldehyde-3-phosphate dehydrogenase 1
11061 g at 193376.5
Glyceraldehyde-3-phosphate dehydrogenase 1
11062 at
            1134.7
hypothetical protein
11063 at
            2349.3
DEAD-box family helicase required for mRNA export from nucleus
11064 at
            382.6
hypothetical protein
11065 at
            1608.7
similarity to hypothetical protein YBR273c
11066 at
            66.3
Regulator of Ty1 Transposition
11067 at
            77.5
similarity to E.coli lipoate-protein ligase A
11068 at
            7.5
strong similarity to succinate dehydrogenase flavoprotein
11069 at
            284.4
GTPase-activating protein for Ypt6
11070 at
            -1830.9
similarity to hypothetical protein YKR015c
11071_at
            2514.2
Putative microtubule-associated protein (MAP)
11072 at
            3370.6
Nucleoskeletal protein found in nuclear pores and spindle pole body
11073 at
            559.6
similarity to human protein interacting with human nuclearpore protein Nup93
11074 at
            128.8
strong similarity to hypothetical protein YJL037w
11075 at
            823.1
strong similarity to hypothetical protein YJL038c
11076 at
            254.1
                         Α
weak similarity to Mvp1p
            396.2
11077_at
weak similarity to P.gingivalis PgaA and B.japonicum nitrogen fixation protein
```

```
11078_at
            28445.8
Homologue of mammalian BiP (GPR78) protein\; member of the HSP70 gene family
11034 at
            1480.1
putative RNA helicase
11035 at
            428.6
                        Α
questionable ORF
11036 at
            467.5
Geranylgeranyltransferase Type II alpha subunit (PGGTase-II, alpha subunit)
11037 at
            525.5
spindle-assembly checkpoint protein
11038 at
            959.5
similarity to C.elegans hypothetical protein T05G5.8
11039 at
            221.3
hypothetical protein
11040 at
            -65.4
                        Α
hypothetical protein
11041 at
            7516.3
                        Ρ
small subunit of ribonucleotide reductase
11042 at
            393.8
member of yeast Pol I core factor (CF) also composed of Rrn11p, Rrn6p and TATA-binding protein
11043 at
            -218.2
similar to Aps1p and mammalian small subunit (sigma-2 adaptin) of plasma membrane-associated
clathrin assembly complex (AP-2)
11044 at
            -645.3
Nuclear gene encoding mitochondrial protein
11045_at
            73.5
                        Α
questionable ORF
11046 at
            2220.2
                        Ρ
weak similarity to S.pombe hypothetical protein SPAC23A1.16
11047 at
            232.4
similarity to P.falciparum glutamic acid-rich protein
11048_at
            72.6
                        Α
hypothetical protein
11049_g_at -64.7
                        Α
hypothetical protein
                        Ρ
11050 at
            994.1
questionable ORF
11051_at
                        Α
            291.3
hypothetical protein
11052_at
            1624.8
                        Р
weak similarity to hypothetical protein YNL278w and YLR187w
11053 at
            107.6
questionable ORF
11054_at
            4013.4
Cytoplasmic chaperonin subunit gamma
11055 at
            324.9
Checkpoint protein required for cell cycle arrest in response to loss of microtubule function
11056 at
            21768.7
weak similarity to regulatory protein PHO81
11010 at
            1095.9
weak similarity to chicken hypothetical protein
11011_at
            1627.7
weak similarity to C.elegans hypothetical protei ZK792.5
11012 at
            1934.2
questionable ORF
                        Ρ
11013_at
            3043.8
```

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Component of Chaperonin Containing T-complex subunit eight
11014 at
            -22.1
hypothetical protein
11015 at
            424.5
                         Ρ
cyclin-related subunit of the kinase complex that phosphorylates the RPO21 CTD (carboxy-terminal
domain)\; also called CTDK-I beta subunit
11016 at
            849.9
                        Ρ
adenylate cyclase
11017 at
            444.2
                        Ρ
Multicopy suppressor of ypt6 null mutation
11018 at
            379.2
                        Α
hypothetical protein
11019 at
            7756.2
64-kDa, alpha subunit of oligosaccharyltransferase complex\; homologous to mammalian ribophorin I
11020 i at 1765.8
Subunit of 20S proteasome
11021 f at 1665.8
Subunit of 20S proteasome
11022 at
            9275.4
Subunit of 20S proteasome
11023 at
            4297.4
weak similarity to A.thaliana aminoacid permease AAP4
11024 at
            1540.2
Protein component of the U3 small nucleolar ribonucleoprotein (snoRNP)
11025 at
            542.9
hypothetical protein
                        Р
11026 at
            38924.7
alpha-agglutinin
11027 at
            936.4
beta-adaptin, large subunit of the clathrin-associated protein complex
11028 at
            313.0
DNA-directed DNA polymerase delta, 55 KD subunit
11029 at
            1526.0
                        Ρ
Translation initiation factor eIF-2 alpha subunit
11030 at
            280.8
similarity to S.pombe hypothetical protein
11031_s_at 280927.4
glyceraldehyde 3-phosphate dehydrogenase
11032 at
            1169.7
ATP sulfurylase
11033 at
            392.9
Homologue of the SPC12 subunit of mammalian signal peptidase complex. Protein is important for
efficient signal peptidase activity.
10988_at
            306.9
hypothetical protein
10989 at
            228.6
                        Α
hypothetical protein
10990 at
            957.6
                         Ρ
similarity to C.elegans B0491.1 protein
10991 at
            4599.7
strong similarity to S.pombe hypothetical protein SPBC16C6.05
10992_at
            1065.2
strong similarity to Sng1p
10993_at
            17245.2
dihydroxyacid dehydratase
10994_at
            3582.9
```

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Peptidyl-prolyl cisVtrans isomerase (PPlase)
10995 at
            688.5
                        Ρ
questionable ORF
10996_at
            786.0
                        Ρ
peroxisomal acyl-CoA thioesterase
10997 at
            28.5
questionable ORF
10998 at
            346.0
meiotic recombination protein
10999_at
            -223.3
meiotic recombination protein
11000 at
            443.5
Sm-like protein
11001 at
            125.2
                        Α
hypothetical protein
11002 at
            1677.1
weak similarity to C.elegans Z49131 E ZC373.5 protein
11003 at
            2289.1
3-hydroxyanthranilic acid dioxygenase
11004_at
            461.2
similarity to hypothetical protein YJL181w
11005 at
            690.3
Component of a complex quanine nucleotide exchange activity for the ADP-ribosylation factor ARF
11006 at
            543.3
cyclophilin related to the mammalian CyP-40\; physically interacts with RPD3 gene product
11007 at
            401.4
similarity to Drosophila DmX gene
11008 at
            424.2
Required for assembly of active cytochrome c oxidase
11009 at
            550.2
DNA-dependent ATPase, homologous to human Cockayne syndrome B gene ERCC6, that is a putative
helicase
10965 at
            188.8
similarity to human E6-associated protein
10966 at
            -161.5
                        Α
questionable ORF
10967_at
            104.9
                         Α
questionable ORF
10968 at
            412.5
                        Α
hypothetical protein
                        Р
10969 at
            1143.5
putative transport protein involved in intracellular iron metabolism
10970_at
            1437.8
hypothetical protein
10971 at
            1921.4
Protein in nuclear pore complex\; may function in nuclear envelope integrity\; may also be involved in
tRNA biogenesis
10972 at
            72.8
third (55 kDa) subunit of DNA polymerase delta
10973 at
            2867.0
weak similarity to putative transport protein YKR103w
10974 at
            1828.6
Mitochondrial matrix protein involved in protein importly; subunit of Scel endonuclease
10975 at
            699.4
weak similarity to Xenopus vimentin 4
10976_at
            771.8
```

а

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anaerobically expressed form of translation initiation factor eIF-5A
            7082.4
10977_at
                         Ρ
iso-1-cytochrome c
10978 at
            753.5
                         Ρ
Associated with ferric reductase
10979 at
            360.4
Interacts with Syf1p: Isy1p was identified through a two-hybrid screen with Syf1p as bait (SYF1 is
synthetic lethal with PRP17 KO). A subsequent screen with Isy1p as bait isolated Syf1p, Prp39p and
YPL213p (a homologue of U2A) suggesting an involvement in pre-mRNA splicing. Immunoprecipitation
experiments demonstrated that Isy1p interacts with the spliceosome before step 1 of splicing, prior to the
dissociation of Prp2p, and remains associated throughout both steps of splicing.
10980 at
            2176.2
osmotic growth protein
10981 at
            1545.7
Nucleotide excision repair protein involved in G(sub)2 repair of inactive genes
10982 at
            54.5
hypothetical protein
10983 at
            1000.1
                         Ρ
similarity to hypothetical protein YML047c
10984 at
            236.2
Protein required for growth at high temperature
10985 at
            426.6
hypothetical protein
10986 at
                         Α
            531.5
thymidylate kinase
10987 at
            2819.4
Clathrin-associated protein, small subunit
            1559.4
10943 at
Putative serine Vthreonine protein kinase that enhances spermine uptake
10944 at
            420.8
basic helix-loop-helix protein
10945_at
            146.8
similarity to Mnn4p
10946_at
            423.5
52-kDa amidase specific for N-terminal asparagine and glutamine
10947 at
            1696.9
A12.2 subunit of RNA polymerase I
10948 at
            5718.2
subunit of chaperonin subunit epsilon
            7053.2
10949_at
actin-related gene
10950 at
            755.9
phosphatidylinositol kinase homolog
10951_at
            224.8
Essential protein of unknown function
10952 at
            1140.4
Subunit 2 of Replication Factor C\; homologous to human RFC 37 kDa subunit
10953 at
            1588.2
controls 6-N-hydroxylaminopurine sensitivity and mutagenesis
10954 at
            9278.4
similarity to C.elegans hypothetical protein C14A4.1
10955 at
            -228.2
questionable ORF
10956 at
            3684.6
strong similarity to C.elegans hypothetical protein and similarity to YLR243w
10957_at
            2638.0
```

```
Methylene-fatty-acyl-phospholipid synthase (unsaturated phospholipid N-methyltransferase)
10958 at
            1091.0
Protein interacts with Gsp1p
10959 at
            694.8
putative mannosyltransferase
10960 at
            1793.9
Component of 10 nm filaments of mother-bud neck
10961 at
            10419.8
Mir1p has been purified as a mitochondrial import receptor (p32) which can bind to signal sequence
regions of mitochonidrial preproteins. In addition, it has been purified as PTP (PiC), a mitochondrial
phosphate transport protein. Mir1p localizes between the inner and outer mitochondrial membranes
10962 at
            794.6
similarity to mammalian indoleamine 2,3-dioxygenase
10963 at
            843.4
questionable ORF
                         Ρ
10964 at
            933.3
hypothetical protein
10920 at
            43.3
                         Α
questionable ORF
10921_at
            315.3
                         Α
hypothetical protein
10922_at
            306.5
                         Α
hypothetical protein
10923 at
            677.3
weak similarity to S.pombe hypothetical protein SPAC1B3.08
10924_at
            7870.7
hypothetical protein
10925 at
            655.4
                         Р
gamma subunit of G protein coupled to mating factor receptors
10926 at
            350.6
questionable ORF
10927_at
            703.3
weak similarity to S.pombe hypothetical protein SPBC14C8.18c
10928 at
            329.2
hypothetical protein
10929 at
                         Ρ
                                                                                                    F
            1131.1
box protein with several leucine rich repeats
10930 at
            880.7
Benomyl dependent tubulin mutant
10931_at
            1065.7
Component of a pre-mRNA polyadenylation factor that interacts with poly(A) polymerase
10932 at
            447.0
meiotic gene expression\; meiosis inducing protein
10933_at
            27384.3
Ribosomal protein L43B
10934 at
            -36.1
protein related to mitochondrial carriers
10935 at
            971.6
similarity to Corynebacterium 2,5-diketo-D-gluconic acid reductase and aldehyde reductases
10936 at
            497.0
weak similarity to Caj1p
10937_at
            231.1
weak similarity to Bacillus licheniformis esterase
10938 at
            210.8
                         Α
ubiquitin hydrolase
                         Ρ
10939_at
            650.4
```

```
weak similarity to Bud3p
10940 at
            758.6
weak similarity to superoxide dismutases
10941 at
            524.0
hypothetical protein
                         Ρ
10942 at
            2209.8
CTP synthase
10897 at
            33382.1
                         Ρ
Cu, Zn superoxide dismutase
10898_at
            36685.9
strong similarity to human adenosine kinase
10899 at
            -140.1
                         Α
ExtraCellular Mutant
10900 at
            477.6
                         Ρ
weak similarity to acylglycerol lipase
10901 at
            276.0
similarity to hypothetical protein YIL014c-a
10902 at
            2567.6
carbamyl phosphate synthetase
10903_at
            209.7
similarity to human myotubularin
10904_at
            680.3
weak similarity to E.coli colanic acid biosynthesis positive regulator RcsB
            354.3
10905 at
involved in nuclear function
10906 at
            2024.1
similarity to bacterial, chloroplast and mitochondrial ribosomal protein S7
10907 at
            325.4
questionable ORF
10908 at
            -507.3
similarity to hypothetical protein YBL043w
10909_at
            1601.6
similarity to hypothetical protein YPR114w
10910_at
            5019.1
zinc metallo-protease that catalyzes the first step of N-terminal processing of the yeast a-factor precursor
10911 at
            579.6
weak similarity to Helicobacter pylori UreD protein
10912 at
            96.4
similarity to human retinoblastoma binding protein 2
10913_at
            -207.3
hypothetical protein
10914 at
            4316.3
                         Ρ
F(1)F(0)-ATPase complex beta subunit, mitochondrial
10915_at
            317.5
CCR4 associated factor
10916 at
            45875.1
Ribosomal protein S5 (S2) (rp14) (YS8)
10917 at
            1020.5
weak similarity to Staphylococcus multidrug resistance protein
10918 at
            1995.9
similarity to human KIAA0171 protein
10919_at
            985.8
similarity to human prostate-specific membrane antigen and transferrin receptor protein
10875 at
            1677.9
similarity to regulatory protein Ard1p
10876_at
            -177.7
```

```
questionable ORF
10877 at
            1059.4
weak similarity to hypothetical protein YNL024c
10878 at
            618.4
similarity to O-succinylhomoserine (thiol)-lyase
10879 at
            289.0
specific alpha-mannosidase
10880 at
            999.2
Putative Upf1p interacting protein
10881_at
            3173.9
strong similarity to hypothetical protein YDR399w
10882 at
            545.1
similarity to paramyosin, myosin
10883 at
            185.2
                        Α
Required for maintenance of chromosomes and minichromosomes
10884 at
            530.5
weak similarity to human 3,5-cyclic-GMP phosphodiesterase
10885 at
            1808.6
                        Ρ
ExtraCellular Mutant
10886 at
            398.9
similarity to C.elegans hypothetical protein T08A11.1
10887 at
            22488.9
Homoserine dehydrogenase (L-homoserine:NADP oxidoreductase)
10888 at
            1136.6
involved in cell-cycle regulation of histone transcription
10889 at
            288.9
hypothetical protein
10890 at
            734.9
                        Р
similarity to thiamin pyrophosphokinase
10891 at
            7905.6
dolichyl phosphate-D-mannose:protein O-D-mannosyltransferase
10892_at
            423.9
involved in mitochondrial genome maintenance
10893 s at 68719.1
Ribosomal protein S4A (YS6) (rp5) (S7A)
10894 at
            477.0
questionable ORF
10895_at
            -37.5
heat shock transcription factor homolog
10896_at
            7083.1
Branched-Chain Amino Acid Transaminase
10851 at
            35.8
similarity to 2-nitropropane dioxygenase
10852_at
            55.3
Protein induced during anaerobic growth
10853 at
            514.3
similarity to mucin proteins, YKL224c, Sta1p
10854_at
            538.1
allantoate permease
10855 at
            -51.3
                        Α
Endo-polygalacturonase
10856_at
            85.9
                        Α
hypothetical protein
10857_at
            521.7
Hypothetical aryl-alcohol dehydrogenase (AAD)
10858_s_at 390.4
```

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Thiamine biosynthetic enzyme
10859 at
            -37.2
                         Α
hypothetical protein
10860_s_at -70.9
                         Α
hexose transporter
10861_s_at 537.7
                         Α
sorbitol-induced sorbitol dehydrogenase
10862_s_at -159.8
strong similarity to Mal31p
10863_i_at -254.5
identified by SAGE
10864 r at 362.0
                         Α
identified by SAGE
10865 at
            790.5
C-terminal part of YJR030c
10866 at
            1687.9
similarity to human DDP gene, hypothetical protein of S.pombe (YA94 SCHPO) and Mrs11p
(YHR005c-a)
10867 s at 1416.4
Co-assembles with Bud3p at bud sites
10868 at
            2903.1
non-annotated SAGE orf Found reverse in NC_001142 between 159321 and 159545 with 100% identity.
See citation Velculescu, V.E., et al. (1997) Characterization of the yeast transcriptome. Cell 8:243-251
10869 at
            1794.5
non-annotated SAGE orf Found reverse in NC 001142 between 181250 and 181408 with 100% identity.
See citation Velculescu, V.E., et al. (1997) Characterization of the yeast transcriptome. Cell 8:243-251
10870 i at 378.7
non-annotated SAGE orf Found reverse in NC 001142 between 227571 and 227705 with 100% identity.
See citation Velculescu, V.E., et al. (1997) Characterization of the yeast transcriptome. Cell 8:243-251
10871 s at 4.1
non-annotated SAGE orf Found reverse in NC_001142 between 227571 and 227705 with 100% identity.
See citation Velculescu, V.E., et al. (1997) Characterization of the yeast transcriptome. Cell 8:243-251
10872 at
            1202.6
non-annotated SAGE orf Found reverse in NC_001142 between 227590 and 227742 with 100% identity.
See citation Velculescu, V.E., et al. (1997) Characterization of the yeast transcriptome. Cell 8:243-251
non-annotated SAGE orf Found reverse in NC_001142 between 471544 and 471738 with 100% identity.
See citation Velculescu, V.E., et al. (1997) Characterization of the yeast transcriptome. Cell 8:243-251
10874 at
            2301.2
non-annotated SAGE orf Found forward in NC_001142 between 316419 and 316676 with 100% identity.
See citation Velculescu, V.E., et al. (1997) Characterization of the yeast transcriptome. Cell 8:243-251
10828 at
            97.6
non-annotated SAGE orf Found forward in NC_001142 between 444820 and 444969 with 100% identity.
See citation Velculescu, V.E., et al. (1997) Characterization of the yeast transcriptome. Cell 8:243-251
non-annotated SAGE orf Found forward in NC 001142 between 445314 and 445592 with 100% identity.
See citation Velculescu, V.E., et al. (1997) Characterization of the yeast transcriptome. Cell 8:243-251
10830 at
            -9.2
non-annotated SAGE orf Found reverse in NC 001142 between 451797 and 451979 with 100% identity.
See citation Velculescu, V.E., et al. (1997) Characterization of the yeast transcriptome. Cell 8:243-251
10831 s at 204.1
non-annotated SAGE orf Found reverse in NC_001142 between 731735 and 731896 with 100% identity.
See citation Velculescu, V.E., et al. (1997) Characterization of the yeast transcriptome. Cell 8:243-251
10832 s at 366.6
non-annotated SAGE orf Found reverse in NC_001142 between 740830 and 741003 with 100% identity.
See citation Velculescu, V.E., et al. (1997) Characterization of the yeast transcriptome. Cell 8:243-251
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10833_at
            123.5
non-annotated SAGE orf Found forward in NC 001142 between 106232 and 106426 with 100% identity.
See citation Velculescu, V.E., et al. (1997) Characterization of the yeast transcriptome. Cell 8:243-251
10834 at
            5176.4
non-annotated SAGE orf Found reverse in NC 001142 between 121504 and 121665 with 100% identity.
See citation Velculescu, V.E., et al. (1997) Characterization of the yeast transcriptome. Cell 8:243-251
non-annotated SAGE orf Found reverse in NC 001142 between 187528 and 187671 with 100% identity.
See citation Velculescu, V.E., et al. (1997) Characterization of the yeast transcriptome. Cell 8:243-251
non-annotated SAGE orf Found reverse in NC 001142 between 289382 and 289522 with 100% identity.
See citation Velculescu, V.E., et al. (1997) Characterization of the yeast transcriptome. Cell 8:243-251
10837 at
non-annotated SAGE orf Found reverse in NC 001142 between 312518 and 312670 with 100% identity.
See citation Velculescu, V.E., et al. (1997) Characterization of the yeast transcriptome. Cell 8:243-251
non-annotated SAGE orf Found reverse in NC 001142 between 410923 and 411120 with 100% identity.
See citation Velculescu, V.E., et al. (1997) Characterization of the yeast transcriptome. Cell 8:243-251
non-annotated SAGE orf Found reverse in NC_001142 between 518895 and 519053 with 100% identity.
See citation Velculescu, V.E., et al. (1997) Characterization of the yeast transcriptome. Cell 8:243-251
10840 at
non-annotated SAGE orf Found forward in NC 001142 between 548093 and 548311 with 100% identity.
See citation Velculescu, V.E., et al. (1997) Characterization of the yeast transcriptome. Cell 8:243-251
non-annotated SAGE orf Found forward in NC_001142 between 622714 and 622869 with 100% identity.
See citation Velculescu, V.E., et al. (1997) Characterization of the yeast transcriptome. Cell 8:243-251
10842 at
            1273.7
non-annotated SAGE orf Found forward in NC 001142 between 637618 and 637857 with 100% identity.
See citation Velculescu, V.E., et al. (1997) Characterization of the yeast transcriptome. Cell 8:243-251
10843 at
non-annotated SAGE orf Found reverse in NC_001142 between 136546 and 136695 with 100% identity.
See citation Velculescu, V.E., et al. (1997) Characterization of the yeast transcriptome. Cell 8:243-251
non-annotated SAGE orf Found forward in NC_001142 between 90020 and 90184 with 100% identity.
See citation Velculescu, V.E., et al. (1997) Characterization of the yeast transcriptome. Cell 8:243-251
10845 at
non-annotated SAGE orf Found reverse in NC_001142 between 116100 and 116291 with 100% identity.
See citation Velculescu, V.E., et al. (1997) Characterization of the yeast transcriptome. Cell 8:243-251
10846 at
non-annotated SAGE orf Found forward in NC 001142 between 142442 and 142669 with 100% identity.
See citation Velculescu, V.E., et al. (1997) Characterization of the yeast transcriptome. Cell 8:243-251
non-annotated SAGE orf Found forward in NC_001142 between 180616 and 180768 with 100% identity.
See citation Velculescu, V.E., et al. (1997) Characterization of the yeast transcriptome. Cell 8:243-251
10848 at
            1148.9
non-annotated SAGE orf Found forward in NC 001142 between 236437 and 236625 with 100% identity.
See citation Velculescu, V.E., et al. (1997) Characterization of the yeast transcriptome. Cell 8:243-251
non-annotated SAGE orf Found forward in NC 001142 between 337317 and 337583 with 100% identity.
See citation Velculescu, V.E., et al. (1997) Characterization of the yeast transcriptome. Cell 8:243-251
non-annotated SAGE orf Found reverse in NC 001142 between 416236 and 416439 with 100% identity.
See citation Velculescu, V.E., et al. (1997) Characterization of the yeast transcriptome. Cell 8:243-251
10806 at
non-annotated SAGE orf Found reverse in NC_001142 between 424167 and 424301 with 100% identity.
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See citation Velculescu, V.E., et al. (1997) Characterization of the yeast transcriptome. Cell 8:243-251
10807 at
            -194.1
non-annotated SAGE orf Found reverse in NC 001142 between 448028 and 448162 with 100% identity.
See citation Velculescu, V.E., et al. (1997) Characterization of the yeast transcriptome. Cell 8:243-251
non-annotated SAGE orf Found forward in NC 001142 between 471954 and 472142 with 100% identity.
See citation Velculescu, V.E., et al. (1997) Characterization of the yeast transcriptome. Cell 8:243-251
10809 g at -7.6
non-annotated SAGE orf Found forward in NC_001142 between 471954 and 472142 with 100% identity.
See citation Velculescu, V.E., et al. (1997) Characterization of the yeast transcriptome. Cell 8:243-251
10810 i at 105.3
non-annotated SAGE orf Found forward in NC 001142 between 471988 and 472161 with 100% identity.
See citation Velculescu, V.E., et al. (1997) Characterization of the yeast transcriptome. Cell 8:243-251
non-annotated SAGE orf Found reverse in NC 001142 between 626834 and 627004 with 100% identity.
See citation Velculescu, V.E., et al. (1997) Characterization of the yeast transcriptome. Cell 8:243-251
10812 s at 258.6
non-annotated SAGE orf Found reverse in NC 001142 between 731905 and 732069 with 100% identity.
See citation Velculescu, V.E., et al. (1997) Characterization of the yeast transcriptome. Cell 8:243-251
10813_s_at 32.4
non-annotated SAGE orf Found reverse in NC_001142 between 734995 and 735165 with 100% identity.
See citation Velculescu, V.E., et al. (1997) Characterization of the yeast transcriptome. Cell 8:243-251
10814 s at 686.1
non-annotated SAGE orf Found forward in NC 001142 between 741740 and 741883 with 100% identity.
See citation Velculescu, V.E., et al. (1997) Characterization of the yeast transcriptome. Cell 8:243-251
10815 at
            1535.9
non-annotated SAGE orf Found reverse in NC 001142 between 104735 and 104932 with 100% identity.
See citation Velculescu, V.E., et al. (1997) Characterization of the yeast transcriptome. Cell 8:243-251
10816 at
non-annotated SAGE orf Found reverse in NC 001142 between 172694 and 172930 with 100% identity.
See citation Velculescu, V.E., et al. (1997) Characterization of the yeast transcriptome. Cell 8:243-251
non-annotated SAGE orf Found forward in NC 001142 between 283262 and 283426 with 100% identity.
See citation Velculescu, V.E., et al. (1997) Characterization of the yeast transcriptome. Cell 8:243-251
10818 at
            613.4
non-annotated SAGE orf Found forward in NC 001142 between 322217 and 322453 with 100% identity.
See citation Velculescu, V.E., et al. (1997) Characterization of the yeast transcriptome. Cell 8:243-251
non-annotated SAGE orf Found reverse in NC 001142 between 396887 and 397036 with 100% identity.
See citation Velculescu, V.E., et al. (1997) Characterization of the yeast transcriptome. Cell 8:243-251
10820 at
non-annotated SAGE orf Found forward in NC 001142 between 447886 and 448050 with 100% identity.
See citation Velculescu, V.E., et al. (1997) Characterization of the yeast transcriptome. Cell 8:243-251
10821_g_at 416.8
non-annotated SAGE orf Found forward in NC 001142 between 447886 and 448050 with 100% identity.
See citation Velculescu, V.E., et al. (1997) Characterization of the yeast transcriptome. Cell 8:243-251
non-annotated SAGE orf Found forward in NC 001142 between 447920 and 448102 with 100% identity.
See citation Velculescu, V.E., et al. (1997) Characterization of the yeast transcriptome. Cell 8:243-251
non-annotated SAGE orf Found forward in NC 001142 between 549543 and 549719 with 100% identity.
See citation Velculescu, V.E., et al. (1997) Characterization of the yeast transcriptome. Cell 8:243-251
10824 at
            -570.7
non-annotated SAGE orf Found forward in NC_001142 between 578016 and 578222 with 100% identity.
See citation Velculescu, V.E., et al. (1997) Characterization of the yeast transcriptome. Cell 8:243-251
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10825_at

358.7

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non-annotated SAGE orf Found reverse in NC_001142 between 637602 and 637835 with 100% identity.
See citation Velculescu, V.E., et al. (1997) Characterization of the yeast transcriptome. Cell 8:243-251
10826 at
            180.4
non-annotated SAGE orf Found reverse in NC 001142 between 727961 and 728134 with 100% identity.
See citation Velculescu, V.E., et al. (1997) Characterization of the yeast transcriptome. Cell 8:243-251
10827 s at 488.5
non-annotated SAGE orf Found reverse in NC_001142 between 737313 and 737453 with 100% identity.
See citation Velculescu, V.E., et al. (1997) Characterization of the yeast transcriptome. Cell 8:243-251
10782 at
            1454.0
small nuclear RNA128
10783 at
            -150.3
                        Α
small nuclear RNA190
                        Ρ
10784 at
            1486.5
small nuclear RNA37
10785 at
                        Ρ
           618.4
snRNA
10786 i at -1019.0
                        Α
Centromere
10787 at
            928.9
                        Ρ
small nuclear RNA3
10788 at
            243.7
                        Α
ARS121 Found forward in NC_001142 between 683650 and 683699 with 100% identity.
10789 f at 381.1
strong similarity to members of the Srp1p/Tip1p family
10790 at
            339.4
weak similarity to transcription factors, similarity to finger proteins YOR162c, YOR172w and YLR266c
10791 at
            118.7
weak similarity to human X-linked PEST-containing transporter
            -13.4
10792 at
Ferric reductase, similar to Fre1p
            449.4
10793 at
Protein with similarity to subtelomerically-encoded proteins such as Cos5p, Ybr302p, Cos3p, Cos1p,
Cos4p, Cos8p, Cos6p, Cos9p
10794_at
            216.2
threonine dehydratase
10795 at
            -55.8
                        Α
carboxylic acid transporter protein homolog
10796 at
            23396.2
dihydroorotate dehydrogenase
10797_at
            904.4
similarity to P. aeruginosa hyuA and hyuB
10798 at
            1419.1
weak similarity to mouse transcriptional coactivator ALY
10799_at
            2296.0
                        Ρ
phospholipase A2-activating protein
            4992.0
10800 at
integral membrane protein localizing to the ER and Golgi
10801 at
            2247.7
anthranilate synthase Component II and indole-3-phosphate (multifunctional enzyme)
10802 at
            15435.5
ubiquitin activating enzyme, similar to Uba2p
10803 at
            174.3
ABC transporter, glycoprotein, component of a-factor secretory pathway
10804 at
            404.1
Subunit of complex involved in processing of the 3 end of cytochrome b pre-mRNA
10805_at
            2004.5
```

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hypothetical protein
                        Ρ
10760 at
            599.2
hypothetical protein
10761 at
            1495.2
                         Ρ
nuclear protein LOS1
                        Ρ
10762 at
            2229.1
probable purine nucleotide-binding protein
10763 at
            771.2
phosphatidylinositol kinase homolg
10764_at
            241.2
questionable ORF
10765 at
            685.3
                        Ρ
member of the AAA-protein family
10766 at
            2302.3
v-SNARE
10767 at
            1559.3
similarity to rabbit histidine-rich calcium-binding protein
10768 at
            271.8
mitochondrial threonine-tRNA synthetase
10769 at
            703.2
Interacts with and may be a positive regulator of GLC7 which encodes type1 protein phosphatase
10770 at
            10626.4
acyl carrier protein
10771_at
            2064.3
diphthamide synthesis protein
10772 at
            4916.5
Type 2B protein phosphatase\; regulatory B subunit of calcineurin
            1270.9
10773 at
Type 2B protein phosphatase\; regulatory B subunit of calcineurin
10774 at
            933.2
The homologue in Aspergillus nidulans, hymA, is involved in development, see Karos, M. and Fischer, R.
(1996). hymA (hypha-like metulae), a new developmental mutant of Aspergillus nidulans. Microbiol.
142:3211-3218.
10775_at
            72.8
peroxisomal ABC transporter 2
10776 at
            173.5
strong similarity to hypothetical protein YLR413w
10777_at
            1047.6
mRNA transport regulator
10778_at
            484.6
probable purine nucleotide-binding protein
10779 at
            986.4
Ornithine decarboxylase
                        Ρ
10780_at
            934.2
hypothetical protein
10781 at
            30750.1
pentafunctional enzyme consisting of the following domains: acetyl transferase, enoyl reductase,
dehydratase and malonylVpalmityl transferase
10737 at
            11649.6
ribose-phosphate pyrophosphokinase
10738_i_at 46467.5
Ribosomal protein L17A (L20A) (YL17)
10739 f at 48148.1
Ribosomal protein L17A (L20A) (YL17)
10740_at
            1674.2
kinesin-like protein
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10741_at
            3629.3
                         Ρ
factor recptor
10742 at
            365.5
                         Α
questionable ORF
                         Ρ
10743 at
            915.2
hypothetical protein
10744_at
            1976.3
                         Ρ
weak similarity to E.coli hypothetical protein
10745_at
            656.4
probable transport protein
                         Ρ
10746 at
            509.9
U5 snRNP-specific protein related to EF-2
10747 at
            2221.1
                        Ρ
Nucleolar protein
10748 at
            373.5
                         Α
probable serine\threonine-specific protein kinase (EC 2.7.1.-)
10749 at
            508.3
mitochondrial ribosomal protein L14
10750 at
            293.6
questionable ORF
10751_at
            250.8
                         Α
probable serine\threonine-specific protein kinase (EC 2.7.1.-)
10752 at
            644.7
16 kDa mitochondrial ribosomal large subunit protein
10753 at
            588.2
cAMP-dependent protein kinase catalytic subunit
10754 at
            4158.3
Morphogenesis Checkpoint Dependent
10755 at
            10671.6
Protein containing tandem internal repeats
10756 at
            602.2
Protein containing tandem internal repeats
10757 at
            -122.5
                         Α
hypothetical protein
10758 at
            188.2
probable serine\/threonine-specific protein kinase (EC 2.7.1.-)
10759 at
            6451.3
                        Ρ
similarity to hypothetical S. pombe protein
10714 at
            407.7
hypothetical protein
10715 at
            274.4
                         Α
hypothetical protein
10716_at
                         Ρ
            7335.5
aminopeptidase yscII
10717 at
            10131.6
                         Ρ
40S ribosomal protein S27A (rp61) (YS20)
10718 at
            377.9
hypothetical protein
10719_at
            560.7
signal recognition particle receptor, beta chain
10720_at
            5630.2
questionable ORF
                         Ρ
10721 at
            164809.9
Phosphoglycerate mutase
10722_at
            964.0
similarity to C.elegans hypothetical protein R107.2
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10723_at
                        Ρ
            2266.4
NADH-cytochrome b5 reductase
10724 at
            561.4
debranching enzyme
                        Ρ
10725 at
            1557.7
flavoprotein subunit of succinate dehydrogenase
10726_at
            48.2
questionable ORF
10727_at
            2707.7
strong similarity to S.pombe hypothetical protein C3H1.09C
10728 at
            7028.5
putative ATPase, 26S protease subunit component
10729 at
            795.5
Subunit of RNA polymerase III
10730 at
            2553.3
low temperature viability protein
10731 at
            2498.6
mitochondrial ribosomal protein
10732 at
            2381.9
succinate dehydrogenase cytochrome b
10733 at
            950.5
triglyceride lipase-cholesterol esterase
10734 at
            784.9
alpha subunit of the kinase which phosphorylates the RNA polymerase largest subunit CTD
(carboxyl-terminal domain)
10735_at
            296.9
15.5 kDa mitochondrial ribosomal protein YmL31
10736_at
            129.9
hypothetical protein
                        Р
10692 at
            803.5
questionable ORF
            2402.0
10693_at
Beta-adaptin, large subunit of the clathrin-associated protein (AP-1) complex
10694_at
            167.4
probable neutral zinc metalloproteinase
10695 at
            18.0
probable purine nucleotide-binding protein
10696 at
            284.2
probable folyl-polyglutamate synthetase
10697_at
            -37.3
                        Α
questionable ORF
                        Р
10698 at
            954.7
Required for mother cell-specific HO expression
10699_at
            1523.7
myosin I
10700 at
            3233.4
                        Ρ
Phospo-mutase homolog
10701 at
            3720.0
phosphoglucomutase, minor isoform
10702 at
            3694.1
76.5 kDa Serine\/threonine protein kinase with similarity to protein kinase C, is 90\% identical to Ypk2p
10703_at
            797.9
DNA-independent RNA Polymerase I transcription factor
10704 at
            -292.2
suppressor of SHR3\; confers leflunomide resistance when overexpressed
10705_g_at 194.2
```

```
suppressor of SHR3\; confers leflunomide resistance when overexpressed
10706 at
            544.6
                        Ρ
questionable ORF
10707 at
            2123.8
                        Ρ
component of signal recognition particle
10708_at
            490.3
strong similarity to YMR102c
10709_at
            5409.5
similarity to mitochondrial uncoupling proteins (MCF)
10710_at
            884.8
25.2 kDa protein involved in assembly of vacuolar H(+) ATPase
10711 at
            118.8
                        Α
questionable ORF
                        Ρ
10712 at
            11497.2
Hsp90 (Ninety) Associated Co-chaperone
10713 at
            818.9
probable serineVthreonine-specific protein kinase (EC 2.7.1.-)
10669 at
            699.3
questionable ORF
10670_at
            1149.2
major apurinic\apyrimidinic endonuclease\3 -repair diesterase
10671_at
            1924.3
42 kDa 5 to 3 exonuclease required for Okazaki fragment processing
10672 at
            673.9
transcriptional activator and ARS1 binding protein
10673_at
            437.9
questionable ORF
10674 at
            1915.3
                        Р
Protein involved in resistance to K. lactis killer toxin
10675 at
            1931.3
transcriptional activator protein of CYC1 (component of HAP2VHAP3 heteromer)
10676_at
            -4.2
DNA replication and checkpoint protein 1
10677_at
            69.0
weak similarity to S.antibioticus probable oxidoreductase
10678 at
            1378.2
aspartate aminotransferase, mitochondrial
10679_at
            418.6
similarity to YMR086w
10680_at
            3405.9
Glutamine fructose-6-phosphate amidotransferase (glucoseamine-6-phosphate synthase)
10681 at
            1260.8
vacuolar aminopeptidase ysc1
10682_at
            -116.0
hypothetical protein
10683 at
            197.6
Putative protein kinase homologous to S. pombe cdr1\/nim1
10684 at
            692.4
similarity to C.elegans hypothetical protein
10685 at
            839.8
similarity to C.elegans hypothetical proteins C18G6.06 and C16C10.2
10686_at
            697.5
hypothetical protein
10687_at
            558.5
                        Α
hypothetical protein
                        Ρ
10688_at
            120707.3
```

```
cell wall mannoprotein
                        Ρ
10689 at
            2797.2
cell wall mannoprotein
10690 at
            -203.7
                         Α
similarity to C.elegans hypothetical proteins
10691 at
            3044.7
weak similarity to E.coli hypothetical protein
10646 at
            61.5
MBR1 protein precursor
10647_at
            486.4
GTPase-activating protein (GAP) for Rsr1pVBud1p
10648 at
            245.7
strong similarity to Sec14p
10649 at
            313.3
hypothetical protein
10650 at
            497.1
Centromere protein required for normal chromosome segregation and spindle integrity
10651 at
            302.4
similarity to C.tropicalis hal3 protein, to C-term. of Sis2p and to hypothetical protein YOR054c
10652_at
            -139.2
cytochrome c1 heme lyase
10653_at
            325.2
hypothetical protein
10654 at
            4606.0
mitochondrial malate dehydrogenase
10655 at
            439.2
strong similarity to S.pombe hypothetical protein SPAC29B12
10656 at
            2636.6
weak similarity to C.elegans hypothetical protein
10657 at
            489.6
questionable ORF
10658_at
            1560.7
Translation elongation factor EF-1gamma
10659_at
            15323.8
Translation elongation factor EF-1gamma
10660 at
            6853.0
Vacuolar H-ATPas hydrophilic subunit C of V1 sector
10661 at
            550.6
kinesin heavy chain homolog, but is not believed to act as a kinesin, colocalizes with Myo2p
10662_at
            995.3
probable ATP-dependent RNA helicase
10663 at
            2839.8
                        Ρ
hypothetical protein
10664_at
            178.4
                         Α
questionable ORF
10665_g_at 369.3
                         Α
questionable ORF
10666 at
            439.4
                        Α
hypothetical protein
                         Ρ
10667 at
            589.2
involved in early pre-mRNA splicing
10668_at
            1564.9
novel member of the Hsp70 family of molecular chaperones that localizes to the lumen of the
endoplasmic reticulum:
10624_at
            175.7
Binds Sin3p in two-hybrid assay
```

```
10625_at
            844.3
weak similarity to A.parasiticus nor-1 protein
10626 at
            250.5
similarity to B. subtilis transcriptional regulatory protein
10627 at
            2579.1
strong similarity to hypothetical E.coli protein b1832
10628 at
            2424.3
Nuclear pore complex protein homologous to Nup116p
10629 at
            2561.3
Nucleoside diphosphate kinase
10630 at
            763.9
hypothetical protein
10631 at
            5045.3
Yeast endoplasmic reticulum 25 kDa transmembrane protein
10632 at
            655.4
                         Ρ
overexpression overcomes manganese toxicity
10633 at
            837.6
weak similarity to mammalian microtubule-associated protein MAP 1B
10634 at
            1160.0
zinc finger protein
10635 at
                         Α
            193.0
hypothetical protein
                         Ρ
10636 at
            200281.9
aldolase
10637 at
            1829.9
similarity to C.elegans hypothetical protein
10638 at
            1549.5
Transcription factor IIA, small chain
10639 at
            449.0
100-kDa protein (predicted molecular weight is 120 kDa) with two leucine zipper motifs, coiled-coil region,
and some homology to Nup133p
            39548.1
10640_at
strong similarity to human IgE-dependent histamine-releasing factor
10641_at
            -219.3
probable acetoacetyl-CoA reductase
10642 at
            5787.2
similarity to glutenin, high molecular weight chain proteins and Snf5p
10643 at
            2000.8
similarity to C.elegans hypothetical protein T09A5.7 (12.5 kD)
10644_at
            1090.0
questionable ORF
10645 at
            909.5
                         Ρ
hypothetical protein
                         Ρ
10601_at
            588.6
hypothetical protein
10602 at
            44.8
                         Α
similarity to YMR031c
10603 at
            893.8
high similarity to histone H3 and to human centromere protein CENP-A
10604 at
            609.3
protein kinase
                         Ρ
10605_at
            521.0
hypothetical protein
                         Р
10606_at
            4004.1
strong similarity to YMR238w
10607_at
            502.6
```

```
p58 polypeptide of DNA primase
10608 at
            479.1
                         Α
hypothetical protein
10609 at
            2475.9
                         Ρ
putative transcription factor
10610_at
            755.0
component of the spindle pole body
10611_at
            598.6
endosomal Vps protein complex subunit
10612_at
            1098.6
NifU-like protein B
10613 at
            3049.5
                         Ρ
Putative membrane protein
10614 at
            600.3
transcriptional repressor and activator
10615 at
            452.6
weak similarity to C.elegans ubc-2 protein
10616 at
            -8.1
                         Α
questionable ORF
10617_at
            6667.5
Uridinephosphoglucose pyrophosphorylase
10618 at
            1307.0
weak similarity to YOL013c
10619 at
            125.6
                         Α
hypothetical protein
10620_at
            4311.5
intrastrand crosslink recognition protein
10621 at
            204.1
hypothetical protein
10622 at
                         Α
            179.8
questionable ORF
10623_at
            5568.8
mitochondrial malic enzyme
10579 at
            1490.9
Large subunit of transcription factor tfIIE
10580 at
            978.0
similarity to E.coli molybdopterin-converting factor chIN
10581 at
            99.0
strong similarity to glutathione peroxidase
10582_at
            972.3
76-kDa subunit of Pab1p-dependent poly(A) ribonuclease (PAN)
10583 at
            4709.8
uridine-monophosphate kinase (uridylate kinase)
10584_at
            586.7
weak similarity to human cylicin II
            520.4
10585 at
putative metal-binding nucleic acid-binding protein, interacts with Cdc23p and Cdc27p to catalyze the
conjugation of ubiquitin to cyclin B
10586 at
            1443.6
contains four beta-transducin repeats
10587_at
            760.7
suppressor protein
                         Ρ
10588 at
            1188.7
CAAX farnesyltransferase alpha subunit
10589 at
            942.0
similarity to C.elegans hypothetical protein
```

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10590_at
                        Ρ
            801.9
DNA helicase A
                        Р
10591 at
            3678.7
ATP synthase d subunit
                        Ρ
10592 at
            860.9
zinc-finger transcription factor of the Zn(2)-Cys(6) binuclear cluster domain type
10593_at
            3036.8
hypothetical protein
10594 at
            1869.5
                        Ρ
Arp Complex Subunit
10595 at
            389.1
Splicing component that associates with the yeast U1 small nuclear ribonucleoprotein particle
10596 at
            219.4
cruciform cutting endonuclease
10597 at
            1403.5
                        Ρ
Ubiquitin Fusion Degradation
10598 at
            3917.2
mRNA turnover 4
10599 at
            3569.3
                        Ρ
strong similarity to Lag1p
10600 at
            2520.4
alpha subunit of capping protein
10555 at
            1162.4
required for transport of proteins between an early and a later golgi compartment, possible NSF
attachment protein receptor (V-SNARE)
10556_i_at 31968.5
Ribosomal protein L14A
10557_f_at 61889.8
                        Ρ
Ribosomal protein L14A
                        Ρ
10558 s at 91587.7
Ribosomal protein L14A
10559_at
            348.7
weak similarity to YKR029c and D.melanogaster transcription elongation factor DmS-II
10560 at
            4570.3
aureobasidin-resistance protein
10561 at
            1543.2
Mitochondrial ribosomal protein MRP17
10562 at
            971.8
similarity to hypothetical protein YKL041w
10563_at
            745.6
                        Ρ
adenylylsulfate kinase
10564 at
            2707.1
putative GTP-binding protein\; similar to mammalian Mx proteins
10565_at
            918.8
poly(A) polymerase
10566 at
            897.8
similarity to Kes1p, Hes1p and Osh1p
10567 at
            -133.2
ExtraCellular Mutant
10568 at
            285.0
                        Α
hypothetical protein
                        Ρ
10569_at
            1078.3
mitochondrial ribosomal protein YmL13
10570 at
            958.0
weak similarity to Streptococcus protein M5 precursor
10571_at
            453.9
```

```
Member of RSC complex.
10572 at
            -128.7
peroxisomal multifunctional beta-oxidation protein
10573 at
            694.5
                        Р
topoisomerase I interacting factor 2
10574 at
            404.0
hypothetical protein
10575_at
            487.0
                         Α
questionable ORF
                         Ρ
10576_at
            7105.7
Similar to plant PR-1 class of pathogen related proteins
10577 at
            935.0
probable purine nucleotide-binding protein
10578 at
            -198.0
similarity to hypothetical protein YJL043w
10533 at
            878.6
weak similarity to mysoin heavy chain proteins
10534 at
            29.7
similarity to human hypothetical KIAA0161 protein
10535_at
            4245.6
strong similarity to hypothetical protein YJL082w
10536 at
            352.0
Increased rDNA silencing
10537 at
                        Α
            59.6
hypothetical protein
10538_at
            497.7
strong similarity to hypothetical protein YJL084c
10539 at
            283.8
hypothetical protein
10540 at
                         Α
            279.0
similarity to S.pombe hypothetical protein SPAC23C4
10541_at
            1330.2
putative RNA helicase
10542_at
            832.0
                         Ρ
hypothetical protein
                         Ρ
10543 at
            1328.0
translation initiation factor eIF2B, 34 KD, alpha subunit\; negative regulator of GCD12, thereby serving
indirectly as a positive regulator of GCN4
10544 at
            1225.7
                         Ρ
strong similarity to Chs6p
10545 at
            1839.6
Type 2A-related protein phosphatase
10546_at
            656.4
similarity to YJL105w and Lentinula MFBA protein
10547 at
            910.6
weak similarity to NADH dehydrogenases
10548 at
            671.9
Phospholipase D
10549_at
                         Α
            153.5
hypothetical protein
10550_at
            41.1
                         Α
questionable ORF
10551 at
            -17.4
negative regulator of multiple nitrogen catabolic genes
            1369.8
10552_at
RAD52 Inhibitor (Fifty Two Inhibitor)
```

```
10553_at
                        Ρ
            1430.5
CCR4 associated factor
10554 at
            299.6
                        Α
component of spindle pole
10510 at
            674.9
probable calcium-binding protein
10511_at
            188.7
general amino acid permease
10512_at
            562.2
questionable ORF
10513 at
            197.6
                        Α
hypothetical protein
10514 at
            49776.7
YOUTH, involved in determining yeast longevity
10515 at
            4901.8
weak similarity to phosphoglycerate mutase
10516 at
            291.0
hypothetical protein
10517_at
            188.3
                        Α
hypothetical protein
10518_at
                        Ρ
            9540.8
hypothetical protein
                        Ρ
10519 at
            1174.4
questionable ORF
10520 at
            6859.4
nucleosome assembly protein I
10521 at
            594.1
hypothetical protein
10522 at
            226.3
membrane protein\; low affinity potassium transport
10523 at
            132.7
similarity to C.elegans hypothetical protein
10524 at
            426.2
mitochondrial carrier protein, highly homologous to Mrs3p
10525 at
            327.6
DHS-1-P phosphatase
10526 at
            780.8
heavy chain of cytoplasmic dynein
10527 at
            225.4
ras homolog--GTP binding protein
10528 at
            1358.0
endo-exonuclease yNucR
10529_i_at 67338.7
Ribosomal protein S21A (S26A) (YS25)
10530_at
            190.6
self-glucosylating initiator of glycogen synthesis\; similar to mammalian glycogenin
10531 at
            222.4
hypothetical protein
10532_at
            384.5
putative mannosyltransferase\; type 2 membrane protein
10487_at
            792.2
Small subunit of TFIIE transcription factor
10488 at
            796.0
May regulate expression of genes involved in bud formation and morphogenesis
10489_at
            241.9
weak similarity to transcription factors
```

```
Ρ
10490_at
            1861.2
hypothetical protein
                         Ρ
10491 at
            2486.5
Cytochrome-c peroxidase
10492 at
            77.3
                         Α
strong similarity to Sct1p
10493 at
            2516.6
Hydrophilic protein that acts in conjunction with SNARE proteins in targeting and fusion of ER to Golgi
transport vesicles
10494_at
            544.8
                         Α
siroheme synthase
                         Ρ
10495 at
            2147.8
strong similarity to S. pombe phosphatidyl synthase
10496 at
            1576.3
weak similarity to C.elegans hypothetical protein
10497 at
            2836.6
sit4 suppressor
10498 at
            235.0
                         Α
hypothetical protein
10499_at
            1285.2
strong similarity to hypothetical S. pombe protein
10500_at
            758.0
weak similarity to negative regulator Reg1p
10501_at
            829.3
ExtraCellular Mutant
                         Ρ
10502_at
            538.1
hypothetical protein
10503 at
                         Α
            455.9
similarity to Vps5p
10504 at
            438.1
                         Α
similarity to S.pombe hypothetical protein SPAC1D4.10
10505_at
            2401.8
NAD-dependent 5,10-methylenetetrahydrafolate dehydrogenase
10506_at
            4936.3
hypothetical protein
10507 at
                         Ρ
            1642.8
Nuclear pore complex protein involved in poly(A)+ RNA transport, nuclear pore distribution, and possibly
in the biogenesis of functional tRNA
10508 at
            272.1
weak similarity to S.japonicum paramyosin
10509 at
            1723.4
Protein related to translation elongation factor EF-1alpha and to Suf12pVSup2pVGst1pVSup35p
10464_at
            732.7
22.3 kDa mitochondrial ribosomal large subunit protein YmL20\; homologous to L17 of E. coli
10465 at
            299.1
putative ATP-binding protein
10466 at
            963.3
similarity to hypothetical Myxococcus xanthus protein
10467 at
            1236.5
weak similarity to b.subtilis spore germination protein II
10468_at
            1820.0
strong similarity to YOR081c
10469 at
            1053.3
similarity to chicken Lim protein kinase and Islet proteins
10470 at
            1403.0
Suppressor of rad53 lethality
```

```
10471_at
            4349.0
                         Ρ
nucleolar protein that is immunologically and structurally related to rat Nopp140, a nonribosomal protein
of the nucleolus and coiled bodies.
10472 at
            1889.8
Peptide transporter
                         Ρ
10473 i at 7328.0
Ribosomal protein L40B
10474 s at 115356.0
                         Ρ
Ribosomal protein L40B
                         Ρ
10475_at
            810.9
myosin-like protein
                         Ρ
10476 at
            492.6
similarity to mitochondrial aldehyde dehydrogenase Ald1p
10477 g at 531.0
similarity to mitochondrial aldehyde dehydrogenase Ald1p
10478 at
            58.7
phosphoenolpyruvate carboxylkinase
10479 at
            365.7
                         Α
Ubiquitin-specific protease
10480 at
            351.3
Transcription factor regulating basal and induced activity of histidine and adenine biosynthesis genes
10481 at
            519.4
cause growth inhibition when overexpressed
10482 at
            366.9
repressor of silent mating loci
10483 at
            119.7
                         Α
Protein with similarity to flocculation protein Flo1p
10484 at
            17.7
similarity to multidrug resistance proteins
10485 at
           -4.1
similarity to multidrug resistance proteins
10486_s_at -151.9
                         Α
strong similarity to Sge1p and hypothetical protein YCL069w
10442_s_at 267.9
regulates the mannosylphosphorylation
10443 at
            -45.9
hypothetical protein identified by SAGE
10444_at
            1049.0
hypothetical protein
10445_s_at 1332.9
regulates the mannosylphosphorylation
10446 s at 1195.5
Protein of unknown function
10447_s_at 466.5
probable serine\/threonine-specific protein kinase (EC 2.7.1.-)
10448 s at 1781.0
strong similarity to holacid-halidohydrolase
10449 at
            -51.6
non-annotated SAGE orf Found forward in NC_001143 between 91618 and 91755 with 100% identity.
See citation Velculescu, V.E., et al. (1997) Characterization of the yeast transcriptome. Cell 8:243-251
10450 at
            361.5
non-annotated SAGE orf Found forward in NC_001143 between 94073 and 94228 with 100% identity.
See citation Velculescu, V.E., et al. (1997) Characterization of the yeast transcriptome. Cell 8:243-251
10451 at
non-annotated SAGE orf Found forward in NC_001143 between 146588 and 146755 with 100% identity.
See citation Velculescu, V.E., et al. (1997) Characterization of the yeast transcriptome. Cell 8:243-251
```

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10452_at
            1338.6
non-annotated SAGE orf Found reverse in NC 001143 between 403218 and 403517 with 100% identity.
See citation Velculescu, V.E., et al. (1997) Characterization of the yeast transcriptome. Cell 8:243-251
10453 at
non-annotated SAGE orf Found forward in NC 001143 between 618527 and 618670 with 100% identity.
See citation Velculescu, V.E., et al. (1997) Characterization of the yeast transcriptome. Cell 8:243-251
non-annotated SAGE orf Found forward in NC 001143 between 618749 and 618886 with 100% identity.
See citation Velculescu, V.E., et al. (1997) Characterization of the yeast transcriptome. Cell 8:243-251
non-annotated SAGE orf Found reverse in NC 001143 between 16801 and 17055 with 100% identity.
See citation Velculescu, V.E., et al. (1997) Characterization of the yeast transcriptome. Cell 8:243-251
10456 at
            944.2
non-annotated SAGE orf Found forward in NC 001143 between 98250 and 98414 with 100% identity.
See citation Velculescu, V.E., et al. (1997) Characterization of the yeast transcriptome. Cell 8:243-251
non-annotated SAGE orf Found forward in NC 001143 between 145707 and 145880 with 100% identity.
See citation Velculescu, V.E., et al. (1997) Characterization of the yeast transcriptome. Cell 8:243-251
non-annotated SAGE orf Found reverse in NC_001143 between 145751 and 145927 with 100% identity.
See citation Velculescu, V.E., et al. (1997) Characterization of the yeast transcriptome. Cell 8:243-251
10459 at
non-annotated SAGE orf Found reverse in NC 001143 between 164674 and 164820 with 100% identity.
See citation Velculescu, V.E., et al. (1997) Characterization of the yeast transcriptome. Cell 8:243-251
non-annotated SAGE orf Found forward in NC_001143 between 178286 and 178429 with 100% identity.
See citation Velculescu, V.E., et al. (1997) Characterization of the yeast transcriptome. Cell 8:243-251
10461 at
non-annotated SAGE orf Found reverse in NC 001143 between 195028 and 195171 with 100% identity.
See citation Velculescu, V.E., et al. (1997) Characterization of the yeast transcriptome. Cell 8:243-251
10462 at
            3780.8
non-annotated SAGE orf Found forward in NC_001143 between 233585 and 233836 with 100% identity.
See citation Velculescu, V.E., et al. (1997) Characterization of the yeast transcriptome. Cell 8:243-251
non-annotated SAGE orf Found reverse in NC 001143 between 261612 and 261797 with 100% identity.
See citation Velculescu, V.E., et al. (1997) Characterization of the yeast transcriptome. Cell 8:243-251
10419 at
non-annotated SAGE orf Found forward in NC_001143 between 320463 and 320651 with 100% identity.
See citation Velculescu, V.E., et al. (1997) Characterization of the yeast transcriptome. Cell 8:243-251
10420 at
            3900.5
non-annotated SAGE orf Found forward in NC 001143 between 612074 and 612223 with 100% identity.
See citation Velculescu, V.E., et al. (1997) Characterization of the yeast transcriptome. Cell 8:243-251
non-annotated SAGE orf Found reverse in NC_001143 between 638531 and 638722 with 100% identity.
See citation Velculescu, V.E., et al. (1997) Characterization of the yeast transcriptome. Cell 8:243-251
10422 at
            423.0
non-annotated SAGE orf Found forward in NC 001143 between 219150 and 219308 with 100% identity.
See citation Velculescu, V.E., et al. (1997) Characterization of the yeast transcriptome. Cell 8:243-251
10423 at
non-annotated SAGE orf Found forward in NC 001143 between 298846 and 299052 with 100% identity.
See citation Velculescu, V.E., et al. (1997) Characterization of the yeast transcriptome. Cell 8:243-251
non-annotated SAGE orf Found reverse in NC 001143 between 379033 and 379236 with 100% identity.
See citation Velculescu, V.E., et al. (1997) Characterization of the yeast transcriptome. Cell 8:243-251
10425 at
            4472.8
non-annotated SAGE orf Found reverse in NC_001143 between 464717 and 464851 with 100% identity.
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See citation Velculescu, V.E., et al. (1997) Characterization of the yeast transcriptome. Cell 8:243-251
10426 at
non-annotated SAGE orf Found reverse in NC 001143 between 18900 and 19061 with 100% identity.
See citation Velculescu, V.E., et al. (1997) Characterization of the yeast transcriptome. Cell 8:243-251
non-annotated SAGE orf Found reverse in NC 001143 between 38930 and 39151 with 100% identity.
See citation Velculescu, V.E., et al. (1997) Characterization of the yeast transcriptome. Cell 8:243-251
10428 at
non-annotated SAGE orf Found forward in NC_001143 between 46506 and 46670 with 100% identity.
See citation Velculescu, V.E., et al. (1997) Characterization of the yeast transcriptome. Cell 8:243-251
10429 at
non-annotated SAGE orf Found reverse in NC 001143 between 93914 and 94054 with 100% identity.
See citation Velculescu, V.E., et al. (1997) Characterization of the yeast transcriptome. Cell 8:243-251
non-annotated SAGE orf Found reverse in NC 001143 between 98397 and 98609 with 100% identity.
See citation Velculescu, V.E., et al. (1997) Characterization of the yeast transcriptome. Cell 8:243-251
10431 at
            256.0
non-annotated SAGE orf Found reverse in NC 001143 between 108918 and 109193 with 100% identity.
See citation Velculescu, V.E., et al. (1997) Characterization of the yeast transcriptome. Cell 8:243-251
10432 at
non-annotated SAGE orf Found reverse in NC_001143 between 136056 and 136247 with 100% identity.
See citation Velculescu, V.E., et al. (1997) Characterization of the yeast transcriptome. Cell 8:243-251
non-annotated SAGE orf Found reverse in NC 001143 between 136275 and 136457 with 100% identity.
See citation Velculescu, V.E., et al. (1997) Characterization of the yeast transcriptome. Cell 8:243-251
10434 at
non-annotated SAGE orf Found reverse in NC 001143 between 142825 and 142992 with 100% identity.
See citation Velculescu, V.E., et al. (1997) Characterization of the yeast transcriptome. Cell 8:243-251
10435 at
            509.9
non-annotated SAGE orf Found reverse in NC 001143 between 184805 and 185014 with 100% identity.
See citation Velculescu, V.E., et al. (1997) Characterization of the yeast transcriptome. Cell 8:243-251
            -88.7
non-annotated SAGE orf Found reverse in NC 001143 between 219769 and 219951 with 100% identity.
See citation Velculescu, V.E., et al. (1997) Characterization of the yeast transcriptome. Cell 8:243-251
10437 at
non-annotated SAGE orf Found reverse in NC 001143 between 264148 and 264333 with 100% identity.
See citation Velculescu, V.E., et al. (1997) Characterization of the yeast transcriptome. Cell 8:243-251
10438 at
            -252.8
non-annotated SAGE orf Found reverse in NC 001143 between 308237 and 308389 with 100% identity.
See citation Velculescu, V.E., et al. (1997) Characterization of the yeast transcriptome. Cell 8:243-251
non-annotated SAGE orf Found forward in NC 001143 between 308848 and 309084 with 100% identity.
See citation Velculescu, V.E., et al. (1997) Characterization of the yeast transcriptome. Cell 8:243-251
10440_at
            238.2
non-annotated SAGE orf Found reverse in NC 001143 between 340484 and 340771 with 100% identity.
See citation Velculescu, V.E., et al. (1997) Characterization of the yeast transcriptome. Cell 8:243-251
non-annotated SAGE orf Found reverse in NC 001143 between 468524 and 468670 with 100% identity.
See citation Velculescu, V.E., et al. (1997) Characterization of the yeast transcriptome. Cell 8:243-251
non-annotated SAGE orf Found reverse in NC 001143 between 468759 and 468899 with 100% identity.
See citation Velculescu, V.E., et al. (1997) Characterization of the yeast transcriptome. Cell 8:243-251
10397 at
            493.1
non-annotated SAGE orf Found reverse in NC_001143 between 527004 and 527159 with 100% identity.
See citation Velculescu, V.E., et al. (1997) Characterization of the yeast transcriptome. Cell 8:243-251
```

-159.8

10398_at

```
non-annotated SAGE orf Found forward in NC_001143 between 533255 and 533518 with 100% identity.
See citation Velculescu, V.E., et al. (1997) Characterization of the yeast transcriptome. Cell 8:243-251
            102.4
non-annotated SAGE orf Found reverse in NC 001143 between 137683 and 137847 with 100% identity.
See citation Velculescu, V.E., et al. (1997) Characterization of the yeast transcriptome. Cell 8:243-251
10400 at
non-annotated SAGE orf Found forward in NC 001143 between 173981 and 174175 with 100% identity.
See citation Velculescu, V.E., et al. (1997) Characterization of the yeast transcriptome. Cell 8:243-251
10401_at
non-annotated SAGE orf Found reverse in NC_001143 between 185056 and 185205 with 100% identity.
See citation Velculescu, V.E., et al. (1997) Characterization of the yeast transcriptome. Cell 8:243-251
10402 at
            407.4
non-annotated SAGE orf Found forward in NC 001143 between 219794 and 219961 with 100% identity.
See citation Velculescu, V.E., et al. (1997) Characterization of the yeast transcriptome. Cell 8:243-251
10403 at
non-annotated SAGE orf Found reverse in NC 001143 between 442457 and 442639 with 100% identity.
See citation Velculescu, V.E., et al. (1997) Characterization of the yeast transcriptome. Cell 8:243-251
10404 at
non-annotated SAGE orf Found reverse in NC 001143 between 447932 and 448156 with 100% identity.
See citation Velculescu, V.E., et al. (1997) Characterization of the yeast transcriptome. Cell 8:243-251
10405 at
non-annotated SAGE orf Found forward in NC_001143 between 456740 and 456883 with 100% identity.
See citation Velculescu, V.E., et al. (1997) Characterization of the yeast transcriptome. Cell 8:243-251
10406 at
            786.6
non-annotated SAGE orf Found forward in NC 001143 between 619142 and 619375 with 100% identity.
See citation Velculescu, V.E., et al. (1997) Characterization of the yeast transcriptome. Cell 8:243-251
10407 at
            136.9
snRNA
10408 at
                         Ρ
            371.5
snRNA
10409 at
            758.4
snRNA
10410 at
            -54.2
                         Α
snRNA
10411 f at 65.6
Growth INhibitory protein
10412 f at 933.3
strong similarity to members of the Srp1/Tip1p family
10413 at
            340.8
transacetylase
10414 at
            -75.4
weak similarity to M.leprae metH2 protein
10415 at
            243.4
                         Α
strong similarity to amino acid transport protein Gap1p
10416 at
            360.3
Glutathione transferase
10417 at
            -162.8
                         Α
hypothetical protein
10418 at
            487.3
                         Α
similarity to N.crassa O-succinylhomoserine (thiol)-lyase
10373 at
            42.1
similarity to E.coli dioxygenase
10374 at
            191.7
weak similarity to Y.pseudotuberculosis CDP-3,6-dideoxy-D-glycero-L-glycero-4-hexulose-5-epimerase
10375 at
            274.3
similarity to Dal5p
```

```
10376_at
            329.4
similarity to transcription factor Pip2p
10377 at
            1479.7
similarity to water channel proteins
10378 at
            803.9
                        Ρ
member of mip family transmembrane channels
10379 at
            961.8
similar to FRE2
10380 at
            11239.5
Cofilin, actin binding and severing protein
10381 at
            208.8
hypothetical protein
10382 at
            4101.4
yeast bile transporter, similar to mammalian bile transporter
10383 at
            -24.5
questionable ORF
10384 at
            109.9
                         Α
ribonucleoprotein 1
10385 i at 63655.8
Ribosomal protein L8B (L4B) (rp6) (YL5)
10386_s_at 35954.3
Ribosomal protein L8B (L4B) (rp6) (YL5)
10387 at
            3703.7
questionable ORF
10388 at
            3227.0
Suppressor of tps1\fdp1 and member of the MIP family of transmembrane channels\; may be involved in
glycerol efflux
10389 at
                         Α
            -8.6
hypothetical protein
                         Ρ
10390 at
            153.1
Succinate dehydrogenase (ubiquinone) iron-sulfur protein subunit
10391_at
            1235.9
involved in regulating membrane traffic
10392_at
            1571.1
ubiquitin
10393 at
            174.8
                        Α
weak similarity to YJR125c and YDL161w
10394 at
            206.2
                         Α
weak similarity to human platelet-activating factor receptor
10395_at
            1426.7
RNA splicing factor
10351 at
            -168.1
                         Α
hypothetical protein
                         Ρ
10352_at
            3588.7
similarity to mammalian valosin
            -37.2
10353 at
                         Α
hypothetical protein
10354 at
            252.4
                         Α
hypothetical protein
                         Ρ
10355 at
            1926.3
similarity to hypothetical protein YJL062w
10356_at
            49.5
hypothetical protein
10357_at
            1501.8
similarity to M.jannaschii X-Pro dipeptidase and S.pombe hypothetical protein
10358_at
            -24564.8
```

```
similarity to multidrug resistance proteins
10359 at
            1302.3
similarity to H.influenzae and E.coli hypothetical proteins
10360 at
            3303.4
heat shock protein 104
10361_f_at 10008.6
strong similarity to members of the Srp1p/Tip1p family
10362 at
            65588.0
member of 70 kDa heat shock protein family
10363 at
            3761.9
similarity to hypothetical protein YLR064w
10364 at
            1000.9
Hat1 Interacting Factor 1
                         Ρ
10365 at
            1305.4
spindle pole antigen
10366 i at 1623.5
                         Ρ
questionable ORF
10367_r_at 2040.5
                         Ρ
questionable ORF
10368_s_at 1668.0
                         Ρ
questionable ORF
10369_at
            296.2
                         Α
protein kinase homolog
            22459.0
                         Ρ
10370 at
Aspartyl-tRNA synthetase, cytosolic
10371_at
            94.2
maybe part of SCD25
10372 at
            -166.0
                         Α
homologous to cdc25
                         Ρ
10328 at
            840.4
similarity to metal resistance proteins
10329_at
            2332.2
hypothetical protein
10330_at
            618.6
similarity to Drosophila pumilio protein
10331 at
            3311.5
similarity to triacylglycerol lipases
10332 at
            1841.2
56 kDa nucleolar snRNP protein that shows homology to beta subunits of G-proteins and the splicing
factor Prp4
10333 at
            812.2
strong similarity to hypothetical protein YLR019w
10334_at
            1075.0
cysteine-rich cytoplasmic protein
10335 at
            1428.4
putative ATP dependent RNA helicase
10336 at
            181.2
                         Α
hypothetical protein
10337_at
            449.7
                         Α
mitochondrial outer membrane protein
10338_at
            117.3
similarity to A.thaliana hyp1 protein
10339 at
            643.6
Third subunit of the origin recognition complex
10340_at
            438.5
protein of unknown function
```

```
10341_at
            198.8
Killed in Mutagen, sensitive to diepoxybutane and Vor mitomycin C
10342 at
            586.8
Dynamin-related protein
                         Ρ
10343 at
            750.7
hypothetical protein
10344 at
            1818.3
similarity to hypothetical C. elegans protein
10345 at
             1269.4
hypothetical protein
10346 at
            168.0
similarity to allantoate transport protein
10347 at
            5017.3
Component of RNA polymerase transcription factor TFIIH
10348 at
            482.4
                         Α
Two-component signal transducer that with SIn1p regulates osmosensing MAP kinase
cascade(suppressor of sensor kinase)
10349 at
            294.8
                         Α
hypothetical protein
10350_at
             1022.8
                         Ρ
similarity to hypothetical protein YNL328c
10305_at
            1805.1
similarity to ribosomal protein L24.e.B
10306 at
            475.8
weak similarity to Aquifex aeolicus adenylosuccinate synthetase
10307_at
            -288.1
weak similarity to E.coli hypothetical 20.4 kDa protein
10308 at
            -561.6
hypothetical protein
10309 at
             196.1
weak similarity to nitrogen regulatory proteins
10310_at
            618.6
zinc-finger transcription factor of the Zn(2)-Cys(6) binuclear cluster domain type
10311_at
            511.8
weak similarity to S.pombe hypothetical protein SPBC13G1
10312 at
            373.7
hypothetical protein
10313_at
            2399.2
Protein that regulates ADH2 gene expression
            470.6
10314_at
hypothetical protein
10315 at
            819.2
strong similarity to YLL010c
10316_at
            745.2
similarity to triacylglycerol lipase
10317 at
                         Ρ
            727.3
hypothetical protein
10318 at
            497.2
similarity to C.elegans and M.jannaschii hypothetical proteins
10319 at
             1209.3
similarity to S.pombe hypothetical protein SPAC30D11.11
10320 at
            122.5
similarity to ubiquitin--protein ligase Ubr1p
10321 at
            2055.3
involved in derepression of SUC2 in response to glucose limitation
10322_at
            570.4
```

```
Sed5p is a t-SNARE (soluble NSF attachment protein receptor) required in ER to Golgi transport.
10323 at
            12773.0
aspartate aminotransferase, cytosolic
10324 at
            6344.7
5-aminoimidazole-4-carboxamide ribonucleotide (AICAR) transformylaseVIMP cyclohydrolase
10325 at
            22888.6
Ribosomal protein L15A (YL10) (rp15R) (L13A)
10326_g_at 42770.9
Ribosomal protein L15A (YL10) (rp15R) (L13A)
10327_at
            90.3
hypothetical protein
10283 at
            50.4
                        Α
similarity to hypothetical protein YMR124w
10284 at
            410.2
putative ATPaseVDNA helicase
10285 at
            344.6
hypothetical protein
10286 at
            3934.3
                        Ρ
strong similarity to SMF2 protein
10287_at
            311.3
similarity to human mutL protein homolog
10288_at
            749.4
similarity to YIL089w
10289 f at 1388.4
strong similarity to members of the Srp1p/Tip1p family
10290 at
            5450.1
                        Ρ
subunit VIb of cytochrome c oxidase
            964.0
10291 at
involved in transcription of ribosomal proteins and ribosomal RNA
10292 at
            9120.9
weak similartity to hypothetical protein YIL011w
10293_at
            328.6
questionable ORF
10294_at
            639.4
hypothetical protein
10295 at
                        Ρ
            14849.8
thioredoxin
                        Ρ
10296_at
            185712.1
pyruvate decarboxylase
10297_at
            976.6
May play a role in attachment, organization, and/or dynamics of microtubule ends at the spindle pole
body
10298_at
            214.6
strong similarity to Rta1p and Rtm1p protein
10299 at
            -79.4
similarity to hypothetical protein YGL160w
10300 f at 11582.0
Ribosomal protein S0B
10301_at
                        Ρ
            63367.6
Ribosomal protein S0B
                        Ρ
10302_g_at 70006.1
Ribosomal protein S0B
10303 at
            -4.9
                        Α
hypothetical protein
10304_at
            4571.7
weak similarity to human MAC30 C-terminus
```

```
10260_at
            836.7
similarity to human acidic 82 kDa protein
10261 at
            736.7
hypothetical protein
10262 at
            142.1
hypothetical protein
10263_at
            477.6
                        Α
hypothetical protein
10264 at
            2304.4
transcription factor, probable member of histone acetyltransferase SAGA complex
10265 at
            26981.2
C-5 sterol desaturase
                        Ρ
10266 at
            951.9
weak similarity to mouse alpha-mannosidase
10267 at
            10061.0
serine hydroxymethyltransferase
10268 at
            2933.0
suppressor of rna12/yme2
10269 at
            18817.0
Phenylalanyl-tRNA synthetase, alpha subunit, cytoplasmic
10270 at
            71569.3
Ribosomal protein L22A (L1c) (rp4) (YL31)
10271 at
            2143.6
questionable ORF
10272 at
            255.8
                        Α
ser/thr protein kinase
            1590.3
                        Ρ
10273 at
weak similarity to Anopheles NADH-ubiquinone oxidoreductase, chain 4
10274 at
            3219.9
hypothetical protein
10275_at
                        Ρ
            1024.0
signal peptidase subunit
10276 at
            -104.7
Involved in expression of mitochondrial COX1 by regulating translation of COX1 mRNA and by affecting
transcription or stability of COX1 mRNAs
10277 at
            26.9
hypothetical protein
10278_at
            1416.0
mitochondrial elongation factor G-like protein
10279_at
            262.7
strong similarity to sugar dehydrogenases
10280 at
            1717.5
component of RNA polymerase II holoenzymeVmediator complex, interacts with Sin4p, Gal11p, and a 50
kd polypeptide
10281 at
            682.1
similarity to YFL042c, YFL043c, YDR326c and YHR080c
10282 at
            360.1
                        Α
hypothetical protein
10238_at
            2094.2
weak similarity to human zinc finger protein
10239 at
            99035.3
Ribosomal protein L10\; Ubiquinol-cytochrome C reductase complex subunit VI requiring protein
10240 at
            5029.3
questionable ORF
10241_at
            -2.8
weak similarity to Xenopus RCC1 protein
```

```
10242_at
            772.2
necessary for vesicular transport from the ER to the Golgi complex
10243 at
            653.7
P40 inhibitor of Cdc28p-Clb5 protein kinase complex
10244 at
            265.3
strong similarity to Emp47p
10245_at
            161.2
galactose permease
10246 at
            119.1
Suppressor of rad53 lethality
10247 at
            6149.5
integral membrane protein\; p24a protein
10248 at
            1783.9
weak similarity to S.pombe hypothetical protein SPAC6F6
10249 at
            795.2
Actin-related protein
10250 at
            282.5
Smc4 protein, member of SMC family
10251 at
            527.4
hypothetical protein
10252 at
            1504.0
Possible component of GPI:protein transamidase
10253 at
            5263.4
strong similarity to alanine transaminases
10254 at
            1374.4
Homolog of E. coli DnaJ, closely related to Ydj1p
10255 at
            125.4
                        Α
hypothetical protein
10256 at
                        Α
            233.1
high affinity sulfate permease
10257_at
            366.1
                        Α
vacuolar v-SNARE
10258 at
            221.8
                        Α
hypothetical protein
10259 at
            2531.1
                        Ρ
hypothetical protein
10215_at
            2580.3
SerineVthreonine protein kinase
10216 at
            293.8
hypothetical protein
10217 at
            -81.1
DNA-binding transcriptional activator or CHA1
10218_at
            13636.5
similarity to YDR125c
10219 at
            7460.1
                        Ρ
similarity to rat ovarian specific protein
10220 at
            416.1
                        Α
questionable ORF
10221_at
            266.6
                         Α
subunit of the anaphase promoting complex (APC)
10222_at
            532.0
omosomal DNA replication initiation protein
10223 at
            652.6
hypothetical protein
10224_at
            792.0
tRNA splicing endonuclease subunit
```

```
10225_at
            948.0
similarity to Kaposi s sarcoma-associated herpes-like virus ORF73 homolog gene
10226 at
            788.4
similarity to Pan troglodytes prot GOR
10227 at
            363.5
strong similarity to YDR132c
10228 at
            37035.4
similarity to C.boidinii peroxisomal membrane protein 20K A
10229 at
            238951.9
strong similarity to Flo1p
10230 at
            -90.8
                         Α
hypothetical protein
                         Ρ
10231 at
            578.8
hypothetical protein
10232 at
            3801.7
mitogen-activated protein kinase (MAP kinase)
10233 at
            450.5
similarity to C.elegans hypothetical protein and YOR054c
10234 at
            610.9
Component of cleavage factor II (CF II)\; 105-kDa protein associated with polyadenylation factor 1 (PF I)
10235 at
            697.1
Branchpoint bridging protein -- component of the splicing commitment complex
10236 at
            312.4
SYnthetic lethal with cdc40 (Forty)
10237 at
            1002.4
similarity to several esterases
10192 at
            -50.1
                        Α
suppressor of rna1-1 mutation
            2543.6
10193 at
                        Ρ
GPI-anchored aspartic protease
10194 at
            3353.2
GPI-anchored aspartic protease
10195 at
            -121.0
                         Α
hypothetical protein
10196 g at -95.4
                         Α
hypothetical protein
10197_at
            291.9
                         Α
questionable ORF
10198 at
            120.4
                         Α
hypothetical protein
10199 at
                         Α
            50.4
hypothetical protein
10200_at
            213.6
weak similarity to P.aeruginosa anthranilate synthase component II
            229.6
10201 at
subunit of the anaphase promoting complex (APC)
10202 at
            628.0
similarity to S.pombe hypothetical protein SPBC24E9
10203_at
            1388.4
DOM34 Interacting Protein
10204_at
            1497.4
Low-affinity zinc transport protein
10205 at
            649.7
zinc finger transcription factor
10206_at
            377.9
                         Ρ
hypothetical protein
```

```
10207_at
                        Ρ
            711.0
choline kinase
                        Р
10208 at
            3611.8
pyruvate decarboxylase
10209 at
            466.6
                        Α
hypothetical protein
10210_at
            222.2
zinc finger containing homolog of mammalian TIS11, glucose repressible gene
10211 at
            463.3
hypothetical protein
10212 at
            1617.6
                        Ρ
Putative Na+VH+ antiporter
10213 at
            -28.5
73 kDa mitochondrial integral membrane protein
10214 at
            -123.2
                        Α
questionable ORF
10170_g_at 1380.3
                        Ρ
questionable ORF
10171 at
            661.2
                        Ρ
transcription factor, member of UAF (upstream activation factor) along with Rrn9p and Rrn10p
10172_at
            17.8
proline oxidase
10173 at
            523.5
weak similarity to Pyrococcus horikoshii hypothetical protein PHBJ017
10174 at
            1158.6
Identified as an activity necessary for actin polymerization in permeabilized cells
10175 at
            637.3
hypothetical protein
10176 at
                        Ρ
            444.7
Spermine Synthase
10177 at
            1300.4
encodes a core snRNP protein
10178 at
            -271.2
vacuolar membrane protein
10179 at
            0.4
hypothetical protein
10180 at
            38339.1
specific affinity for guanine-rich quadruplex nucleic acids
10181 at
            204.9
weak similarity to A.thaliana hypothetical protein ATU78721
10182 at
            765.0
similarity to YOR3165w and YNL095c
10183_at
            28253.5
                        Ρ
acetyl-coenzyme A synthetase
10184_at
            1971.7
hypothetical protein
10185 s at 2762.4
nitrogen catabolite-regulated cell-wall L-asparaginase II
10186_s_at 12.8
identical to hypothetical proteins YLR161w and YLR159w
10187_at
            33652.9
hypothetical protein
                        Ρ
10188 at
            1014.1
mitochondrial processing protease subunit
10189_at
            -170.0
strong similarity to Sdh4p
```

```
10190_at
            310.3
weak similarity to H.influenzae hypothetical protein HI0176
10191 at
            502.2
100 kD component of the Exocyst complex\; required for exocytosis. The Exocyst complex contains the
gene products encoded by SEC3, SEC5, SEC6, SEC8, SEC10, SEC15 and EXO70.
10147 at
            117080.4
Ribosomal protein S31 (S37) (YS24)
10148 at
            883.6
probably involved in intramitochondrial protein sorting
10149_at
            347.2
questionable ORF
                        Ρ
10150 at
            912.4
clathrin-associated protein complex, small subunit
10151 at
            163.6
questionable ORF
10152 at
            5633.9
S-adenosylmethionine (AdoMet)-dependent methyltransferase of diphthamide biosynthesis
10153 at
            -107.0
hypothetical protein
10154_at
            316.7
Cytosolic form of NADP-dependent isocitrate dehydrogenase
10155 at
            14053.3
major low affinity 55 kDa Centromere\/microtubule binding protein
10156 at
            592.1
DNA binding protein, homologous to a family of mammalian RFX1-4 proteins which have a novel highly
conserved DNA binding domain
10157 at
            1095.4
similarity to suppressor protein Psp5p
10158 at
            455.3
                        Α
suppressor of cdc25
10159 at
                        Ρ
            5994.6
similarity to Tfs1p
10160 at
            6462.9
S-adenosylmethionine synthetase
10161 g at 43233.1
S-adenosylmethionine synthetase
10162_at
            749.7
hypothetical protein
                        Ρ
10163 at
            930.6
regulatory protein
10164 at
                        Α
            541.6
similarity to YDR501w
10165_at
            420.2
                        Α
weak similarity to ribulose-bisphosphate carboxylase
            80901.4
10166 at
60S ribosomal protein L37A (L43) (YL35)
10167 at
            3040.7
strong similarity to S.pombe hypothetical protein C18G6.07C
10168 at
            676.7
similarity to hypothetical protein YNL278w
10169 at
            3042.4
ATP-binding cassette (ABC) transporter family member
10124 at
            1950.4
similarity to P.aeruginosa rhamnosyltransferase 1 chain B
10125_at
            719.1
hypothetical protein
```

```
10126_at
            610.8
Peroxisomal membrane protein that contains Src homology 3 (SH3) domain
10127 at
            7827.5
weak similarity to fruit fly transcription factor 5 large chain
10128 at
            764.5
                        Ρ
similarity to G.gallus px19 and Msf1p
10129 at
            4374.6
                        Ρ
hypothetical protein
10130 at
            2527.8
                        Ρ
N-myristoyl transferase
10131 at
            4452.6
Protein with periodic trytophan residues that resembles members of beta-transducin superfamily because
of presence of WD-40 repeats
10132 at
            4885.8
homology to microtubule binding proteins and to X90565 5.cds
10133 at
            4509.7
questionable ORF
10134 at
            1713.1
                        Ρ
hypothetical protein
10135_at
            900.8
Polypeptide 6 of a Yeast Non-native Actin Binding Complex, homolog of a component of the bovine
NABC complex
10136 at
            948.5
similarity to hypothetical S. pombe protein
10137 at
            141.7
                        Α
questionable ORF
10138 g at -254.9
                        Α
questionable ORF
10139 i at 7448.6
                        Ρ
questionable ORF
10140_r_at 3195.2
                        Ρ
questionable ORF
10141 at
            1063.8
Protein involved in maturation of COX1 and COB mRNA
10142 at
            2129.9
protein of unknown function
10143 at
            4552.1
hypothetical protein
10144 at
            1724.8
                        Ρ
similarity to human tricohyalin and protein KIAA0171
10145 at
            502.4
HMG-CoA Reductase Degradation
10146_at
            3616.2
cytoplasmic protein involved in release of transport vesicles from the ER
10101_at
            1865.2
strong similarity to purine-nucleoside phosphorylases
10102 at
            390.7
G(sub)2-specific B-type cyclin
10103_at
            328.3
                        Α
hypothetical protein
10104_at
            1133.0
gamma tubulin-like protein, interacts with Spc98p and Spc97p, the Tub4p-Spc98p-Spc97p complex may
be part of the microtubule attachment site at the spindle pole body
10105 at
            213.1
                        Α
similarity to UTR2 protein
                        Ρ
10106_at
            2824.4
```

```
Ferric (and cupric) reductase
10107 at
            298.3
strong similarity to rat cell cycle progression related D123 protein
10108 at
            6547.0
cyclophilin related to the mammalian CyP-40\; physically interacts with RPD3 gene product
10109 at
            -100.2
questionable ORF
                        Ρ
10110 at
            565.6
hypothetical protein
                        Ρ
10111_at
            1021.0
hypothetical protein
                        Р
10112 at
            834.2
Possible transmembrane Ca2+ transporter
10113 at
            564.9
hypothetical protein
                        Ρ
10114 at
            1963.6
similarity to Dip2p
10115 at
            390.9
                        Α
has a weak RNA-dependent ATPase activity which is not specific for rRNA
10116_at
            844.6
hypothetical protein
                         Р
10117_at
            8.808
strong similarity to YDR222w
10118 at
            327.6
                        Α
hypothetical protein
10119_at
            354.2
                         Α
hypothetical protein
10120 at
            817.0
                         Р
strong similarity to YDR213w, weak similarity to Lys14p
10121 at
            4066.1
member of the Rho subfamily of Ras-like proteins
10122_at
            -11.0
                        Α
questionable ORF
10123_at
            922.0
strong similarity to rat kynureninase
10079 at
            142.7
                        Α
questionable ORF
10080_at
            -134.6
                         Α
Telomere elongation protein (ever shorter telomeres)
10081_at
            -42.3
                         Α
DNA Topoisomerase III
10082 at
            331.0
                        Α
questionable ORF
10083_g_at 139.9
                         Α
questionable ORF
10084_at
            317.1
                         Α
hypothetical protein
                        Ρ
10085 at
            1951.3
thiamine transporter
                        Ρ
10086 at
            531.3
similarity to YDR200c
10087_at
            338.0
weak similarity to H.influenzae lipoate biosynthesis protein B
10088_at
            984.5
phosphatidylinositol 3-kinase
10089_at
            825.0
```

а

```
similarity to hypothetical S.pombe protein SPAC2G11.09
10090 at
            162.0
weak similarity to C.elegans R05H5.5 protein and Nup120p
10091 at
            1359.2
                        Р
strong similarity to YOR262w
10092 at
            3977.0
methionine aminopeptidase
10093 at
            533.0
strong similarity to B. subtilis cytidine deaminase
10094_at
            373.3
similarity to human DHHC-domain-containing cysteine-rich protein
10095 at
            735.9
similarity to S.pombe rad8 protein and Rdh54p
10096 at
            2562.3
SerineVthreonine protein kinase
10097 at
            200664.6
EF-3 (translational elongation factor 3)
10098 at
            638.5
                        Μ
secretory protein
10099_at
            65.6
                        Α
similarity to peroxisomal rat membrane protein PMP22
10100 at
            667.7
                        Ρ
questionable ORF
10055 at
            731.3
weak similarity to bacterial aminoglycoside acetyltransferase regulators
10056 at
            923.2
hypothetical protein
10057 at
                         Α
            97.1
hypothetical protein
10058 at
            439.0
zinc-finger transcription factor of the Zn(2)-Cys(6) binuclear cluster domain type
10059_at
            2035.5
hypothetical protein
10060_at
            645.5
Glycogen synthase (UDP-gluocse--starch glucosyltransferase)
10061 at
            52498.0
heat shock protein 60\; chaperonin protein
10062 at
            728.9
sphingoid long chain base (LCB) kinase
10063_i_at 311.9
                        Α
questionable ORF
10064 s at 731.5
                        Ρ
questionable ORF
10065_at
            243.7
highly homologous to the human GTPase, Rab6
10066 s at 2658.3
strong similarity to F49C12.11 (Z68227 K) from C. elegans
10067 at
            58.9
Meiosis-specific protein involved in homologous chromosome synapsis and chiasmata formation);
localizes to chromosome cores independently of Mei4p and Spo11p\: mRNA is induced in meiosis
10068 i at 3600.8
Ribosomal protein S28B (S33B) (YS27)
10069 f at 5025.6
Ribosomal protein S28B (S33B) (YS27)
10070_at
            19.3
hypothetical protein
```

```
10071_at
            178.3
weak similarity to transcription factors
10072 at
            -360.5
                        Α
Bypass of PAM1
                        Ρ
10073 at
            756.4
Synaptobrevin (v-SNARE) homolog present on ER to Golgi vesicles
10074_at
            132.0
questionable ORF
10075_at
            659.0
strong similarity to YOR173w
10076 at
            307.0
                        Α
hypothetical protein
10077 at
            438.3
similarity to human hypothetical ORF
10078 at
            155.4
                        Α
Protein similar to Gac1p, a putative type 1 protein phosphatase targeting subunit
10032 at
            562.3
Member of complex that acts at ARS s to initiate replication
10033 at
            313.4
U1 snRNP protein of the Sm class
10034 at
            2613.1
DEAD-Box Protein 9
                        Р
10035 at
            1217.9
subunit of Polyadenylation factor I (PF I)
10036 at
            204.8
weak similarity to regulatory proteins
10037 at
            250.1
questionable ORF
10038 i at 262.6
                        Ρ
questionable ORF
10039_s_at 298.9
                        Α
questionable ORF
10040 at
            233.9
                        Α
similarity to polypeptide chain release factors
10041 at
                        Ρ
            347.9
questionable ORF
10042_at
            79.5
                        Α
weak similarity to Smc2p
10043 at
            -89.1
Peroxisomal enoyl-CoA hydratase
10044 at
            1267.2
hypothetical protein
10045_at
                        Ρ
            32477.9
Endochitinase
10046 at
            453.3
weak similarity to S.pombe hypothetical protein SPAC22E12
10047 f at 74297.0
Ribosomal protein S30A
            596.0
10048 at
involved in checkpoint control and DNA repair
10049_at
            346.4
GTPase
                        Ρ
10050 at
            1144.6
hypothetical protein
10051_at
            1954.8
translation initiation factor eIF2b, 43 kDa subunit\; negative regulator of GCN4 expression
```

```
10052_at
                        Ρ
            1311.1
protein involved in membrane protein insertion into the ER
10053 at
            19475.8
GTP-binding protein
                        Ρ
10054 at
            5508.4
questionable ORF
10010_at
            1969.5
                        Ρ
ATP synthase subunit h
10011_at
            -35.5
                        Α
hypothetical protein
10012 at
            259.6
weak similarity to Vibrio vulnificus VvpC protein
10013 at
            477.1
U1 snRNP protein required for pre-mRNA splicing
10014 at
            685.2
gamma-glutamyltransferase homolog
10015 at
            18854.3
Exo-1,3-beta-glucanase
10016 at
            4695.6
                        Ρ
hypothetical protein
10017_at
                        Α
            -161.3
questionable ORF
                        Ρ
10018 at
            19492.6
O-Acetylhomoserine-O-Acetylserine Sulfhydralase
10019 at
            9092.6
Aconitase, mitochondrial
10020 at
            1514.6
encodes a phosphatidylinositol-4-kinase, homologous to VPC34
10021 at
            240.6
Ubiquitin-conjugating enzyme
10022_at
            -672.6
                        Α
Chitin Deacetylase
10023 at
            82.4
                        Α
Chitin Deacetylase
10024 at
                         Ρ
            1373.2
similarity to human centromere protein E
10025 at
            493.4
regulatory protein of adenylate cyclase
10026 at
            -197.6
                        Α
weak similarity to S.tarentolae cryptogene protein G4
10027 at
            96.3
hypothetical protein
10028_at
            389.5
homologous to Spa2p, localizes to sites of polarized growth
10029 at
            640.1
Component of 10 nm filaments of mother-bud neck
10030 at
            -55.8
weak similarity to rat apolipoprotein A-IV
10031 at
            1387.1
weak similarity to H.influenzae hypothetical protein HI0906
9986_at
            1297.3
questionable ORF
9987 at
            17.9
103 kD basic protein, catalytic subunit of telomerase
9988 at
            473.0
Actin Interacting Protein
```

```
9989_at
            420.9
                         Α
hypothetical protein
                         Ρ
9990 at
            755.1
homolog of Snf5p, member of the chromatin remodeling complex, RSC
9991 at
            280.4
questionable ORF
                         Ρ
9992_at
            286.9
weak similarity to N.crassa uvs2 protein
9993 at
            349.8
strong similarity to YGR004w
9994 at
            35274.0
Ribosomal protein L38
9995 at
            288.8
                         Α
hypothetical protein
                         Ρ
9996 at
            374.9
strong similarity to Stf2p
9997 at
            960.4
strong similarity to YGR010w
9998 at
            -13.2
23 kDa protein containing a putative leucine zipper\; meiosis specific recombination protein\; mRNA is
induced early in sporulation
9999 at
            2015.0
Involved in chitin synthase III activity, also required for homozygosis in the first stages of mating
10000 at
            133.4
                         Α
questionable ORF
10001_at
            1730.6
Protein required for mating
10002 i at 22990.9
Ribosomal protein S25B (S31B) (rp45) (YS23)
10003 f at 27720.6
Ribosomal protein S25B (S31B) (rp45) (YS23)
10004_at
            33.8
questionable ORF
10005_at
            2839.5
nuclear pore complex protein with central repetitive domain similar to that of NSP1 and NUP1
10006 at
            1079.5
Suppressor of Glycerol Defect
10007_at
            1423.2
Proline-rich protein verprolin
10008_at
            48.6
                         Α
questionable ORF
10009 at
            792.7
                         Ρ
questionable ORF
            148532.7
9964_at
60S ribosomal protein P0 (A0) (L10E)
9965 at
            8.3
                         Α
hypothetical protein
9966 at
            16148.8
                         Ρ
1,3-beta-D-glucan synthase
9967 at
            190.2
strong similarity to Gas1p and C.albicans pH responsive protein
9968_s_at 105058.7
Ribosomal protein L26A (L33A) (YL33)
9969 at
            516.2
similarity to Pfk26p and other 6-phosphofructo-2-kinases
9970_at
            2788.1
```

```
weak similarity to YGR035c
9971 at
            1250.0
95 kDa structural and functional homolog of vertebrate karyopherin beta (importin 90)
9972 at
            2969.5
mitochondrial dicarboxylate transport protein
9973_at
            644.1
questionable ORF
9974_at
            5679.7
                        Ρ
strong similarity to YGR038w
9975_at
            4046.1
Nit3 nitrilase
                        Ρ
9976 at
            723.2
hypothetical protein
                        Ρ
9977_at
            533.6
budding protein
9978 at
            8728.1
Transaldolase, enzyme in the pentose phosphate pathway
9979 at
            31415.7
acetohydroxyacid reductoisomerase
9980_at
            976.0
similarity to SCM4 protein
9981_at
            492.5
                        Ρ
questionable ORF
                        Ρ
9982 at
            880.2
Member of RSC complex.
9983 at
            8934.3
Adenylosuccinate Lyase
9984 at
            9.7
protein involved in vacuolar sorting
9985 at
            421.3
similarity to YOR3329c
9941_at
            279.2
Ser\/Thr protein kinase\; MEKK homolog
9942_at
            43.7
putative Upf1p-interacting protein
9943 at
            414.7
hypothetical protein
9944 at
            171.9
                        Α
weak similarity to Udf2p
            87.2
9945_at
                        Α
hypothetical protein
9946 at
            1381.2
                        Ρ
Ribosomal protein S22B (S24B) (rp50) (YS22)
9947_i_at
            13952.9
Ribosomal protein S22B (S24B) (rp50) (YS22)
9948 f at
            16645.0
Ribosomal protein S22B (S24B) (rp50) (YS22)
9949 at
            512.2
                        Α
hypothetical protein
                        Ρ
9950 at
            472.0
Hsp70 protein
                        Ρ
9951_at
            764.9
Arp2V3 Complex Subunit
9952 at
            2065.8
GDP-GTP Exchange Protein (GEP) for the Rho1p Small GTP-binding Protein\; high copy suppressor of
cik1 and kar3 deletion mutants.
```

```
9953_at
            14316.7
required for conversion of 24-carbon fatty acids to 26-carbon species
9954 at
            1219.3
similarity to hypothetical protein YGR071c
9955 at
            -184.1
questionable ORF
                         Ρ
9956 at
            2341.5
Involved in pre-tRNA splicing and in uptake of branched-chain amino acids
9957 at
            192.1
hypothetical protein
9958 at
            290.2
                         Α
fructose-1,6-bisphosphatase
9959 at
            11270.2
membrane component of ER protein translocation apparatus
9960 at
            -43.8
questionable ORF
9961 at
            2039.1
                         Ρ
weak similarity to SEC14 protein
9962 at
            287.3
hypothetical protein
9963 at
                         Р
            652.3
mitochondrial leucyl tRNA synthetase
9918 at
            1010.8
Protein involved in recombination repair, homologous to S. pombe rad18
9919 at
            3213.4
confers sensitivity to killer toxin
9920 at
            -204.2
                         Α
hypothetical protein
                         Ρ
9921 at
            823.3
similarity to hypothetical S. pombe protein
9922 at
            2445.8
similarity to YBR267w
9923 f at
           59799.2
Ribosomal protein S29A (S36A) (YS29)
9924 at
            1094.3
protease involved in a-factor processing
9925 at
            738.1
ExtraCellular Mutant
                         Ρ
9926 at
            19238.9
Secretory Stress Response protein 1
9927 at
            79.1
hypothetical protein
9928_at
            354.3
essential for assembly of a functional mitochondrial ATPase complex
9929 at
            448.3
weak similarity to chicken RING zinc finger protein
9930 at
            4294.1
Cytochrome-c oxidase chain VIII
9931 at
            811.3
Vacuolar sorting protein essential for vacuolar morphogenesis and function
9932 at
            1596.6
homology to the CDC48 gene product
9933 at
            1674.1
antiviral protein, putative helicase
            1650.8
9934_at
                         Ρ
Bdf1p contains two bromodomains, localizes to the nucleus and to chomosomes in spread meiotic nuclei
```

```
but is excluded from the nucleolus
9935 at
            -10.7
                         Α
hypothetical protein
9936_at
            2263.1
                         Ρ
similarity to A.brasilense nifR3 protein
9937_at
            933.6
hypothetical protein
9938 at
            352.8
                         Α
split zinc finger protein
9939_at
            -254.3
                         Α
hypothetical protein
                         Ρ
9940 at
            880.7
similarity to A.brasilense nifR3 protein
9895 i at
            22607.8
Ribosomal protein L31B (L34B) (YL28)
9896 f at 27044.6
Ribosomal protein L31B (L34B) (YL28)
9897 f at 63002.3
Ribosomal protein L31B (L34B) (YL28)
9898 at
            662.3
hypothetical protein
9899 at
            325.1
                         M
hypothetical protein
                         Ρ
9900 at
            2829.9
strong similarity to S. pombe beta-transducin
9901_at
            4090.4
Homologous to S. pombe asp1+
9902 at
            4979.9
Copper Transporter
                         Ρ
9903 at
            1190.6
weak similarity to Candida maltosa cytochrome P450
9904_at
            1775.1
strong similarity to YKL187c
9905_at
            3881.7
weak similarity to YLR413w
9906 at
            -146.5
                         Α
questionable ORF
9907_at
                         Α
            361.3
hypothetical protein
9908_at
            692.0
                         Р
defective in vacuolar protein sorting
9909 at
            1244.7
Accessory factor associated with RNA polymerase II by affinity chromatography
9910_at
            1193.8
                        Ρ
similarity to helicases
            8655.9
                         Ρ
9911 at
dihvdrooratase
                         Р
9912 at
            2049.1
weak similarity to human 42K membrane glycoprotein
9913 at
            867.8
similarity to human DOCK180 protein
9914_at
            392.2
hypothetical protein
9915 at
            -47.3
                         Α
weak similarity to Stu1p
                         Ρ
9916_at
            1060.8
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hypothetical protein
9917 at
            3142.8
weak similarity to 3-oxoacyl-[acyl-carrier-protein] reductase from E. coli
            515.0
9873 at
weak similarity to 3-oxoacyl-[acyl-carrier-protein] reductase from E. coli
9874 at
            1568.7
weak similarity to human transcription regulator Staf-5
9875 at
            -25.5
questionable ORF
9876_at
            2375.3
has homology to the Dictyostelium and human actin-binding protein coronin
            1398.6
9877 at
component of a nuclear-localized tRNA splicing complex
9878 at
            284.2
weak similarity to rabbit trichohyalin
9879 f at
            24292.4
strong similarity to IMP dehydrogenases, Pur5p and YML056c
9880 at
            1507.9
Calcineurin subunit A\; type 2B protein serine\/threonine phosphatase catalytic subunit A1\; cytoplasmic
9881_at
            322.6
                         Α
questionable ORF
9882 at
            397.5
                         Α
hypothetical protein
                         Ρ
9883 at
            1092.4
ExtraCellular Mutant
9884_at
                         Α
            118.8
hypothetical protein
9885 at
            1990.9
                         Ρ
ornithine aminotransferase
9886 at
            2000.1
Putative snRNP protein containing Sm-like domain\; coprecipitates with U4, U5 and U6 snRNAs
9887_at
            798.0
Mitochondrial 60S ribosomal protein L4
9888_at
            1672.7
hypothetical protein
9889 i at
            18888.5
Ribosomal protein S1A (rp10A)
9890_s_at 42881.6
Ribosomal protein S1A (rp10A)
9891_at
            1181.2
regulator of silent mating loci
9892 at
            1013.8
ExtraCellular Mutant
9893_at
            491.6
                         Α
questionable ORF
9894 at
            226.4
                         Α
hypothetical protein
9850 at
            86.6
                         Α
weak similarity to hexokinases
9851 at
            2552.4
36 kDa subunit (D subunit of VO sector) of the vacuolar H(+) ATPase\; required for assembly
9852_at
            38222.8
60S ribosomal subunit protein L6B (L17B) (rp18) (YL16)
9853 at
            6617.5
60 kDa nuclear FK506 binding protein
9854_at
            4793.5
```

```
3-hydroxy-3-methylglutaryl-coenzyme A (HMG-CoA) reductase isozyme
9855 at
            380.4
zinc-finger transcription factor of the Zn(2)-Cys(6) binuclear cluster domain type
9856 at
            1543.7
Protein involved in desensitization to alpha-factor pheromone
9857 at
            -131.2
Nuclear protein
9858 at
            1163.3
                         Ρ
similarity to YPR117w
9859 at
            316.1
weak similarity to human G/T mismatch binding protein
9860 at
            165.3
strong similarity to YPR172w
9861 at
            -25.9
                        Α
Nap1p-binding protein
9862 at
            -5.8
                         Α
questionable ORF
9863 at
            2075.5
                        Ρ
cell division control protein
9864 at
            -139.0
similarity to C.carbonum toxD protein
9865 f at 417.8
member of the seripauperin protein/gene family (see Gene class PAU)
9866 i at
            201.6
                        Α
questionable ORF
9867_s_at 249.9
                         Α
questionable ORF
9868 at
            176.1
                         Α
hypothetical protein identified by SAGE
9869 at
            3854.9
                        Ρ
identified by SAGE
9870_s_at -140.3
                         Α
Mitochondrial ribosomal protein MRPL15 (YmL15)
9871 at
            123.7
non-annotated SAGE orf Found forward in NC 001144 between 230974 and 231108 with 100% identity.
See citation Velculescu, V.E., et al. (1997) Characterization of the yeast transcriptome. Cell 8:243-251
9872 at
            253.2
non-annotated SAGE orf Found forward in NC 001144 between 320496 and 320642 with 100% identity.
See citation Velculescu, V.E., et al. (1997) Characterization of the yeast transcriptome. Cell 8:243-251
9826 at
            1389.9
non-annotated SAGE orf Found forward in NC 001144 between 341326 and 341589 with 100% identity.
See citation Velculescu, V.E., et al. (1997) Characterization of the yeast transcriptome. Cell 8:243-251
            1394.7
non-annotated SAGE orf Found forward in NC_001144 between 433871 and 434059 with 100% identity.
See citation Velculescu, V.E., et al. (1997) Characterization of the yeast transcriptome. Cell 8:243-251
9828 at
            515.2
non-annotated SAGE orf Found forward in NC 001144 between 449727 and 449897 with 100% identity.
See citation Velculescu, V.E., et al. (1997) Characterization of the yeast transcriptome. Cell 8:243-251
9829 at
non-annotated SAGE orf Found forward in NC 001144 between 449825 and 449998 with 100% identity.
See citation Velculescu, V.E., et al. (1997) Characterization of the yeast transcriptome. Cell 8:243-251
9830 at
non-annotated SAGE orf Found forward in NC 001144 between 449919 and 450077 with 100% identity.
See citation Velculescu, V.E., et al. (1997) Characterization of the yeast transcriptome. Cell 8:243-251
9831 at
            170.4
non-annotated SAGE orf Found forward in NC_001144 between 603628 and 603825 with 100% identity.
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See citation Velculescu, V.E., et al. (1997) Characterization of the yeast transcriptome. Cell 8:243-251
9832 at
            302.0
non-annotated SAGE orf Found reverse in NC 001144 between 789953 and 790117 with 100% identity.
See citation Velculescu, V.E., et al. (1997) Characterization of the yeast transcriptome. Cell 8:243-251
non-annotated SAGE orf Found reverse in NC 001144 between 867146 and 867343 with 100% identity.
See citation Velculescu, V.E., et al. (1997) Characterization of the yeast transcriptome. Cell 8:243-251
9834 at
non-annotated SAGE orf Found forward in NC_001144 between 92566 and 92730 with 100% identity.
See citation Velculescu, V.E., et al. (1997) Characterization of the yeast transcriptome. Cell 8:243-251
9835 at
            1487.0
non-annotated SAGE orf Found forward in NC 001144 between 198937 and 199176 with 100% identity.
See citation Velculescu, V.E., et al. (1997) Characterization of the yeast transcriptome. Cell 8:243-251
non-annotated SAGE orf Found forward in NC 001144 between 199191 and 199331 with 100% identity.
See citation Velculescu, V.E., et al. (1997) Characterization of the yeast transcriptome. Cell 8:243-251
9837 s at 3217.0
non-annotated SAGE orf Found forward in NC 001144 between 451607 and 451783 with 100% identity.
See citation Velculescu, V.E., et al. (1997) Characterization of the yeast transcriptome. Cell 8:243-251
9838_s_at 26499.2
non-annotated SAGE orf Found forward in NC_001144 between 453992 and 454132 with 100% identity.
See citation Velculescu, V.E., et al. (1997) Characterization of the yeast transcriptome. Cell 8:243-251
9839 s at 20768.5
non-annotated SAGE orf Found forward in NC 001144 between 455884 and 456024 with 100% identity.
See citation Velculescu, V.E., et al. (1997) Characterization of the yeast transcriptome. Cell 8:243-251
9840 f at
            147.3
non-annotated SAGE orf Found reverse in NC 001144 between 596345 and 596530 with 100% identity.
See citation Velculescu, V.E., et al. (1997) Characterization of the yeast transcriptome. Cell 8:243-251
9841 at
            -202.1
non-annotated SAGE orf Found forward in NC 001144 between 687338 and 687550 with 100% identity.
See citation Velculescu, V.E., et al. (1997) Characterization of the yeast transcriptome. Cell 8:243-251
            1269.7
non-annotated SAGE orf Found reverse in NC 001144 between 849381 and 849677 with 100% identity.
See citation Velculescu, V.E., et al. (1997) Characterization of the yeast transcriptome. Cell 8:243-251
9843 at
            -127.7
non-annotated SAGE orf Found reverse in NC 001144 between 906354 and 906650 with 100% identity.
See citation Velculescu, V.E., et al. (1997) Characterization of the yeast transcriptome. Cell 8:243-251
non-annotated SAGE orf Found reverse in NC 001144 between 52940 and 53083 with 100% identity.
See citation Velculescu, V.E., et al. (1997) Characterization of the yeast transcriptome. Cell 8:243-251
non-annotated SAGE orf Found reverse in NC 001144 between 121784 and 121936 with 100% identity.
See citation Velculescu, V.E., et al. (1997) Characterization of the yeast transcriptome. Cell 8:243-251
9846_at
            117.6
non-annotated SAGE orf Found reverse in NC 001144 between 228693 and 228839 with 100% identity.
See citation Velculescu, V.E., et al. (1997) Characterization of the yeast transcriptome. Cell 8:243-251
non-annotated SAGE orf Found forward in NC 001144 between 371240 and 371515 with 100% identity.
See citation Velculescu, V.E., et al. (1997) Characterization of the yeast transcriptome. Cell 8:243-251
9848 at
non-annotated SAGE orf Found forward in NC 001144 between 373195 and 373335 with 100% identity.
See citation Velculescu, V.E., et al. (1997) Characterization of the yeast transcriptome. Cell 8:243-251
9849 at
            1567.6
non-annotated SAGE orf Found forward in NC_001144 between 390278 and 390421 with 100% identity.
See citation Velculescu, V.E., et al. (1997) Characterization of the yeast transcriptome. Cell 8:243-251
9804_at
            301.4
```

```
non-annotated SAGE orf Found forward in NC_001144 between 441497 and 441667 with 100% identity.
See citation Velculescu, V.E., et al. (1997) Characterization of the yeast transcriptome. Cell 8:243-251
9805 at
            336.7
non-annotated SAGE orf Found reverse in NC 001144 between 576670 and 576804 with 100% identity.
See citation Velculescu, V.E., et al. (1997) Characterization of the yeast transcriptome. Cell 8:243-251
9806 at
            4070.8
non-annotated SAGE orf Found reverse in NC_001144 between 578108 and 578263 with 100% identity.
See citation Velculescu, V.E., et al. (1997) Characterization of the yeast transcriptome. Cell 8:243-251
9807 at
non-annotated SAGE orf Found reverse in NC_001144 between 669739 and 669894 with 100% identity.
See citation Velculescu, V.E., et al. (1997) Characterization of the yeast transcriptome. Cell 8:243-251
non-annotated SAGE orf Found reverse in NC 001144 between 708168 and 708338 with 100% identity.
See citation Velculescu, V.E., et al. (1997) Characterization of the yeast transcriptome. Cell 8:243-251
9809 at
            -38.0
non-annotated SAGE orf Found forward in NC 001144 between 787418 and 787570 with 100% identity.
See citation Velculescu, V.E., et al. (1997) Characterization of the yeast transcriptome. Cell 8:243-251
9810 at
non-annotated SAGE orf Found forward in NC 001144 between 789869 and 790012 with 100% identity.
See citation Velculescu, V.E., et al. (1997) Characterization of the yeast transcriptome. Cell 8:243-251
non-annotated SAGE orf Found reverse in NC_001144 between 315877 and 316053 with 100% identity.
See citation Velculescu, V.E., et al. (1997) Characterization of the yeast transcriptome. Cell 8:243-251
9812 at
            87.1
non-annotated SAGE orf Found reverse in NC 001144 between 13652 and 13819 with 100% identity.
See citation Velculescu, V.E., et al. (1997) Characterization of the yeast transcriptome. Cell 8:243-251
non-annotated SAGE orf Found reverse in NC 001144 between 223615 and 223821 with 100% identity.
See citation Velculescu, V.E., et al. (1997) Characterization of the yeast transcriptome. Cell 8:243-251
9814 at
non-annotated SAGE orf Found forward in NC_001144 between 293858 and 294037 with 100% identity.
See citation Velculescu, V.E., et al. (1997) Characterization of the yeast transcriptome. Cell 8:243-251
9815 at
non-annotated SAGE orf Found reverse in NC_001144 between 368522 and 368710 with 100% identity.
See citation Velculescu, V.E., et al. (1997) Characterization of the yeast transcriptome. Cell 8:243-251
9816 s at 5619.9
non-annotated SAGE orf Found forward in NC_001144 between 458168 and 458302 with 100% identity.
See citation Velculescu, V.E., et al. (1997) Characterization of the yeast transcriptome. Cell 8:243-251
9817 at
non-annotated SAGE orf Found reverse in NC_001144 between 460511 and 460774 with 100% identity.
See citation Velculescu, V.E., et al. (1997) Characterization of the yeast transcriptome. Cell 8:243-251
9818 at
            -439.3
non-annotated SAGE orf Found forward in NC_001144 between 677930 and 678073 with 100% identity.
See citation Velculescu, V.E., et al. (1997) Characterization of the yeast transcriptome. Cell 8:243-251
non-annotated SAGE orf Found reverse in NC 001144 between 884820 and 884975 with 100% identity.
See citation Velculescu, V.E., et al. (1997) Characterization of the yeast transcriptome. Cell 8:243-251
9820 s at 285.5
non-annotated SAGE orf Found forward in NC_001144 between 288 and 461 with 100% identity. See
citation Velculescu, V.E., et al. (1997) Characterization of the yeast transcriptome. Cell 8:243-251
9821 at
non-annotated SAGE orf Found reverse in NC_001144 between 156565 and 156759 with 100% identity.
See citation Velculescu, V.E., et al. (1997) Characterization of the yeast transcriptome. Cell 8:243-251
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non-annotated SAGE orf Found forward in NC_001144 between 171853 and 172017 with 100% identity. See citation Velculescu, V.E., et al. (1997) Characterization of the yeast transcriptome. Cell 8:243-251

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9823_at
            2270.0
non-annotated SAGE orf Found reverse in NC 001144 between 185211 and 185492 with 100% identity.
See citation Velculescu, V.E., et al. (1997) Characterization of the yeast transcriptome. Cell 8:243-251
9824 at
            900.4
non-annotated SAGE orf Found reverse in NC 001144 between 388262 and 388474 with 100% identity.
See citation Velculescu, V.E., et al. (1997) Characterization of the yeast transcriptome. Cell 8:243-251
9825 s at 71.0
non-annotated SAGE orf Found reverse in NC 001144 between 468959 and 469195 with 100% identity.
See citation Velculescu, V.E., et al. (1997) Characterization of the yeast transcriptome. Cell 8:243-251
non-annotated SAGE orf Found forward in NC 001144 between 514745 and 514888 with 100% identity.
See citation Velculescu, V.E., et al. (1997) Characterization of the yeast transcriptome. Cell 8:243-251
9780 at
non-annotated SAGE orf Found forward in NC 001144 between 573921 and 574148 with 100% identity.
See citation Velculescu, V.E., et al. (1997) Characterization of the yeast transcriptome. Cell 8:243-251
non-annotated SAGE orf Found reverse in NC 001144 between 658663 and 658803 with 100% identity.
See citation Velculescu, V.E., et al. (1997) Characterization of the yeast transcriptome. Cell 8:243-251
non-annotated SAGE orf Found forward in NC_001144 between 672894 and 673055 with 100% identity.
See citation Velculescu, V.E., et al. (1997) Characterization of the yeast transcriptome. Cell 8:243-251
9783 at
non-annotated SAGE orf Found forward in NC 001144 between 710795 and 710935 with 100% identity.
See citation Velculescu, V.E., et al. (1997) Characterization of the yeast transcriptome. Cell 8:243-251
non-annotated SAGE orf Found reverse in NC_001144 between 712124 and 712291 with 100% identity.
See citation Velculescu, V.E., et al. (1997) Characterization of the yeast transcriptome. Cell 8:243-251
9785 at
non-annotated SAGE orf Found forward in NC 001144 between 949308 and 949442 with 100% identity.
See citation Velculescu, V.E., et al. (1997) Characterization of the yeast transcriptome. Cell 8:243-251
9786 at
non-annotated SAGE orf Found forward in NC_001144 between 949499 and 949633 with 100% identity.
See citation Velculescu, V.E., et al. (1997) Characterization of the yeast transcriptome. Cell 8:243-251
non-annotated SAGE orf Found forward in NC 001144 between 964875 and 965030 with 100% identity.
See citation Velculescu, V.E., et al. (1997) Characterization of the yeast transcriptome. Cell 8:243-251
9788 at
non-annotated SAGE orf Found forward in NC_001144 between 988140 and 988277 with 100% identity.
See citation Velculescu, V.E., et al. (1997) Characterization of the yeast transcriptome. Cell 8:243-251
9789 at
            620.6
non-annotated SAGE orf Found forward in NC 001144 between 1035773 and 1035940 with 100%
identity. See citation Velculescu, V.E., et al. (1997) Characterization of the yeast transcriptome. Cell
8:243-251
9790_i_at
            -14.1
                         Α
Centromere
9791 f at 178.8
                         Ρ
Centromere
9792 s at 708.7
                         Ρ
CEN12-associated
9793 at
            14.4
snRNA
9794_at
            185.4
                         Α
snRNA
                         Ρ
9795_at
            1135.4
snRNA
9796_at
            214.8
                         Α
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snRNA
9797 i at
            -21.6
                        Α
snRNA
9798 at
            1874.7
                        Ρ
snRNA
9799 at
            231.4
                        Α
snRNA
9800_s_at
            342.1
hypothetical protein Y .2
9801_at
            208.3
similarity to human leukotriene b4 12-hydroxydehydrogenase
9802 at
            1584.3
required for protein disulfide bond formation in the ER
9803 at
            1762.7
mitochondrial membrane protein
9757 at
            249.3
C-terminal part starting with aa 262 cause growth inhibition when overexpressed
9758 at
            2068.8
weak similarity to Los1p
9759 at
            17446.6
Hydroxymethylglutaryl-CoA Synthase
9760_at
            7276.6
strong similarity to cytochrome-b5- and nitrate reductases
            6563.1
                        Ρ
9761 at
alpha-tubulin
9762_at
            60777.1
inorganic phosphate transporter, transmembrane protein
9763 at
            299.9
hypothetical protein
                        Ρ
9764 at
            722.8
Putative small GTPase
9765_at
            724.4
mitochondrial NADH ubiquinone 6 oxidoreductase
9766_at
            529.0
hypothetical protein
9767 at
            272.7
                        Α
similarity to YMR285c
                        Р
9768_at
            611.0
similarity to YPL184c
9769_g_at 1681.1
                        Ρ
similarity to YPL184c
                        Ρ
9770 at
            2829.3
questionable ORF
            520.5
9771_at
predicted protein is very hydrophobic, has many membrane-spanning regions, several potential
glycosylation sites, potential ATP-binding site
9772 at
            775.6
Vanadate resistance protein
9773_at
            1749.6
                        Ρ
hypothetical protein
9774_at
            1428.4
datin, an oligo(dA).oligo(dT)-binding protein
9775 at
            1013.3
CTD kinase-I gamma subunit
9776_at
            634.6
strong similarity to ubiquitination protein Bul1p
```

```
3327.8
                         Ρ
9777_at
DBF2 Interacting Protein
9778 at
            668.5
multicopy suppressor of a sin4 defect
9734 at
            -265.2
hypothetical protein
            735.4
                         Ρ
9735_at
hypothetical protein
9736 at
            12136.4
Orotate phosphoribosyltransferase 1
9737 at
            2968.0
signal recognition particle subunit, homologue of mammalian SRP19
9738 at
            857.1
Intermediate filament protein involved in organelle inheritance
9739 at
            857.5
Nucleoporin
9740 at
            1383.8
                         Ρ
p60 subunit of the yeast omatin Assembly Factor-I (CAF-I)
9741 at
            -124.5
questionable ORF
            3588.7
                         Р
9742 at
weak similarity to YMR264w
9743 at
            2349.8
123 kD regulatory subunit of trehalose-6-phosphate synthase\/phosphatase complex\; homologous to
TPS3 gene product
                         Ρ
9744_at
            547.9
questionable ORF
9745 at
            331.0
zinc-finger transcription factor of the Zn(2)-Cys(6) binuclear cluster domain type
9746 at
            273.1
TFIID subunit
            1792.0
9747_at
required for Golgi to vacuole trafficking, shares similarity to mammalian ras inhibitors
9748 at
            857.0
similarity to asparagine synthases
9749 at
            288.5
Endonuclease (with Rad1p) that degrades single-stranded DNA for repair
9750_at
            132.9
questionable ORF
9751_at
            1531.2
Putative homolog of subunit 5 of bovine prefoldin, a chaperone comprised of six subunits
9752 at
            1836.8
similarity to P.falciparum liver stage antigen LSA-1
            7453.2
9753_at
proteasome component Y7
9754 at
            36.4
subunit of mitochondrial RNase P
9755 at
            -10.0
                         Α
hypothetical protein
9756 at
            -27.2
                         Α
questionable ORF
                         Ρ
9711_at
            543.5
hypothetical protein
9712_at
            76.5
                         Α
strong similarity to YML125c, similarity to cytochrome-b5- and nitrate reductases
9713_at
            3024.4
```

```
D-arabinono-1,4-lactone oxidase
9714 at
            4406.2
alpha-tubulin
9715 at
            -229.6
                         Α
hypothetical protein
9716 at
            -51.5
                         Α
hypothetical protein
                         Ρ
9717_at
            669.8
similarity to N.crassa O-succinylhomoserine (thiol)-lyase
9718_at
            1371.5
strong similarity to ZMS1 protein
9719 at
            787.0
similarity to A.brasilense nifR3 protein
9720 at
            922.3
weak similarity to Synechocystis sp. hypothetical protein sll1188
9721 at
            6729.0
cyclophilin-3 (cyclosporin-sensitive proline rotamase-3)
9722 at
            1220.1
Bet5pV18kD component of TRAPP
9723_at
            1125.5
weak similarity to transcription factor
9724 at
            15585.2
3-hydroxy-3-methylglutaryl-coenzyme A (HMG-CoA) reductase isozyme
9725 at
            5869.9
Prolyl cis-trans isomerase, also called proline rotamase or peptidylprolyl cis-trans isomerase (PPlase)
9726 at
            16681.5
Ribosomal protein L6A (L17A) (rp18) (YL16)
            1975.3
9727 at
similarity to YOR3141c and YNL087w
9728 at
            962.9
                         Р
hypothetical protein
                         Ρ
9729_at
            4372.9
putative dihydroxyacetone kinase
9730 at
            2440.4
Binds to catalytic subunit of DNA polymerase alpha (Pol1p)
9731 at
            270.0
similarity to C.elegans hypothetical protein
9732 at
            1956.1
weak similarity to YAL042w
9733_at
            -24.3
                         Α
hypothetical protein
9689 at
            611.3
120-kDa (largest) subunit of origin recognition complex (ORC)\; shows homology to Cdc6p, Cdc18p, and
Sir3p and to proteins from K. lactis, S. pombe, and humans
9690 at
            509.2
GTP-binding protein of the ras superfamily involved in termination of M-phase
9691 i at
            23939.6
Ribosomal protein S1B (rp10B)
            924.1
9692 at
Protein involved in mitochondrial import of fusion proteins
                                                                                                     5
9693 at
            655.4
to 3 DNA helicase
9694 at
            676.8
43-kDa 8-oxo-guanine DNA glycosylase
9695 at
            927.9
similarity to C.elegans ZK370.4 protein
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9696_at
            8496.6
                         Ρ
Suppressor of mec lethality
9697 at
            25.3
                         Α
questionable ORF
                         Ρ
9698 at
            813.4
Catalytic A subunit of calcineurin, type 2B protein serine Vthreonine phosphatase); redundant with Cna1\;
cytoplasmic
9699 at
            9338.6
strong similarity to IMP dehydrogenases
9700_at
            3615.4
strong similarity to IMP dehydrogenases
9701 at
            1892.0
subunit of signal peptidase complex, homologous to mammalian protein SPC25
9702 at
            226.0
Cytochrome b2 [L--lactate cytochrome-c oxidoreductase]
9703 at
            967.0
hypothetical protein
9704 at
            4569.9
                         Ρ
putative integral membrane protein
9705_at
            1660.6
regulatory protein
9706_at
            113.4
weak similarity to potato sucrose cleavage protein
9707 at
            881.6
RNA splicing and ER to Golgi transport
9708 at
            4731.1
Glucose Signaling Factor
9709 at
            299.6
                         Α
questionable ORF
9710 at
            78.4
strong similarity to YJR054w
9666_at
            1140.3
RNA splicing factor associated with U1 snRNP
9667_at
            122.9
Component of rDNA transcription factor CF, which also contains Rrn6p and Rrn7p, which is required for
rDNA transcription by RNA polymerase I
9668 at
            198.2
Carnitine O-acetyltransferase, peroxisomal and mitochondrial
9669 at
            1230.9
hypothetical protein
9670 at
                         Ρ
            1112.7
hypothetical protein
9671_at
                         Α
            83.2
hypothetical protein
                         Ρ
9672 at
            799.5
weak similarity to C.elegans hypothetical protein CELW03F8
9673 at
            1462.9
putative alpha-mannosidase
9674_at
            107.5
                         Α
questionable ORF
9675_at
            306.9
                         Α
similarity to YDR458c
                         Ρ
9676 at
            651.6
similarity to YDR458c
9677_at
            1450.6
Interacts with Rad51p by two hybrid analysis. mRNA is induced in meiosis during recombination
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9678_at
                        Ρ
            349.6
questionable ORF
                        Ρ
9679 at
            3078.4
Nuclear envelope protein with multiple putative transmembrane domains
9680 at
            420.7
hypothetical protein
            766.1
                        Ρ
9681_at
hypothetical protein
9682 at
            110789.8
                        Ρ
Thiol-specific antioxidant
9683 at
            978.8
Homeobox-domain containing protein
9684 s at 49371.5
Ribosomal protein S18B
9685 at
            1358.1
ribosomal protein, mitochondrial
9686 s at 71423.9
Ribosomal protein S17A (rp51A)
9687_at
            555.7
weak similarity to Nmd2p
9688 at
            5605.6
Adenine phosphoribosyltransferase
9643 at
            1146.9
uracil DNA glycosylase
9644 at
            264.9
                        Α
hypothetical protein
                        Ρ
9645 at
            769.7
Putative new 37kDa subunit of N-oligosaccharyltransferase complex
9646 at
            1551.6
similarity to YDR438w
            220.8
9647 at
Polymerase suppressor 2\; Suppressors of group II intron-splicing defect.
9648 at
            833.8
serine-threonine phosphatase Z
            595.5
9649 at
TFIID subunit
9650 at
            1020.2
similarity to C.elegans hypothetical protein C14B1.5
9651 at
            511.2
hypothetical protein
9652 at
            131.7
                        Α
questionable ORF
9653_at
            8892.5
Component of the COPII coat of certain ER-derived vesicles
9654 at
            637.9
hypothetical protein
9655 at
            483.5
                        Ρ
transcription factor
9656_g_at 4301.1
                        Ρ
transcription factor
9657_i_at
            1336.3
questionable ORF
                        Ρ
9658 r at
           1417.9
questionable ORF
                        Ρ
9659_at
            639.6
questionable ORF
```

```
1959.4
9660_at
Mitochondrial ribosomal protein MRPL39 (YmL39)
9661 at
            21282.3
S-adenoslymethionine: delta 24-methyltransferase
9662 at
            867.3
jun-like transcription factor
9663 at
            1159.5
hypothetical protein
9664 at
            211.2
similarity to hypothetical S.pombe protein
9665 at
            4000.9
lactoylglutathione lyase (glyoxalase I)
9620 at
            248.8
hypothetical protein
                         Α
9621 at
            458.9
hypothetical protein
9622_at
            2352.9
                         Ρ
GTP-binding protein of the rab family); required for homotypic fusion event in vacuole inheritance, for
endosome-endosome fusion, and for fusion of endosomes to vacuoles when expressed from high copy
plasmid
9623_at
             1282.5
protein kinase which functions at the G(sub)2VM boundary
9624 at
            4614.5
similarity to hypothetical S.pombe and C.elegans proteins
9625 at
            410.8
                         Α
hypothetical protein
9626 at
             1263.8
Protein required for sorting proteins to the vacuole
9627 at
            1561.6
Protein required for protein synthesis
9628 at
            2387.7
strong similarity to Plb1p
9629 at
             108.6
                         Α
hypothetical protein
9630 at
            6728.2
Phospholipase B (lypophospholipase)
9631 at
            2563.9
weak similarity to P.aeruginosa regulatory protein mmsR
9632 at
            458.8
weak similarity to hypothetical protein YDR352w
9633 at
             1524.9
high affinity hexose transporter-2
9634_at
            8929.3
CLU1 is similar to the Dictyostelium cluA gene
9635 at
            593.0
membrane protein required for core glycosylation
9636 at
            610.0
weak similarity to S.pombe hypothetical protein SPAC4F10
9637 at
            5013.3
cytochrome P450 involved in C-22 denaturation of the ergosterol side-chain
9638 at
            1063.4
displays homologies to several transcription factors
9639 at
            40.4
DBF2 Interacting Protein\; SNAP 25 homolog
9640 at
            -32.1
similarity to tetratricopeptide-repeat protein PAS10
```

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9641_at
            438.9
                         Ρ
Binds Sin3p in two-hybrid assay
9642 at
            757.8
Multicopy suppressor of fenpropimorph resistance (fen2 mutant), shows similarity to Candida albicans
corticosteroid-binding protein CBP1
9598 at
            87.2
metal-binding transcriptional activator
9599 at
            1879.5
ubiquitin conjugating enzyme
9600_at
            530.4
putative mitochondrial GTPase
9601 at
            512.3
                         М
Mitochondrial ribosomal protein MRPL3 (YmL3)
9602 at
            259.0
                         Α
hypothetical protein
9603 at
            418.2
                         Α
C3HC4 zinc-binding integral peroxisomal membrane protein
9604 at
            2720.3
High level expression reduced Ty3 Transposition
9605 at
            84.5
42 kDa protein that pysically associates with the PP2A and SIT4 protein phosphatase catalytic subunits
9606 at
            374.8
                        Ρ
weak similarity to human nuclear autoantigen
9607 at
            200.8
                        Α
hypothetical protein
9608 at
            615.3
                         Α
similarity to YKL050c and human restin
9609 at
            6.9
questionable ORF
                         Ρ
9610 at
            550.8
Cytokinesis
9611_at
            1385.5
Actin-related protein
9612_at
            -28.5
weak similarity to YPR201w
9613 at
            193.4
Inner membrane protease (mitochondrial protein)
9614 at
            542.7
homolog of S. pombe cdc25
9615_at
            785.1
                        Ρ
zinc finger protein
9616 at
                         Ρ
            4826.3
Homocitrate
            1787.9
9617_at
suppressor of TFIIB mutations
9618 at
            201.0
strong similarity to Yet1p
9619 at
            33.8
weak similarity to Pseudomonas L-fucose dehydrogenase
9575 at
            200.6
Regulator of arginine-responsive genes with ARG81 and ARG82
9576_at
            2132.9
putative transcriptional activator of alpha-specific genes
9577_at
            1902.7
hypothetical protein
                         Ρ
9578_at
            1742.3
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Nuclear pore complex protein that is member of GLFG repeat-containing family of nucleoporins and is
highly homologous to Nup100p
9579 at
            385.9
hypothetical protein
                         Ρ
9580 at
            6796.7
weak similarity to A.thaliana PRL1 protein
9581 at
            93.6
Required for arrest in G1 in response to pheromone
9582 at
            227.6
                         Α
questionable ORF
9583 at
            84.3
Binds Sin3p in two-hybrid assay and is part of large protein complex with Sin3p and Stb1p
            1512.6
9584 at
vacuolar proton pumping ATPase, 110-kDa subunit\; not in vacuole membrane
            820.2
9585 at
Protein required for cell cycle arrest in response to loss of microtubule function
9586 at
            577.1
mitochondrial ADPVATP translocator
9587 at
            -241.9
hypothetical protein
9588 at
                         Ρ
            5181.9
multicopper oxidase
9589 at
            272.2
                         Α
15kDa subunit of the tetrameric tRNA splicing endonuclease
9590 at
mitochondrial import receptor, heterodimerizes with Tom70p, preferentially recognizes the mature regions
of precursor proteins associated with ATP-dependent cytosolic chaperones
9591 at
            938.1
component of the cleavage and polyadenylation factor CF I involved in pre-mRNA 3 -end processing
9592 at
            722.3
acetylornithine acetyltransferase
9593_at
            -116.7
                         Α
Regulator of Rim1p, required for IME1 expression
9594_at
            412.9
basic, hydrophilic protein of 59 kDa
9595 at
            438.7
appears to be required for the completion of nuclear membrane fusion and may play a role in the
organization of the membrane fusion complex
9596 at
            276.9
Synthesis Of Var
                         Ρ
9597 at
            2227.4
hypothetical protein
9553_at
            174.6
                         Α
weak similarity to mouse transcription factor NF-kappaB
9554 at
            138.2
                         Α
hypothetical protein
9555 at
            839.3
2 Cys2-His2 zinc fingers at c-terminus, glutamine and asparagine rich
9556_at
            3043.2
                         Ρ
hypothetical protein
                         Ρ
9557 at
            5686.5
HMG-1 homolog, mitochondrial
9558 at
            656.7
weak similarity to C-terminal part of cytochrome b5 and b2
9559 at
            1577.4
```

strong similarity to hypothetical S. pombe protein

```
9560_at
            650.3
weak similarity to human Mi-2 protein
9561 at
            274.3
                         Α
questionable ORF
                         Ρ
9562 at
            1414.2
Precocious Dissociation of Sister chromatids
9563 at
            483.3
similarity to SNF7 protein
9564 at
            638.9
chromosome transmission
9565 at
            4038.9
phosphatidylinositol transfer protein
9566 at
            526.1
                        Ρ
putative helicase
9567 at
            -167.8
                         Α
May regulate NAM7 function, possibly at level of mRNA turnover
9568 at
            65.1
hypothetical protein
9569 at
            17213.5
                         Ρ
alcohol dehydrogenase isoenzyme III
9570_at
            157.8
                         Α
putative pseudogene
9571 at
            -119.2
                         Α
putative pseudogene
                         Ρ
9572 at
            1050.6
similarity to YKL105c
9573 at
                         Α
            201.2
questionable ORF
9574 at
            -506.4
                         Α
hypothetical protein
9530 at
                         Ρ
            1553.3
similarity to multidrug resistance proteins
9531 at
            1890.8
mitochondrial membrane ATPase of the CDC48VPAS1VSEC18 (AAA) family
9532 at
            260.6
strong similarity to B. subtilis conserved hypothetical protein yhfK
9533 at
            1402.9
nuclear protein localization factor
9534 at
            3510.5
                        Ρ
Protein localizes to actin cortical patches. Probable binding site on actin lies on front surface of
subdomain 3 and 4.
9535 at
            1204.1
                         Ρ
weak similarity to Pwp2p
9536_at
            161.5
58 kd component (Cbf3c) of the multisubunit Cbf3 kinetochore protein complex, which binds to the CDE
III element of centromeres
9537 at
            641.5
SNZ1 proximal ORF, stationary phase induced gene
9538 at
            2453.3
encodes highly conserved 35 kDa protein that shows increased expression after entry into stationary
phase
9539_at
            420.5
weak similarity to M.genitalium hypothetical protein homolog MG442
9540 at
            96.0
hypothetical protein
                         Ρ
9541_at
            4277.8
```

```
similarity to P.ciliare possible apospory-associated protein
9542 at
            546.9
Homolog of samB gene of Aspergillus nidulans (deletion of samB results in mislocalization of septa
9543 at
            -38.0
similarity to YBR002c
                         Р
9544 at
            5100.4
strong similarity to YKL121w
9545 at
            934.4
hypothetical protein
                         Ρ
9546_at
            672.0
protein kinase
                         Ρ
9547 at
            557.1
Phosphoglucomutase
9548 at
            567.3
Ku80 homolog, exhibits DNA binding activity on its own, associates with Hdf1p to form major DNA
end-binding complex
9549 at
            -97.5
                         Α
hypothetical protein
9550 at
            6798.9
                         Ρ
acetolactate synthase
            2185.0
                         Р
9551_at
myosin I
                         Р
9552 at
            2915.7
similarity to aldehyde dehydrogenase
9507 at
            335.2
weak similarity to MSN1 protein
9508 at
            888.4
                         Ρ
hypothetical protein
            1494.8
9509 at
similarity to folylpolyglutamate synthetases and strong similarity to YKL132c
9510 at
            244.2
similarity to B. subtilis conserved hypothetical proteins yogW and yoaM
9511 at
            642.9
                         Ρ
similarity to YKL133c
9512 at
            74346.3
WD repeat protein (G-beta like protein) that interacts with the translational machinery
9513 at
            36396.2
WD repeat protein (G-beta like protein) that interacts with the translational machinery
9514 at
            156.6
component of spindle pole
9515 at
            142.0
strong similarity to succinate dehydrogenase
9516_at
            580.7
                         Α
similarity to YNL008c
                         Ρ
9517 g at 1898.1
similarity to YNL008c
9518 at
            854.1
                         Α
questionable ORF
9519 at
            4211.6
5-aminoimidazole-4-carboxamide ribonucleotide (AICAR) transformylaseVIMP cyclohydrolase
9520 at
            2331.0
Ribosomal protein L15B (YL10) (L13B) (rp15R)
9521 at
            57.3
                         Α
hypothetical protein
9522_at
            3020.3
resistance against Pichia farinosa killer toxin (SMK toxin) when expressed by a multi copy plasmid
```

```
9523_at
                         Ρ
            432.8
weak similarity to YLR031w
9524 at
            2929.2
                         Ρ
transcriptional activator of glycolytic genes
9525 at
            521.9
                         Ρ
hypothetical protein
9526_at
            207.2
Protein involved in silencing HMR, homologous to acetyltransferases
9527_at
            2562.3
ExtraCellular Mutant
9528 at
            922.3
Nuclear pore membrane glycoprotein
            389.4
9529 at
similarity to D.melanogaster Dreg-2 protein
9484 at
            4655.6
                         Ρ
similarity to human retinoblastoma-binding protein
9485 at
            275.0
similarity to hypothetical S. pombe protein
9486 at
            -1.3
mRNA is induced early in sporulation
9487 at
            966.2
hypothetical protein
9488 at
            623.5
                         Ρ
hypothetical protein
9489 at
            289.9
                         Α
questionable ORF
9490 at
            176.1
                         Α
weak similarity to YIR013c and YLR013w
            -15.3
9491 at
                         Α
interstrand crosslink repair protein
9492 at
            907.0
GTP-binding protein
9493 at
            929.0
Serine\threonine protein kinase, phosphorylates the mitotic activator IME1
9494 at
            302.5
hypothetical protein
9495 at
            529.2
                         Ρ
hypothetical protein
9496 at
            28205.6
                         Ρ
Ribosomal protein L13B
                         Ρ
9497 i at
            5712.2
Ribosomal protein S16A (rp61R)
9498_f_at
            22732.7
Ribosomal protein S16A (rp61R)
9499 at
            -10.6
                         Α
weak similarity to Mlp1p
9500 at
            4943.5
mitochondrial cytosolically directed NADH dehydrogenase
            6396.1
9501_at
p39 subunit of translation initiation factor eIF3
9502_at
            528.4
hypothetical protein
                         Ρ
9503 at
            1819.7
hypothetical protein
9504_at
            2996.1
oligosaccharyl transferase glycoprotein complex, delta subunit
```

```
9505_at
            1380.1
                         Ρ
Inner membrane protease (mitochondrial protein)
9506 at
            40.1
hypothetical protein
                         Ρ
9462 at
            700.9
mitochondrial inner membrane protease
9463 at
            1415.0
similarity to Asm4p
9464 at
            473.4
                         Ρ
questionable ORF
9465 at
            -74.3
Involved in proteolytic processing of Rim1p
9466 at
            174.7
weak similarity to E.coli hypothetical protein f402
9467 at
            115.1
                         Α
weak similarity to S.pombe hypothetical protein SPAC23C11
9468 at
            1001.6
hypothetical protein
9469 at
            3.7
weak similarity to E.coli ribosomal S8 protein
9470 at
            -49.4
questionable ORF
9471 at
            -166.8
Protein homologous to human Sin3 complex component SAP18, possible coiled-coil protein
9472 at
            643.6
weak similarity to fruit fly ecdysone-inducible protein
9473 at
            564.0
                         Α
Homologous to E coli dnaJ protein
9474 at
            398.1
                         Α
similarity to ATPases
9475 at
            298.1
                         Α
hypothetical protein
9476 at
            587.2
Predicted 758 amino acid polypeptide with poly-glutamine and poly-asparagine domains
9477 at
            961.8
involved in plasmid maintenance
9478 at
            715.8
similarity to members of the mitochondrial carrier protein family
9479 at
            -122.0
MutL homolog, forms a complex with Pms1p and Msh2p to repair mismatched DNA
9480 at
            452.4
contains an N-terminal Zn2Cys6 type zinc finger domain, a C-terminal acidic domain and a putative coiled
coil dimerization domain
            164.1
9481_at
Aldehyde Dehydrogenase (NAD(P)+)
9482 g at 768.0
Aldehyde Dehydrogenase (NAD(P)+)
9483 at
            772.1
aldehyde dehydrogenase, (NAD(P)+), likely cytosolic
9439 at
            136.9
similarity to YKL124w
9440 at
            446.1
similarity to MSN1 protein
9441 at
            -157.0
questionable ORF
                         Ρ
9442_s_at 10052.9
```

```
flocculent specific protein\; contains >35 repeats of the amino acid sequence NNNDSYGS
9443 at
            17841.6
questionable ORF
9444 at
            463.2
                         Α
Cytoplasmic inhibitor of proteinase Pep4p
9445 at
            30.5
protein of unknown function
9446 at
            808.3
ExtraCellular Mutant
9447_at
            805.8
Protein involved in mitochondrial iron accumulation
9448 at
            143.9
similarity to C.elegans hypothetical protein
9449 at
            453.3
non-specific DNA binding protein
9450 at
            247.8
similarity to YPL228w
                         Ρ
9451 at
            494.9
similarity to YPL229w
9452_at
            277.6
Putative transcriptional repressor with proline-rich zinc fingers
9453 at
            1208.4
SSO1 and SSO2 encode syntaxin homologs\; act in late stages of secretion
                         Ρ
9454 at
            1412.5
hypothetical protein
9455_at
            491.2
                         Α
hypothetical protein
9456_at
            89640.0
                         Ρ
constitutively expressed heat shock protein
9457 g at 59483.2
constitutively expressed heat shock protein
            481.6
9458_at
hypothetical protein
9459_at
            384.9
weak similarity to bacterial ribosomal protein S17
9460 at
            2561.9
Glycine decarboxylase complex (P-subunit), glycine synthase (P-subunit), Glycine cleavage system
(P-subunit)
                         Ρ
9461 at
            710.4
has DNA helicase signature motifs
            862.7
                         Ρ
9416 at
hypothetical protein
9417_at
            101.9
                         Α
similarity to mouse Tbc1 protein
9418 at
            925.1
Mitochondrial ribosomal protein MRPL24 (YmL24)
9419 at
            219.3
                         Α
questionable ORF
9420_i_at
            25182.2
Ribosomal protein L36A (L39) (YL39)
9421_s_at 41144.1
Ribosomal protein L36A (L39) (YL39)
9422 at
            1729.9
similarity to YPL250c
9423_at
            357.9
                         Α
hypothetical protein
```

```
9424_at
            1340.3
                        Ρ
Vti1p is a v-SNARE that interacts with two t-SNARES, Sed5p and Pep12p
9425 at
            662.0
spindle pole body associated protein
9426 at
            1273.6
G(sub)1 cyclin
                        Ρ
9427_at
            1966.3
putative membrane protein
9428 at
            331.2
human xeroderma pigmentosum group A DNA repair gene homolog
9429 at
            13442.2
C-8 sterol isomerase
            3797.1
9430 at
Mitochondrial outer membrane protein\; forms the outer membrane import channel
9431 at
            28.3
                        Α
weak similarity to D.melanogaster hypothetical protein DMC39E1
9432 at
            28859.3
phosphofructokinase beta subunit
9433 at
            -223.6
weak similarity to hypothetical protein YNR014w
9434 at
            730.3
                        Р
Similar to acetyl-coenzyme A carboxylase
9435 at
            5534.9
mevalonate kinase
9436 at
            327.2
                        Α
hypothetical protein
9437 at
            247.8
                        Α
similarity to P.glauca late embryogenesis abundant protein and YBR177c and YPL095c
9438 at
            129.1
weak similarity to beta tubulins
9394 at
            1599.3
                        Ρ
weak similarity to myosins
9395 at
            85.2
S. cerevisiae homologue of S. pombe cdc5+
            2915.9
9396 at
dnaJ homolog
9397_at
            3432.2
                        Ρ
similarity to GAS1 protein
9398 at
            877.9
                        Ρ
Serine Protein Kinase
9399 at
                        Ρ
            16185.8
GMP synthase
9400_at
            246.3
                        Α
hypothetical protein
9401 at
                        Ρ
            534.0
Establishes Silent omatin
9402 at
            6106.4
48 kDa Phosphomevalonate kinase
9403 at
            4685.6
weak similarity to photosystem II protein D2
9404 at
            1757.7
similarity to S.pombe dihydrofolate reductase
9405 at
            398.5
encodes putative deubiquitinating enzyme
9406_at
            134.9
localizes to discrete sites in rad50s mutants. Mre11p, Rad50p, Mer2p and Xrs2p function in a complex by
```

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immunoprecipitation and two-hybrid analyses\; mutations in these genes have similar phenotypes. mRNA
is induced in meiosis
9407 at
            1352.7
Mitochondrial ribosomal protein MRPL44 (YmL44)
9408 at
            238.2
Mitochondrial ribosomal protein MRPL44 (YmL44)
9409 at
            16077.9
similarity to ketoreductases
9410 at
            176.4
TFIID subunit
9411 at
            569.5
                         Ρ
Mitochondrial RNA polymerase specificity factor
9412 at
            6723.0
Protein required for processing of pre-rRNA
9413 f at
            201.2
Ribosomal protein S10B
9414 f at
            35264.0
                        Ρ
Ribosomal protein S10B
9415 at
            176.0
peripheral vaculor membrane protein\; putative Zn-finger protein
9371 at
            260.6
involved in cell fusion during mating, also required for the alignment of parental nuclei before nuclear
fusion
                         Ρ
            682.5
9372 at
strong similarity to YOR295w
9373_at
            93.0
                         Α
ribonuclease H
9374 at
                         Ρ
            3093.0
Protein involved in RNA processing and export from nucleus
9375 at
            2944.1
TFIID subunit
            3052.1
                         Ρ
9376_at
similarity to CHS6 protein
9377_at
            4008.9
Protein required for filamentous growth, cell polarity, and cellular elongation
9378 at
            575.5
Ribonuclease III
                         Α
9379_at
            385.1
U2 snRNP protein
9380_at
            10950.9
DNA-binding protein, mtDNA stabilizing protein, mitochondrial inner membrane protein with low homology
to RIM2
9381_s_at 51255.4
Ribosomal protein L20A (L18A)
9382 at
            5221.1
Zinc- and cadmium-resistance protein
9383 at
            275.9
similarity to Uth1p, Nca3p, YIL123w and Sun4p
9384 at
            944.4
                        Ρ
questionable ORF
9385_at
            671.7
weak similarity to mouse thyrotropin-releasing hormone receptor
9386 at
            4198.2
long-chain fatty acid--CoA ligase and synthetase 4
9387_at
            1844.0
                         Ρ
hypothetical protein
```

```
9388_at
            -54.9
similarity to glutamate decarboxylases
9389 at
            71.4
                         Α
strong similarity to YKR076w and YGR154c
9390 at
            41132.5
                         Ρ
hyperosmolarity-responsive gene
9391_at
            276.7
hypothetical protein
9392 at
            194.0
                         Α
strong similarity to YPL264c
9393 at
            -62.0
hypothetical protein
9349 at
            465.2
                         Α
hypothetical protein
9350 at
                         Ρ
            4686.6
subunit VII of cytochrome c oxidase
9351 at
            1127.6
translational activator of cytochrome c oxidase subunit II
9352 at
            433.9
hypothetical protein
9353 at
                         Р
            1312.5
hypothetical protein
                         Р
9354 at
            4597.6
Translation initiation factor eIF1A
9355 at
            2177.7
115 kD regulatory subunit of trehalose-6-phosphate synthaseVphosphatase complex
9356 at
            468.7
similarity to S.pombe scn1 protein
9357 at
            999.4
                         Ρ
subunit of the histone deacetylase B complex
9358 at
            1269.4
Cue1p assembles with Ubc7p. Cue1p recruits Ubc7p to the cytosolic surface of the endoplasmic
reticulum. Assembly with Cue1p is a prerequisite for the function of Ubc7p
9359_at
            221.3
hypothetical protein
9360 at
            3247.8
similarity to A.thaliana hyp1 protein
9361 at
            174.7
mitochondrial inorganic pyrophosphatase
            223.7
9362_at
U4VU6 snRNA-associated splicing factor
9363 at
            953.6
weak similarity to C.elegans hypothetical protein CELT23B3
            892.4
9364_at
Upstream activation factor subunit
            112.2
9365 at
Orotate phosphoribosyltransferase 2
9366 at
            6498.9
desaturaseVhydroxylase enzyme
9367 at
            1220.1
Negative regulator of cell polarity
9368 at
            31.6
Protease involved in ras and a-factor terminal proteolysis
9369 at
            1498.6
Involved in the ubiquination pathway, possibly by functioning with Rsp5
9370_at
            12592.4
```

```
ubiquitin-like protein
9326 at
             1709.2
TFIIF interacting Component of CTD Phosphatase
            993.6
9327 at
similarity to phosphomannomutases
9328 at
             190.2
strong similarity to aminotriazole resistance protein
9329 at
            -100.4
Zinc-cluster protein involved in activating gluconeogenic genes\; related to Gal4p
9330_at
            392.7
hypothetical protein
                         Р
9331 at
            476.5
basic, hydrophilic 67.5 kDa protein
9332 at
            -31.3
Initiator methionine tRNA 2 -O-ribosyl phosphate transferase
9333 at
            -189.5
DNA binding protein
9334 at
            429.9
                         Α
similarity to Ccr4p
9335_at
             1676.8
Mitochondrial ribosomal protein MRPL33 (YmL33) (E. coli L30)
9336 at
            442.1
Protein essential for mitochondrial biogenesis
9337 at
            629.1
strong similarity to hypothetical S.pombe and C.elegans proteins
9338_at
            930.7
hypothetical protein
9339 at
            2688.9
                         Р
Putative RNA-dependent helicase
            -160.7
9340 at
questionable ORF
            1155.8
                         Р
9341_at
similarity to ser/thr protein kinase
9342_at
            3701.9
strong similarity to C.elegans hypothetical protein
                         Ρ
9343 at
            519.6
similarity to amidases
9344 at
            218.2
                         Α
Coiled-coil domain protein required for proper nuclear migration during mitosis (but not during
conjugation)
                         Ρ
9345 at
            781.9
questionable ORF
                         Ρ
9346_at
            8322.2
similarity to YGR273c
                         Ρ
9347 at
             10199.0
Probable component of serine palmitoyltransferase, which catalyzes the first step in biosynthesis of
long-chain sphingolipids
9348 at
            9063.2
carboxypeptidase Y (proteinase C)
9304 at
            2641.5
hypothetical protein
9305_at
            5.6
weak similarity to hypothetical protein YJL062w
9306 at
            657.0
                         Μ
phosphoribosylpyrophosphate amidotransferase
9307_at
             1400.0
```

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mitochondrial ABC transporter protein
9308 at
            751.1
Integral membrane mitochondrial protein
9309 at
            1250.8
alcohol dehydrogenase II
9310 at
            600.8
encodes putative deubiquitinating enzyme
9311 at
            419.2
questionable ORF
9312_at
            11106.5
member of the glucanase gene family
9313 at
            -356.1
Protein with similarity to Gls1p and Gls2p (GB:Z49212)
9314 at
            107.9
questionable ORF
9315 at
            53943.9
                        Ρ
cell surface glycoprotein 115-120 kDa
9316 at
            14352.6
Karyopherin
9317_at
            2289.9
~100 kDa cytoplasmic protein
9318_at
            2046.6
                        Ρ
similarity to YGR283c
9319 at
            1621.7
Regulates activity of protein phosphatase 1, Glc7p, which is involved in proper chromosome segregation
9320 at
            1552.2
hypothetical protein
9321 at
            716.1
                        Р
similarity to YKR089c and YOR081c
9322 at
            4445.5
alpha-type of subunit of 20S proteasome
9323_at
            4163.3
                        Р
similarity to hypothetical S. pombe protein
9324_at
            2051.1
similarity to YOR385w and YNL165w
9325 at
            254.2
questionable ORF
9281_at
                        Α
            -120.2
questionable ORF
9282_at
            183.1
similarity to mucins, glucan 1,4-alpha-glucosidase and exo-alpha-sialidase
9283 at
            6074.0
strong similarity to alcohol-dehydrogenase
9284_at
            650.6
Low-affinity Fe(II) transport protein
9285 at
            266.9
hypothetical protein
9286 s at 4420.7
strong similarity to hypothetical proteins YPL273w and YLL062c
9287 s at 259.4
strong similarity to YPL280w, YOR391c and YDR533c
9288_s_at 346.4
strong similarity to phosphopyruvate hydratases
9289 at
            266.6
strong similarity to YBL108w, YCR103c and YKL223w
9290_f_at
            473.0
                        Α
```

```
strong similarity to members of the Srp1p/Tip1p family
9291 at
            4768.3
protein associated to the ATP synthase
9292 at
            233.2
hypothetical protein identified by SAGE
9293 at
            246.1
identified by SAGE
9294 at
            33371.0
                         Ρ
hypothetical protein
9295_g_at 28253.5
                         Ρ
hypothetical protein
9296 at
            -160.1
non-annotated SAGE orf Found reverse in NC 001145 between 159029 and 159169 with 100% identity.
See citation Velculescu, V.E., et al. (1997) Characterization of the yeast transcriptome. Cell 8:243-251
9297 at
            184.1
non-annotated SAGE orf Found reverse in NC 001145 between 390825 and 390965 with 100% identity.
See citation Velculescu, V.E., et al. (1997) Characterization of the yeast transcriptome. Cell 8:243-251
9298 at
non-annotated SAGE orf Found forward in NC 001145 between 31875 and 32045 with 100% identity.
See citation Velculescu, V.E., et al. (1997) Characterization of the yeast transcriptome. Cell 8:243-251
non-annotated SAGE orf Found reverse in NC_001145 between 122312 and 122605 with 100% identity.
See citation Velculescu, V.E., et al. (1997) Characterization of the yeast transcriptome. Cell 8:243-251
9300 at
            24.1
non-annotated SAGE orf Found reverse in NC 001145 between 503463 and 503660 with 100% identity.
See citation Velculescu, V.E., et al. (1997) Characterization of the yeast transcriptome. Cell 8:243-251
non-annotated SAGE orf Found reverse in NC 001145 between 503665 and 503799 with 100% identity.
See citation Velculescu, V.E., et al. (1997) Characterization of the yeast transcriptome. Cell 8:243-251
9302 at
non-annotated SAGE orf Found reverse in NC_001145 between 768049 and 768219 with 100% identity.
See citation Velculescu, V.E., et al. (1997) Characterization of the yeast transcriptome. Cell 8:243-251
9303 at
non-annotated SAGE orf Found forward in NC_001145 between 769282 and 769425 with 100% identity.
See citation Velculescu, V.E., et al. (1997) Characterization of the yeast transcriptome. Cell 8:243-251
non-annotated SAGE orf Found forward in NC_001145 between 46024 and 46185 with 100% identity.
See citation Velculescu, V.E., et al. (1997) Characterization of the yeast transcriptome. Cell 8:243-251
9259 at
non-annotated SAGE orf Found forward in NC_001145 between 171311 and 171469 with 100% identity.
See citation Velculescu, V.E., et al. (1997) Characterization of the yeast transcriptome. Cell 8:243-251
9260 at
            -48.6
non-annotated SAGE orf Found reverse in NC_001145 between 347179 and 347406 with 100% identity.
See citation Velculescu, V.E., et al. (1997) Characterization of the yeast transcriptome. Cell 8:243-251
non-annotated SAGE orf Found forward in NC 001145 between 363103 and 363273 with 100% identity.
See citation Velculescu, V.E., et al. (1997) Characterization of the yeast transcriptome. Cell 8:243-251
9262 at
            8.1
non-annotated SAGE orf Found forward in NC 001145 between 390814 and 390981 with 100% identity.
See citation Velculescu, V.E., et al. (1997) Characterization of the yeast transcriptome. Cell 8:243-251
9263 at
            281.4
non-annotated SAGE orf Found reverse in NC_001145 between 492187 and 492357 with 100% identity.
See citation Velculescu, V.E., et al. (1997) Characterization of the yeast transcriptome. Cell 8:243-251
            150.7
non-annotated SAGE orf Found forward in NC_001145 between 632094 and 632234 with 100% identity.
See citation Velculescu, V.E., et al. (1997) Characterization of the yeast transcriptome. Cell 8:243-251
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9265_at
            454.1
non-annotated SAGE orf Found forward in NC 001145 between 752987 and 753121 with 100% identity.
See citation Velculescu, V.E., et al. (1997) Characterization of the yeast transcriptome. Cell 8:243-251
            487.8
9266 at
non-annotated SAGE orf Found forward in NC 001145 between 762231 and 762389 with 100% identity.
See citation Velculescu, V.E., et al. (1997) Characterization of the yeast transcriptome. Cell 8:243-251
non-annotated SAGE orf Found reverse in NC 001145 between 849877 and 850053 with 100% identity.
See citation Velculescu, V.E., et al. (1997) Characterization of the yeast transcriptome. Cell 8:243-251
non-annotated SAGE orf Found forward in NC 001145 between 863528 and 863674 with 100% identity.
See citation Velculescu, V.E., et al. (1997) Characterization of the yeast transcriptome. Cell 8:243-251
9269 at
            1291.2
non-annotated SAGE orf Found reverse in NC 001145 between 910809 and 910946 with 100% identity.
See citation Velculescu, V.E., et al. (1997) Characterization of the yeast transcriptome. Cell 8:243-251
non-annotated SAGE orf Found forward in NC 001145 between 272960 and 273100 with 100% identity.
See citation Velculescu, V.E., et al. (1997) Characterization of the yeast transcriptome. Cell 8:243-251
non-annotated SAGE orf Found reverse in NC_001145 between 426343 and 426489 with 100% identity.
See citation Velculescu, V.E., et al. (1997) Characterization of the yeast transcriptome. Cell 8:243-251
9272 at
non-annotated SAGE orf Found forward in NC 001145 between 486399 and 486548 with 100% identity.
See citation Velculescu, V.E., et al. (1997) Characterization of the yeast transcriptome. Cell 8:243-251
non-annotated SAGE orf Found reverse in NC_001145 between 501944 and 502096 with 100% identity.
See citation Velculescu, V.E., et al. (1997) Characterization of the yeast transcriptome. Cell 8:243-251
9274 at
non-annotated SAGE orf Found reverse in NC 001145 between 29913 and 30104 with 100% identity.
See citation Velculescu, V.E., et al. (1997) Characterization of the yeast transcriptome. Cell 8:243-251
9275 g at -72.8
non-annotated SAGE orf Found reverse in NC_001145 between 29913 and 30104 with 100% identity.
See citation Velculescu, V.E., et al. (1997) Characterization of the yeast transcriptome. Cell 8:243-251
non-annotated SAGE orf Found reverse in NC 001145 between 30023 and 30229 with 100% identity.
See citation Velculescu, V.E., et al. (1997) Characterization of the yeast transcriptome. Cell 8:243-251
9277 at
non-annotated SAGE orf Found forward in NC_001145 between 115459 and 115659 with 100% identity.
See citation Velculescu, V.E., et al. (1997) Characterization of the yeast transcriptome. Cell 8:243-251
9278 at
non-annotated SAGE orf Found forward in NC 001145 between 286805 and 287002 with 100% identity.
See citation Velculescu, V.E., et al. (1997) Characterization of the yeast transcriptome. Cell 8:243-251
non-annotated SAGE orf Found reverse in NC_001145 between 297849 and 297983 with 100% identity.
See citation Velculescu, V.E., et al. (1997) Characterization of the yeast transcriptome. Cell 8:243-251
9280 at
            137.9
non-annotated SAGE orf Found reverse in NC 001145 between 433097 and 433231 with 100% identity.
See citation Velculescu, V.E., et al. (1997) Characterization of the yeast transcriptome. Cell 8:243-251
non-annotated SAGE orf Found reverse in NC 001145 between 433419 and 433640 with 100% identity.
See citation Velculescu, V.E., et al. (1997) Characterization of the yeast transcriptome. Cell 8:243-251
non-annotated SAGE orf Found forward in NC 001145 between 433828 and 434049 with 100% identity.
See citation Velculescu, V.E., et al. (1997) Characterization of the yeast transcriptome. Cell 8:243-251
9236 at
            237.4
non-annotated SAGE orf Found forward in NC_001145 between 434355 and 434564 with 100% identity.
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See citation Velculescu, V.E., et al. (1997) Characterization of the yeast transcriptome. Cell 8:243-251
9237 at
            199.3
non-annotated SAGE orf Found forward in NC 001145 between 465271 and 465411 with 100% identity.
See citation Velculescu, V.E., et al. (1997) Characterization of the yeast transcriptome. Cell 8:243-251
non-annotated SAGE orf Found reverse in NC 001145 between 465281 and 465418 with 100% identity.
See citation Velculescu, V.E., et al. (1997) Characterization of the yeast transcriptome. Cell 8:243-251
non-annotated SAGE orf Found forward in NC_001145 between 478063 and 478257 with 100% identity.
See citation Velculescu, V.E., et al. (1997) Characterization of the yeast transcriptome. Cell 8:243-251
9240 at
non-annotated SAGE orf Found forward in NC 001145 between 480651 and 480791 with 100% identity.
See citation Velculescu, V.E., et al. (1997) Characterization of the yeast transcriptome. Cell 8:243-251
non-annotated SAGE orf Found forward in NC 001145 between 480923 and 481186 with 100% identity.
See citation Velculescu, V.E., et al. (1997) Characterization of the yeast transcriptome. Cell 8:243-251
9242 i at
            -204.2
non-annotated SAGE orf Found forward in NC 001145 between 481528 and 481713 with 100% identity.
See citation Velculescu, V.E., et al. (1997) Characterization of the yeast transcriptome. Cell 8:243-251
9243 at
            -158.0
non-annotated SAGE orf Found forward in NC_001145 between 481925 and 482149 with 100% identity.
See citation Velculescu, V.E., et al. (1997) Characterization of the yeast transcriptome. Cell 8:243-251
non-annotated SAGE orf Found forward in NC 001145 between 482056 and 482289 with 100% identity.
See citation Velculescu, V.E., et al. (1997) Characterization of the yeast transcriptome. Cell 8:243-251
9245 at
            1024.9
non-annotated SAGE orf Found reverse in NC 001145 between 511289 and 511522 with 100% identity.
See citation Velculescu, V.E., et al. (1997) Characterization of the yeast transcriptome. Cell 8:243-251
9246 at
            234.9
non-annotated SAGE orf Found reverse in NC 001145 between 556676 and 556891 with 100% identity.
See citation Velculescu, V.E., et al. (1997) Characterization of the yeast transcriptome. Cell 8:243-251
non-annotated SAGE orf Found reverse in NC 001145 between 556676 and 556891 with 100% identity.
See citation Velculescu, V.E., et al. (1997) Characterization of the yeast transcriptome. Cell 8:243-251
9248 at
            -143.5
non-annotated SAGE orf Found reverse in NC 001145 between 556746 and 556970 with 100% identity.
See citation Velculescu, V.E., et al. (1997) Characterization of the yeast transcriptome. Cell 8:243-251
non-annotated SAGE orf Found forward in NC 001145 between 625379 and 625540 with 100% identity.
See citation Velculescu, V.E., et al. (1997) Characterization of the yeast transcriptome. Cell 8:243-251
non-annotated SAGE orf Found forward in NC 001145 between 625379 and 625540 with 100% identity.
See citation Velculescu, V.E., et al. (1997) Characterization of the yeast transcriptome. Cell 8:243-251
9251_at
            154.1
non-annotated SAGE orf Found reverse in NC 001145 between 646818 and 647009 with 100% identity.
See citation Velculescu, V.E., et al. (1997) Characterization of the yeast transcriptome. Cell 8:243-251
non-annotated SAGE orf Found reverse in NC 001145 between 762446 and 762586 with 100% identity.
See citation Velculescu, V.E., et al. (1997) Characterization of the yeast transcriptome. Cell 8:243-251
9253 at
non-annotated SAGE orf Found reverse in NC 001145 between 762597 and 762764 with 100% identity.
See citation Velculescu, V.E., et al. (1997) Characterization of the yeast transcriptome. Cell 8:243-251
9254 at
non-annotated SAGE orf Found forward in NC_001145 between 837034 and 837171 with 100% identity.
See citation Velculescu, V.E., et al. (1997) Characterization of the yeast transcriptome. Cell 8:243-251
9255_at
            77.3
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non-annotated SAGE orf Found reverse in NC_001145 between 915029 and 915199 with 100% identity.
See citation Velculescu, V.E., et al. (1997) Characterization of the yeast transcriptome. Cell 8:243-251
9256 at
non-annotated SAGE orf Found reverse in NC 001145 between 9829 and 10008 with 100% identity.
See citation Velculescu, V.E., et al. (1997) Characterization of the yeast transcriptome. Cell 8:243-251
9257 at
non-annotated SAGE orf Found reverse in NC_001145 between 13361 and 13621 with 100% identity.
See citation Velculescu, V.E., et al. (1997) Characterization of the yeast transcriptome. Cell 8:243-251
9209 at
            3922.0
non-annotated SAGE orf Found reverse in NC_001145 between 27916 and 28077 with 100% identity.
See citation Velculescu, V.E., et al. (1997) Characterization of the yeast transcriptome. Cell 8:243-251
non-annotated SAGE orf Found forward in NC 001145 between 49819 and 49965 with 100% identity.
See citation Velculescu, V.E., et al. (1997) Characterization of the yeast transcriptome. Cell 8:243-251
9211 at
            2603.0
non-annotated SAGE orf Found reverse in NC 001145 between 62403 and 62543 with 100% identity.
See citation Velculescu, V.E., et al. (1997) Characterization of the yeast transcriptome. Cell 8:243-251
9212 at
non-annotated SAGE orf Found reverse in NC 001145 between 79732 and 79890 with 100% identity.
See citation Velculescu, V.E., et al. (1997) Characterization of the yeast transcriptome. Cell 8:243-251
non-annotated SAGE orf Found reverse in NC_001145 between 151565 and 151720 with 100% identity.
See citation Velculescu, V.E., et al. (1997) Characterization of the yeast transcriptome. Cell 8:243-251
9214 at
non-annotated SAGE orf Found reverse in NC 001145 between 234512 and 234685 with 100% identity.
See citation Velculescu, V.E., et al. (1997) Characterization of the yeast transcriptome. Cell 8:243-251
non-annotated SAGE orf Found forward in NC 001145 between 271996 and 272136 with 100% identity.
See citation Velculescu, V.E., et al. (1997) Characterization of the yeast transcriptome. Cell 8:243-251
9216 at
non-annotated SAGE orf Found reverse in NC_001145 between 302614 and 302787 with 100% identity.
See citation Velculescu, V.E., et al. (1997) Characterization of the yeast transcriptome. Cell 8:243-251
9217 at
non-annotated SAGE orf Found forward in NC_001145 between 337312 and 337602 with 100% identity.
See citation Velculescu, V.E., et al. (1997) Characterization of the yeast transcriptome. Cell 8:243-251
non-annotated SAGE orf Found forward in NC_001145 between 426559 and 426696 with 100% identity.
See citation Velculescu, V.E., et al. (1997) Characterization of the yeast transcriptome. Cell 8:243-251
9219 i at
non-annotated SAGE orf Found forward in NC_001145 between 483361 and 483495 with 100% identity.
See citation Velculescu, V.E., et al. (1997) Characterization of the yeast transcriptome. Cell 8:243-251
9220 r at
           -24.0
non-annotated SAGE orf Found forward in NC_001145 between 483361 and 483495 with 100% identity.
See citation Velculescu, V.E., et al. (1997) Characterization of the yeast transcriptome. Cell 8:243-251
non-annotated SAGE orf Found forward in NC 001145 between 483361 and 483495 with 100% identity.
See citation Velculescu, V.E., et al. (1997) Characterization of the yeast transcriptome. Cell 8:243-251
9222 at
            222.9
non-annotated SAGE orf Found reverse in NC_001145 between 509507 and 509701 with 100% identity.
See citation Velculescu, V.E., et al. (1997) Characterization of the yeast transcriptome. Cell 8:243-251
9223 at
            -175.1
non-annotated SAGE orf Found forward in NC_001145 between 611313 and 611507 with 100% identity.
See citation Velculescu, V.E., et al. (1997) Characterization of the yeast transcriptome. Cell 8:243-251
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non-annotated SAGE orf Found reverse in NC_001145 between 623382 and 623516 with 100% identity. See citation Velculescu, V.E., et al. (1997) Characterization of the yeast transcriptome. Cell 8:243-251

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9225 at
            -118.7
non-annotated SAGE orf Found forward in NC 001145 between 652852 and 653010 with 100% identity.
See citation Velculescu, V.E., et al. (1997) Characterization of the yeast transcriptome. Cell 8:243-251
9226 at
non-annotated SAGE orf Found forward in NC 001145 between 667253 and 667450 with 100% identity.
See citation Velculescu, V.E., et al. (1997) Characterization of the yeast transcriptome. Cell 8:243-251
            11504.3
non-annotated SAGE orf Found reverse in NC 001145 between 671528 and 671701 with 100% identity.
See citation Velculescu, V.E., et al. (1997) Characterization of the yeast transcriptome. Cell 8:243-251
9228 r at 7021.7
non-annotated SAGE orf Found reverse in NC 001145 between 671528 and 671701 with 100% identity.
See citation Velculescu, V.E., et al. (1997) Characterization of the yeast transcriptome. Cell 8:243-251
9229 i at
            48.0
non-annotated SAGE orf Found forward in NC 001145 between 733267 and 733455 with 100% identity.
See citation Velculescu, V.E., et al. (1997) Characterization of the yeast transcriptome. Cell 8:243-251
non-annotated SAGE orf Found forward in NC 001145 between 733267 and 733455 with 100% identity.
See citation Velculescu, V.E., et al. (1997) Characterization of the yeast transcriptome. Cell 8:243-251
9231 s at 24.6
non-annotated SAGE orf Found forward in NC_001145 between 733267 and 733455 with 100% identity.
See citation Velculescu, V.E., et al. (1997) Characterization of the yeast transcriptome. Cell 8:243-251
9232 at
non-annotated SAGE orf Found forward in NC 001145 between 733313 and 733531 with 100% identity.
See citation Velculescu, V.E., et al. (1997) Characterization of the yeast transcriptome. Cell 8:243-251
non-annotated SAGE orf Found forward in NC_001145 between 774146 and 774280 with 100% identity.
See citation Velculescu, V.E., et al. (1997) Characterization of the yeast transcriptome. Cell 8:243-251
9186 at
            392.5
snRNA
                        Α
9187 i at
            109.2
Centromere
9188_at
            120.6
                        Α
snRNA
9189_at
            4012.3
snRNA
9190 at
            234.8
                        Α
snRNA
            420.1
                        Р
9191 at
snRNA
9192_at
            77.1
                        Α
snRNA
9193 at
            467.9
                        Ρ
snRNA
                        Ρ
9194_at
            757.5
snRNA
                        Ρ
9195 at
            2638.0
snRNA
9196 s at 118.6
                        Α
similarity to M. verrucaria cyanamide hydratase, identical to hypothetical protein YFL061w
9197 s at 288.1
SNZ2 proximal ORF, stationary phase induced gene
9198 s at 10.3
Snooze: stationary phase-induced gene family
9199 at
            1045.3
Hypothetical aryl-alcohol dehydrogenase
9200_at
            1410.4
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histone deacetylase
9201 at
            537.5
Member of the AAA-protein family that includes NSFp and PEX1p
9202 at
Protein of the mitochondrial inner membrane with similarity to E. coli DnaJ and other DnaJ-like proteins,
function partially overlaps that of Mdj1p
9203 at
            3146.3
Cell-cycle regulation protein, may be involved in the correct timing of cell separation after cytokinesis
9204 at
             705.4
similarity to YOL003c, YLR246w and C.elegans hypothetical protein ZK757.1
9205 at
            458.4
FIG4 expression is induced by mating factor.
            -167.6
9206 at
hypothetical protein
            448.4
9207 at
                         Α
strong similarity to YCR094w and YNR048w
9208 at
            4802.3
                         Ρ
Cell wall beta-glucan assembly
9163 at
            932.9
weak similarity to Vcx1p
             1030.5
9164 at
strong similarity to S.pombe Bem46 protein
9165 at
            -198.5
questionable ORF
9166 at
            -174.0
                         Α
hexose transport protein
9167 at
            346.6
similarity to A.thaliana PRL1/2 protein
9168 at
            313.9
prephenate dehydratase
9169 at
             1240.7
essential for assembly of a functional F1-ATPase
9170 at
             109.1
positive regulator of allophanate inducible genes
9171 at
            2114.0
similarity to C.elegans hypothetical protein
9172 at
             1479.9
subunit 2 of replication factor RF-A\; 29\% identical to the human p34 subunit of RF-A
9173 at
            369.0
hypothetical protein
9174 at
            678.4
similarity to S.pombe hypothetical protein SPAC24H6.02c
9175_at
            311.8
Binds Sin3p in two-hybrid assay and is present in a large protein complex with Sin3p and Stb2p
9176 at
            2968.8
similarity to S.pombe and C.elegans hypothetical proteins
9177 at
             3565.0
43.1 kDa SerineVthreonineVtyrosine protein kinase
9178 at
             1155.1
ribosomal protein of the small subunit, mitochondrial
9179 at
            2096.0
similarity to C-term. of A.nidulans regulatory protein (qutR)
9180 at
            677.8
similarity to Ypt1p and rab GTP-binding proteins
            349.7
                         Ρ
9181 at
hypothetical protein
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9182_s_at 51187.2
Ribosomal protein S19B (rp55B) (S16aB) (YS16B)
9183 s at 53862.4
Ribosomal protein L18B (rp28B)
9184 at
            4781.2
Ribosomal protein L18B (rp28B)
9185 at
            7663.4
hypothetical protein
9140 at
            1071.1
exhibits homology to Trf4p and Top1p
9141 at
            811.1
protein kinase, homologous to Ste20p, interacts with CDC42
9142 at
            1956.0
similarity to S.pombe hypothetical protein SPAC23D3.13c
9143 at
            84.1
questionable ORF
9144 at
            125.6
                        Α
hypothetical protein
9145 at
            637.7
                        Ρ
hypothetical protein
9146_at
                        Α
            137.7
Multicopy Suppressor of Bud Emergence
9147 at
            1686.0
Pseudouridine synthase
9148 at
            990.3
N-glycosylated integral plasma membrane protein
9149 at
            1021.4
Subunit 3 of Replication Factor C\; homologous to human RFC 36 kDa subunit
9150 at
            290.6
G(sub)1 cyclin that associates with PHO85
9151 at
            1880.9
strong similarity to C.elegans hypothetical protein
9152 at
            6034.1
non-clathrin coat protein involved in transport between ER and Golgi
9153 at
            456.2
Cold sensitive U2 snRNA Supressor
9154 at
            4.5
                        Α
hypothetical protein
                        Ρ
9155 at
            1440.3
Mitochondrial ribosomal protein MRPL10 (YmL10)
9156 at
            1493.8
Putative integral membrane protein containing novel cysteine motif. Similarity to SLG1 (WSC1), WSC3
and WSC4
9157_at
            122.3
involved in processsing of tRNAs and rRNAs
            4827.8
9158 at
strong similarity to YDR214w
9159 at
            2016.5
sterol C-14 reductase
                        Ρ
9160 at
            596.1
hypothetical protein
9161_at
            1455.2
                        Ρ
similarity to YLR187w
9162 at
            -18.9
                        Α
homoserine O-trans-acetylase
9118_at
            -91.6
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questionable ORF
9119 at
            539.4
similarity to human band 3 anion transport protein
9120 at
            259.7
similarity to glycerate- and formate-dehydrogenases
9121 at
             1346.1
topoisomerase I interacting factor 1
9122 at
             1225.8
Protein with coiled-coil domain essential for vesicular transport
9123 at
             1963.1
contains formin homology domains\; homologous to BNR1 (BNI1 related protein)
9124 at
            292.0
Protein highly homologous to permeases Can1p and Lyp1p for basic amino acids
9125 at
            53.8
hypothetical protein
9126 at
            7722.3
                         Ρ
lysine permease
9127 at
            885.5
                         Ρ
Phosphatidylinositol 4-kinase
9128_at
             189.6
                         Α
questionable ORF
9129_at
             100.6
                         Α
similarity to human protein KIAA0174
9130 at
            457.8
weak similarity to Sec14p
9131 at
            2707.3
YIP1-Interacting Factor, shows similarity to NADH dehydrogenases
9132 at
             1144.6
DNA polymerase II
9133 at
            417.5
Fifth largest subunit of origin recognition complex\; contains possible ATP-binding site
9134_at
             162.5
hypothetical protein
9135_at
             1560.9
Antioxidant protein and metal homeostasis factor, protects against oxygen toxicity
9136 at
            831.2
hypothetical protein
9137_at
            487.9
Interacts with SNF1 protein kinase
9138_at
            3316.2
similarity to bacterial dihydropteroate synthase
9139 at
            4434.7
strong similarity to nucleic acid-binding proteins
9095_at
             -299.5
hypothetical protein
9096 at
             133.0
                         Α
hypothetical protein
9097 at
             1392.3
ribosomal protein of the large subunit (YmL30), mitochondrial
9098 at
            385.5
RNA recognition motif-containing protein that participates in sequence-specific regulation of nuclear
pre-mRNA abundance
9099 at
            579.8
protein contains a purine-binding domain, two heptad repeats and a hydrophobic tail, Rad50p interacts
with Mre11p and Xrs2p in two-hybrid and immunoprecipitation analyses\; it co-localizes to spots with
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Mre11p and Xrs2p in a rad50s background

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9100_at
            262.5
                         Α
similarity to YDR109c
9101 at
            3313.3
                         Ρ
49-kDa alpha subunit of RNA polymerase A
9102 at
            3763.9
cysteinyl-tRNA synthetase
9103 at
            1185.8
similarity to D.melanogaster SET protein
9104 at
            556.2
hypothetical protein
9105 at
            9759.1
translation initiation factor 3 (eIF3)
9106 at
            6186.2
transmembrane protein
9107 at
            497.9
similarity to human hypothetical protein KIAA0404
9108 at
            4696.5
Glucose-6-phosphate dehydrogenase
9109 at
            1261.1
strong similarity to K.marxianus LET1 protein
9110_at
            2113.2
Ca2+-dependent serine protease
9111 at
            -32.6
Yeast putative Transmembrane Protein
9112 at
            2434.3
component of RNA polymerase II holoenzyme\/mediator complex
9113 at
            474.9
questionable ORF
            124.9
9114 at
weak similarity to mouse hemoglobin zeta chain
9115 at
            938.3
Is required to link Chs3p and Chs4p to the septins
9116 at
            1820.5
                        Ρ
hypothetical protein
9117 at
            10816.8
weak similarity to Sec14p
9073 at
            209.8
weak similarity to mammalian transcription elongation factor elongin A
9074 at
            1442.8
transcriptional regulator, putative glutathione transferase
            279.2
9075 at
similarity to dnaJ-like proteins
9076_at
            -29.0
                         Α
questionable ORF
9077 at
                         Α
            -56.3
questionable ORF
9078 at
            616.9
chaotic nuclear migration\; predicted mass is 67kDa
9079_at
            182.8
                         Α
hypothetical protein
9080_at
            365.1
Aut2p interacts with Tub1p and Tub2p\; Aut2p forms a protein complex with Aut7p\; Aut2p mediates
attachment of autophagosomes to microtubules
9081 at
            818.2
functionally related to TFIIB, affects start site selection in vivo
9082_at
            1015.9
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Component of nuclear RNase P and RNase MRP
9083 at
            6765.0
adenylosuccinate synthetase
9084 at
            2202.0
mannosyltransferase
9085 at
            8.6
                         Α
similarity to E.coli hypothetical protein in serS 5 region
9086 at
            911.2
weak similarity to E.coli bis(5 -nucleosyl)-tetraphosphatase
            1826.4
9087_at
repressor activator protein
9088 at
            709.3
similarity to hypothetical S. pombe protein
9089 at
            354.0
23 kDa peroxisome associated protein, binds Pex14p
9090 at
            618.0
hypothetical protein
9091 at
            2263.1
                         Ρ
weak simlarity to C.cardunculus cypro4 protein
9092_at
            132.3
                         Α
hypothetical protein
9093 at
            -126.3
encodes protein with RNA-binding motifs required for MRE2-dependent mRNA splicing
9094 s at 110484.8
Heat shock protein of HSP70 family, homolog of SSB1
9050 at
            19311.2
weak similarity to Colletotrichum gloeosporioides nitrogen starvation-induced glutamine rich protein
            2487.2
9051 at
similarity to M.jannaschii hypothetical protein MJ1073
9052 at
            1037.1
similarity to structure-specific recognition proteins
9053_at
            -451.1
questionable ORF
9054_g_at -121.9
                         Α
questionable ORF
9055 at
            -159.4
                         Α
sporulation-specific protein
9056 at
            -366.2
weak similarity to B.subtilis CDP-diacylglycerol--serine O-phosphatidyltransferase
            307.4
9057_at
peroxisomal 2,4-dienoyl-CoA reductase
9058 at
            573.5
                         Ρ
involved in regulation of carbon metabolism
9059_at
            330.7
strong similarity to human TGR-CL10C
9060 at
            555.0
Activates transcription of glycolytic genes\; homologous to GCR1\; may function in complex with Gcr2p
9061 at
            -19.8
questionable ORF
9062 at
            29.7
                         Α
Protein involved in regulation of cell size
9063 at
            -104.4
sporulation-specific protein with a leucine zipper motif, regulated by the transcription factor Ume6 and
expressed early in meiosis
9064 at
            263.7
                         Α
hypothetical protein
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9065_at
            -23.2
strong similarity to YDL222c and similarity to Sur7p
9066 at
            342.5
                         Α
hypothetical protein
                         Ρ
9067 at
            2619.7
chitin synthase 1
                         Р
9068 at
            940.0
similarity to Synechocystis hypothetical protein
9069 at
            18203.1
hypothetical protein
9070 at
            1392.1
karyopherin alpha homolog of 60 kDa
9071 at
            670.0
involved in spindle pole body duplication and karyogamy, interacts with Cdc31p, localizes to the spindle
pole body
9072 at
            -157.1
hypothetical protein
9028 at
            3491.4
                         Ρ
                                                                                                     а
deubiquitinating enzyme
9029_at
            595.4
                         M
ribosomal protein of the large subunit, mitochondrial
9030_at
            270.5
questionable ORF
                         Ρ
9031 at
            719.2
protein kinase homolog
9032_at
            951.6
weak similarity to S.pombe hypothetical protein
            1368.3
9033 at
similarity to hypothetical S. pombe protein
9034 at
            95.7
hypothetical protein
9035_at
            87633.3
Ribosomal protein S3 (rp13) (YS3)
9036_at
            176.6
hypothetical protein
                         Ρ
9037 at
            639.8
weak similarity to Hkr1p
9038_at
            3454.7
similarity to S.pombe Rnp24p
9039_at
            601.0
hypothetical protein
9040 at
            559.2
multicopy suppressor of bem1 mutation, may be involved in G-protein mediated signal transduction
9041_at
            536.6
Component of the anaphase-promoting complex
9042 at
            189.6
questionable ORF
9043 at
            645.1
                         Α
questionable ORF
                         Ρ
9044 at
            3424.1
Phosphatidylserine Decarboxylase 1
9045_at
            1308.3
similarity to C.elegans ZK688.3 protein and E.coli hpcEp
9046 at
            725.0
CREB like repressor, bZIP protein that binds to CRE motifs, interacts with Mig1p
9047_at
            371.6
```

```
hypothetical protein
9048 at
            886.8
similarity to YOR385w and YMR316w
9049 at
            736.4
hypothetical protein
                        Ρ
9005_at
            1257.3
translation elongation factor eEF4
9006_s_at 28060.6
Ribosomal protein L42A (YL27) (L41A)
9007_at
            249.5
                         Α
Protein kinase
                        Р
9008 at
            10658.6
YGP1 encodes gp37, a glycoprotein synthesized in response to nutrient limitation which is homologous to
the sporulation-specific SPS100 gene
9009 at
            389.3
                        Α
hypothetical protein
9010 at
            294.1
                         Α
hypothetical protein
9011 at
            2678.6
weak similarity to S.pombe hypothetical protein SPAC10F6
9012 at
            2316.8
similarity to YHR133c
9013 at
            866.0
                        Α
hypothetical protein
9014 at
            1648.5
membrane-bound casein kinase I homolog
9015 at
            2887.3
Putative homolog of subunit 4 of bovine prefoldin, a chaperone comprised of six subunits
9016 at
            244.4
hypothetical protein
9017 at
            1561.3
31-kDa subunit of RNA polymerase III (C)\; HMG1 like protein
9018 at
            1147.1
hypothetical protein
9019 at
            2626.8
weak similarity to S.pombe hypothetical protein
9020 at
            219.5
cofactor B
                        Ρ
9021 at
            1275.6
Sm-like protein
9022 at
            -49.1
                         Α
hypothetical protein
9023_at
            182.6
                         Α
mating a-factor pheromone precursor
9024 at
            179.8
similarity to YHR131c
9025 at
            192.0
                        Α
hypothetical protein
9026_at
            55.2
                         Α
Ammonia transport protein
9027_at
            1668.8
Adenosine deaminaseVadenine aminohydrolase
8982 i at
            -211.7
                        Α
questionable ORF
                         Ρ
8983_s_at 588.9
questionable ORF
```

```
8984_at
            12128.8
                         Ρ
70-kDa adenylyl cyclase-associated protein
8985 at
            1481.3
                         Ρ
putative mitochondrial S4 ribosomal protein
8986 at
            792.6
similarity to neurofilament triplet M protein
8987 at
            18359.2
peptidylprolyl cis-trans isomerase
8988 at
            2598.0
similarity to C.carbonum toxD gene
8989 at
            544.1
                         Ρ
hypothetical protein
8990 at
            8.888
similarity to A. ambisexualis antheridiol steroid receptor
8991 at
            1688.7
Mitochondrial import receptor complex protein
8992 at
            4380.4
sn-1,2-diacylglycerol cholinephosphotransferase
8993 at
            353.3
weak similarity to M.pneumoniae uridine kinase udk
8994 at
            214.8
Similar to human tumor suppressor gene known as TEP1, MMAC1 and PTEN1. Contains sequence
motifs characteristic of protein tyrosine phosphatases.
8995 at
            530.1
similarity to C.elegans hypothetical protein
8996 at
            -413.6
                         Α
spindle pole body component, associates in a complex with Spc97p and Tub4p perhaps as part of the
microtubule attachment site of the SBP
8997 at
            1443.3
Protein with similarity to mammalian monocarboxylate transporters MCT1 and MCT2
8998 at
            1250.0
similarity to hypothetical S. pombe protein
8999 at
            3018.9
                         Ρ
weak similarity to C.jejuni serine protease
9000 at
            427.2
                         Α
hypothetical protein
9001 at
            2552.2
70 kDa mitochondrial specialized import receptor of the outer membrane
9002 at
            140.8
questionable ORF
                         Р
            852.8
9003 at
weak similarity to M.jannaschii hypothetical protein MJ1257
9004_at
            1078.7
essential suppressor of the respiratory deficiency of a pet mutant
8959 at
            -43.5
carbon-catabolite sensitive malate synthase
8960 at
            662.6
weak similarity to RING zinc finger protein from Gallus gallus
8961 at
            1037.8
weak similarity to S.pombe hypothetical protein SPAC23C11
8962 at
            734.3
questionable ORF
            6183.9
8963 at
subunit common to RNA polymerases I (A) and III (C)
8964 at
            1939.8
ATP-dependent RNA helicase of DEAD box family
```

```
7753.2
8965_at
ATP-dependent RNA helicase of DEAD box family
8966 at
            7835.6
cytochrome b5
8967 at
            2226.5
weak similarity to fruit fly RNA-binding protein
8968 at
            379.8
weak similarity to cytochrome-c oxidase
8969 at
            765.5
strong similarity to YOR110w
8970 at
            667.1
similarity to human AF-9 protein
8971 at
            575.6
inositol polyphosphate 5-phosphatase
8972 at
            2.6
                         Α
questionable ORF
8973 at
            15989.4
alpha-isopropylmalate synthase (2-Isopropylmalate Synthase)
8974 at
            725.4
member of the leucine zipper family of transcriptional activators
            -148.7
8975 at
DNA polymerase I alpha subunit, p180
8976 at
            399.7
similarity to YKL146w
                         Ρ
8977 at
            712.5
hypothetical protein
8978 at
            1788.1
similarity to YNL032w, YNL056w and YDR067c
8979 at
            2863.7
Ras proto-oncogene homolog
8980 at
            228.7
involved in transcriptional regulation of PHO5
8981 at
            16715.6
Ribosomal protein S7B (rp30)
8936 at
            11052.2
Ribosomal protein S7B (rp30)
8937 at
            387.1
strong similarity to YOR092w
8938 at
            733.1
similarity to S.pombe hypothetical protein
8939 at
            -92.7
rab5-like GTPase involved in vacuolar protein sorting and endocytosis
8940 at
            -477.6
similarity to hypothetical C. elegans proteins Y48E1C.2 and Y48E1C.c
            2652.1
8941 at
similarity to chicken h-caldesmon, Uso1p and YKL201c
8942 at
            1029.3
GTP-binding protein of the rho subfamily of ras-like proteins
            -97.3
8943_at
questionable ORF
8944_at
            2533.4
topoisomerase II, Top2p localizes to axial cores in meiosis
8945 at
            1761.8
weak similarity to synaptogamines
8946 at
            1260.6
hypothetical protein
```

```
8947_at
            3005.8
Protein involved in propagation of M2 dsRNA satellite of L-A virus
8948 at
            1016.1
Required for endocytosis and organization of the cytoskeleton
8949 at
            74.5
weak similarity to rabbit peroxisomal Ca-dependent solute carrier
8950 at
            322.0
MutL homolog, similar to Mlh1p, associates with Mlh1p, possibly forming a heterodimer, Pms1p and
Msh1p act in concert to bind to a Msh2p-heteroduplex complex containing a G-T mismatch
8951 at
            912.7
similarity to ribosomal protein S13
8952 at
            1313.4
hypothetical protein
                         Ρ
8953 at
            9313.7
tropomyosin I
8954 at
            1382.7
                         Ρ
hypothetical protein
8955 at
            138.5
                         Α
similarity to dnaJ protein homolog YDJ1
8956_at
            1308.7
negative regulator of Ras cAMP pathway, shares weak homology with Spt2p
8957 at
            3414.3
similarity to YHR088w and C.elegans hypothetical protein F44G4.1
8958 at
            609.2
Protein of unknown function
8914 at
            935.9
mitochondrial lysine-tRNA synthetase
            957.4
8915 at
RNase H(35), a 35 kDa ribonuclease H
8916 at
            6174.7
Dihydrolipoamide acetyltransferase component (E2) of pyruvate dehydrogenase complex
8917_at
            5216.7
translocase of the outer mito. membrane
8918 at
            39689.3
Ribosomal protein L16B (L21B) (rp23) (YL15)
8919 at
            818.9
Fork Head homolog two
8920 i at
            3034.2
Ribosomal protein L9B (L8B) (rp24) (YL11)
8921_s_at 15845.3
Ribosomal protein L9B (L8B) (rp24) (YL11)
8922 at
            12133.4
Protein involved in the aging process
8923_at
            547.7
similarity to resistance proteins
8924 at
            18617.2
yeast dnaJ homolog (nuclear envelope protein)\; heat shock protein
8925 at
            507.4
weak similarity to Mycoplasma protoporphyrinogen oxidase
8926 at
            1585.6
RNA-binding (zeta) subunit of translation initiation factor 3 (eIF-3)
8927_at
            5254.6
90-kDa protein, located in nucleolus, that is homologous to a human proliferation-associated nucleolar
protein, p120
                         Ρ
8928_at
            1689.8
Actin-related protein
```

```
8929_at
                         Ρ
            1717.5
similarity to YIL117c
8930 at
            356.4
                         Α
questionable ORF
                         Ρ
8931 at
            1251.0
similarity to YNL032w and YNL099c
8932 at
            26618.5
Outer mitochondrial membrane porin (voltage-dependent anion channel, or VDAC)
8933 at
            1151.9
vacuolar protein
8934 at
            588.6
Tyrosine protein phosphatase involved in adaptation response to pheromone
8935 at
            3790.0
Cytochrome-c oxidase chain Va
8891 at
            253.3
                         Α
hypothetical protein
8892 at
            120.6
                         Α
hypothetical protein
8893 at
            1212.8
                         Ρ
putative zinc finger protein
            1259.6
8894 at
Required for aspargine-linked glycosylation
8895 at
            889.2
similarity to probable transcription factor Ask10p and hypothetical protein YPR115w, and strong similarity
to hypothetical protein YIL105c
8896_at
            826.7
hypothetical protein
8897_at
            2780.1
                         Р
strong similarity to human leukotriene-A4 hydrolase
            354.9
8898 at
questionable ORF
8899_at
            590.1
                         Α
Bypass of PAM1
8900_at
            518.4
                         Α
weak similarity to Mlp1
8901 at
            289.5
weak similarity to M.genitalium alanine--tRNA ligase
8902 at
            860.4
90 kd subunit of TFIIIB, also called TFIIIB90 or B or B 90 component
            399.4
8903_at
hypothetical protein
8904 at
            2284.5
alpha-4-beta-4 subunit of mitochondrial isocitrate dehydrogenase 1
8905_at
            936.7
involved in secretion of proteins that lack classical secretory signal sequences
            2743.0
8906 at
hypothetical protein
8907 s at 129.0
                         Α
nearly identical to YNL018c
8908 s at -30.5
nearly identical to YNL019c
8909_at
            1429.1
Tyrosine phosphatase
                         Р
8910 at
            40969.0
Histone H3 (HHT1 and HHT2 code for identical proteins)
8911_s_at 34691.1
```

```
Histone H4 (HHF1 and HHF2 code for identical proteins)
8912 at
            747.2
Putative mannosyltransferase of the KRE2 family
            -250.0
8913 at
questionable ORF
                         Ρ
8868_at
            649.1
putative transcription factor
8869 at
            1288.3
similarity to S.pombe hypothetical protein
8870_at
            333.9
C-type cyclin associated with the Ssn3p cyclin-dependent kinase
8871 at
            943.8
weak similarity to YBR271w and YJR129c
8872 at
            1202.1
Transcription factor homolog\; similarity to Drosophila melanogaster shuttle craft protein\; similarity to
human NFX1 protein\; similarity to human DNA-binding protein tenascin
8873 at
            1011.2
weak similarity to C.burnetii FMU protein
8874 at
            644.7
histone deacetylase, shares sequence similarity with Rpd3p, Hos1p, Hos2p, and Hos3p
8875 at
            329.6
Predicted SerVthr kinase
8876 i at
            47.2
                         Α
hypothetical protein
8877 r at
            376.6
                         Α
hypothetical protein
8878 s at -266.0
                         Α
hypothetical protein
                         Ρ
8879 at
            5130.7
poly(A)+ RNA-binding protein
8880 at
            1237.6
Proteinase inhibitor I2B (PBI2), that inhibits protease Prb1p (yscB)
8881 at
            292.3
translation elongation factor eEF3 homolog
8882 at
            551.5
                         Α
questionable ORF
8883 at
            78.2
encodes a protein with high similarity to phospholipase B
8884 at
            318.6
similarity to hypothetical A. thaliana protein T14G11.21
8885 at
            6154.4
weak similarity to B.subtilis hypothetical protein ykrX
8886_at
            77.3
peroxisomal NADP-dependent isocitrate dehydrogenase
8887 at
            809.9
similarity to YMR119w
8888 at
            10586.2
sit4 suppressor, dnaJ homolog
8889 at
            829.1
Required for amino acid permease transport from the Golgi to the cell surface
8890 at
            965.1
Mitochondrial ribosomal protein MRP7 (YmL2) (E. coli L27)
8845 at
            1554.7
hypothetical RNA-binding protein
8846_at
            359.8
Member of family of mitochondrial carrier proteins
```

```
8847_at
            3568.2
                         Ρ
Significant sequence similarity to RPL7B, but neither can functionally replace the other. Does not
correspond to any ribosomal component identified so far, based on its biochemical features
8848 at
            923.3
an ORF of unknown function located in a centromeric region duplicated between chromosomes III and
XIV (DOM34 homologue on chromosome III is a pseudogene)
8849 at
            6163.2
citrate synthase. Nuclear encoded mitochondrial protein.
8850 at
            295.7
Putative transmembrane protein
8851 at
            428.1
34-kDa subunit of RNA polymerase III (C)
8852 at
            137.6
weak similarity to bovine interferon gamma precursor
8853 at
            -38.8
questionable ORF
8854 at
            1002.7
                         Ρ
hydrophilic protein\; has cysteine rich putative zinc finger esential for function
8855 at
Protein involved in autophagocytosis during starvation
8856 at
            1319.0
weak similarity to human phosphatidylcholine--sterol O-acyltransferase
8857 at
            488.7
hypothetical protein
8858 at
            574.1
                         М
Protein required for accurate mitotic chromosome segregation
8859 at
            89.9
                         Α
putative RNA-dependent ATPase
8860 at
            913.8
                        Ρ
Uridine kinase
            3688.7
8861 at
similarity to Pho87p and YJL198w
8862 at
            -139.5
weak similarity to hypothetical protein YMR206w
            1121.4
8863 at
Suppressor of Mitochondrial Mutation in the tRNAasp gene
8864 at
            23693.6
acetyl-CoA carboxylase
                         Ρ
8865 at
            3605.3
23 kDa mitochondrial inner membrane protein
8866 at
            4547.5
hypothetical protein
8867_at
            2405.8
Acyl-CoA cholesterol acyltransferase (sterol-ester synthetase)
8823 at
            327.1
hypothetical protein
                         Ρ
8824 at
            5113.6
hypothetical protein
8825 at
            314.7
                         Α
weak similarity to protein phosphatases
8826 at
            898.4
73 kDa subunit of the SWIVSNF transcription activation complex, homolog of Rsc6p subunit of the RSC
chromatin remodeling complex
8827_at
            840.3
weak similarity to Rpc31p
8828_at
            224.9
                         Α
```

```
questionable ORF
            694.0
8829 at
Guanine nucleotide exchange factor for Sar1p.
8830 at
            748.3
                         Ρ
similarity to human pyridoxal kinase
8831 at
            326.0
Cyclophilin
8832_at
            2180.4
                         Ρ
similarity to P.denitrificans cobW protein
8833 at
            1223.0
ExtraCellular Mutant
8834 at
            884.8
                         Ρ
MAP kinase kinase kinase\; activator of Pbs2p
8835 at
            1191.1
Serine Vthreonine protein phosphatase involved in glycogen accumulation
8836 at
            879.2
para-aminobenzoate synthase, PABA synthase
8837 at
            464.5
shows similarity to glucose-6-phosphate dehydrogenase non-catalytic domains\; homologous to Sol2p
and Sol3p
8838_at
            2863.9
Arp Complex Subunit
                         Р
8839 at
            1735.1
strong similarity to ribosomal protein S12
8840 at
            603.6
strong similarity to Mycoplasma ribosomal protein S19
8841 at
            1854.6
                        Ρ
putative RNA helicase
8842 at
                         Ρ
            967.0
weak similarity to Anopheles mitochondrial NADH dehydrogenase subunit 2
            429.8
8843 at
hypothetical protein
8844 at
            1281.4
para hydroxybenzoate: polyprenyl transferase
            314.4
8800 at
                         Α
hypothetical protein
8801 at
            9576.6
mevalonate pyrophosphate decarboxylase
8802 at
            8109.3
anchorage subunit of a-agglutinin
8803 at
            297.5
translational activator of cytochrome c oxidase
8804_at
            2641.7
strong similarity to S.pombe hypothetical protein SPAC31A2.02
8805 at
            298.3
similarity to ser/thr protein kinases
8806 at
            408.7
strong similarity to YCR094w and YNL323w
8807 at
            866.1
small hydrophilic protein, enriched in microsomal membrane fraction, interacts with Sec1p
8808 at
            31352.1
Saccharopine dehydrogenase (NADP+, L-glutamate forming) (saccharopine reductase) (EC 1.5.1.10)
8809 at
            1036.8
weak similarity to chicken nucleolin
            2702.4
8810 at
                         Ρ
Putative transcription factor
```

Α

```
4444.6
8811_at
strong similarity to human breast tumor associated autoantigen
8812 at
            678.0
                         М
strong similarity to human breast tumor associated autoantigen
8813 at
            1209.0
similarity to C.elegans hypothetical protein CEESL47F
8814 at
            1351.9
Putative ion transporter similar to the major facilitator superfamily of transporters
8815 at
            97.7
transmembrane regulator of KAPAVDAPA transport
8816 at
            70.3
                         Α
dethiobiotin synthetase
8817 at
            387.0
7,8-diamino-pelargonic acid aminotransferase (DAPA) aminotransferase
            504.1
8818 at
                         Α
similarity to to alpha-1,3-mannosyltransferase
8819 at
            262.2
similar to FRE2
8820 at
            158.5
weak similarity to hypothetical protein YDL218w
8821 at
            -249.0
weak similarity to H.influenzae L-lactate permease (lctP) homolog
8822 at
            66.9
weak similarity to CYC1/CYP3 transcription activator
8776 at
            165.3
                         Α
similarity to R.capsulatus 1-chloroalkane halidohydrolase
            1792.5
8777 at
strong similarity to YJL222w, YIL173w and Pep1p
8778 at
            214.3
strong similarity to Pep1p
            4168.5
8779_at
similarity to beta-glucan-elicitor receptor - Glycine max
8780_at
            457.8
                         Α
similarity to Bul1p
8781 at
            43.2
similarity to central part of Bul1p
8782 at
            -209.3
strong similarity to Sng2p
8783_at
            110.5
strong similarity to UDP-glucose 4-epimerase Gal10p
8784 s at 350.0
strong similarity to E.coli D-mannonate oxidoreductase, identical to YEL070w
            802.1
8785_at
weak similarity to B. subtilis nitrite reductase (nirB)
8786 f at 848.4
member of the seripauperin protein\gene family
8787 at
            921.3
hypothetical protein identified by SAGE
8788 at
            143.7
hypothetical protein
                         Ρ
8789_s_at 4407.2
Aminopeptidase of cysteine protease family
8790_s_at 3447.2
protein of unknown function
8791_at
            -452.2
```

```
non-annotated SAGE orf Found reverse in NC_001146 between 60023 and 60190 with 100% identity.
See citation Velculescu, V.E., et al. (1997) Characterization of the yeast transcriptome. Cell 8:243-251
            -185.7
non-annotated SAGE orf Found reverse in NC 001146 between 60181 and 60321 with 100% identity.
See citation Velculescu, V.E., et al. (1997) Characterization of the yeast transcriptome. Cell 8:243-251
8793 at
            -101.7
non-annotated SAGE orf Found reverse in NC_001146 between 118895 and 119086 with 100% identity.
See citation Velculescu, V.E., et al. (1997) Characterization of the yeast transcriptome. Cell 8:243-251
8794 i at
non-annotated SAGE orf Found forward in NC_001146 between 440983 and 441117 with 100% identity.
See citation Velculescu, V.E., et al. (1997) Characterization of the yeast transcriptome. Cell 8:243-251
            247.9
non-annotated SAGE orf Found forward in NC 001146 between 440983 and 441117 with 100% identity.
See citation Velculescu, V.E., et al. (1997) Characterization of the yeast transcriptome. Cell 8:243-251
8796 at
            256.0
non-annotated SAGE orf Found forward in NC 001146 between 728144 and 728293 with 100% identity.
See citation Velculescu, V.E., et al. (1997) Characterization of the yeast transcriptome. Cell 8:243-251
8797 f at 819.4
non-annotated SAGE orf Found forward in NC 001146 between 101909 and 102082 with 100% identity.
See citation Velculescu, V.E., et al. (1997) Characterization of the yeast transcriptome. Cell 8:243-251
non-annotated SAGE orf Found reverse in NC_001146 between 301931 and 302119 with 100% identity.
See citation Velculescu, V.E., et al. (1997) Characterization of the yeast transcriptome. Cell 8:243-251
8799 at
            127.5
non-annotated SAGE orf Found forward in NC 001146 between 499414 and 499554 with 100% identity.
See citation Velculescu, V.E., et al. (1997) Characterization of the yeast transcriptome. Cell 8:243-251
            1042.6
non-annotated SAGE orf Found reverse in NC 001146 between 519600 and 519773 with 100% identity.
See citation Velculescu, V.E., et al. (1997) Characterization of the yeast transcriptome. Cell 8:243-251
8753 at
non-annotated SAGE orf Found forward in NC_001146 between 547109 and 547366 with 100% identity.
See citation Velculescu, V.E., et al. (1997) Characterization of the yeast transcriptome. Cell 8:243-251
8754 at
non-annotated SAGE orf Found forward in NC_001146 between 568130 and 568402 with 100% identity.
See citation Velculescu, V.E., et al. (1997) Characterization of the yeast transcriptome. Cell 8:243-251
non-annotated SAGE orf Found forward in NC_001146 between 716393 and 716575 with 100% identity.
See citation Velculescu, V.E., et al. (1997) Characterization of the yeast transcriptome. Cell 8:243-251
            87145.8
non-annotated SAGE orf Found forward in NC_001146 between 94941 and 95090 with 100% identity.
See citation Velculescu, V.E., et al. (1997) Characterization of the yeast transcriptome. Cell 8:243-251
8757 at
            -166.3
non-annotated SAGE orf Found forward in NC_001146 between 281645 and 281881 with 100% identity.
See citation Velculescu, V.E., et al. (1997) Characterization of the yeast transcriptome. Cell 8:243-251
8758 g at -266.8
non-annotated SAGE orf Found forward in NC 001146 between 281645 and 281881 with 100% identity.
See citation Velculescu, V.E., et al. (1997) Characterization of the yeast transcriptome. Cell 8:243-251
8759 at
non-annotated SAGE orf Found reverse in NC_001146 between 351383 and 351577 with 100% identity.
See citation Velculescu, V.E., et al. (1997) Characterization of the yeast transcriptome. Cell 8:243-251
8760 at
non-annotated SAGE orf Found reverse in NC_001146 between 412222 and 412371 with 100% identity.
See citation Velculescu, V.E., et al. (1997) Characterization of the yeast transcriptome. Cell 8:243-251
```

non-annotated SAGE orf Found reverse in NC_001146 between 413306 and 413485 with 100% identity. See citation Velculescu, V.E., et al. (1997) Characterization of the yeast transcriptome. Cell 8:243-251

```
8762 at
            938.0
non-annotated SAGE orf Found reverse in NC 001146 between 478137 and 478292 with 100% identity.
See citation Velculescu, V.E., et al. (1997) Characterization of the yeast transcriptome. Cell 8:243-251
            -130.2
8763 at
non-annotated SAGE orf Found reverse in NC 001146 between 478228 and 478365 with 100% identity.
See citation Velculescu, V.E., et al. (1997) Characterization of the yeast transcriptome. Cell 8:243-251
non-annotated SAGE orf Found forward in NC 001146 between 482996 and 483139 with 100% identity.
See citation Velculescu, V.E., et al. (1997) Characterization of the yeast transcriptome. Cell 8:243-251
non-annotated SAGE orf Found forward in NC 001146 between 663707 and 663856 with 100% identity.
See citation Velculescu, V.E., et al. (1997) Characterization of the yeast transcriptome. Cell 8:243-251
8766 at
            738.6
non-annotated SAGE orf Found reverse in NC 001146 between 17705 and 17908 with 100% identity.
See citation Velculescu, V.E., et al. (1997) Characterization of the yeast transcriptome. Cell 8:243-251
non-annotated SAGE orf Found forward in NC 001146 between 140489 and 140683 with 100% identity.
See citation Velculescu, V.E., et al. (1997) Characterization of the yeast transcriptome. Cell 8:243-251
non-annotated SAGE orf Found reverse in NC_001146 between 254027 and 254161 with 100% identity.
See citation Velculescu, V.E., et al. (1997) Characterization of the yeast transcriptome. Cell 8:243-251
8769 q at -88.8
non-annotated SAGE orf Found reverse in NC 001146 between 254027 and 254161 with 100% identity.
See citation Velculescu, V.E., et al. (1997) Characterization of the yeast transcriptome. Cell 8:243-251
8770 i at
non-annotated SAGE orf Found reverse in NC_001146 between 254055 and 254201 with 100% identity.
See citation Velculescu, V.E., et al. (1997) Characterization of the yeast transcriptome. Cell 8:243-251
8771 r at
non-annotated SAGE orf Found reverse in NC 001146 between 254055 and 254201 with 100% identity.
See citation Velculescu, V.E., et al. (1997) Characterization of the yeast transcriptome. Cell 8:243-251
8772 at
            6214.4
non-annotated SAGE orf Found forward in NC_001146 between 283359 and 283541 with 100% identity.
See citation Velculescu, V.E., et al. (1997) Characterization of the yeast transcriptome. Cell 8:243-251
non-annotated SAGE orf Found forward in NC 001146 between 465994 and 466167 with 100% identity.
See citation Velculescu, V.E., et al. (1997) Characterization of the yeast transcriptome. Cell 8:243-251
8774 at
            2189.9
non-annotated SAGE orf Found reverse in NC_001146 between 586598 and 586816 with 100% identity.
See citation Velculescu, V.E., et al. (1997) Characterization of the yeast transcriptome. Cell 8:243-251
8775 at
non-annotated SAGE orf Found forward in NC 001146 between 89019 and 89186 with 100% identity.
See citation Velculescu, V.E., et al. (1997) Characterization of the yeast transcriptome. Cell 8:243-251
non-annotated SAGE orf Found forward in NC_001146 between 89212 and 89394 with 100% identity.
See citation Velculescu, V.E., et al. (1997) Characterization of the yeast transcriptome. Cell 8:243-251
8730 g at 2472.3
non-annotated SAGE orf Found forward in NC 001146 between 89212 and 89394 with 100% identity.
See citation Velculescu, V.E., et al. (1997) Characterization of the yeast transcriptome. Cell 8:243-251
non-annotated SAGE orf Found reverse in NC 001146 between 240147 and 240317 with 100% identity.
See citation Velculescu, V.E., et al. (1997) Characterization of the yeast transcriptome. Cell 8:243-251
non-annotated SAGE orf Found reverse in NC 001146 between 286092 and 286301 with 100% identity.
See citation Velculescu, V.E., et al. (1997) Characterization of the yeast transcriptome. Cell 8:243-251
8733 at
            333.1
non-annotated SAGE orf Found forward in NC_001146 between 330326 and 330544 with 100% identity.
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See citation Velculescu, V.E., et al. (1997) Characterization of the yeast transcriptome. Cell 8:243-251
8734 at
            -30.3
non-annotated SAGE orf Found reverse in NC 001146 between 335742 and 335897 with 100% identity.
See citation Velculescu, V.E., et al. (1997) Characterization of the yeast transcriptome. Cell 8:243-251
non-annotated SAGE orf Found reverse in NC 001146 between 355301 and 355477 with 100% identity.
See citation Velculescu, V.E., et al. (1997) Characterization of the yeast transcriptome. Cell 8:243-251
8736 at
non-annotated SAGE orf Found forward in NC_001146 between 366082 and 366222 with 100% identity.
See citation Velculescu, V.E., et al. (1997) Characterization of the yeast transcriptome. Cell 8:243-251
8737 i at
non-annotated SAGE orf Found reverse in NC 001146 between 546974 and 547210 with 100% identity.
See citation Velculescu, V.E., et al. (1997) Characterization of the yeast transcriptome. Cell 8:243-251
8738 s at 227.2
non-annotated SAGE orf Found reverse in NC 001146 between 546974 and 547210 with 100% identity.
See citation Velculescu, V.E., et al. (1997) Characterization of the yeast transcriptome. Cell 8:243-251
8739 at
non-annotated SAGE orf Found forward in NC 001146 between 553015 and 553233 with 100% identity.
See citation Velculescu, V.E., et al. (1997) Characterization of the yeast transcriptome. Cell 8:243-251
8740 f at
            1808.4
non-annotated SAGE orf Found forward in NC_001146 between 563260 and 563397 with 100% identity.
See citation Velculescu, V.E., et al. (1997) Characterization of the yeast transcriptome. Cell 8:243-251
non-annotated SAGE orf Found forward in NC 001146 between 586648 and 586803 with 100% identity.
See citation Velculescu, V.E., et al. (1997) Characterization of the yeast transcriptome. Cell 8:243-251
8742 at
            1835.9
non-annotated SAGE orf Found forward in NC 001146 between 591162 and 591341 with 100% identity.
See citation Velculescu, V.E., et al. (1997) Characterization of the yeast transcriptome. Cell 8:243-251
8743 at
            1017.0
non-annotated SAGE orf Found reverse in NC 001146 between 604522 and 604659 with 100% identity.
See citation Velculescu, V.E., et al. (1997) Characterization of the yeast transcriptome. Cell 8:243-251
non-annotated SAGE orf Found reverse in NC 001146 between 661997 and 662158 with 100% identity.
See citation Velculescu, V.E., et al. (1997) Characterization of the yeast transcriptome. Cell 8:243-251
8745 at
non-annotated SAGE orf Found reverse in NC 001146 between 663592 and 663789 with 100% identity.
See citation Velculescu, V.E., et al. (1997) Characterization of the yeast transcriptome. Cell 8:243-251
non-annotated SAGE orf Found reverse in NC 001146 between 779443 and 779604 with 100% identity.
See citation Velculescu, V.E., et al. (1997) Characterization of the yeast transcriptome. Cell 8:243-251
non-annotated SAGE orf Found forward in NC 001146 between 91546 and 91713 with 100% identity.
See citation Velculescu, V.E., et al. (1997) Characterization of the yeast transcriptome. Cell 8:243-251
8748_at
non-annotated SAGE orf Found reverse in NC 001146 between 104727 and 104876 with 100% identity.
See citation Velculescu, V.E., et al. (1997) Characterization of the yeast transcriptome. Cell 8:243-251
non-annotated SAGE orf Found forward in NC 001146 between 116677 and 116865 with 100% identity.
See citation Velculescu, V.E., et al. (1997) Characterization of the yeast transcriptome. Cell 8:243-251
8750 at
non-annotated SAGE orf Found forward in NC 001146 between 191051 and 191257 with 100% identity.
See citation Velculescu, V.E., et al. (1997) Characterization of the yeast transcriptome. Cell 8:243-251
8751 at
            246.5
non-annotated SAGE orf Found reverse in NC_001146 between 267404 and 267571 with 100% identity.
See citation Velculescu, V.E., et al. (1997) Characterization of the yeast transcriptome. Cell 8:243-251
8705_at
            197.5
```

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non-annotated SAGE orf Found reverse in NC_001146 between 342215 and 342487 with 100% identity.
See citation Velculescu, V.E., et al. (1997) Characterization of the yeast transcriptome. Cell 8:243-251
8706 at
            -205.6
non-annotated SAGE orf Found forward in NC 001146 between 394507 and 394662 with 100% identity.
See citation Velculescu, V.E., et al. (1997) Characterization of the yeast transcriptome. Cell 8:243-251
8707 at
non-annotated SAGE orf Found forward in NC 001146 between 449543 and 449731 with 100% identity.
See citation Velculescu, V.E., et al. (1997) Characterization of the yeast transcriptome. Cell 8:243-251
8708 at
non-annotated SAGE orf Found forward in NC_001146 between 452136 and 452276 with 100% identity.
See citation Velculescu, V.E., et al. (1997) Characterization of the yeast transcriptome. Cell 8:243-251
8709 at
non-annotated SAGE orf Found reverse in NC 001146 between 614367 and 614516 with 100% identity.
See citation Velculescu, V.E., et al. (1997) Characterization of the yeast transcriptome. Cell 8:243-251
8710 at
            112.5
non-annotated SAGE orf Found forward in NC 001146 between 623131 and 623265 with 100% identity.
See citation Velculescu, V.E., et al. (1997) Characterization of the yeast transcriptome. Cell 8:243-251
8711 i at
            -99.9
non-annotated SAGE orf Found reverse in NC 001146 between 651893 and 652045 with 100% identity.
See citation Velculescu, V.E., et al. (1997) Characterization of the yeast transcriptome. Cell 8:243-251
8712 r at
            -207.1
non-annotated SAGE orf Found reverse in NC_001146 between 651893 and 652045 with 100% identity.
See citation Velculescu, V.E., et al. (1997) Characterization of the yeast transcriptome. Cell 8:243-251
8713 at
            268.8
snRNA
8714 at
            241.1
                         Α
snRNA
            230.9
                         Α
8715 at
hypothetical protein
                         Р
8716 s at 898.4
Hypothetical aryl-alcohol dehydrogenase (AAD)
8717_at
            119.1
similarity to Pseudomonas alkyl sulfatase
8718_at
            241.9
similarity to P.putida phthalate transporter
8719 at
            297.7
strong similarity to hypothetical protein YIL166c
8720 f at
            -175.1
                         Α
strong similarity to members of the Srp1p/Tip1p family
8721_at
            -107.8
                         Α
hypothetical protein
8722 at
                         Α
            89.0
hypothetical protein
8723_at
            4285.5
similarity to subtelomeric encoded proteins
8724 at
            1116.5
similarity to glucan 1,4-alpha-glucosidase Sta1p and YAR066w
8725 g at 1023.4
similarity to glucan 1,4-alpha-glucosidase Sta1p and YAR066w
8726 at
            500.1
similarity to S.fumigata Asp FII
8727_at
            -371.4
strong similarity to Cps1p
8728 at
            -71.5
similar to FRE2
```

8683_at

4058.7

Ρ

```
induced by osmotic stress\; similar to dihydroflavonol 4-reductase from plants
8684 at
            244.9
                         Α
questionable ORF
8685 at
            265.2
                         Α
Decapping protein involved in mRNA degradation
8686 at
            764.9
transcription factor, member of the histone acetyltransferase SAGA complex
8687_at
            1955.3
Peroxisomal membrane protein
8688 at
            450.9
hypothetical protein
8689 at
            673.1
CTR9 is required for normal CLN1 and CLN2 G1 cyclin expression
8690 at
            1428.8
hypothetical protein
8691 at
            6421.7
6,7-dimethyl-8-ribityllumazine synthase (DMRL synthase)
8692 at
            1799.4
strong similarity to hypothetical S. pombe protein
8693_at
            104.3
similarity to YDR435c and C.elegans hypothetical protein
8694 at
            436.0
Acetylornithine aminotransferase
8695 at
            6608.1
mRNA cap binding protein eIF-4E
8696 at
            394.8
                        Α
hypothetical protein
8697 at
            442.1
                         Р
weak similarity to tetracycline resistance proteins
            358.9
8698 at
6-phosphofructo-2-kinase
8699_at
            202.2
Stoichiometric member of mediator complex
8700_at
            191.1
                         Α
questionable ORF
                         Ρ
8701 at
            877.7
High level expression Reduces Ty3 Transposition
8702 at
            132.6
similarity to glycophospholipid-anchored surface glycoprotein Gas1p
8703_at
            -124.8
hypothetical protein
8704 at
            3039.2
                         Ρ
ALuminium Resistance 1
8660_at
            2746.4
similarity to hypothetical S. pombe protein
            197.6
8661 at
strong similarity to protein kinase Mck1p
8662_at
            27807.2
                        Ρ
Ribosomal protein L25 (rpl6L) (YL25)
8663 at
            5558.2
cytosolic malate dehydrogenase
8664_at
            238.5
hypothetical protein
8665 at
            573.9
                         Α
weak similarity to M.jannaschii hypothetical protein
8666_at
            2492.2
```

```
Putative polyadenylated-RNA-binding protein located in nucleus\; similar to vertebrate hnRNP AVB
protein family
8667 at
            739.7
has been localized to both the plasma membrane and the mitochondrial membrane
8668 at
            37021.3
Ribosomal protein L18A (rp28A)
8669 at
            251.3
similarity to monocarboxylate transporter proteins
8670 at
                         Α
            29.3
hypothetical protein
8671 at
            165.1
weak similarity to human sodium channel alpha chain HBA
8672 at
            534.0
43 kDa protein, transcriptional activator
8673 at
            654.8
                        Р
homologous to Trf5p and Top1p, associates with Smc1p and Smc2p
8674 at
            53.7
similarity to human DS-1 protein
8675 at
            154.1
Serine Vthreonine protein kinase with similarity to Ste20p and Cla4p
            554.9
8676 at
Multicopy Suppressor of Bud Emergence
8677 at
            3232.9
weak similarity to human ubiquitin-like protein GDX
8678 at
            915.1
Involved in RAS localization and palmitoylation
8679 at
            37026.1
Overexpression yields resistance to Zeocin
8680 at
            802.6
Transcription factor involved in activation of phospholipid synthetic genes
8681 at
            488.2
weak similarity to human PL6 protein
8682 at
            300.8
                         Α
questionable ORF
8638 at
            355.6
Putative integral membrane protein containing novel cysteine motif. Similarity to SLG1 (WSC1), WSC2
and WSC4
8639 at
            160.3
Involved in meiotic chromosome segregation); may stabilize homologus DNA interactions at telomeres
and is required for a telomere activity in distributive segregation\; is associated with telomeres
8640 at
                        Ρ
            1536.3
myo-inositol transporter
8641_at
            823.1
tRNA 2 -phosphotransferase
8642 at
            553.5
similarity to YOL002c and YDR492w
8643 at
            143.0
                         Α
SerVThr protein kinase
            -144.3
                         Α
8644 at
questionable ORF
                         Ρ
8645 at
            2510.3
similarity to hypothetical S.pombe protein
8646 at
            9762.4
cytoplasmic tryptophanyl-tRNA synthetase
            339.9
8647_at
```

3,4-dihydroxy-5-hexaprenylbenzoate methyltransferase

```
8648_at
            267.8
                         Α
Helicase in MItochondria
8649 at
            815.7
Subunit 4 of Replication Factor C\; homologous to human RFC 40 kDa subunit
8650 at
             1398.7
similarity to C.elegans hypothetical protein F25H8.1
8651 at
            2815.3
strong similarity to YBR147w
8652 at
             104.8
                         Α
hypothetical protein
8653 at
            326.9
MutS homolog encoding major mismatch repair activity in mitosis and meiosis, functions with Pms1p and
Pms2VMIh1p in a complex which interacts with either Pms3VMsh6p to repair single-base and
insertion-deletion mispairs, or Msh3p to repair only insertion-deletion mispairs
8654 at
            468.4
putative transcription factor\; contains a zinc finger
8655 at
            622.3
                         Α
protein disulfide isomerase related protein
8656 at
            993.9
similarity to S.pombe hypothetical protein
            247782.0
8657 at
Alcohol dehydrogenase
8658 at
             134.1
                         Α
hypothetical protein
8659 at
            89.1
                         Α
similarity to A.thaliana hyp1 protein
8615 at
            341.4
similarity to YOL082w
8616 at
                         Ρ
            1211.5
similarity to YOL083w
8617 at
            809.3
encodes a GTPase activating protein, highly homologous to Ira1p, homologue of neurofibromin
8618 at
            972.5
                         Ρ
strong similarity to X.laevis XPMC2 protein
8619_at
            49.6
similarity to NADH dehydrogenases
8620 at
            639.0
                         Α
hypothetical protein
8621 at
            3777.8
                         Ρ
strong similarity to C.elegans K12H4.3 protein
8622 at
             1303.1
Dislikes Extra CIN8, (MDM) Mitochondrial distribution and morphology
8623_at
            550.9
similarity to A.gambiae ATP-binding-cassette protein
8624 at
            720.2
hypothetical protein
                         Ρ
8625 at
            841.7
hypothetical protein
8626 at
            338.0
                         Α
similarity to hypothetical S. pombe protein
8627_at
            782.8
hypothetical protein
8628 at
             -59.5
                         Α
53-kDa coiled-coil protein
8629 at
            2224.9
                         Ρ
Homolog of SIR2
```

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8630_at
            113.6
Transcription factor (bHLH) involved in interorganelle communication between mitochondria,
peroxisomes, and nucleus
8631_at
            603.1
DRAP deaminase
                         Ρ
8632 at
            376.3
inositol polyphosphate 5-phosphatase
8633 at
            1684.7
(2)5 -bisphosphate nucleotidase
8634_at
            402.5
hypothetical protein
8635 at
            804.4
Clathrin associated protein, medium subunit
8636 at
            4349.5
Phosphoribosylpyrophosphate synthetase (ribose-phosphate pyrophosphokinase)
8637 at
            716.9
similarity to C.elegans hypothetical protein M02F4.4
8592 at
            1075.8
Glycerol-3-phosphate dehydrogenase (NAD+)
8593_at
            3422.6
arginosuccinate synthetase
8594_at
            414.8
similarity to hypothetical C. elegans protein F02E9.6
            357.6
8595 at
phosphoglycerate mutase
8596_at
            472.3
similarity to B. subtilis transcriptional activator tenA
            1144.7
8597 at
weak similarity to transcription factors
            298.1
8598 at
hypothetical protein
8599_at
            1053.5
                         Α
DNA Damage Responsive
8600 at
            3761.0
S-adenosylmethionine decarboxylase
8601 at
            461.4
Component of the RNA polymerase II holoenzyme complex, positive and negative transcriptional
regulator of genes involved in mating-type specialization
8602 at
            228.4
questionable ORF
                         Ρ
8603 at
            2292.3
Glutathione Synthetase
8604_at
            157.5
similarity to YAL018c and YOL047c
8605 at
            250.5
weak similarity to hypothetical proteins YAL018c and YOL048c
8606 at
            142.0
questionable ORF
8607_at
            789.5
similarity to ser/thr protein kinase
8608 at
            604.1
44 kDa phosphorylated integral peroxisomal membrane protein
8609 at
            565.6
Endonuclease III-like glycosylase 2
8610 at
            269.9
similarity to CCR4 protein
```

3

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8611_at
            782.7
                         Ρ
weak similarity to M.sativa nuM1, hnRNP protein from C. tentans and D. melanogaster, murine/bovine
poly(A) binding protein II, and Nsr1p
8612 at
            51106.9
40S ribosomal protein S15 (S21) (rp52) (RIG protein)
8613 at
            43660.3
60S acidic ribosomal protein P2A (L44) (A2) (YP2alpha)
8614_at
            9539.1
alpha-type of subunit of 20S proteasome
8570_at
            -85.1
questionable ORF
                        Ρ
8571 at
            1957.9
weak similarity to YMR317w
8572_at
            668.9
questionable ORF
8573 at
            238.5
similarity to S.pombe rad18 and rpgL29 genes and other members of the SMC superfamily
8574 at
            359.9
Mitochondrial glutamyl-tRNA synthetase
8575_at
            244.1
                         Α
hypothetical protein
8576_at
            800.4
weak similarity to Y.lipolytica SIs1 protein precursor
8577 at
            9998.4
strong similarity to glycoprotein Gas1p
8578_at
            1196.2
hypothetical protein
8579_at
            49.8
                         Α
bZIP protein
            1923.7
                         Ρ
8580 at
similarity to YPR125w
                         Ρ
8581_at
            2035.3
hypothetical protein
8582_at
            647.6
                         Α
Affects longevity
8583 at
            346.7
                         Α
hypothetical protein
8584 at
            453.7
                         Α
mitochondrial initiation factor 2
8585_at
            1586.5
weak similarity to rat apoptosis protein RP-8
8586 at
            2200.9
possible component of RCC1-Ran pathway
8587_at
            1915.9
Tryptophan permease, high affinity
            1891.8
8588 at
similarity to Rim9p and YFR012w
8589 at
            356.5
                        Α
tSNARE that affects a Late Golgi compartment
8590 at
            286.6
similarity to YFR013w
                         Ρ
8591_at
            1510.0
Calmodulin-dependent protein kinase
8547_at
            -95.0
                         Α
weak similarity to YKR015c
8548_at
            530.9
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```
hypothetical protein
8549 at
            571.6
Hmg-coa Reductase Degradation
8550 at
            4303.6
An evolutionarily conserved member of the histone H2A FVZ family of histone variants
8551 at
            1662.0
strong similarity to phospholipases
8552_at
            1566.8
putative RNA 3 -terminal phosphate cyclase
8553 at
            491.9
Mdm12p is a mitochondrial outer membrane protein. An Mdm12p homolog exists in S. Pombe which
confers a dominant negative phenotype when expressed in S. cerevisiae
8554 at
            355.2
hypothetical protein
                         Ρ
8555 at
            565.2
Appears to be a structural component of the chitin synthase 3 complex
8556 at
            1058.5
topoisomerase I
8557 at
            2339.0
RNA polymerase II subunit, homologous to S. pombe Rpb11p subunit
8558 at
            2503.0
DNA binding protein involved in transcriptional regulation
8559 at
            696.9
similarity to C.elegans hypothetical protein, YDR126w, YNL326c and YLR246w
8560 at
            2014.4
strong similarity to YDR492w and S.pombe hypothetical protein
8561 at
            213.8
negative transcriptional regulator
                         Ρ
8562 at
            1894.2
Ribosomal RNA Processing
8563 at
            3040.3
Required for glucosylation in the N-linked glycosylation pathway
8564 at
            773.5
                         Ρ
subtilisin-like protease III
8565 at
            2919.6
weak similarity to hypothetical protein YDR339c
8566 at
            122.5
ATP dependent DNA ligase
8567 at
            706.0
                         Ρ
similarity to M.jannaschii hypothetical protein MJ0708
8568 at
            11777.2
small glutamine-rich tetratricopeptide repeat containing protein
8569_at
            802.9
Cell wall integrity and stress response component 1
8525 at
            -90.2
Killed In Mutagen, reduced growth in diepoxybutane and Vor mitomycin C
8526 at
            918.8
similarity to Tir1p and Tir2p
8527_at
            4323.9
Cold-shock induced protein of the Srp1p\/Tip1p family of serine-alanine-rich proteins
8528 at
            587.6
strong similarity to ATP-dependent permeases
8529 at
            74.8
                         Α
similarity to YDR391c
8530_g_at 42.4
                         Α
similarity to YDR391c
```

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8531_at
            314.1
strong similarity to YDR391c
8532 at
             1021.2
B-type regulatory subunit of protein phosphatase 2A (PP2A)
8533 at
            2483.7
hypothetical protein
8534_at
            590.4
p24 protein involved in membrane trafficking
            1000.4
8535 at
Mitochondrial membrane protein
8536 at
            473.7
                         Α
Resistance to o-dinitrobenzene, calcium, and zinc
8537 at
            349.1
similarity to YDR474c
                         Ρ
8538 at
            7487.4
10 kDa mitochondrial heat shock protein
8539 at
            2380.0
similarity to Pyrococcus horikoshii hypothetical protein PHBQ041
8540 at
            62.6
weak similarity to D.melanogaster probable Ca2+ transporter rdgB
8541 at
             1314.2
hypothetical protein
8542 at
            472.6
                         Α
hypothetical protein
8543 at
            214.1
                         Α
Homolog of SIR2
8544 at
            942.4
Protein required for cell cycle arrest in response to loss of microtubule function
8545 at
            11385.3
Heat shock protein also induced by canavanine and entry into stationary phase
8546 at
             113.2
bZIP protein, can activate transcription from a promoter containing a Yap recognition site
8502 at
             -126.1
hypothetical protein
8503 at
            -46.0
involved in invasive growth upon nitrogen starvation
8504 at
            1065.8
Metallothionein-like protein
8505 at
            167.4
myc-family transcription factor homolog
8506 at
            717.6
Protein that complements a drug-hypersensitive mutation
8507_at
            450.3
Protein involved in constitutive endocytosis of Ste3p
8508 at
            317.7
Required for mother cell-specific HO expression
8509 at
integral membrane protein\; c-terminal TMD\; located in endosome
8510 at
            439.1
cytochrome c mitochondrial import factor
8511_at
             1407.9
putative repressor protein\; contains nuclear targeting signal
8512 at
             1444.2
Casein kinase II, beta subunit
8513 at
            245.2
Mitochondrial glyoxylase-II
```

```
8514_at
            -138.2
                         Α
questionable ORF
                         Ρ
8515 at
            1416.8
weak similarity to YDR273w
8516 at
            583.9
Protein involved in growth regulation
8517_at
            550.9
weak similarity to YDR275w
8518 at
            5621.9
outer mitochondrial membrane protein, component of the mitochondiral protein translocation complex,
associates with Isp42p
8519 at
            6922.4
RNA helicase
8520 at
            1284.4
homologous to MTH1\; interacts with the SNF1 protein kinase and TBP in two-hybrid and in in vitro
binding studies
8521 at
            1924.3
                         Ρ
RNA trafficking protein\; transcription activator
8522 at
            2887.1
similarity to YER185w, Rta1p
8523 at
            -209.9
hypothetical protein
            1983.6
8524 at
                         Ρ
weak similarity to myosin heavy chain proteins
8480 at
            1570.7
hypothetical protein
8481 at
            496.3
                         Μ
similarity to protamines
                         Р
8482 at
            597.0
similarity to Sis2p protein and C.tropicalis hal3 protein
            -113.0
8483 at
questionable ORF
8484 at
            1192.7
weak similarity to human phosphorylation regulatory protein HP-10
8485 at
            688.2
G2 allele of skp1 suppressor
8486 at
            212.8
                         Α
encodes component of the spindle midzone
8487 at
            1448.4
weak similarity to YGL144c
8488 at
            476.4
hypothetical protein
8489_at
            1656.9
alpha subunit of casein kinase II
8490 at
            1127.0
strong similarity to YKR075c
8491 at
            25386.6
Ribosomal protein L3 (rp1) (YL1)
8492 at
            598.9
                         Μ
weak similarity to human retinoblastoma binding protein 2
8493 at
            1597.1
Cytochrome c1
8494 at
            656.5
                         Ρ
hypothetical protein
                         Ρ
8495_at
            1498.3
glycosyl transferase
```

```
8496_at
            -44.8
                         Α
hypothetical protein
8497 at
            619.2
                         Μ
GTPase activating protein
8498 at
            265.1
strong similarity to Thi10p
8499_at
            156.0
                         Α
hypothetical protein
8500 at
            597.3
                         Α
hypothetical protein
8501 at
            69.3
endoplasmic reticulum t-SNARE, coprecipitates with Sec20p, Tip1p. and Sec22p
8457 at
            733.3
similarity to Hbs1p, Sup2p and EF1-alpha
8458 at
            289.3
                         Α
similarity to mouse KIN17 protein
8459 at
            1352.9
                        Ρ
weak similarity to YMR172w
8460 at
            1574.0
Multi-copy suppressor of SOD-linked defects
8461 at
            664.2
                         Α
hypothetical protein
                         Р
8462 at
            1788.3
strong similarity to YKR089c
8463 at
            267.9
                         Α
questionable ORF
8464 at
            59.8
                         Α
weak similarity to YKR091w
8465 at
            1321.4
                        Ρ
hypothetical protein
8466 at
            2666.8
34-kDa, gamma subunit of oligosaccharyl transferase glycoprotein complex
8467 at
            2421.8
weak similarity to synaptogamines
8468 at
            95.2
                         Α
hypothetical protein
8469_g_at 83.3
                         Α
hypothetical protein
                         Ρ
8470 at
            752.8
weak similarity to human calcium influx channel
            2082.3
8471 at
small GTP-binding protein\; geranylgeranylated\; geranylgeranylation required for membrane association\;
also involved in endocytosis post vesicle internalization
8472_at
            1461.5
similarity to ser/thr protein phosphatases
8473 at
            760.4
                         M
similarity to hypothetical S.pombe protein D83992 G
8474 at
            346.6
ExtraCellular Mutant
8475 at
            138.6
                         Α
similarity to S.pombe hypothetical protein SPAC22F3.04
8476 at
            1368.5
GTP-binding ADP-ribosylation factor
8477_at
            1605.4
Ribose-5-phosphate ketol-isomerase
8478_at
            23065.4
```

```
Ribosomal protein S7A (rp30)
8479 at
            24273.4
Ribosomal protein S7A (rp30)
8434 at
            558.2
                         Α
hypothetical protein
                         Ρ
8435 at
            2784.1
nuclear pore complex protein
8436 at
            4499.9
type 2 membrane protein\; probable secretory protein
8437_at
            245.0
similarity to mitochondrial carrier proteins
8438 at
            862.8
ras proto-oncogene homolog
8439 at
            1.2
                         Α
questionable ORF
8440 at
            475.6
                         Α
16-kDa, epsilon subunit of oligosaccharyltransferase complex\; 40\% identical to vertebrate DAD1 protein
8441 at
            442.6
hypothetical protein
8442_g_at 306.8
                         Α
hypothetical protein
8443 at
            488.4
member of the syntaxin family of proteins\; predicted C-terminal TMD
8444 at
            102.9
weak similarity to human G-0/G-1 switch regulatory protein 8
8445 at
            1721.4
putative isoform of Leu4p
            1415.3
8446 at
inositol polyphosphate 5-phosphatase
8447 at
            822.0
TFIIIC (transcription initiation factor) subunit, 55 kDa
8448_at
            61.9
weak similarity to B. subtilis maf protein
8449_at
            1386.1
similarity to C.elegans hypothetical protein
8450 at
            111.8
probable transcription factor, asparagine-rich zinc-finger protein, suppressor of mutation in the nuclear
gene for the core subunit of mitochondrial RNA polymerase
8451 at
            280.7
hypothetical protein
8452 at
                         Ρ
            1122.6
involved in targeting and fusion of ER to golgi transport vesicles
8453 at
            1735.7
RNA polymerase III large subunit
8454 at
            3351.8
Probable 26S protease subunit and member of the CDC48VPAS1VSEC18 family of ATPases
8455 at
            226.0
                         Α
hypothetical protein
            231.0
8456 at
similarity to a C.elegans ZK632.3 protein
8412 at
            482.8
Similar to mammalian aldoVketo reductases
8413 at
            -203.5
                         Α
questionable ORF
8414 at
            10852.0
profilin (actin-binding protein)
```

```
8415_at
            3390.2
                         Ρ
extremely hydrophilic protein
8416 at
            1400.1
Ubiquitin-specific protease
8417 at
            361.5
may encode a protein involved in one or more monoxygenase or hydroxylase steps of ubiquinone
biosynthesis
8418 at
            769.7
isoamyl acetate hydrolytic enzyme
8419_at
            855.8
rho type GTPase activating protein
8420 at
            1628.5
phosphoribosylamino-imidazole-carboxylase
8421 at
            621.5
hypothetical protein
8422 at
            149.8
                         Α
mitochondrial integral membrane protein
8423 at
            1557.5
weak similarity to E.coli hypothetical 27K protein
8424_at
            2158.3
Peripheral membrane protein required for vacuolar protein sorting
8425_s_at 82403.8
translation elongation factor 2 (EF-2)
8426 at
            48.1
GTPase activating protein (GAP)
8427_at
            21.9
questionable ORF
8428_at
            9874.7
                         Ρ
NAD+-dependent isocitrate dehydrogenase
8429 at
            837.5
similarity to YLR361c
8430_at
            342.6
                         Α
hypothetical protein
8431_at
            283.3
                         Α
questionable ORF
8432 at
            381.3
                        Α
Transcription factor
                         Α
8433_at
            703.0
Actin-related protein
8389_at
            4570.7
                        Р
Succinate-CoA Ligase (ADP-Forming)
8390 at
            274.6
Thiamin pyrophosphokinase
8391_at
            260.5
weak similarity to human DNA-binding protein PO-GA and to bacterial H+-transporting ATP synthases
8392 at
            2203.2
strong similarity to hypothtical S. pombe protein and to hypothetical C. elegans protein
8393 at
            320.0
questionable ORF
8394 at
            400.6
                         Α
similarity to YHR194w
8395_at
            460.9
required for final stages of splicesome maturation\; promotes step 1 of splicing
8396 at
            25.1
Involved in plasmid maintenance
8397_at
            986.4
```

```
ribosomal protein of the large subunit, mitochondrial
8398 at
            7530.5
second largest subunit of RNA polymerase II
8399 at
            593.2
hypothetical protein
8400 at
            81929.0
multidrug resistance transporter
8401 at
            -57.8
similarity to hypothetical A. thaliana proteins F19G10.15 and T19F06.21
8402 at
            1059.1
similarity to 5 -flanking region of the Pichia MOX gene
            409.1
8403 at
Interacts with C-terminus of CDC12
8404 at
            6085.7
                        Ρ
putative proteasome subunit
8405 at
            382.1
Mitochondrial ribosomal protein of small subunit
8406 at
            601.4
homologue of human E core protein
8407_at
            967.1
Protein involved in mRNA transport from nucleus to cytoplasm
8408 at
            39.2
similarity to C.elegans cosmid F35C8
            335.3
8409 at
                        Α
transcription factor
8410 at
            1093.1
strong similarity to S.pombe SPAC13G6.14 protein
            949.0
8411 at
hypothetical protein
                        Ρ
8366 at
            1819.2
similarity to E.histolytica surface lectin
8367_at
            162.3
hypothetical protein
8368_i_at
            19692.2
Ribosomal protein S28A (S33A) (YS27)
8369 f at
            39328.1
Ribosomal protein S28A (S33A) (YS27)
8370_at
            5674.8
glutaminyl-tRNA synthetase
8371_at
            2574.0
questionable ORF
8372_at
                         Α
            91.8
questionable ORF
            291.3
8373_at
sphingoid long chain base (LCB) kinase
8374 at
            1278.9
similarity to finger protein YKL222c, YOR162c and YLR266c
8375 at
            -1.1
strong similarity to YLR270w
8376 at
            738.4
Stoichiometric member of mediator complex
8377_at
            1178.0
similarity to human and murine C3f protein
8378 at
            2027.1
ferrochelatase (protoheme ferrolyase)
8379_at
            222.1
```

```
weak similarity to rat SCP1 protein
8380 at
            238.0
Regulatory subunit for Glc7p
8381 at
            198.9
similarity to BRR5 protein
8382 at
            293.6
Peroxisomal enoyl-CoA hydratase
8383 at
            900.1
Actin assembly factor
8384_f_at
            81954.7
                         Ρ
Ribosomal protein S30B
8385 at
            146.9
                         Α
hypothetical protein
                         Ρ
8386 at
            4161.1
phosphoserine transaminase
8387 at
            845.6
GTP binding protein, almost identical to Gsp1p
8388 at
            -238.9
                         Α
hypothetical protein
8343_at
            2715.6
Translation elongation factor Tu, mitochondrial
8344 at
            686.8
Protein that may play a role in polarity establishment and bud formation
8345 at
            1126.1
weak similarity to chicken nonhistone chromosomal protein HMG-2
8346 at
            -214.7
sporulation-specific exo-1,3-beta-glucanase
8347 at
            294.5
contains motifs that are present in a family of DNA-dependent ATPases, the SWI2VSNF2-like proteins
8348 i at
            514.1
strong similarity to Thi10p
8349_f_at
            373.7
strong similarity to Thi10p
8350_at
            -102.1
weak similarity to YPL112c
8351 at
            563.1
Transcription factor IIA, large chain
8352_at
            381.3
possible leucine zipper
                         Р
8353_at
            1276.0
Involved in lipoic acid metabolism
8354 at
            3724.5
hypothetical protein
            3058.2
8355_at
Multicopy suppressor of BFA (Brefeldin A)-induced lethality\; implicated in secretion and nuclear
segregation
8356 at
            -81.3
                         Α
questionable ORF
8357_at
                         Α
            149.5
questionable ORF
                         Ρ
8358_at
            797.8
Ribose methyltransferase for mitochondrial 21S rRNA
8359 at
            2726.2
imidazoleglycerol-phosphate dehydratase
8360_at
            789.6
                         Р
questionable ORF
```

```
3571.7
8361_at
ATP-dependent RNA helicase of DEAD box family; suppressor of a pre-mRNA splicing mutation, prp8-1
8362 at
            676.1
                        Α
hypothetical protein
8363 at
            1533.4
                        Ρ
similarity to Brettanomyces RAD4 and to S.pombe hypothetical protein
8364 at
            4468.9
second-largest subunit of RNA polymerase III
8365 at
            1099.7
protein tyrosine phosphatase
8320 at
            3630.5
homology to bacterial nicotinate phosphoribosyl transferase
8321 at
            5000.7
RNA polymerase II subunit
            -49.9
8322 at
encodes protein with GTP-binding domain related to dynamin
8323 at
            2298.4
beta subunit of G protein coupled to mating factor receptor
8324 at
            254.3
Involved in silencing at telomeres, HML and HMR
8325 at
            -229.2
                        Α
hypothetical protein
8326 at
            589.2
similarity to M.xanthus hypothetical protein
8327 at
            664.6
                        М
Relieves uso1-1 Transport Defect
            2016.4
8328 at
                        Ρ
Subunit 1 of Replication Factor C\; homologous to human RFC 140 kDa subunit
8329 at
            847.2
questionable ORF
            1750.7
                        Ρ
8330 at
dipeptidyl aminopeptidase
8331 at
            2056.1
                        Ρ
hypothetical protein
8332 at
                         Ρ
            1226.2
malonyl-CoA:ACP transferase
8333 at
            65.1
                        Α
malonyl-CoA:ACP transferase
8334 at
            1018.4
                        Α
similarity to ADP/ATP carrier proteins
8335 at
            538.6
protein of unknown function
8336_at
            5916.7
16-kDa RNA polymerase subunit (common to polymerases I, II and III)
8337 at
            423.3
questionable ORF
                        Ρ
8338 at
            1628.7
NifU-like protein A
8339 at
            449.8
similarity to microtubule-interacting protein Mhp1p
8340_at
            457.2
weak similarity to YNR013c
8341 at
            1628.7
Transcriptional modulator
8342 at
                         Ρ
            9933.2
Transcriptional modulator
```

```
8297_at
            430.8
protein kinase involved in protein kinase C pathway
8298 at
            1412.5
GrpE homolog, mitochondrial matrix protein
8299 at
            1382.9
protein kinase
8300_f_at
            25257.2
Ribosomal protein L33B (L37B) (rp47) (YL37)
8301 at
            349.4
                         Α
encodes snRNA U3, SNR17B also encodes snRNA U3
8302 at
            1252.7
                         Ρ
dihydrofolate reductase
8303 at
            -172.4
homology to human oxysterol binding protein
8304 at
            569.1
                         Α
similarity to hypothetical S. pombe protein
8305 at
            825.0
hypothetical protein
8306 at
            1492.9
                         Ρ
similarity to C.elegans ZK1058.5 protein
            2469.6
8307 at
                         Ρ
tetrahydrofolylpolyglutamate synthase
8308 at
            -19.9
                         Α
Sporulation Specific
8309 at
            2281.6
similarity to M.jannaschii hypothetical protein MJ0588
8310 at
            944.4
Acetyltransferase in the SAS gene family
            1024.6
8311 at
                         Ρ
similarity to hypothetical C. elegans proteins
8312 at
            1169.8
weak similarity to reductases
8313 at
            13831.5
Suppressor of rad53 lethality
8314 g at 17300.8
Suppressor of rad53 lethality
8315_i_at
            3897.2
questionable ORF
8316 at
            306.2
                         Α
subunit of the anaphase promoting complex
8317 at
            899.6
CLeavage\Polyadenylation factor IA subunit\; interacts with Pcf11p in the 2-hybrid system
8318_at
            1854.2
similarity to thiosulfate sulfurtransferases
8319 at
            220.5
                         Α
hypothetical protein
                         Ρ
8274 at
            550.2
hypothetical protein
8275_at
            2219.7
Protein involved in protein import into ER
8276 at
            177.0
                         Α
hypothetical protein
                         Ρ
8277 at
            726.3
strong similarity to secretory protein Ssp134p
            1717.8
8278_at
calcium-binding protein component of spindle pole bodies, localizes to half-bridges and interacts with
```

```
KAR1
8279 at
            90.1
                         Α
hypothetical protein
8280 at
            4187.7
ATPase\; component of the 26S proteasome cap subunit
8281 at
            5059.3
translation initiation factor eIF2b gamma subunit\; negative regulator in the general control of amino acid
biosynthesis
8282 at
            2660.8
Subunit of the regulatory particle of the proteasome
8283 at
            686.8
                         Α
similarity to YLR243w
8284 at
             121.0
                         Α
questionable ORF
                         Ρ
8285 at
            696.2
hypothetical protein
8286 at
            2024.7
                         Ρ
Binds to beta-tubulin and may participate in microtubule morphogenesis
8287 at
            -97.6
Pentamidine resistance protein
8288 at
            2775.0
similarity to ser/thr protein kinases
8289 at
            -157.9
                         Α
hypothetical protein
8290 at
            608.5
Required for viability in the absence of the kinesin-related Cin8p mitotic motor.
8291 at
             10753.8
Vacuolar H-ATPase 100 kDa subunit of membrane (V0) sector, essential for vacuolar acidification and
vacuolar H-ATPase activity
            9873.3
8292 at
strong similarity to Rattus tricarboxylate carrier
8293_at
            2323.7
microtubule-associated protein
8294_at
            1451.4
similarity to resistance proteins
8295 at
            581.7
transfer RNA isopentenyl transferase
8296_at
             128.6
similarity to A.nidulans palA protein
8252_at
            4821.7
Binds to eIF4E, the mRNA cap-binding protein, and represses cap-dependent translation initiation by
interfering with the interaction of eIF4E and eIF4G
8253_at
            503.7
                         Α
questionable ORF
8254 at
            539.2
uroporphyrinogen III synthase
8255 at
             166.0
                         Α
hypothetical protein
8256_at
            608.5
                         Α
similarity to S.pombe dihydrofolate reductase
8257_at
            1930.4
weak similarity to phosducins
8258 at
            -328.2
                         Α
questionable ORF
8259_at
             1920.8
weak similarity to phosphoglycerate mutases
```

```
8260_at
            45.9
weak similarity to M.jannaschii hypothetical protein MJ0694
8261 at
            8166.6
similarity to D.melanogaster heat shock protein 67B2
8262 at
            2066.7
similarity to D.melanogaster heat shock protein 67B2
8263 at
            493.7
weak similarity to PITSLRE protein kinase isoforms
8264 at
            752.5
Disulfide isomerase related protein
8265 at
            299.2
similarity to C.elegans hypothetical protein
            2808.8
8266 at
transcriptional regulator
8267 at
            1067.1
similarity to cation translocating ATPases
8268 at
            360.6
similarity to human and mouse glomerulosclerosis protein Mpv17
8269 f at 14759.9
Ribosomal protein S10A
                         Ρ
8270_f_at
            53608.2
Ribosomal protein S10A
8271 at
            926.9
similarity to human hypothetical protein
8272 at
            67.8
weak similarity to SWI/SNF complex 60 KDa subunit from man and mouse
8273 at
            323.3
                         Α
similarity to hypothetical S. pombe protein
8229 at
            374.6
                         Α
similarity to Sdh4p
8230 at
            -33.0
                         Α
required for meiosis
                         Ρ
8231 at
            3101.7
multiprotein bridging factor
8232 at
            1348.7
BUD site selection
8233_g_at 822.4
                         Ρ
BUD site selection
8234 at
            114.9
                         Α
questionable ORF
8235 at
            252.5
                         Α
hypothetical protein
8236_at
                         Ρ
            2204.1
CPA1 leader peptide
                         Ρ
8237 at
            4213.6
Carbamoyl phosphate synthetase, arginine specific
8238 at
            877.0
has strong homology to Drosophila ISWI
8239 at
            472.4
                         Α
AIP3 binding protein
8240_at
            1042.4
                         Α
hypothetical protein
                         Ρ
8241 at
            1673.5
similarity to human X-linked PEST-containing transporter
8242 at
            1449.6
homolog of chloroplast phosphate transporter
```

```
8243_at
            453.7
                        Α
weak similarity to YIL149c
8244 i at
            25825.2
questionable ORF
8245 r at
            2031.1
                        Ρ
questionable ORF
8246_s_at 10281.6
                        Ρ
questionable ORF
8247_at
            12158.1
57 kDa nucleolar protein
                         Ρ
8248 at
            1098.6
similarity to hypothetical S. pombe protein
            221.3
8249 at
sporulation-specific protein
8250 at
            1173.6
hypothetical protein
8251 at
            1112.9
                        Ρ
hypothetical protein
8206 at
            898.0
Protein involved in cobalt accumulation\; dosage dependent suppressor of cobalt toxicity
            2339.3
8207 at
long chain fatty acyl:CoA synthetase
8208 at
            65.7
                         Α
hypothetical protein
8209 at
            166.0
                        Α
homolog of mammalian splicing factorVU2 snRNP protein
8210 at
            975.7
hypothetical protein
8211 at
            685.0
dolichyl phosphate-D-mannose:protein O-D-mannosyltransferase
8212 at
            989.9
similarity to hypothetical S.pombe protein SPAC1F12.05
8213 at
            10306.6
gamma-glutamyl phosphate reductase
8214 at
            487.4
similarity to YAL028w
8215 at
            -68.8
                         Α
questionable ORF
                        Ρ
8216 at
            3554.5
myosin-1
                        Ρ
8217 at
            5464.9
vesicle-associated membrane protein (synaptobrevin) homolog
8218_at
            2006.5
Putative ABC transporter highly similar to Pdr5p
8219 at
            653.5
Multicopy suppressor of clathrin deficiency and of ts mutants of IPL1
8220 at
            1175.9
catalytic subunit of mitochondrial DNA polymerase
8221_at
            442.9
                        Α
questionable ORF
                        Ρ
8222 at
            16010.2
27-kDa subunit of the vacuolar ATPase\; E subunit of V1 sector
8223 at
            58.5
questionable ORF
8224_at
            304.5
                         Α
splicing factor
```

```
8225_at
            10465.3
Cytoplasmic alanyl-tRNA synthetase gene
8226 at
            1593.8
Appears to function early in (1,6)-beta-D-glucan synthesis pathway
8227 at
Mutants are defective in Ty1 Enhancer-mediated Activation
8228 at
            -244.6
                         Α
similarity to YAL034c
8183 at
            22.2
strong similarity to E2 ubiquitin-conjugating enzymes
8184 at
            1991.2
DNA-dependent RNA polymerase I subunit A43
8185 at
            6332.9
RNA polymerase I subunit 190 (alpha)
8186 at
            451.8
weak similarity to YAl037w
8187 at
            -188.5
hypothetical protein
8188 at
            1315.5
                         Ρ
TYE7, a 33 kDa serine-rich protein, is a potential member of the basic
regionVhelix-loop-helixVleucine-zipper protein family
8189 at
            -3.1
questionable ORF
                         Ρ
8190 at
            1357.2
deoxycytidyl transferase
8191 at
            505.5
Pyruvate kinase, glucose-repressed isoform
            -36.0
8192 at
putative proline-specific permease
8193 at
            -19.8
Protein involved in chromosome segregation, required for microtubule stability
8194_at
            153.9
weak similarity to Esp1p and mitochondrial L.illustris cytochrome oxidase I
8195 at
            48.2
mRNA is induced in meiosis, encodes a meiosis-specific serine\/threonine protein kinase which interacts
with and is believed to phosphorylate Hop1p
8196 at
            524.4
                         Α
hypothetical protein
                         Ρ
8197 at
            451.7
weak similarity to adenylate cyclases
8198 at
            402.3
hypothetical protein
                         Р
8199 at
            2255.6
nam9-1 suppressor
                         Р
8200 at
            2841.0
strong similarity to human electron transfer flavoprotein-ubiquinone oxidoreductase
8201 at
Grd19p that is epitope tagged with the HA epitope at the C-terminus is functional, migrates at 28 kDa,
fractionates predominantly in the cytosolic fraction (however a minor amount associates with
membranes), and shows diffuse cytosolic labeling when immunolocalized in wild-type yeast\; however, in
vps27 mutant cells (a class E vps mutant, which accumulates a prevaculoar compartment), Grd19p-HA
co-localizes with the vacuolar H+-ATPase in the prevaculoar compartment\; Grd19p contains PX domain,
which is found in proteins such as human SNX1 (Sorting Nexin-1) (Ponting, C.P. 1996. Protein Science
5:2353-2357)
8202 at
            322.1
Component, along with Hap2p and Hap3p, of CCAAT-binding transcription factor
```

```
Ρ
8203_at
            1347.7
hypothetical protein
                         Ρ
8204 at
            1131.4
low-Km (high-affinity) cAMP phosphodiesterase
8205 at
            5042.9
translation initiation factor eIF3 subunit
8161_at
            4995.7
proteasome component YC1 (protease yscE subunit 1)
8162 at
            557.9
Activator of peroxisome proliferation
8163 at
            -77.2
                         Α
hypothetical protein
8164 at
            30.5
strong similarity to YAL053w
8165 at
            182.3
                        Α
questionable ORF
8166 at
            1504.7
                         Ρ
Calponin homolog
8167 at
            -61.3
                         Α
encodes a putative 3 -> 5 exonuclease
8168 at
            97731.9
40S ribosomal protein S12
8169 at
            6016.6
protein of the TCDVMRS6 family of GDP dissociation inhibitors (Rab escort protein)\; component of Rab
geranylgeranyl transferase
8170_at
            700.5
similarity to YAL056w
                         Ρ
8171 at
            935.6
hypothetical protein
8172 at
                         Α
            725.8
nuclesome assembly protein I
8173_at
            1792.1
aldehyde dehydrogenase (E.C. 1.2.1.5) (sold by SIGMA under the catalogue number A5550, according to
A. Blomberg)
8174 at
            4854.0
NADP-specific glutamate dehydrogenase
8175 at
            -274.5
hypothetical protein
8176 at
            153.2
                         Α
Alcohol acetyltransferase
8177 at
            -323.5
strong similarity to aminotriazole resistance protein
8178_at
            227.8
                         Α
questionable ORF
                         Ρ
8179 at
            707.9
weak similarity to Pdr3p
8180 at
            172.8
                         Α
similar to FRE2
                         Ρ
8181_at
            527.6
hypothetical protein
                         Ρ
8182_at
            1887.7
weak similarity to L.mexicana secreted acid phosphatase 2
8138 at
            96.6
                         Α
similar to FRE2
            954.0
8139_at
strong similarity to hypothetical protein YMR316w
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8140_at
            99.6
                         Α
photolyase
8141 at
            4.4
strong similarity to YGL258w
8142 s at -73.8
Protein with similarity to formate dehydrogenases
8143 at
            484.1
strong similarity to putative pseudogenes YPL277c and YPL278c
8144 g at 243.1
                         Α
strong similarity to putative pseudogenes YPL277c and YPL278c
8145 s at 265.8
nearly identical to YPL279c
8146 at
            -101.4
hypothetical protein
8147 s at -83.9
                         Α
strong similarity to members of the Srp1p/Tip1p family
8148 at
            1.3
hypothetical protein identified by SAGE
8149 at
            316.2
identified by SAGE
8150 s at 637.9
                         Α
Sorting nexin I homologue
8151 s at 1101.2
Thymidylate synthase
8152 f at
            345.3
                         Α
Thymidylate synthase
8153 at
            657.5
                         Α
non-annotated SAGE orf Found forward in NC 001147 between 33183 and 33335 with 100% identity.
See citation Velculescu, V.E., et al. (1997) Characterization of the yeast transcriptome. Cell 8:243-251
8154 at
            -193.6
non-annotated SAGE orf Found reverse in NC_001147 between 35996 and 36175 with 100% identity.
See citation Velculescu, V.E., et al. (1997) Characterization of the yeast transcriptome. Cell 8:243-251
8155 at
non-annotated SAGE orf Found forward in NC_001147 between 242830 and 243045 with 100% identity.
See citation Velculescu, V.E., et al. (1997) Characterization of the yeast transcriptome. Cell 8:243-251
8156 g at -144.1
non-annotated SAGE orf Found forward in NC_001147 between 242830 and 243045 with 100% identity.
See citation Velculescu, V.E., et al. (1997) Characterization of the yeast transcriptome. Cell 8:243-251
8157 at
non-annotated SAGE orf Found forward in NC_001147 between 571039 and 571224 with 100% identity.
See citation Velculescu, V.E., et al. (1997) Characterization of the yeast transcriptome. Cell 8:243-251
8158 g at 2158.7
non-annotated SAGE orf Found forward in NC_001147 between 571039 and 571224 with 100% identity.
See citation Velculescu, V.E., et al. (1997) Characterization of the yeast transcriptome. Cell 8:243-251
non-annotated SAGE orf Found forward in NC 001147 between 571131 and 571283 with 100% identity.
See citation Velculescu, V.E., et al. (1997) Characterization of the yeast transcriptome. Cell 8:243-251
8160 at
            180.5
non-annotated SAGE orf Found reverse in NC 001147 between 882274 and 882417 with 100% identity.
See citation Velculescu, V.E., et al. (1997) Characterization of the yeast transcriptome. Cell 8:243-251
8112 at
            203.0
non-annotated SAGE orf Found reverse in NC_001147 between 14772 and 15044 with 100% identity.
See citation Velculescu, V.E., et al. (1997) Characterization of the yeast transcriptome. Cell 8:243-251
non-annotated SAGE orf Found reverse in NC_001147 between 241012 and 241308 with 100% identity.
See citation Velculescu, V.E., et al. (1997) Characterization of the yeast transcriptome. Cell 8:243-251
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8114_i_at -191.8
non-annotated SAGE orf Found forward in NC 001147 between 464469 and 464630 with 100% identity.
See citation Velculescu, V.E., et al. (1997) Characterization of the yeast transcriptome. Cell 8:243-251
8115 f at
            735.9
non-annotated SAGE orf Found forward in NC 001147 between 464469 and 464630 with 100% identity.
See citation Velculescu, V.E., et al. (1997) Characterization of the yeast transcriptome. Cell 8:243-251
8116 f at 1714.2
non-annotated SAGE orf Found reverse in NC 001147 between 599528 and 599743 with 100% identity.
See citation Velculescu, V.E., et al. (1997) Characterization of the yeast transcriptome. Cell 8:243-251
non-annotated SAGE orf Found forward in NC 001147 between 703721 and 703864 with 100% identity.
See citation Velculescu, V.E., et al. (1997) Characterization of the yeast transcriptome. Cell 8:243-251
8118 i at
non-annotated SAGE orf Found reverse in NC 001147 between 703986 and 704222 with 100% identity.
See citation Velculescu, V.E., et al. (1997) Characterization of the yeast transcriptome. Cell 8:243-251
non-annotated SAGE orf Found reverse in NC 001147 between 703986 and 704222 with 100% identity.
See citation Velculescu, V.E., et al. (1997) Characterization of the yeast transcriptome. Cell 8:243-251
8120 at
non-annotated SAGE orf Found forward in NC_001147 between 60049 and 60273 with 100% identity.
See citation Velculescu, V.E., et al. (1997) Characterization of the yeast transcriptome. Cell 8:243-251
8121 at
non-annotated SAGE orf Found reverse in NC 001147 between 85271 and 85453 with 100% identity.
See citation Velculescu, V.E., et al. (1997) Characterization of the yeast transcriptome. Cell 8:243-251
non-annotated SAGE orf Found forward in NC_001147 between 106351 and 106605 with 100% identity.
See citation Velculescu, V.E., et al. (1997) Characterization of the yeast transcriptome. Cell 8:243-251
8123 at
non-annotated SAGE orf Found reverse in NC 001147 between 136277 and 136426 with 100% identity.
See citation Velculescu, V.E., et al. (1997) Characterization of the yeast transcriptome. Cell 8:243-251
8124 at
            1281.8
non-annotated SAGE orf Found forward in NC_001147 between 185437 and 185643 with 100% identity.
See citation Velculescu, V.E., et al. (1997) Characterization of the yeast transcriptome. Cell 8:243-251
non-annotated SAGE orf Found forward in NC_001147 between 254904 and 255071 with 100% identity.
See citation Velculescu, V.E., et al. (1997) Characterization of the yeast transcriptome. Cell 8:243-251
8126 at
            702.3
non-annotated SAGE orf Found reverse in NC_001147 between 290642 and 290797 with 100% identity.
See citation Velculescu, V.E., et al. (1997) Characterization of the yeast transcriptome. Cell 8:243-251
8127_at
non-annotated SAGE orf Found reverse in NC 001147 between 316261 and 316395 with 100% identity.
See citation Velculescu, V.E., et al. (1997) Characterization of the yeast transcriptome. Cell 8:243-251
non-annotated SAGE orf Found reverse in NC_001147 between 372047 and 372184 with 100% identity.
See citation Velculescu, V.E., et al. (1997) Characterization of the yeast transcriptome. Cell 8:243-251
8129 at
            507.0
non-annotated SAGE orf Found reverse in NC 001147 between 397425 and 397667 with 100% identity.
See citation Velculescu, V.E., et al. (1997) Characterization of the yeast transcriptome. Cell 8:243-251
non-annotated SAGE orf Found reverse in NC 001147 between 414243 and 414401 with 100% identity.
See citation Velculescu, V.E., et al. (1997) Characterization of the yeast transcriptome. Cell 8:243-251
non-annotated SAGE orf Found forward in NC 001147 between 423955 and 424104 with 100% identity.
See citation Velculescu, V.E., et al. (1997) Characterization of the yeast transcriptome. Cell 8:243-251
8132 at
            3619.9
non-annotated SAGE orf Found forward in NC_001147 between 646896 and 647093 with 100% identity.
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8133 at
            151.6
non-annotated SAGE orf Found forward in NC 001147 between 658442 and 658603 with 100% identity.
See citation Velculescu, V.E., et al. (1997) Characterization of the yeast transcriptome. Cell 8:243-251
non-annotated SAGE orf Found reverse in NC 001147 between 671186 and 671422 with 100% identity.
See citation Velculescu, V.E., et al. (1997) Characterization of the yeast transcriptome. Cell 8:243-251
non-annotated SAGE orf Found forward in NC_001147 between 680789 and 680935 with 100% identity.
See citation Velculescu, V.E., et al. (1997) Characterization of the yeast transcriptome. Cell 8:243-251
8136 at
            1263.2
non-annotated SAGE orf Found reverse in NC 001147 between 715388 and 715549 with 100% identity.
See citation Velculescu, V.E., et al. (1997) Characterization of the yeast transcriptome. Cell 8:243-251
non-annotated SAGE orf Found forward in NC 001147 between 738543 and 738683 with 100% identity.
See citation Velculescu, V.E., et al. (1997) Characterization of the yeast transcriptome. Cell 8:243-251
8088 i at
            -132.1
non-annotated SAGE orf Found forward in NC 001147 between 792336 and 792482 with 100% identity.
See citation Velculescu, V.E., et al. (1997) Characterization of the yeast transcriptome. Cell 8:243-251
8089 at
            1400.3
non-annotated SAGE orf Found forward in NC_001147 between 850067 and 850213 with 100% identity.
See citation Velculescu, V.E., et al. (1997) Characterization of the yeast transcriptome. Cell 8:243-251
non-annotated SAGE orf Found forward in NC 001147 between 918334 and 918558 with 100% identity.
See citation Velculescu, V.E., et al. (1997) Characterization of the yeast transcriptome. Cell 8:243-251
8091 at
            196.1
non-annotated SAGE orf Found reverse in NC 001147 between 922939 and 923082 with 100% identity.
See citation Velculescu, V.E., et al. (1997) Characterization of the yeast transcriptome. Cell 8:243-251
8092 i at
            2428.1
non-annotated SAGE orf Found forward in NC 001147 between 1004376 and 1004510 with 100%
identity. See citation Velculescu, V.E., et al. (1997) Characterization of the yeast transcriptome. Cell
8:243-251
8093 r at
           1031.4
non-annotated SAGE orf Found forward in NC_001147 between 1004376 and 1004510 with 100%
identity. See citation Velculescu, V.E., et al. (1997) Characterization of the yeast transcriptome. Cell
8:243-251
8094_f_at
            762.0
                         М
non-annotated SAGE orf Found forward in NC 001147 between 1004376 and 1004510 with 100%
identity. See citation Velculescu, V.E., et al. (1997) Characterization of the yeast transcriptome. Cell
8:243-251
8095 at
            79.6
non-annotated SAGE orf Found forward in NC 001147 between 301047 and 301238 with 100% identity.
See citation Velculescu, V.E., et al. (1997) Characterization of the yeast transcriptome. Cell 8:243-251
8096_at
            227.3
non-annotated SAGE orf Found forward in NC 001147 between 413491 and 413682 with 100% identity.
See citation Velculescu, V.E., et al. (1997) Characterization of the yeast transcriptome. Cell 8:243-251
non-annotated SAGE orf Found reverse in NC 001147 between 798316 and 798483 with 100% identity.
See citation Velculescu, V.E., et al. (1997) Characterization of the yeast transcriptome. Cell 8:243-251
8098 at
non-annotated SAGE orf Found forward in NC 001147 between 980859 and 981032 with 100% identity.
See citation Velculescu, V.E., et al. (1997) Characterization of the yeast transcriptome. Cell 8:243-251
8099 at
            -7.0
non-annotated SAGE orf Found reverse in NC_001147 between 17812 and 17970 with 100% identity.
See citation Velculescu, V.E., et al. (1997) Characterization of the yeast transcriptome. Cell 8:243-251
8100_at
            -222.3
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See citation Velculescu, V.E., et al. (1997) Characterization of the yeast transcriptome. Cell 8:243-251

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non-annotated SAGE orf Found forward in NC_001147 between 18708 and 18944 with 100% identity.
See citation Velculescu, V.E., et al. (1997) Characterization of the yeast transcriptome. Cell 8:243-251
8101 at
            -116.9
non-annotated SAGE orf Found forward in NC 001147 between 27811 and 27948 with 100% identity.
See citation Velculescu, V.E., et al. (1997) Characterization of the yeast transcriptome. Cell 8:243-251
8102 at
            548.3
non-annotated SAGE orf Found forward in NC_001147 between 136219 and 136404 with 100% identity.
See citation Velculescu, V.E., et al. (1997) Characterization of the yeast transcriptome. Cell 8:243-251
8103 at
non-annotated SAGE orf Found forward in NC_001147 between 158885 and 159076 with 100% identity.
See citation Velculescu, V.E., et al. (1997) Characterization of the yeast transcriptome. Cell 8:243-251
non-annotated SAGE orf Found forward in NC 001147 between 159172 and 159444 with 100% identity.
See citation Velculescu, V.E., et al. (1997) Characterization of the yeast transcriptome. Cell 8:243-251
8105 at
            98.1
non-annotated SAGE orf Found forward in NC 001147 between 226577 and 226801 with 100% identity.
See citation Velculescu, V.E., et al. (1997) Characterization of the yeast transcriptome. Cell 8:243-251
non-annotated SAGE orf Found forward in NC 001147 between 418190 and 418375 with 100% identity.
See citation Velculescu, V.E., et al. (1997) Characterization of the yeast transcriptome. Cell 8:243-251
non-annotated SAGE orf Found forward in NC_001147 between 438710 and 438853 with 100% identity.
See citation Velculescu, V.E., et al. (1997) Characterization of the yeast transcriptome. Cell 8:243-251
8108 at
            -136.5
non-annotated SAGE orf Found reverse in NC 001147 between 682213 and 682368 with 100% identity.
See citation Velculescu, V.E., et al. (1997) Characterization of the yeast transcriptome. Cell 8:243-251
non-annotated SAGE orf Found reverse in NC 001147 between 682295 and 682447 with 100% identity.
See citation Velculescu, V.E., et al. (1997) Characterization of the yeast transcriptome. Cell 8:243-251
8110 at
non-annotated SAGE orf Found reverse in NC_001147 between 759487 and 759765 with 100% identity.
See citation Velculescu, V.E., et al. (1997) Characterization of the yeast transcriptome. Cell 8:243-251
8111 g at 39.6
non-annotated SAGE orf Found reverse in NC 001147 between 759487 and 759765 with 100% identity.
See citation Velculescu, V.E., et al. (1997) Characterization of the yeast transcriptome. Cell 8:243-251
non-annotated SAGE orf Found reverse in NC_001147 between 775471 and 775614 with 100% identity.
See citation Velculescu, V.E., et al. (1997) Characterization of the yeast transcriptome. Cell 8:243-251
8064 at
non-annotated SAGE orf Found reverse in NC_001147 between 836569 and 836709 with 100% identity.
See citation Velculescu, V.E., et al. (1997) Characterization of the yeast transcriptome. Cell 8:243-251
8065 at
non-annotated SAGE orf Found reverse in NC_001147 between 854174 and 854314 with 100% identity.
See citation Velculescu, V.E., et al. (1997) Characterization of the yeast transcriptome. Cell 8:243-251
non-annotated SAGE orf Found reverse in NC 001147 between 969027 and 969179 with 100% identity.
See citation Velculescu, V.E., et al. (1997) Characterization of the yeast transcriptome. Cell 8:243-251
8067 i at
            9039.0
non-annotated SAGE orf Found reverse in NC_001147 between 974085 and 974252 with 100% identity.
See citation Velculescu, V.E., et al. (1997) Characterization of the yeast transcriptome. Cell 8:243-251
8068 at
            221.0
non-annotated SAGE orf Found reverse in NC_001147 between 978298 and 978459 with 100% identity.
See citation Velculescu, V.E., et al. (1997) Characterization of the yeast transcriptome. Cell 8:243-251
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non-annotated SAGE orf Found reverse in NC_001147 between 978494 and 978640 with 100% identity. See citation Velculescu, V.E., et al. (1997) Characterization of the yeast transcriptome. Cell 8:243-251

8070_at 105.7 A

non-annotated SAGE orf Found reverse in NC_001147 between 979330 and 979470 with 100% identity. See citation Velculescu, V.E., et al. (1997) Characterization of the yeast transcriptome. Cell 8:243-251 8071_f_at -44.5 A

non-annotated SAGE orf Found reverse in NC_001147 between 1086064 and 1086357 with 100% identity. See citation Velculescu, V.E., et al. (1997) Characterization of the yeast transcriptome. Cell 8:243-251

8072_i_at -113.3 A

non-annotated SAGE orf Found reverse in NC_001147 between 1086206 and 1086379 with 100% identity. See citation Velculescu, V.E., et al. (1997) Characterization of the yeast transcriptome. Cell 8:243-251

8073 f at -416.5 A

non-annotated SAGE orf Found reverse in NC_001147 between 1086206 and 1086379 with 100% identity. See citation Velculescu, V.E., et al. (1997) Characterization of the yeast transcriptome. Cell 8:243-251

8074 s at 560.0 A

non-annotated SAGE orf Found reverse in NC_001147 between 1089906 and 1090073 with 100% identity. See citation Velculescu, V.E., et al. (1997) Characterization of the yeast transcriptome. Cell 8:243-251

8075_s_at 1472.6 P

non-annotated SAGE orf Found reverse in NC_001147 between 1090615 and 1090749 with 100% identity. See citation Velculescu, V.E., et al. (1997) Characterization of the yeast transcriptome. Cell 8:243-251

8076 at 38.9 A

non-annotated SAGE orf Found reverse in NC_001147 between 16559 and 16696 with 100% identity. See citation Velculescu, V.E., et al. (1997) Characterization of the yeast transcriptome. Cell 8:243-251 8077 at -195.4 A

non-annotated SAGE orf Found reverse in NC_001147 between 16638 and 16781 with 100% identity. See citation Velculescu, V.E., et al. (1997) Characterization of the yeast transcriptome. Cell 8:243-251 8078 at -52.0 A

non-annotated SAGE orf Found reverse in NC_001147 between 16760 and 16939 with 100% identity. See citation Velculescu, V.E., et al. (1997) Characterization of the yeast transcriptome. Cell 8:243-251 8079 s at 433.3 A

non-annotated SAGE orf Found forward in NC_001147 between 27083 and 27217 with 100% identity. See citation Velculescu, V.E., et al. (1997) Characterization of the yeast transcriptome. Cell 8:243-251 8080 at 732.1 A

non-annotated SAGE orf Found forward in NC_001147 between 27147 and 27371 with 100% identity. See citation Velculescu, V.E., et al. (1997) Characterization of the yeast transcriptome. Cell 8:243-251 8081 at -156.9 A

non-annotated SAGE orf Found forward in NC_001147 between 42706 and 42873 with 100% identity. See citation Velculescu, V.E., et al. (1997) Characterization of the yeast transcriptome. Cell 8:243-251 8082 at 185.5 A

non-annotated SAGE orf Found forward in NC_001147 between 43030 and 43167 with 100% identity. See citation Velculescu, V.E., et al. (1997) Characterization of the yeast transcriptome. Cell 8:243-251

non-annotated SAGE orf Found forward in NC_001147 between 43142 and 43348 with 100% identity. See citation Velculescu, V.E., et al. (1997) Characterization of the yeast transcriptome. Cell 8:243-251 8084 at -246.1 A

non-annotated SAGE orf Found forward in NC_001147 between 108972 and 109109 with 100% identity. See citation Velculescu, V.E., et al. (1997) Characterization of the yeast transcriptome. Cell 8:243-251 8085 at 756.7 A

non-annotated SAGE orf Found forward in NC_001147 between 180361 and 180495 with 100% identity. See citation Velculescu, V.E., et al. (1997) Characterization of the yeast transcriptome. Cell 8:243-251 8086 at -157.7 A

non-annotated SAGE orf Found forward in NC_001147 between 193557 and 193784 with 100% identity. See citation Velculescu, V.E., et al. (1997) Characterization of the yeast transcriptome. Cell 8:243-251

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8087_at
            224.0
non-annotated SAGE orf Found reverse in NC 001147 between 271475 and 271732 with 100% identity.
See citation Velculescu, V.E., et al. (1997) Characterization of the yeast transcriptome. Cell 8:243-251
8039 at
non-annotated SAGE orf Found reverse in NC 001147 between 301017 and 301250 with 100% identity.
See citation Velculescu, V.E., et al. (1997) Characterization of the yeast transcriptome. Cell 8:243-251
non-annotated SAGE orf Found forward in NC 001147 between 524856 and 525080 with 100% identity.
See citation Velculescu, V.E., et al. (1997) Characterization of the yeast transcriptome. Cell 8:243-251
non-annotated SAGE orf Found reverse in NC 001147 between 609691 and 609825 with 100% identity.
See citation Velculescu, V.E., et al. (1997) Characterization of the yeast transcriptome. Cell 8:243-251
8042 at
            130.4
non-annotated SAGE orf Found forward in NC 001147 between 690271 and 690495 with 100% identity.
See citation Velculescu, V.E., et al. (1997) Characterization of the yeast transcriptome. Cell 8:243-251
non-annotated SAGE orf Found forward in NC 001147 between 692115 and 692309 with 100% identity.
See citation Velculescu, V.E., et al. (1997) Characterization of the yeast transcriptome. Cell 8:243-251
non-annotated SAGE orf Found forward in NC_001147 between 758077 and 758286 with 100% identity.
See citation Velculescu, V.E., et al. (1997) Characterization of the yeast transcriptome. Cell 8:243-251
8045 at
non-annotated SAGE orf Found forward in NC 001147 between 778364 and 778516 with 100% identity.
See citation Velculescu, V.E., et al. (1997) Characterization of the yeast transcriptome. Cell 8:243-251
non-annotated SAGE orf Found forward in NC_001147 between 825297 and 825503 with 100% identity.
See citation Velculescu, V.E., et al. (1997) Characterization of the yeast transcriptome. Cell 8:243-251
8047 at
non-annotated SAGE orf Found forward in NC 001147 between 877184 and 877345 with 100% identity.
See citation Velculescu, V.E., et al. (1997) Characterization of the yeast transcriptome. Cell 8:243-251
8048 at
            1482.7
non-annotated SAGE orf Found forward in NC_001147 between 1004147 and 1004431 with 100%
identity. See citation Velculescu, V.E., et al. (1997) Characterization of the yeast transcriptome. Cell
8:243-251
8049 at
            106.3
non-annotated SAGE orf Found forward in NC 001147 between 1070794 and 1071003 with 100%
identity. See citation Velculescu, V.E., et al. (1997) Characterization of the yeast transcriptome. Cell
8:243-251
8050 at
            -34.4
non-annotated SAGE orf Found forward in NC_001147 between 1071000 and 1071164 with 100%
identity. See citation Velculescu, V.E., et al. (1997) Characterization of the yeast transcriptome. Cell
8:243-251
8051 i at
            116.8
non-annotated SAGE orf Found reverse in NC_001147 between 1074040 and 1074183 with 100%
identity. See citation Velculescu, V.E., et al. (1997) Characterization of the yeast transcriptome. Cell
8:243-251
8052 r at 249.0
non-annotated SAGE orf Found reverse in NC 001147 between 1074040 and 1074183 with 100%
identity. See citation Velculescu, V.E., et al. (1997) Characterization of the yeast transcriptome. Cell
8:243-251
8053_at
            -17.1
                         Α
snRNA
8054 at
            659.5
                         Α
snRNA
8055_i_at
            105.3
                         Α
Centromere
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1320.3
                        Ρ
8056_at
snRNA
8057 i at
            -7.2
                         Α
snRNA
8058 r at
            10.8
                         Α
snRNA
8059_at
            168.1
                         Α
snRNA
8060 at
            864.0
                         Ρ
snRNA
8061 at
            1526.0
                         Ρ
snRNA
                         Ρ
8062 at
            1540.2
snRNA
            408.5
                         Α
8016 at
snRNA
8017 at
            1815.1
                         Α
snRNA
8018 i at
            -358.6
strong similarity to hypothetical protein YOR389w/putative pseudogene
8019 s at 86.7
strong similarity to hypothetical protein YOR389w/putative pseudogene
8020 s at 194.3
putative formate dehydrogenase/putative pseudogene
8021 at
            218.2
strong similarity to amino-acid transport proteins
8022 at
            1759.8
weak similarity to M.leprae metH2 protein, and strong similarity to hypothetical protein YLL062c
8023 at
            165.8
hypothetical protein
8024_at
            4458.0
nuclear gene for ATP synthase epsilon subunit
8025 at
            1336.4
ATP-binding cassette (ABC) transporter family member
8026 at
            324.0
Cortical protein required for cytoplasmic microtubule orientation\; localizes to the tip of shmoo projections
and to the tip of budding cells in a cell-cycle dependent manner
8027_at
            685.5
phosphoinositide-specific phospholipase C
8028_at
            432.0
weak similarity to C.elegans transcription factor unc-86
8029 at
            2557.6
dimethyladenosine transferase
8030_at
            2579.2
dicarboxylic amino acid permease
8031 at
            238.2
strong similarity to YMR253c
8032 at
            1397.6
                        Р
similarity to Kel2p and Kel3p
8033 at
            8304.8
mitochondrial and cytoplasmic fumarase (fumarate hydralase)
8034_at
            108.5
questionable ORF
                        Р
8035 at
            1976.1
hypothetical protein
                         Ρ
8036_at
            404.2
```

```
medium subunit of the clathrin-associated protein complex
8037 at
            576.9
similarity to B.subtilis transcriptional activator tenA, and strong similarity to hypothetical proteins YOL055c
and YPR121w
8038 at
            -191.0
weak similarity to YIL029c
7993 at
            1858.2
G(sub)1 cyclin
7994 at
            121.5
Involved in mitotic cell cycle and meiosis
7995 at
            330.5
transcription factor, member of Ada\/Gcn5 protein complex
7996_at
            366.0
Cik1p homolog
7997 at
            2147.6
iron-sulfur protein homologous to human adrenodoxin
7998 at
            -301.2
questionable ORF
7999 at
            3630.2
                         Ρ
weak similarity to YMR195w
8000 i at
            12977.9
Ribosomal protein L36B (L39) (YL39)
8001 at
            270.8
similarity to mouse Tbc1 protein
8002 at
            221.1
zinc-finger transcription factor of the Zn(2)-Cys(6) binuclear cluster domain type
8003 at
            650.3
similarity to human HAN11 protein and petunia an11 protein
8004 at
            1994.2
weak similarity to mouse proteinase activated receptor 2
8005 at
            1308.0
weak similarity to human mutL protein homolog
8006 at
            2270.8
weak similarity to human UDP-galactose transporter related isozyme 1
8007 at
            1768.2
component of signal recognition particle
8008 at
            256.9
                         Α
Homolog of the mammalian IQGAP1 and 2 genes\; probable regulator of cellular morphogenesis,
inducing actin-ring formation in association with cytokinesis
            760.5
8009_at
involvement in microtubule function
8010 i at
            14051.5
heat shock protein
8011_at
            2622.3
YAR1 encodes a 200-amino-acid protein with two ANK repeat motifs and an acidic C terminus rich in
PEST-like sequences
8012 at
            849.9
                         Α
questionable ORF
8013 at
            3694.3
beta subunit of translation initiation factor eIF-2
8014 at
            224.8
similarity to Prk1p, and serine/threonine protein kinase homolog from A. thaliana
8015 at
            3427.4
strong similarity to TATA-binding protein-interacting protein 49 from rat
            4965.1
7970_at
17-kDa subunit C of vacuolar membrane H(+)-ATPase
```

```
7971_at
            239.3
                         Α
hypothetical protein
7972 at
            2169.9
                         Ρ
SSO1 and SSO2 encode syntaxin homologs\; act in late stages of secretion
7973 at
            14294.4
alpha subunit of fatty acid synthase
7974 at
            3.2
                         Α
Up in StarVation
7975 at
            22.9
weak similarity to YMR181c
7976 at
            416.3
mRNA capping enzyme beta subunit (80 kDa), RNA 5 -triphosphatase
7977_at
            1372.7
UDP-glucose:dolichyl-phosphate glucosyltransferase
7978 at
            11444.6
similarity to translation elongation factor eEF3
7979 at
            3967.3
hypothetical protein
7980 at
            915.1
                         Ρ
Protein involved in mitochondrial iron accumulation
7981 at
            660.0
Induced by osmotic stress
7982 at
            85.5
similarity to C.perfringens hypothetical protein
7983 at
            2046.8
Bypass of PAM1
7984 s at 65563.3
Ribosomal protein L1A, forms part of the 60S ribosomal subunit
7985 at
            396.6
PHO85 cyclin
            7889.2
                         Ρ
7986 at
GTP binding protein
                         Ρ
7987 at
            1869.1
similarity to human hypothetical protein KIAA0187
7988 at
            121.4
similarity to YGL133w
7989 at
            651.5
Protein required for assembly of ubiquinol cytochrome-c reductase complex (cytochrome bc1 complex)
7990 at
            410.3
TMP pyrophosphorylase, hydroxyethylthiazole kinase
7991 at
            287.0
similarity to A.thaliana U2 snRNP protein A
7992_at
            1880.0
intranuclear protein which exhibits a nucleotide-specific intron-dependent tRNA pseudouridine synthase
activity
7947_at
            1326.9
Nip7p is required for 60S ribosome subunit biogenesis
7948 at
            2362.5
component of signal recognition particle
7949 at
            223.4
Protein kinase
7950 at
            968.8
                         Α
similarity to YHL039w
7951 at
            2532.3
similarity to hypthetical proteins from A. fulgidus, M. thermoautotrophicum and M. jannaschii
7952_at
            1709.0
```

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weak similarity to glycerophosphoryl diester phosphodiesterases
7953 at
            271.9
questionable ORF
7954 at
            2442.7
                         Ρ
casein kinase I isoform
                         Ρ
7955 at
            847.6
cAMP-dependent protein kinase catalytic subunit
7956 at
            372.2
similarity to cell size regulation protein Rcs1p
7957_at
            43.1
hypothetical protein
7958 at
            -272.9
                         Α
hypothetical protein
7959 at
            3443.7
weak similarity to T.cruzi p284 protein
7960 i at
            712.6
Ribosomal protein L7B (L6B) (rp11) (YL8)
7961_f_at 4832.7
Ribosomal protein L7B (L6B) (rp11) (YL8)
7962_s_at 35547.8
Ribosomal protein L7B (L6B) (rp11) (YL8)
7963 at
            1514.8
questionable ORF
7964 at
            336.6
weak similarity to S.pombe hypothetical protein SPAC8C9
7965 at
            1145.6
delta-like subunit of the yeast AP-3 adaptin component of the membrane-associated clathrin assembly
complex
7966 at
            246.5
DNA damage checkpoint gene
7967 at
            675.3
weak similarity to human centromere protein E
7968 at
            227.9
                         Α
hypothetical protein
7969 at
            11.6
strong similarity to YGL082w
7924_at
            907.9
polyadenylated RNA-binding protein
7925 at
            63.5
strong similarity to YGL084c
7926 at
            627.2
similarity to Utr1p and YEL041w
            59710.3
7927_at
                        Ρ
mating factor alpha
7928 at
            116.8
weak similarity to Xenopus protein xlgv7
7929 at
            12.5
questionable ORF
7930_at
                         Ρ
            2070.1
weak similarity to Pub1p
7931_at
            1247.4
ribosomal protein L36, mitochondrial
7932 at
            1769.6
similarity to Taf90p
7933_at
                         Α
            247.6
questionable ORF
```

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7934_at
            323.5
weak similarity to YKR029c
7935 at
            1044.5
                         Α
weak similarity to human I-caldesmon I
7936 at
            1332.3
                        Ρ
protein phosphatase Q
                         Ρ
7937_at
            2035.7
Small subunit of nuclear cap-binding protein complex
            2220.2
7938 at
putative DNA binding protein which shows similarity in homeobox domain to human proto-oncogene
PBX1
7939 at
            1181.3
similarity to chinese hamster transferrin receptor protein
7940 at
            594.3
N-acetylglucosaminyl-phosphatidylinositol biosynthetic protein
7941 at
            65.7
Nuclear import protein
7942 at
            641.5
                         Α
Mitochondrial ribosomal protein MRPL40 (YmL40)
7943 at
            643.4
Putative farnesyl transferase required for heme A synthesis
7944 at
            62.6
NAD(P)H dehydrogenase
7945 at
            1877.9
similarity to C.elegans LIM homeobox protein
7946 at
            715.0
                        Α
INvolved in nuclear mRNA export, binds both poly(A)
7902 at
            167.3
weak similarity to E.coli bfpB protein
            238.0
7903 at
DNA polymerase
7904_at
            -26.3
                         Α
weak similarity to paramyosins
7905_at
            -117.9
weak similarity to YHR207c
7906 at
            -96.0
similarity to mismatch repair protein Mlh1p
7907_at
            4445.7
Serine and threonine rich protein.
7908_at
            134.5
                         Α
hypothetical protein
7909 at
            435.2
Involved in polarity establishment and bud emergence); interacts with the Rho1p small GTP-binding
protein
7910_at
            8170.6
cytosolic leucyl tRNA synthetase
7911 at
            276.0
                        Α
weak similarity to YPR151c
            1389.1
7912 at
weak similarity to human nucleolin
7913_at
            756.8
weak similarity to S.pombe hypothetical protein SPAC2G11.15c
7914 at
            1650.2
weak similarity to YDL010w
7915_at
            549.7
                         Ρ
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kinesin-related protein

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7916_at
            10341.0
                         Ρ
vacuolar proteinase A
7917 at
            260.4
                         Α
protein kinase, Mec1p and Tel1p regulate rad53p phosphorylation
7918 at
            218.3
Resistant to Rapamycin Deletion 2
7919 at
            1521.4
strong similarity to A.thaliana PRL1 and PRL2 proteins
7920 at
            72.7
                         Α
similarity to ser/thr protein kinases
7921 at
            917.0
                         Α
involved in autophagy
7922 at
            253.3
                         Α
Phosphopantetheine
            112.3
7923 at
                         Α
Pxa1p and Pxa2p appear to be subunits of a peroxisomal ATP-binding cassette transporter necessary for
transport of long-chain fatty acids into peroxisomes
7879 at
            727.0
weak similarity to myosin heavy chain proteins
7880 at
            2055.6
Homologous to human oxysterol-binding protein\; implicated in ergosterol biosynthesis and regulation of
Golgi-derived transport vesicle biogenesis
7881 at
            1367.7
encodes snRNA U3, SNR17A also encodes snRNA U3
7882 f at
            35155.5
Ribosomal protein L33A (L37A) (YL37) (rp47)
7883 at
            2681.4
questionable ORF
                         Ρ
7884 at
            778.8
strong similarity to protein kinase Kin4p
7885_at
            439.3
                         Α
protein kinase
7886 at
            341.6
                         Α
Transcriptional modulator
7887 at
            410.8
weak similarity to fruit fly polycomblike nuclear protein
7888 at
            985.7
similarity to microtubule-interacting protein Mhp1p and to hypothetical protein YOR227w
7889 at
            -135.6
questionable ORF
                         Ρ
7890 at
            1934.1
NifU-like protein A
7891_at
            375.8
similarity to ADP/ATP carrier proteins
7892 at
            295.2
weak similarity to transcription factors
7893 at
Putative heme A biosynthetic enzyme involved in forming the formyl group at position 8 of the porphyrin
ring
7894 at
            131724.6
Ribosomal protein L5 (L1a)(YL3)
7895_at
            206.9
                         Α
hypothetical protein
7896 at
            2054.8
TFIIF subunit (transcription initiation factor), 30 kD
7897_at
            1134.7
```

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TTAGGG repeat binding factor
7898 at
            992.1
histone H1
7899 at
            1443.1
weak similarity to fruit fly TFIID subunit p85
7900 at
            750.0
weak similarity to YDR395w and cellular apoptosis susceptibility protein
7901 at
            224.6
Nuclear import protein
            151.2
7857_at
                         Α
similarity to ribonucleases
7858 at
            465.9
TFIIH subunit Tfb2\; has homology to CAK and human IIH subunits
7859 at
            260.3
Meiotic protein required for synapsis and meiotic recombination
7860 at
            845.9
Required for sorting and delivery of soluble hydrolases to the vacuole.
7861 at
            321.6
putative ATP-dependent RNA helicase\; Dead box protein
7862_at
            1944.9
Component of small subunit of the mitochondrial ribosome
7863 at
            2616.5
Isopentenyl diphosphate:dimethylallyl diphosphate isomerase (IPP isomerase)
7864 at
            543.2
Protein with similarity to Hda1p, Rpd3p, Hos2p, and Hos1p
7865 at
            1716.4
has GTPase-activating protein activity toward the essential bud-site assembly GTPase Cdc42
7866_at
            76.1
questionable ORF
7867 at
            -14.6
                         Α
similarity to glycerate dehydrogenases
7868_at
            1000.3
weak similarity to YOR193w
7869_at
            2499.9
arginase
                         Ρ
7870 at
            2803.9
similarity to C.elegans hypothetical protein, weak similarity to Pho81p
7871 at
            93.9
similarity to aminoglycoside acetyltransferase regulator from P. stuartii
7872_at
            454.7
                         Α
hypothetical protein
7873_at
            372.6
                         Α
hypothetical protein
            29841.8
7874_at
HSP70 family member, highly homologous to Ssa1p and Sse2p
7875 at
            865.4
similarity to Smv2p
7876 at
            764.1
                         Ρ
Aspartyl-tRNA synthetase, mitochondrial
7877 at
            530.1
similarity to hypothetical M. tuberculosis protein
7878_at
            494.9
questionable ORF
                         Ρ
7834_at
            2124.1
hypothetical protein
                         Ρ
7835_at
            883.6
```

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similarity to YFR021w
7836 at
            204.1
weak similarity to Sulfolobus hypothetical protein
            3389.1
7837 at
similarity to S.pombe hypothetical protein
7838 at
            470.3
Tyrosyl-tRNA synthetase
7839 at
            1037.4
hypothetical protein
7840_at
            534.9
strong similarity to YBR177c
7841 at
            6487.3
membrane component of ER protein translocation apparatus
7842 at
            3527.0
similarity to M.jannaschii GTP-binding protein, GTP1/OBG-family, weak similarity to other GTP-binding
proteins
7843 at
            276.2
                         Α
sensitive to sulfite
7844 at
            5364.2
                         Ρ
Glutathione oxidoreductase
7845 s at 51700.5
Ribosomal protein S6A (S10A) (rp9) (YS4)
7846 at
            2272.4
serum response factor-like protein
7847 at
            1318.8
similarity to aryl-alcohol dehydrogenases
7848 at
            2298.5
                         Ρ
strong similarity to YBR183w
7849 at
            1541.7
Histone and other Protein Acetyltransferase\; Has sequence homology to known HATs and NATs
7850 at
            1174.7
multidomain vesicle coat protein that interacts with Sec23p
7851 at
            699.5
                         Α
BCK1-like resistance to osmotic shock
7852 at
            302.4
                         Α
54kDa subunit of the tetrameric tRNA splicing endonuclease
7853 at
            904.4
putative helicase
7854 i at
            2930.3
                         Ρ
Ribosomal protein S9A (S13) (rp21) (YS11)
7855 f at
            9295.3
Ribosomal protein S9A (S13) (rp21) (YS11)
7856_at
            111.7
                         Α
hypothetical protein
7811 at
                         Ρ
            52318.0
Ribosomal protein L21B
7812 at
            1938.9
F(1)F(0)-ATPase complex delta subunit, mitochondrial
7813_at
            -457.2
weak similarity to YBR197c
7814 at
            282.6
Required for synthesis of N-acetylglucoaminylphosphatidylinositol, the first intermediate in synthesis of
glycosylphosphatidylinositol (GPI) anchors
7815 at
            729.3
                         Α
similarity to Vps4p and YER047c
7816_at
            67.2
                         Α
```

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questionable ORF
7817 at
            -54.0
encodes putative deubiquitinating enzyme
7818 at
            303.8
                         Α
hypothetical protein
                         Ρ
7819_at
            1231.4
weak similarity to Vps9p
7820 at
            173.5
geranylgeranyl diphosphate synthase
7821_at
            472.0
hypothetical protein
                         Ρ
7822 at
            1617.5
hypothetical protein
                         Ρ
7823 at
            1247.1
hypothetical protein
7824 at
            167.3
soluble, hydrophilic protein involved in transport of precursors for soluble vauolar hydrolases from the late
endosome to the vacuole
7825 at
            253.9
weak similarity to S.pombe peptidyl-prolyl cis-trans isomerase
7826 at
            2411.0
similarity to hypothetical protein YLR019w, YLL010c and S.pombe hypothetical protein SPAC2F7.02c
7827 at
            57.2
hypothetical protein
                         Ρ
7828 at
            17105.2
cytosolic aldehyde dehydrogenase
7829 at
            337.9
strong similarity to Mrs2p
                         Ρ
7830 at
            1935.7
similarity to glutaredoxins
7831 at
            1099.7
multidrug resistance transporter
7832 at
            854.2
                         Ρ
Multicopy suppressor of cls2-2\; also suppresses rvs161 mutations
7833 at
            564.6
                         Ρ
hypothetical protein
7788 at
                         Ρ
            623.5
hypothetical protein
7789 at
            92.4
                         Α
protein of unknown function
7790 at
            3218.7
mannosylphosphate transferase
7791_at
            477.1
                         Ρ
hypothetical protein
7792 at
            10.7
strong similarity to ADP-ribosylation factors
7793 at
            1468.2
Protein required for complex glycosylation
7794 at
            1748.9
                         Ρ
MAP kinase-associated protein
7795_at
            6303.5
Calcium and phospholipid binding protein homologous to translation elongation factor 1-gamma
(EF-1gamma)
7796_at
            212.4
                         Α
hypothetical protein
7797_at
            439.7
                         Α
```

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Elongin C transcription elongation factor
7798 at
            726.5
Vacuolar sorting protein
7799 at
            333.1
                        Α
questionable ORF
                        Ρ
7800_at
            2151.6
RNA recognition motif-containing protein
7801 at
            190.1
cyclin(SSN8)-dependent serine Vthreonine protein kinase
7802_at
            238.9
hypothetical protein
                         Р
7803 at
            836.7
nuclear encoded mitochondrial isoleucyl-tRNA synthetase
7804 at
            365.5
                         Α
hypothetical protein
                         Р
7805 at
            928.5
zinc finger DNA binding factor, transcriptional regulator of sulfur amino acid metabolism, highly
homologous to Met32p
7806 at
            19566.3
                         Ρ
GAL4 enhancer protein, has similarity to human transcription factor BTF3
7807_at
            1003.8
plasma membrane ATPase
7808 at
            87.1
questionable ORF
7809 at
            197.9
                         Α
questionable ORF
7810 at
            -67.3
                         Α
weak similarity to YLR426w
            2921.9
7766 at
styryl dye vacuolar localization
7767 at
            1653.3
negative transcriptional regulator, protein kinase homolog
7768 at
            637.3
similarity to C.elegans hypothetical protein
            478.1
7769 at
putative ATP-dependent helicase
7770 at
            16218.9
acetoacetyl CoA thiolase
7771 at
            -63.9
                        Α
hypothetical protein
                         Ρ
7772 at
            481.0
serineVthreonine protein kinase homologous to Ran1p
7773_at
            216.4
                         Α
questionable ORF
7774 at
            283.2
(N)egative regulator of (C)ts1 (E)xpression
7775 at
            1881.2
putative methylenetetrahydrofolate reductase (mthfr)
7776_at
            215.7
                         Α
UV endonuclease
7777_at
            -58.5
                         Α
ExtraCellular Mutant\; similar to SRD1
7778 at
            1854.0
weak similarity to Smt4p
7779_at
            15712.3
strong similarity to YFL004w, similarity to YJL012c
```

а

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7780_at
            3.4
Important for chromosome segregation
7781 at
            24.4
strong similarity to Lpd1p and other dihydrolipoamide dehydrogenases
7782 at
            -3.8
Zinc-finger transcription factor
7783 at
            581.1
                         Α
Homolog of SIR2
7784 at
            707.0
                         Α
hypothetical protein
7785 at
            2210.5
                         Ρ
ribosomal protein S16, mitochondrial
            4999.3
7786 at
                         Ρ
hypothetical protein
7787 at
            611.7
                         Α
Component of the TAF(II) complex (TBP-associated protein complex)
7743 at
            2347.5
coatomer complex zeta chain
7744 at
            1545.3
similarity to M.jannaschii hypothetical protein
7745 at
            306.0
kinetochore protein in the DEAH box family
7746 at
            288.8
                         Α
hypothetical protein
7747 at
            2184.5
                         Ρ
predicted transmembrane protein
7748 at
            564.6
weak similarity to Nup2p
                         Ρ
7749 at
            5768.4
strong similarity to YGR086c
7750 at
            448.6
Required for activation of RUB1 (ubiquitin-like protein) together with UBA3. Related to AOS1 and to
N-terminus of UBA1. Collaborates with UBC12 in conjugation of RUB1 to other proteins. Required for
modification of CDC53Vcullin with RUB1
7751 at
            584.3
                         Ρ
appears to be functionally related to SNF7
7752 at
            545.3
histone acetyltransferase
7753 at
            -32.6
Mitochondrial isoform of citrate synthase
7754 at
            499.2
similarity to B.subtilis mmgE protein
7755_at
            -82.0
                         Α
similarity to sulphate transporter proteins
7756 at
             1977.3
strong similarity to electron transfer flavoproteins alpha chain
7757 at
            403.5
polar 32k Da cytoplasmic protein
7758_at
            802.3
Isocitrate lyase, may be nonfunctional
7759 at
            97.2
                         Α
hypothetical protein
                         Ρ
7760 at
            567.1
similarity to transcription factor
            625.1
7761 at
similarity to sterol uptake protein Sut1p
```

```
7762_at
            11531.1
RNA polymerase I subunit A135
7763 at
            829.2
similarity to ADP/ATP carrier proteins and Graves disease carrier protein
7764 at
            56.4
hypothetical protein
7765_at
            467.8
                         Α
similarity to transcription factors
7721 at
            81.9
                         Α
hypothetical protein
7722 at
             167.9
                         Α
similarity to transcription factors
7723 at
            2778.9
similar to human translation initiation factor 6 (eIF6)
7724 at
            413.7
                         Α
GDP dissociation factor for Sec4p
7725 at
            385.7
p90 subunit of yeast omatin Assembly Factor-I (CAF-I)
7726 at
             1809.7
essential for initiation of DNA replication\; homolog of S. pombe CDC21
7727 at
            564.3
hypothetical protein
7728 at
            977.5
                         Α
similarity to human citrate transporter protein
7729 at
            819.6
weak similarity to fruit fly dorsal protein and Snf5p
7730 at
            3670.1
similarity to human hypothetical protein
7731 at
            731.6
Mitochondrial protein of the CDC48VPAS1VSEC18 family of ATPases
7732 at
            218.7
novel cyclin gene\; encodes subunits of TFIIK, a subcomplex of transcription factor TFIIH
7733 at
            505.9
null mutant is viable\; increased tolerance to dehydration, freezing, and toxic levels of ethanol
7734 at
            -76.3
similarity to YNL019c and YNL033w
7735 at
            4284.0
Ypt Interacting Protein
                         Ρ
7736 at
            8726.4
Ypt Interacting Protein
            2166.8
                         Ρ
7737 at
Gamma-adaptin, large subunit of the clathrin-associated protein (AP) complex
7738_at
            345.4
                         Α
similarity to YBL101c
7739 at
            255.2
similarity to human zinc-finger protein BR140
7740 at
            612.0
yeast homolog of the Drosphila tumor suppressor, lethal giant larvae
7741 at
             17955.3
cytoplasmic and mitochondrial histidine tRNA synthetases
7742 at
            1399.4
Actin-related protein
                         Ρ
7698 at
            24527.9
glutamine synthetase
7699_at
             10468.4
54-kDa vacuolar H(+) ATPase subunit of V1 sector
```

```
7700_at
            1231.8
similarity to Erv1p and rat ALR protein
7701 at
            84.1
                        Α
questionable ORF
                        Ρ
7702 g at 509.0
questionable ORF
                        Ρ
7703 at
            491.1
questionable ORF
7704_at
            871.7
similarity to C.elegans C02C2.6 protein
7705 at
            1689.0
Translation initiation factor eIF-5
7706 at
            653.0
similarity to Jsn1p
7707_i_at
                        Ρ
            19602.9
Ribosomal protein L43A
7708 f at
            90066.2
                        Ρ
Ribosomal protein L43A
7709 at
            8639.1
                        Ρ
questionable ORF
7710 at
            56.9
                        Α
similarity to C.elegans hypothetical protein
7711 at
            336.8
Required for chromosome segregation
7712 at
            128.1
alpha subunit of yeast mitochondrial phenylalanyl-tRNA synthetase
7713 at
            505.0
similarity to M.domestica NADPH--ferrihemoprotein reductase and mammalian nitric-oxide synthases
7714 at
            529.6
similarity to Uso1p
7715 at
            502.2
                        Α
questionable ORF
                        Ρ
7716 at
            1463.8
N-acetyltransferase
7717 at
            2176.9
                        Ρ
11-kDa nonhistone chromosomal protein
7718 g at 9177.5
11-kDa nonhistone chromosomal protein
7719 at
            553.1
questionable ORF
7720 at
            48.4
                        Α
MAP kinase
            341.6
7675 at
121 kDa component of the Exocyst complex, which is required for exocytosis, and which also contains the
gene products encoded by SEC3, SEC5, SEC6, SEC10, SEC15, and EXO70
7676 at
            391.6
Component of RNA polymerase transcription initiation TFIIH (factor b), 37 kDa subunit
7677 at
            923.7
Protein involved in snRNP biogenesis
7678 at
            2425.9
putative mitochondrial carrier protein
7679_at
            309.7
questionable ORF
                        Р
7680 at
            1811.6
chorismate mutase
7681_at
            83.1
                        Α
```

```
weak similarity to Synechococcus sp. DnaJ protein
            7146.8
7682 at
cytosine deaminase
7683_at
            4332.3
                         Ρ
hypothetical protein
7684_at
            549.2
                         Α
hypothetical protein
                         Ρ
7685_at
            991.7
site-specific DNA binding protein, repressor
7686_at
            175.8
ubiquitin-like protein activating enzyme
7687 at
            900.1
weak similarity to F.alni nitrogen fixation protein
7688 at
            133.9
Protein with similarity to Hda1p, Rpd3p, Hos2p, and Hos3p
7689 at
            2957.7
putrescine aminopropyltransferase (spermidine synthase)
7690 at
            190.8
hypothetical protein
7691_at
            290.6
                         Α
strong similarity to YIL029c
7692_at
            1413.5
member of the NOT complex, a global negative regulator of transcription
7693 at
            526.8
18-kDa phosphotyrosine phosphatase of unknown function
7694_at
            32983.2
Transketolase 1
7695 at
            1206.7
                         Ρ
imparts Far-phenotype
7696 at
            -113.8
                         Α
questionable ORF
7697_i_at
            135.1
                         Α
questionable ORF
7653_s_at 49.4
                         Α
questionable ORF
7654_at
            46.2
                         Α
hypothetical protein
7655_at
            609.8
                         Α
weak similarity to human insulin-like growth factor 2 receptor
7656_s_at 226852.9
translational elongation factor EF-1 alpha
7657 at
            787.8
strong similarity to glycyl-tRNA synthetases
7658_at
            1257.6
S. pombe dim1+ in budding yeast
7659 at
            194.7
                         Α
hypothetical protein
7660 at
            336.6
                         Α
hypothetical protein
7661 at
            497.9
                         Α
hypothetical protein
                         Ρ
7662_at
            1267.8
transcription factor TFIIB homolog
7663 at
            1046.8
questionable ORF
                         Ρ
7664_at
            4865.0
```

```
Signal recognition particle subunit (homolog of mammalian SRP54)
7665 at
            33.7
questionable ORF
7666 at
            3263.0
                         Ρ
hypothetical protein
                         Ρ
7667_at
            1020.6
weak similarity to C.elegans LIM homeobox protein
7668 at
            73.8
questionable ORF
7669_at
            282.2
                         Α
weak similarity to zinc-finger proteins
7670 at
            575.2
weak similarity to chicken lim-3 protein
7671 at
            480.4
Suppressor of Ypt3
7672 at
            -167.0
                         Α
hypothetical protein
7673 at
            2691.1
                         Ρ
hypothetical protein
7674_at
            2895.4
                         Ρ
hypothetical protein
7629_at
            237.7
                         Α
questionable ORF
7630_at
            880.9
weak similarity to C.elegans hypothetical protein CEC25A1
7631 at
            -110.3
splicing factor
7632 i at
            53892.0
Ribosomal protein L11A (L16A) (rp39A) (YL22)
7633 s at 48550.0
Ribosomal protein L11A (L16A) (rp39A) (YL22)
7634_at
            8909.4
proteasome subunit
7635_at
            321.2
Protein with a domain similar to the fork head DNA-binding domain found in the developmental fork head
protein of Drosophila melanogaster and in the HNF-3 family of hepatocyte mammalian transcription
factors.
                         Р
7636_at
            1332.0
hypothetical protein
7637_at
            827.8
                         Α
protein kinase
7638 at
            190.7
Yeast 30kDa Homologue
7639_at
            6305.9
Subunit of the regulatory particle of the proteasome
            394.9
7640 at
weak similarity to human nicotinic acetylcholine receptor delta chain
7641 at
            2849.1
RNA polymerase III (C) subunit
7642 at
            130.9
kinase required for late nuclear division
7643_at
            383.6
kinase required for late nuclear division
7644 at
            952.9
similarity to RNA-binding proteins
7645_at
            5515.6
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phosphatidylinositol synthase
7646 at
            4745.7
                         Ρ
similarity to YJR116w
7647_at
            896.6
similarity to probable transcription factor Ask10p, and to YNL047c and YIL105c
7648 at
            -116.5
hypothetical protein
7649 at
            201.2
                         Α
similarity to YLR454w
7650_at
            818.9
similarity to M.jannaschii translation initiation factor, eIF-2B
7651 at
            404.6
G(sub)2-specific B-type cyclin
7652_at
            702.5
B-type cyclin
7607 at
            802.3
similarity to B.subtilis transcriptional activator tenA, strong similarity to hypothetical proteins YPL258c and
YOL055c
7608 at
            648.6
putative homolog of human insulin-degrading endoprotease
7609 at
            -170.7
questionable ORF
7610 at
            1768.1
High affinity copper transporter into the cell, probable integral membrane protein
7611 at
            2764.7
suppressor of mrs2-1 mutation
7612 at
            966.2
                         Α
questionable ORF
                         Ρ
7613 at
            946.7
similarity to C-term. of N.tabacum auxin-induced protein
7614 at
            2042.3
similarity to carrier protein FLX1
7615 at
            2229.6
                         Ρ
multicopy suppressor of clathrin deficiency
7616 at
            472.2
                         Ρ
questionable ORF
7617_at
            460.1
                         Ρ
similarity to N-acetyltransferases
7618 f at
            22854.3
Ribosomal protein S23B (S28B) (rp37) (YS14)
7619 s at 130324.0
Ribosomal protein S23B (S28B) (rp37) (YS14)
7620_at
            1112.1
similarity to C.elegans hypothetical protein
7621 at
            2736.8
Translocase of the Outer Mitochondrial membrane
7622 at
            116.7
Protein involved in splicing intron a15beta of COX1
7623 at
            2147.8
DNA polymerase alpha binding protein
7624_at
            91.2
questionable ORF
                         Ρ
7625 at
            2970.7
weak similarity to Taf90p
7626_at
            903.0
NH4+ transporter, highly similar to Mep1p and Mep2p
```

```
7627_at
                         Ρ
            1230.0
hypothetical protein
7628 at
            970.2
                         Ρ
similarity to human BTHS gene involved in Barth syndrome
7584 at
            703.5
kinesin-like nuclear fusion protein
7585_at
            97.1
                         Α
questionable ORF
7586 at
            615.6
                         Ρ
hypothetical protein
7587 at
            450.6
similarity to YDR060w and C.elegans hypothetical protein
7588 at
            9180.4
asparagine synthetase
7589 at
                         Α
            514.9
questionable ORF
7590 at
            1140.4
                         Ρ
hypothetical protein
7591 at
            1960.5
                         Ρ
hypothetical protein
                         Р
7592 at
            2631.9
involved in secretion of proteins that lack classical secretory signal sequences
7593 at
            -69.8
questionable ORF
7594 at
            209.4
                         Α
weak similarity to YPL159c
7595 at
            237.0
                         Α
hypothetical protein
                         Α
7596 at
            271.2
hypothetical protein
7597_at
                         Ρ
            2054.3
similarity to chicken growth factor receptor-binding protein GRB2 homolog
7598 at
            242.2
Regulates proper expression of subunits 6 (Atp6p) and 8 (Atp8p) of the Fo-F1 ATP synthase
7599_i_at -138.8
similarity to multidrug resistance proteins
7600_s_at 9398.8
similarity to multidrug resistance proteins
7601 at
            372.0
strong similarity to YGR141w
7602 at
            622.2
                         Ρ
similarity to YGR142w
7603_at
            4023.8
potential beta-glucan synthase
7604 at
            106.1
Glycogen phosphorylase
7605 at
            771.1
CDC28Vcdc2 related protein kinase
7606 at
            452.9
56-kDa subunit of origin recognition complex (ORC)
7561 at
            7024.6
                         Ρ
Translation initiation factor eIF-4B
7562 at
            409.1
killed in mutagen, sensitive to diepoxybutane and Vor mitomycin C
            5443.9
7563_at
GTP-binding protein of the rho subfamily of ras-like proteins
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7564_at
            1740.9
14 kDa mitochondrial ribosomal protein\; homologous to E. coli S14 protein
7565 at
            121.4
                         Α
phosphoadenylylsulfate reductase
7566 at
            34.0
negative regulator of URS2 of the HO promoter
7567_at
            2716.8
                        Ρ
hypothetical protein
7568 at
            74.5
                         Α
hypothetical protein
7569 at
            278.6
                         Α
hypothetical protein
7570 at
            155.8
strong similarity to YLR456w
7571 at
            2532.2
                        Р
defective in vacuolar protein sorting
7572 at
            190.5
weak similarity to Nbp1p
7573 at
            467.1
DNA polymerase epsilon, subunit B
7574 at
            781.5
Geranylgeranyltransferase Type II beta subunit
7575 at
            -64.2
                         Α
questionable ORF
7576 at
            276.8
                         Α
associated with the U4VU6 snRNP
7577 at
            225.8
                         Α
hypothetical protein
                         Ρ
7578 at
            1088.3
Along with Uba2p forms a heterodimeric activating enzyme for Smt3p
7579 at
            2268.1
cytoplasmic GTPase-activating protein
7580 at
            1934.5
Sm or Sm-like snRNP protein
            4412.0
7581 at
dolichol phosphate mannose synthase
7582 at
            709.7
                         Α
similarity to human 4-alpha-glucanotransferase (EC 2.4.1.25)/amylo-1,6-glucosidase (EC 3.2.1.33)
7583 at
            834.0
Autophagy
7538 at
            237.2
Transcription factor IIIA (TFIIIA) with putative Zn-fingers
7539 at
            3479.4
subunit common to RNA polymerases I, II, and III
7540 at
            529.6
similarity to calmodulin and calmodulin-related proteins
7541 at
            315.6
Contains 8 copies of the TPR domain
7542 at
            1408.8
82-kDa subunit of RNA polymerase III (C)
7543 at
            4779.4
40 kDa ubiquinol cytochrome-c reductase core protein 2
7544 at
            425.4
similarity to plasma membrane and water channel proteins
7545_at
            321.3
```

Histone and other Protein Acetyltransferase\; Has sequence homology to known HATs and NATs

3

```
7546_at
            53.2
similarity to S.pombe isp4 protein
7547 at
            171.9
                         Α
hypothetical protein
7548 at
            225.2
                         Α
strong similarity to regulatory protein Mal63p
7549_g_at 786.4
strong similarity to regulatory protein Mal63p
7550 at
            -46.9
                         Α
questionable ORF
7551 at
            1520.1
multi-copy suppressor of gal11 null\; member of drug-resistance protein family
7552 at
            770.9
Similar to transcriptional regulatory elements YAP1 and cad1
7553 at
            -248.1
                         Α
Required for arsenate but not for arsenite resistance
7554 at
            -100.9
involved in arsenite transport
7555 s at 1976.2
trans-acting positive regulator of the enolase and glyceraldehyde-3-phosphate dehydrogenase gene
families
7556 at
            476.7
non-annotated SAGE orf Found reverse in NC 001148 between 188306 and 188512 with 100% identity.
See citation Velculescu, V.E., et al. (1997) Characterization of the yeast transcriptome. Cell 8:243-251
non-annotated SAGE orf Found reverse in NC_001148 between 582456 and 582632 with 100% identity.
See citation Velculescu, V.E., et al. (1997) Characterization of the yeast transcriptome. Cell 8:243-251
7558 at
non-annotated SAGE orf Found forward in NC 001148 between 744172 and 744384 with 100% identity.
See citation Velculescu, V.E., et al. (1997) Characterization of the yeast transcriptome. Cell 8:243-251
7559 at
            1446.0
non-annotated SAGE orf Found forward in NC_001148 between 744464 and 744637 with 100% identity.
See citation Velculescu, V.E., et al. (1997) Characterization of the yeast transcriptome. Cell 8:243-251
non-annotated SAGE orf Found reverse in NC_001148 between 824685 and 824921 with 100% identity.
See citation Velculescu, V.E., et al. (1997) Characterization of the yeast transcriptome. Cell 8:243-251
7512 at
            1259.1
non-annotated SAGE orf Found reverse in NC_001148 between 132446 and 132580 with 100% identity.
See citation Velculescu, V.E., et al. (1997) Characterization of the yeast transcriptome. Cell 8:243-251
7513 f at 1237.7
non-annotated SAGE orf Found forward in NC 001148 between 809943 and 810116 with 100% identity.
See citation Velculescu, V.E., et al. (1997) Characterization of the yeast transcriptome. Cell 8:243-251
non-annotated SAGE orf Found forward in NC_001148 between 810533 and 810709 with 100% identity.
See citation Velculescu, V.E., et al. (1997) Characterization of the yeast transcriptome. Cell 8:243-251
7515 f at -191.0
non-annotated SAGE orf Found forward in NC 001148 between 853160 and 853345 with 100% identity.
See citation Velculescu, V.E., et al. (1997) Characterization of the yeast transcriptome. Cell 8:243-251
non-annotated SAGE orf Found reverse in NC 001148 between 212813 and 212956 with 100% identity.
See citation Velculescu, V.E., et al. (1997) Characterization of the yeast transcriptome. Cell 8:243-251
non-annotated SAGE orf Found reverse in NC 001148 between 278112 and 278294 with 100% identity.
See citation Velculescu, V.E., et al. (1997) Characterization of the yeast transcriptome. Cell 8:243-251
7518 at
            43.2
non-annotated SAGE orf Found forward in NC_001148 between 411416 and 411688 with 100% identity.
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See citation Velculescu, V.E., et al. (1997) Characterization of the yeast transcriptome. Cell 8:243-251
7519 at
            179.1
non-annotated SAGE orf Found forward in NC 001148 between 431473 and 431622 with 100% identity.
See citation Velculescu, V.E., et al. (1997) Characterization of the yeast transcriptome. Cell 8:243-251
non-annotated SAGE orf Found reverse in NC 001148 between 592171 and 592326 with 100% identity.
See citation Velculescu, V.E., et al. (1997) Characterization of the yeast transcriptome. Cell 8:243-251
non-annotated SAGE orf Found reverse in NC_001148 between 624294 and 624434 with 100% identity.
See citation Velculescu, V.E., et al. (1997) Characterization of the yeast transcriptome. Cell 8:243-251
7522 at
non-annotated SAGE orf Found forward in NC 001148 between 700058 and 700300 with 100% identity.
See citation Velculescu, V.E., et al. (1997) Characterization of the yeast transcriptome. Cell 8:243-251
non-annotated SAGE orf Found forward in NC 001148 between 706696 and 706830 with 100% identity.
See citation Velculescu, V.E., et al. (1997) Characterization of the yeast transcriptome. Cell 8:243-251
7524 at
            966.3
non-annotated SAGE orf Found reverse in NC 001148 between 718768 and 718944 with 100% identity.
See citation Velculescu, V.E., et al. (1997) Characterization of the yeast transcriptome. Cell 8:243-251
7525 at
non-annotated SAGE orf Found forward in NC_001148 between 743828 and 743980 with 100% identity.
See citation Velculescu, V.E., et al. (1997) Characterization of the yeast transcriptome. Cell 8:243-251
non-annotated SAGE orf Found reverse in NC 001148 between 773596 and 773742 with 100% identity.
See citation Velculescu, V.E., et al. (1997) Characterization of the yeast transcriptome. Cell 8:243-251
7527 r at
            138.2
non-annotated SAGE orf Found reverse in NC 001148 between 773596 and 773742 with 100% identity.
See citation Velculescu, V.E., et al. (1997) Characterization of the yeast transcriptome. Cell 8:243-251
7528 f at
           -862.7
non-annotated SAGE orf Found reverse in NC 001148 between 773596 and 773742 with 100% identity.
See citation Velculescu, V.E., et al. (1997) Characterization of the yeast transcriptome. Cell 8:243-251
non-annotated SAGE orf Found forward in NC 001148 between 819135 and 819326 with 100% identity.
See citation Velculescu, V.E., et al. (1997) Characterization of the yeast transcriptome. Cell 8:243-251
7530 s at -25.8
non-annotated SAGE orf Found forward in NC 001148 between 880290 and 880439 with 100% identity.
See citation Velculescu, V.E., et al. (1997) Characterization of the yeast transcriptome. Cell 8:243-251
            5049.6
non-annotated SAGE orf Found forward in NC 001148 between 883373 and 883558 with 100% identity.
See citation Velculescu, V.E., et al. (1997) Characterization of the yeast transcriptome. Cell 8:243-251
non-annotated SAGE orf Found forward in NC 001148 between 897142 and 897291 with 100% identity.
See citation Velculescu, V.E., et al. (1997) Characterization of the yeast transcriptome. Cell 8:243-251
7533_at
            2798.5
non-annotated SAGE orf Found forward in NC 001148 between 298197 and 298373 with 100% identity.
See citation Velculescu, V.E., et al. (1997) Characterization of the yeast transcriptome. Cell 8:243-251
non-annotated SAGE orf Found reverse in NC 001148 between 700274 and 700456 with 100% identity.
See citation Velculescu, V.E., et al. (1997) Characterization of the yeast transcriptome. Cell 8:243-251
non-annotated SAGE orf Found reverse in NC 001148 between 700274 and 700456 with 100% identity.
See citation Velculescu, V.E., et al. (1997) Characterization of the yeast transcriptome. Cell 8:243-251
7536 at
            73.5
non-annotated SAGE orf Found forward in NC_001148 between 754361 and 754570 with 100% identity.
See citation Velculescu, V.E., et al. (1997) Characterization of the yeast transcriptome. Cell 8:243-251
7537_at
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585.6

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non-annotated SAGE orf Found reverse in NC_001148 between 812874 and 813047 with 100% identity.
See citation Velculescu, V.E., et al. (1997) Characterization of the yeast transcriptome. Cell 8:243-251
            165.0
non-annotated SAGE orf Found forward in NC 001148 between 860478 and 860687 with 100% identity.
See citation Velculescu, V.E., et al. (1997) Characterization of the yeast transcriptome. Cell 8:243-251
7490 at
non-annotated SAGE orf Found reverse in NC_001148 between 927488 and 927640 with 100% identity.
See citation Velculescu, V.E., et al. (1997) Characterization of the yeast transcriptome. Cell 8:243-251
7491 at
non-annotated SAGE orf Found forward in NC_001148 between 14739 and 14888 with 100% identity.
See citation Velculescu, V.E., et al. (1997) Characterization of the yeast transcriptome. Cell 8:243-251
non-annotated SAGE orf Found reverse in NC 001148 between 85401 and 85580 with 100% identity.
See citation Velculescu, V.E., et al. (1997) Characterization of the yeast transcriptome. Cell 8:243-251
7493 at
            3297.0
non-annotated SAGE orf Found reverse in NC 001148 between 296871 and 297017 with 100% identity.
See citation Velculescu, V.E., et al. (1997) Characterization of the yeast transcriptome. Cell 8:243-251
7494 at
            -158.9
non-annotated SAGE orf Found forward in NC 001148 between 297125 and 297292 with 100% identity.
See citation Velculescu, V.E., et al. (1997) Characterization of the yeast transcriptome. Cell 8:243-251
non-annotated SAGE orf Found reverse in NC_001148 between 411982 and 412140 with 100% identity.
See citation Velculescu, V.E., et al. (1997) Characterization of the yeast transcriptome. Cell 8:243-251
7496 at
            365.5
non-annotated SAGE orf Found reverse in NC 001148 between 445295 and 445444 with 100% identity.
See citation Velculescu, V.E., et al. (1997) Characterization of the yeast transcriptome. Cell 8:243-251
non-annotated SAGE orf Found reverse in NC 001148 between 588920 and 589057 with 100% identity.
See citation Velculescu, V.E., et al. (1997) Characterization of the yeast transcriptome. Cell 8:243-251
7498 at
non-annotated SAGE orf Found reverse in NC_001148 between 588994 and 589242 with 100% identity.
See citation Velculescu, V.E., et al. (1997) Characterization of the yeast transcriptome. Cell 8:243-251
7499 at
non-annotated SAGE orf Found reverse in NC_001148 between 678411 and 678614 with 100% identity.
See citation Velculescu, V.E., et al. (1997) Characterization of the yeast transcriptome. Cell 8:243-251
non-annotated SAGE orf Found reverse in NC_001148 between 769132 and 769359 with 100% identity.
See citation Velculescu, V.E., et al. (1997) Characterization of the yeast transcriptome. Cell 8:243-251
7501 at
non-annotated SAGE orf Found forward in NC_001148 between 775843 and 775980 with 100% identity.
See citation Velculescu, V.E., et al. (1997) Characterization of the yeast transcriptome. Cell 8:243-251
7502 at
non-annotated SAGE orf Found forward in NC_001148 between 822144 and 822302 with 100% identity.
See citation Velculescu, V.E., et al. (1997) Characterization of the yeast transcriptome. Cell 8:243-251
non-annotated SAGE orf Found reverse in NC 001148 between 880229 and 880366 with 100% identity.
See citation Velculescu, V.E., et al. (1997) Characterization of the yeast transcriptome. Cell 8:243-251
7504 r at
            209.2
non-annotated SAGE orf Found reverse in NC_001148 between 880229 and 880366 with 100% identity.
See citation Velculescu, V.E., et al. (1997) Characterization of the yeast transcriptome. Cell 8:243-251
7505_at
            274.9
non-annotated SAGE orf Found reverse in NC_001148 between 921211 and 921453 with 100% identity.
See citation Velculescu, V.E., et al. (1997) Characterization of the yeast transcriptome. Cell 8:243-251
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non-annotated SAGE orf Found reverse in NC_001148 between 324023 and 324286 with 100% identity. See citation Velculescu, V.E., et al. (1997) Characterization of the yeast transcriptome. Cell 8:243-251

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7507_at
            -348.0
non-annotated SAGE orf Found reverse in NC 001148 between 408869 and 409009 with 100% identity.
See citation Velculescu, V.E., et al. (1997) Characterization of the yeast transcriptome. Cell 8:243-251
7508 at
non-annotated SAGE orf Found forward in NC 001148 between 408896 and 409066 with 100% identity.
See citation Velculescu, V.E., et al. (1997) Characterization of the yeast transcriptome. Cell 8:243-251
non-annotated SAGE orf Found reverse in NC 001148 between 409022 and 409276 with 100% identity.
See citation Velculescu, V.E., et al. (1997) Characterization of the yeast transcriptome. Cell 8:243-251
non-annotated SAGE orf Found forward in NC 001148 between 427735 and 427896 with 100% identity.
See citation Velculescu, V.E., et al. (1997) Characterization of the yeast transcriptome. Cell 8:243-251
7511 at
non-annotated SAGE orf Found forward in NC 001148 between 497768 and 497959 with 100% identity.
See citation Velculescu, V.E., et al. (1997) Characterization of the yeast transcriptome. Cell 8:243-251
non-annotated SAGE orf Found forward in NC 001148 between 560044 and 560235 with 100% identity.
See citation Velculescu, V.E., et al. (1997) Characterization of the yeast transcriptome. Cell 8:243-251
non-annotated SAGE orf Found forward in NC_001148 between 596567 and 596728 with 100% identity.
See citation Velculescu, V.E., et al. (1997) Characterization of the yeast transcriptome. Cell 8:243-251
7468 at
non-annotated SAGE orf Found forward in NC 001148 between 633787 and 633930 with 100% identity.
See citation Velculescu, V.E., et al. (1997) Characterization of the yeast transcriptome. Cell 8:243-251
non-annotated SAGE orf Found forward in NC_001148 between 703978 and 704121 with 100% identity.
See citation Velculescu, V.E., et al. (1997) Characterization of the yeast transcriptome. Cell 8:243-251
7470 at
            6327.4
non-annotated SAGE orf Found reverse in NC 001148 between 733362 and 733532 with 100% identity.
See citation Velculescu, V.E., et al. (1997) Characterization of the yeast transcriptome. Cell 8:243-251
7471 at
non-annotated SAGE orf Found forward in NC_001148 between 780342 and 780503 with 100% identity.
See citation Velculescu, V.E., et al. (1997) Characterization of the yeast transcriptome. Cell 8:243-251
non-annotated SAGE orf Found forward in NC_001148 between 831698 and 831880 with 100% identity.
See citation Velculescu, V.E., et al. (1997) Characterization of the yeast transcriptome. Cell 8:243-251
7473 at
            132.5
snRNA
                         Ρ
7474 at
            753.6
snRNA
                         Ρ
7475 at
            1616.8
snRNA
                         Р
7476_at
            918.5
snRNA
7477 at
            673.7
                         Ρ
snRNA
7478 s at 614.8
similarity to subtelomeric encoded proteins
7479 at
            798.3
                         Α
hypothetical protein
7480 at
            303.1
                         Α
yeast homolog of the Drosphila tumor suppressor, lethal giant larvae
7481 at
            1218.7
putative protein kinase
7482 at
            984.7
                         M
hypothetical protein
```

```
7483_at
            215.9
Probable cytochrome c subunit, copper binding
7484 at
            2628.9
suppressor of sed5 ts mutants
7485 at
            1776.2
ExtraCellular Mutant
7486_at
            36.8
                        Α
questionable ORF
7487 at
            13890.3
                        Ρ
mitochondrial F1F0-ATPase alpha subunit
7488 at
            1112.3
similarity to human and D.melanogaster kynurenine 3-monooxygenase
7443 at
            170.0
BARREN, a gene with sequence similarity to Drosophila barren and Xenopus XCAP-H, and a functional
homolog of human BRRN1
7444 at
            1271.5
questionable ORF
7445 at
            612.0
                        Ρ
similarity to C.albicans hypothetical protein
7446_at
            314.5
                        Α
questionable ORF
7447_at
            429.4
RNA polymerase II holoenzyme\/mediator subunit
7448 at
            50793.8
Ribosomal protein L32
7449 at
            702.1
                        Α
weak similarity to SCS2
            6517.9
7450 at
methionine aminopeptidase 2
7451 at
            360.5
Component of the small subunit of mitochondrial ribosomes
7452_at
            654.4
weak similarity to A.thaliana aminoacid permease AAP3
7453_at
            339.8
putative phosphatidylinositol kinase
7454 s at 102547.6
Ribosomal protein L23A (L17aA) (YL32)
7455_at
            580.1
involved in sugar metabolism
7456_at
            944.6
                        Ρ
BEM1-binding protein
                        Р
7457 at
            1223.9
component of the anaphase-promoting complex
7458_i_at
            35.4
questionable ORF
7459 s at 1440.0
                        Ρ
questionable ORF
7460 at
            735.9
putative Dol-P-Man dependent alpha(1-3) mannosyltransferase involved in the biosynthesis of the
lipid-linked oligosaccharide
7461 at
            1006.7
                        Ρ
hypothetical protein
7462 at
            77.8
                        Α
62-kDa protein
7463_at
            1107.0
Nucleoporin highly similar to Nup157p and to mammalian Nup155p (nup170 mutant can be
```

```
complemented with NUP155)
7464 at
            901.3
Form a protein complex with Aut2p, to mediate attachment of autophagosomes to microtubules. Aut7p
shows homologies to LC3, a microtubule-associated protein from rat. AUT7 was identified as a
suppressor of mutant phenotypes of aut2-1 cells. Uptake of precursor Aminopeptidase I into the vacuole
depends on Aut2p and Aut7p.
            1699.9
7465 at
questionable ORF
7421 at
            10318.8
cytoplasmic isoleucyl-tRNA synthetase
7422 at
            446.9
heat-inducible cytosolic member of the 70 kDa heat shock protein family
7423 at
            2.9
splices pre mRNA of the MATa1 cistron
            -206.4
7424 at
                         Α
questionable ORF
7425_s_at 71442.4
Ribosomal protein S8A (S14A) (rp19) (YS9)
7426 at
            472.5
hypothetical protein
7427 at
                         Α
            -54.3
questionable ORF
                         Р
7428 at
            2024.0
ribose-phosphate pyrophosphokinase 4
7429 at
            644.0
ubiquitin carboxyl-terminal hydrolase
7430 at
            26.6
putative transcription factor
7431 at
            188.2
                         Α
questionable ORF
7432 at
            545.1
Homolog to thiol-specific antioxidant
7433 at
            3.7
kinesin related protein
7434 at
            566.2
                         Ρ
questionable ORF
7435 at
            1803.7
protoplast regeneration and killer toxin resistance gene, may be a post-translational regulator of chitin
synthase III activity, interacts with Chs3p
7436_at
            404.3
                         Α
hypothetical protein
7437 at
            116.3
weak similarity to hypothetical protein YER093c-a
7438 at
            222.8
weak similarity to hypothetical protein YER093c-a
            5827.1
7439 at
isolated as a suppressor of the lethality caused by overexpression of the phosphoprotein phosphatase 1
catalytic subuniut encoded by GLC7
7440 at
            722.8
strong similarity to hypothetical S.pombe protein
7441 at
            972.4
protein phosphatase type 2C
7442 at
            1102.4
similarity to hypothetical S.pombe protein
7398 at
            1393.1
```

Homolog to myb transforming proteins

```
7399_at
            549.5
                        Α
questionable ORF
7400 at
            818.6
                         Ρ
SAS3 for Something about silencing, gene 3. Influences silencing at HMR.
7401 at
            4148.9
similarity to S.pombe Z66568_C protein
7402 at
            3724.0
peripheral membrane protein required for vesicular transport between ER and Golgi
7403 at
            242.6
                        Α
hypothetical protein
7404 at
            384.1
                        Α
hypothetical protein
7405 at
            3563.9
USO1 homolog (S. cerevisiae), cytoskeletal-related transport protein, Ca++ binding
            1110.4
7406 at
weak similarity to hypothetical protein YOR054c
7407 at
            2781.3
44 kDa core protein of yeast coenzyme QH2 cytochrome c reductase
7408 at
            -104.8
hypothetical protein
7409 at
                         Ρ
            406.5
ExtraCellular Mutant
                        Р
7410 at
            5783.0
uridine permease
                        Ρ
7411 at
            6995.4
proteasome subunit
7412 at
            1466.6
encodes the HDEL receptor required for retention of ER proteins
7413 at
            9117.4
CTP synthase, highly homologus to URA8 CTP synthase
7414 at
            797.8
Mitochondrial ribosomal protein MRPL16
7415 at
            626.8
                        Ρ
clathrin Associated Protein complex Large subunit
7416 at
            1453.7
Homolog to twitching motility protein (P. aeroginosa)
                                                                                                   В
7417_at
            1506.4
subunit of DNA polymerase alpha-primase complex
7418 at
            1033.4
suppressor of cold-sensitive tub2 mutation\; shown to be a component of the mitotic spindle
7419 at
            2087.9
GTP cyclohydrolase II
7420_at
            2631.0
weak similarity to hnRNP complex protein homolog YBR233w
7374 at
            173.4
hypothetical protein
7375 at
            14752.8
mitochondrial ADPVATP translocator
7376_at
            270.4
                        Α
hypothetical protein
                        Ρ
7377_at
            1734.6
involved in mating-type regulation
7378 s at 51154.6
Ribosomal protein L19B (YL14) (L23B) (rpl5L)
7379_i_at
            -154.0
snRNA-associated protein of the Sm class
```

```
7380_f_at 221.5
snRNA-associated protein of the Sm class
7381 at
            1225.4
snRNA-associated protein of the Sm class
7382 at
            114.0
Upstream activation factor subunit
7383 at
            4858.1
Probable proliferating-cell nucleolar antigen (human p120)
7384 at
            2115.2
Minichromosome maintenance protein, transcription factor
7385 at
            3367.0
mitochondrial ATP-dependent protease
            474.1
7386 at
transcriptional activator protein of CYC1
7387 at
            1887.9
67 kDa integral membrane protein
7388 at
            336.9
AP endonuclease
7389 at
            503.0
integral subunit of RNase P and apparent subunit of RNase MRP
7390 at
            4810.9
carboxypeptidase Y sorting receptor in late Golgi\; Type I integral membrane protein 166aa cytoplasmic
tail, 1300 aa lumenal domain
7391 at
            2188.1
                        Ρ
cdc2+VCDC28 related kinase with positive role in conjugation
            797.9
7392 at
acetyl CoA hydrolase
            456.6
7393 at
member of yeast Pol I core factor (CF) also composed of Rrn11p, Rrn7p and TATA-binding protein
7394 at
            177.2
Probable met-tRNA formyltransferase, mitochondrial
7395_at
            154.1
                        Α
questionable ORF
7396 at
            1555.6
High copy suppresor of choline-transport mutants
7397 at
            83.9
                        Α
hypothetical protein
7352 at
            1175.9
strong similarity to DNA damage responsive Alk1p
7353_at
            253.3
putative repressor protein homologous to yeast Tup1p and mammalian retinal transducin\; contains
nuclear targeting signal
            4479.1
7354_at
contains 3 SH3 domains, interacts with Bee1p
7355 at
            1630.3
hypothetical protein
7356 at
            578.2
Pleiotropic drug resistance protein 3
7357 at
            1985.2
weak similarity to Papaya ringspot virus polyprotein
7358 s at 12740.0
Histone H2A (HTA1 and HTA2 code for nearly identical proteins)
7359 at
            9948.8
Histone H2B (HTB1 and HTB2 code for nearly identical proteins)
7360 at
            2676.5
                        Р
ExtraCellular Mutant
```

```
7361_at
            1684.2
Neutral trehalase, highly homologous to Nth1p
7362 at
            1772.8
strong similarity to hypothetical protein YMR101c
7363 at
            1545.8
hexaprenyl pyrophosphate synthetase
7364 at
            945.9
similarity to S.pombe hypothetical protein SPAC18B11.05
7365 at
            972.6
strong similarity to hypothetical protein YDR003w
7366 at
            899.9
hypothetical protein
7367 at
            950.9
Major Facilitator Transporter
7368 i at
            28347.0
                        Р
Histone H3 (HHT1 and HHT2 code for identical proteins)
7369 s at 6493.7
Histone H3 (HHT1 and HHT2 code for identical proteins)
7370 at
            28081.5
Inorganic pyrophosphatase
7371 at
            248.8
hypothetical protein
7372 at
            102.3
                        Α
hypothetical protein
                        Ρ
7373 at
            1659.0
Glutaredoxin homolog
7328 at
            2275.5
Type II transmembrane protein
            11748.0
7329 at
strong similarity to hypothetical proteins YDL012c and YDR210w
7330 at
            1922.8
karyopherin beta 2, yeast transportin
7331 at
            -113.6
galactose-1-phosphate uridyl transferase
7332 at
            230.9
                        Α
UDP-glucose 4-epimerase
7333_at
            -54.4
                        Α
galactokinase
                        Ρ
7334 at
            951.0
uracil permease
7335 at
                        Α
            198.8
hypothetical protein
7336_at
                        Ρ
            3995.5
chitin synthase 3
7337 at
                        Μ
            263.0
SCO1 protein homolog (S. cerevisiae)
7338 at
            19305.9
probable purine nucleotide-binding protein
7339 at
            1296.2
Nuclear protein that binds to T-rich strand of core consensus sequence of autonomously replicating
sequence
7340_at
            284.0
                         Α
hypothetical protein
                         Р
7341 at
            626.8
Probable serVthr-specific protein kinase, homolog to YKR2 and YPK1 (S. cerevisiae)
7342_at
            2749.4
```

```
CDP-diacylglycerol synthase, CTP-phosphatidic acid cytidylyltransferase, CDP-diglyceride synthetase
7343 at
            299.6
involved in inositol biosynthesis
7344_i_at
            10288.5
Ribosomal protein L4A (L2A) (rp2) (YL2)
7345 s at 54548.9
Ribosomal protein L4A (L2A) (rp2) (YL2)
7346 at
            -115.5
hypothetical protein
7347_at
            419.5
Probable regulatory Zn-finger protein, V homolog to YKL251V
7348 at
            2295.5
nuclear protein arginine methyltransferase (mono- and asymmetrically dimethylating enzyme)
7349 at
            1839.3
pyridoxine (pyridoxiamine) phosphate oxidase
7350 at
            3565.7
contains 9 or 10 putative membrane spanning regions\; putative Ca2+ binding protein (homology to
EF-hand Ca2+ binding site)
7351 at
            906.8
inner mitochondrial membrane protein
7306 at
            1093.7
chitin synthase 2
7307 at
            3115.4
gamma subunit of mitochondrial ATP synthase
7308 at
            207.9
integral membrane protein
7309 at
            1338.6
                        Ρ
Fatty acid transporter
7310 at
            211.8
Probable membrane-bound small GTPase
7311 at
            1147.9
similarity to benomyl/methotrexate resistance protein
7312 at
            124.0
similarity to chaperonin HSP60 proteins
            92.9
7313 at
                         Α
Glc7-interacting protein.
7314_at
            815.4
Homolog to quinone oxidoreductase (E. coli)
7315 at
            176.1
hypothetical protein
7316 s at 50126.1
                         Ρ
Ribosomal protein S11B (S18B) (rp41B) (YS12)
7317_at
            532.2
                         М
RNA polymerase I enhancer binding protein
7318 at
            487.1
Possible regulatory subunit for the PP1 family protein phosphatase Glc7p
7319 at
            208.9
questionable ORF
7320 at
            3864.4
Homolog to YCR004, obr1 (S. pombe), trp repressor binding protein (E. coli)
7321_at
            1168.6
similarity to rat regucalcin
7322 at
            437.4
Homolog to HSP30 heat shock protein YRO1 (S. cerevisiae) 7
7323_at
            644.9
RNA splicing factor
```

```
7324_at
            1040.6
Homolog to glucan-1,3--glucosidase (EC 3.2.1.5); S. cerevisiae) 2
7325 at
            239.4
Muddled Meiosis
                         Ρ
7326 at
            972.3
Ubiquitin-specific protease
7327_at
            1399.0
Probable protein kinase
7283 at
            292.4
origin recognition complex subunit 2
7284 at
            1226.1
Homolog to ftsJ protein (E. coli) ,V YCR054V
7285 at
            3846.9
similarity to rat neurodegeneration associated protein 1
7286 at
            373.1
                         М
Probable phosphopanthethein-binding protein
7287 at
            117.0
questionable ORF
7288 at
            119.9
                         Α
ExtraCellular Mutant
7289 at
                         Α
            405.7
Probable Zn-finger protein
7290 at
            19481.0
cell wall mannoprotein
7291 at
            6149.3
probable amino acid permease for leucine, valine, and isoleucine
7292 at
            1258.3
Probable amino acid transport protein
7293 at
            984.5
osmotolerance protein
                         Ρ
7294 at
            478.4
hypothetical protein
7295 at
            399.7
                         Α
heat shock protein 26
            2726.8
                         Ρ
7296 at
Putative helicase similar to RAD54
7297_at
            275.1
Homolog to aminopeptidase Y (S. cerevisiae)
7298 at
            1055.7
hypothetical protein
7299 at
            -11.4
                         Α
ExtraCellular Mutant
7300_at
            289.4
                         Α
hypothetical protein
7301 at
            10210.5
                         Ρ
Homolog to sporulation specific protein SPS2 (S. cerevisiae)
7302 at
            31173.1
Homolog to sporulation specific protein SPS2 (S. cerevisiae)
            6979.3
7303 at
Exhibits significant sequence similarity with a subunit of the mammalian translation initiation factor 3
7304_at
            2023.4
cytoplasmic protein involved in protein transport between ER and Golgi\; ATPase
7305 at
            1106.7
transcription factor, member of the histone acetyltransferase SAGA complex
7260 at
            9804.1
ubiquitin-conjugating enzyme
```

```
7261_at
            5874.8
transcription factor of the TEAVATTS DNA-binding domain family, regulator of Ty1 expression
7262 at
            3888.0
mitochondrial C1-tetrahydroflate synthase
7263 at
            691.6
mitochondrial ADPVATP translocator
7264 at
            5017.3
Probable transmembrane protein
7265 at
            1120.8
Subunit 5 of Replication Factor C\; homologous to human RFC 38 kDa subunit
7266 at
            2076.7
profilerating cell nuclear antigen (PCNA)\; accessory factor for DNA polymerase delta, mRNA increases in
G1, peaks in S in mitosis, and increases prior to DNA synthesis in meiosis
7267 at
            112.5
questionable ORF
7268 at
            1325.2
                         Ρ
11-kDa nonhistone chromosomal protein
7269 g at 1967.7
11-kDa nonhistone chromosomal protein
7270_i_at
            1484.1
questionable ORF
7271_at
            -22.0
                         Α
questionable ORF
7272 at
            839.1
Nuclear protein involved in mitochondrial intron splicing
7273 at
            54933.0
Acid phosphatase, constitutive
7274 at
            3019.5
Acid phosphatase, repressible
7275 at
            808.9
weak similarity to pig tubulin-tyrosine ligase
7276_at
            1644.7
hypothetical protein
7277_at
            866.9
                         Ρ
hypothetical protein
7278 at
            730.0
Myristoylated SerineVthreonine protein kinase involved in vacuolar protein sorting
7279 at
            3.3
putative transcriptional (co)activator for DNA damage
7280_at
            -64.2
weak similarity to T.brucei mitochondrion hypothetical protein 6
7281 at
            1064.7
questionable ORF
            2387.4
7282_at
weak similarity to S.pombe hypothetical protein SPBC3B9.01
7238 at
            116.4
hypothetical protein
7239 at
            1029.2
                         Ρ
weak similarity to human U3 snoRNP associated 55 kDa protein
7240 at
            1031.8
mitochondrial carrier protein
            593.7
7241_at
involved in fructose-1,6-bisphosphatase degradation
7242 at
            13669.6
May be a membrane protein involved in inorganic phosphate transport and regulation of Pho81p function
7243_at
            272.1
```

```
weak similarity to N.crassa chitin synthase
7244 at
            290.2
Probable transcription factor
7245_at
            7581.2
Calmodulin
                        Ρ
7246 at
            1013.6
beta-1,4-mannosyltransferase
7247_at
            4680.0
Homolog to serendipity protein (D. melanogaster)
7248_at
            1668.9
Transcription regulatory protein
7249 at
            543.8
questionable ORF
7250 at
            -15.9
                        Α
Radiation repair protein, putative DNA helicase
7251 at
            18550.6
alpha aminoadipate reductase
7252 at
            200.1
                        Α
questionable ORF
7253_g_at 294.2
                        Α
questionable ORF
7254_at
            85.7
transketolase, homologous to tkl1
7255 at
            493.8
U1 snRNP A protein
7256 at
            221.9
Translational activator of COB mRNA
7257 at
            16062.6
Glycyl-tRNA synthase
                        Ρ
7258 at
            775.8
Mitochondrial ribosomal protein MRPL36 (YmL36)
7259_at
            1011.8
transcription factor tau (TFIIIC) subunit 95
7215_at
            278.8
                        Α
questionable ORF
                        Ρ
7216 at
            868.4
Probable phosphoprotein phosphatase (EC 3.1.3.16)
7217_at
            4566.0
56 kD synthase subunit of trehalose-6-phosphate synthase phosphatase complex
7218_at
            24818.2
H+-transporting ATPase, vacuolar (EC 3.6.1.35)
7219 at
            14.4
required for autophagy
7220_at
                        Α
            275.0
imparts Far-phenotype
7221 at
            2108.4
cytoplasmic protein involved in mother-specific HO expression
7222 at
            741.3
Calcium Caffeine Zinc sensitivity
7223 at
            153.4
Amino acid permease
                        Ρ
7224_at
            1012.5
Negative regulator of swe1 kinase (which regulates cdc28)
7225_at
            -53.8
questionable ORF
                        Ρ
7226_at
            1237.4
```

```
subunit of the Cdc28 protein kinase
7227 at
            605.0
similar to phosphatidylinositol(PI)3-kinases required for DNA damage induced checkpoint responses in
G1, SVM, intra S, and G2VM in mitosis
7228 at
            936.0
hypothetical protein
7229_at
            281.6
                         Α
Unknown
7230 at
            1442.3
Probable serine-type carboxypeptidase (EC 3.4.16.1)
7231 at
            742.1
GTPase activating protein
7232 at
            385.9
                         Α
hypothetical protein
7233 at
            1126.9
Probable pre-mRNA splicing RNA-helicase
7234 at
            7912.3
Ominipotent suppressor protein of nonsense codons
7235 at
            48.2
hypothetical protein
                         Ρ
7236_at
            897.4
alcohol dehydrogenase isoenzyme V
7237 at
            424.6
Probable mitochondrial ribosomal protein S9
7193 at
            498.9
strong similarity to hypothetical protein YOL092w
7194 at
            31.7
                         Α
Spore-specific protein
                         Ρ
7195 at
            1395.1
D-arabinose dehydrogenase
7196 at
            777.6
Probable Zn-finger protein
7197 at
            1362.1
weak similarity to potato sucrose cleavage protein
7198 at
            51.5
U4VU6.U5-associated snRNP protein\; contains a PEST proteolysis motif
7199 at
            1462.9
Riboflavin biosynthesis protein
7200 at
            3626.5
                         Ρ
25-kDa RNA polymerase subunit (common to polymerases I, II and III)
7201 at
            1025.1
Stress-inducible riboflavin biosynthetic protein homolog
            10.4
7202_at
weak similarity to myosins
7203 at
            246.9
                         Α
hypothetical protein
                         Ρ
7204 at
            6208.4
hypothetical protein
7205 at
            2860.8
similarity to human 17-beta-hydroxysteroid dehydrogenase
7206_at
            1881.0
protein kinase catalytic subunit
7207 at
            288.0
Homolog to suppressor of reduced viability of starvation (SUR1, S. cerevisiae)
7208_at
            10702.8
similarity to hypothetical protein YJL171c
```

```
7209_at
            7453.2
                        Ρ
Protein that participates in secretory pathway
7210 at
            817.0
hypothetical protein
7211 at
            2071.0
ADP-ribosylation factor-like protein 1
7212 at
            603.9
General positive regulator of CDC34\: Suppress some cdc34 mutations when over-expressed
7213 at
            1275.1
Prephenate dehydrogenase (NADP+)
7214 at
            333.0
Pop7 protein, an integral subunit of RNase P and apparent subunit of RNase MRP
7170 at
weak similarity to hypothetical protein YLR324w
7171 at
            1155.3
HSP70 family member, highly homologous to Sse1p
7172 at
            1142.7
Suppressor of SEC63 (S.cerevisiae), novel ER translocation component
7173 at
            2628.9
glycoprotein complexed with Sec62p and Sec63p in the Sec63 complex, an integral endoplasmic
reticulum membrane protein complex required for translocation of presecretory proteins
7174 at
            1566.1
Kinesin-related protein suppressing myosin defects (MYO2)
            1807.2
                        Ρ
7175 at
20S proteasome maturation factor
7176 at
            29.3
                        Α
questionable ORF
7177 at
            1177.9
                        Р
Probable GTP-binding protein
7178 at
            654.9
Alpha-Ketoisovalerate Hydroxymethyltransferase
7179_at
            4904.8
Probable membrane receptor
7180_at
            -308.4
                        Α
questionable ORF
7181 at
            556.1
                        Α
homolog of Drosophila melanogaster fuzzy onions gene\; integral protein of the mitochondrial outer
membrane which can be isolated as part of a high molecular weight complex
7182 at
            -208.8
Probable resistance protein
7183 at
            248.0
Probable DNA-binding transcription factor, Homolog to SRFVSL-2
7184 at
            942.7
strong similarity to hypothetical protein YPL087w
7185 at
            -32.9
                        Α
alpha-galactosidase
7186 at
            392.2
respiratory chain assembly protein
7187_at
            16.2
                        Α
Putative ATPase
7188 at
            4117.2
probable membrane protein
7189 at
            402.4
splicing factor
7190_i_at
            23144.4
Ribosomal protein S9B (S13) (rp21) (YS11)
```

```
7191_f_at
            48819.1
Ribosomal protein S9B (S13) (rp21) (YS11)
7192 at
            126.7
questionable ORF
7147 at
            53450.4
                        Ρ
Ribosomal protein L21A
                        Ρ
7148 at
            613.7
Probable carrier protein, mitochondrial
7149 at
            492.7
Stoichiometric member of mediator complex
7150 at
            747.1
                        Ρ
hypothetical protein
7151 at
            341.2
p50 subunit of the yeast omatin Assembly Factor-I (CAF-I) negative regulator of ras-mediated cAMP
induction\; homologous to beta subunit of GTP-binding proteins
7152 at
            66131.4
Glucose-6-phosphate isomerase
7153 at
            228.0
weak similarity to hypothetical protein YPL077c
7154 at
            2623.3
Probable transcription-associated factor protein, probable -transducin type
7155 at
            2404.6
Putative alpha-1,2-mannosyltransferase
            508.9
7156 at
contains two SH3 domains
7157_at
            1526.8
MCM3 protein homolog (S. cerevisiae)
7158 at
            127.6
hypothetical protein
                        Ρ
7159 at
            880.7
Probable serine-active lipase, peroxisomal (EX 3.1.1.-)
7160_at
            2592.4
Putative alpha-1,2-mannosyltransferase
7161_g_at 3286.1
Putative alpha-1,2-mannosyltransferase
            3907.5
7162 at
questionable ORF
7163_at
            1937.9
probable membrane protein
7164_at
            475.6
Urea amidolyase (contains urea carboxylase and allophanate hydrolase)
7165 at
            -227.6
hypothetical protein
            844.4
7166_at
strong similarity to D.melanogaster cornichon protein
7167 at
            273.9
regulator of microtubule stability
7168 at
            2389.9
negative growth regulatory protein
7169 at
            1084.0
Effector in the expression of PAPS reductase and sulfite reductase
7124 at
            735.9
strong similarity to hypothetical protein YGL056c
7125 at
            552.3
highly charged, basic protein
7126_at
            87.1
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strong similarity to hypothetical protein YGL060w
7127_at
            -79.3
autophagy
7128_at
            9936.3
                         Ρ
pyruvate carboxylase
                         Ρ
7129_at
            578.3
similarity to human acetyl-coenzyme A transporter
7130_g_at 698.3
similarity to human acetyl-coenzyme A transporter
7131_at
            3918.0
beta subunit of pyruvate dehydrogenase (E1 beta)
7132 at
            2482.7
Probable AMP-binding protein
7133 at
            185.2
hypothetical protein
7134 at
            546.7
                         Α
questionable ORF
7135 at
            569.4
                        Α
hypothetical protein
7136_at
            -59.7
                         Α
questionable ORF
                         Ρ
7137 at
            1025.0
Homolog to ATP-binding protein clpX (E.coli)
7138 at
            220.0
similarity to hypothetical A.thaliana protein
7139 at
            1221.7
Homolog to 1,4-a-glucosidase (S.cerevisiae) (EC 3.2.1.3) 3
7140 at
            1096.1
hypothetical protein
                         Р
7141 at
            817.5
similarity to human p97 homologous protein
7142_at
            995.9
questionable ORF
7143_at
            335.6
                        M
Homolog to human hnRNP complex K protein
7144 at
            2803.3
similarity to human Arp2/3 protein complex subunit p41-Arc and to human Sop2p-like protein
7145 at
            626.4
similarity to bumetanide-sensitive Na-K-Cl cotransport protein
7146_at
            936.6
RNA (guanine-7-)methyltransferase (cap methyltransferase)
7102 at
            347.7
RNA helicase homolog
7103_at
            538.9
strong similarity to general chromatin factor Spt16p
            502.7
7104 at
Probable Zn-finger protein
7105 at
            257.2
Probable Zn-finger protein
7106 at
            1008.6
Probable sugar transport protein
7107_at
            1353.4
Probable ATPVGTP-binding protein
7108 at
            2039.0
UDP-N-acetyl-glucosamine-1-P transferase (GPT)
7109_at
            361.3
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Probable glutathione peroxidase (EC 1.11.1.9)
7110 at
            1273.8
Homolog to SNF2VSWI2 DNA-binding regulatory protein
7111 at
            1246.2
hypothetical protein
7112 at
            3640.6
Putative 57 kDa protein with an apparent MW of 70 kDa by SDS-PAGE
7113 at
            4850.5
glutamine amidotransferase:cyclase
7114_at
            5082.0
3-deoxy-D-arabino-heptulosonate 7-phosphate (DAHP) synthase isoenzyme
7115 at
            18.3
hypothetical protein
7116 at
            437.2
                        Α
Probable mitochondrial ribosomal protein S5
7117 at
            5858.6
dUTP pyrophosphatase (dUTPase)
7118 at
            44.4
transcription factor, part of SrbVMediator complex
7119 at
            546.8
probable membrane protein
7120_at
            162.3
hypothetical protein
7121 at
            309.7
                        Α
Riboflavin synthase alpha-chain
7122 at
            405.4
Required for normal 5.8S rRNA processing and for tRNA processing\; associated with RNase MRP and
RNase P
7123 at
            245.0
                        Α
hypothetical protein
7079 at
            129.2
                        Α
hypothetical protein
                        Ρ
7080 at
            1141.5
similarity to C.elegans GTPase-activating protein
7081 at
            1754.7
similarity to hypothetical S. pombe protein
7082 at
            1026.2
questionable ORF
                        Ρ
7083 at
            14048.7
Serine hydroxymethyltransferase, mitochondrial
7084 at
            1078.2
Probable small GTP-binding protein
7085_at
            2137.3
probable membrane protein
7086 at
            997.3
Probable mitochondrial protein L37
7087 at
            683.9
hypothetical protein
7088 at
            433.5
Probable ATPVGTP-binding protein
7089_at
            1094.8
weak similarity to S.pombe uvi22 protein and hypothetical protein YNL024c
7090 at
            278.3
Hsm3p may be a member of the yeast MutS homolog family
7091 at
            576.8
                        Μ
similarity to hypothetical protein YJL048c
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7092_at
            338.8
Probable protein kinase (growth factor & cytokine receptor family)
7093 at
            459.6
RAP1-interacting factor, involved in establishment of repressed chromatin
7094 at
            2316.3
dual specificity protein phosphatase
7095_at
            60.5
questionable ORF
7096 at
            419.6
                                                                                                    С
and C subunits of DNA polymerase II
7097 at
            1297.9
RNA polymerase II-associated, nuclear protein that may serve as both a positive and negative regulator
of a subset of genes, perhaps operating in parallel with Gal11p
7098 at
            260.6
hypothetical protein
7099 at
            1004.6
Probable G-protein, -transducin type
7100 at
            830.4
Mitochondrial ribosomal protein MRPL27 (YmL27)
7101 at
            9552.3
Probable SEC61 protein homolog
7057 at
            112.7
similarity to AMP deaminase
7058 at
            -27.9
                        Α
hypothetical protein
7059 at
            14524.7
                         Ρ
Aminopeptidase yscIII
7060 at
            3364.1
                         Ρ
similarity to hypothetical S. pombe protein
7061 at
            1124.7
clathrin associated protein medium chain
7062_at
            1398.1
transcriptional activator
7063_at
            888.1
metal homeostasis protein\; putative membrane protein
7064 at
            6800.0
citrate tranporter in mitochondrial inner membrane
7065_at
            410.4
hypothetical protein
            675.1
7066_at
                         Ρ
Probable multidrug resistance protein
7067 at
            -29.0
Probable sulfate transport protein
7068_at
            311.3
Putative P-type Cu(2+)-transporting ATPase
7069 at
            2103.6
Homolog to phosphate-repressible phosphate permease
7070 at
            170.1
Maltose fermentation regulatory protein
7071 s at 182.3
maltose permease
7072_s_at 127.8
                         Α
Maltase (EC 3.2.1.20)
7073 at
            -10.3
strong similarity to hypothetical protein YGR293c
7074_f_at 736.4
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YKL224 c homolog
7075 at
            59.8
hypothetical membrane protein
7076 at
                        Μ
            843.3
identified by SAGE
                        Ρ
7077 at
            2226.8
identified by SAGE
7078 at
            456.6
                        Α
hypothetical protein
7033 at
            337.0
questionable ORF - upstream ORF of ALG1
7034 i at
            8441.9
identified by SAGE
7035_s_at 7886.7
                        Ρ
identified by SAGE
7036 s at 602.9
Protein involved in targeting of plasma membrane [H+]ATPase
7037 s at 297.6
Probable aldehyde dehydrogenase (EC 1.2.1.-)
7038_s_at 656.6
Degradation in the Endoplasmic Reticulum
7039 at
            128.4
probable membrane protein
7040 g at -25.3
probable membrane protein
7041_s_at 1012.0
Probable Zn-finger protein (C2H2 type)
7042 at
            300.8
non-annotated SAGE orf Found forward in NC 001134 between 46929 and 47189 with 100% identity.
See citation Velculescu, V.E., et al. (1997) Characterization of the yeast transcriptome. Cell 8:243-251
7043 at
            747.3
non-annotated SAGE orf Found reverse in NC_001134 between 164451 and 164735 with 100% identity.
See citation Velculescu, V.E., et al. (1997) Characterization of the yeast transcriptome. Cell 8:243-251
non-annotated SAGE orf Found reverse in NC 001134 between 164788 and 164997 with 100% identity.
See citation Velculescu, V.E., et al. (1997) Characterization of the yeast transcriptome. Cell 8:243-251
7045 i at
            5219.9
non-annotated SAGE orf Found forward in NC_001134 between 490774 and 490932 with 100% identity.
See citation Velculescu, V.E., et al. (1997) Characterization of the yeast transcriptome. Cell 8:243-251
7046 s at 5423.9
non-annotated SAGE orf Found forward in NC 001134 between 490774 and 490932 with 100% identity.
See citation Velculescu, V.E., et al. (1997) Characterization of the yeast transcriptome. Cell 8:243-251
non-annotated SAGE orf Found forward in NC_001134 between 680321 and 680521 with 100% identity.
See citation Velculescu, V.E., et al. (1997) Characterization of the yeast transcriptome. Cell 8:243-251
7048 i at
            -3.2
non-annotated SAGE orf Found forward in NC 001134 between 680595 and 680834 with 100% identity.
See citation Velculescu, V.E., et al. (1997) Characterization of the yeast transcriptome. Cell 8:243-251
7049 s at 15.0
non-annotated SAGE orf Found forward in NC 001134 between 680595 and 680834 with 100% identity.
See citation Velculescu, V.E., et al. (1997) Characterization of the yeast transcriptome. Cell 8:243-251
7050 at
            1017.4
non-annotated SAGE orf Found reverse in NC 001134 between 680739 and 680900 with 100% identity.
See citation Velculescu, V.E., et al. (1997) Characterization of the yeast transcriptome. Cell 8:243-251
7051 at
            70.4
non-annotated SAGE orf Found forward in NC_001134 between 36284 and 36424 with 100% identity.
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See citation Velculescu, V.E., et al. (1997) Characterization of the yeast transcriptome. Cell 8:243-251
7052 at
            94.8
non-annotated SAGE orf Found reverse in NC 001134 between 101483 and 101674 with 100% identity.
See citation Velculescu, V.E., et al. (1997) Characterization of the yeast transcriptome. Cell 8:243-251
non-annotated SAGE orf Found reverse in NC 001134 between 196846 and 196992 with 100% identity.
See citation Velculescu, V.E., et al. (1997) Characterization of the yeast transcriptome. Cell 8:243-251
non-annotated SAGE orf Found forward in NC_001134 between 592971 and 593117 with 100% identity.
See citation Velculescu, V.E., et al. (1997) Characterization of the yeast transcriptome. Cell 8:243-251
7055 f at
            -387.3
non-annotated SAGE orf Found forward in NC 001134 between 592971 and 593117 with 100% identity.
See citation Velculescu, V.E., et al. (1997) Characterization of the yeast transcriptome. Cell 8:243-251
non-annotated SAGE orf Found forward in NC 001134 between 767702 and 767938 with 100% identity.
See citation Velculescu, V.E., et al. (1997) Characterization of the yeast transcriptome. Cell 8:243-251
7010 at
non-annotated SAGE orf Found reverse in NC 001134 between 88277 and 88447 with 100% identity.
See citation Velculescu, V.E., et al. (1997) Characterization of the yeast transcriptome. Cell 8:243-251
7011_g_at 1593.2
non-annotated SAGE orf Found reverse in NC_001134 between 88277 and 88447 with 100% identity.
See citation Velculescu, V.E., et al. (1997) Characterization of the yeast transcriptome. Cell 8:243-251
            24244.4
non-annotated SAGE orf Found reverse in NC 001134 between 88345 and 88512 with 100% identity.
See citation Velculescu, V.E., et al. (1997) Characterization of the yeast transcriptome. Cell 8:243-251
7013 at
            205.8
non-annotated SAGE orf Found reverse in NC 001134 between 101183 and 101410 with 100% identity.
See citation Velculescu, V.E., et al. (1997) Characterization of the yeast transcriptome. Cell 8:243-251
            1546.7
7014 at
non-annotated SAGE orf Found reverse in NC 001134 between 115345 and 115482 with 100% identity.
See citation Velculescu, V.E., et al. (1997) Characterization of the yeast transcriptome. Cell 8:243-251
non-annotated SAGE orf Found reverse in NC 001134 between 143662 and 143892 with 100% identity.
See citation Velculescu, V.E., et al. (1997) Characterization of the yeast transcriptome. Cell 8:243-251
7016 at
non-annotated SAGE orf Found forward in NC 001134 between 172044 and 172202 with 100% identity.
See citation Velculescu, V.E., et al. (1997) Characterization of the yeast transcriptome. Cell 8:243-251
7017 at
non-annotated SAGE orf Found reverse in NC 001134 between 241413 and 241568 with 100% identity.
See citation Velculescu, V.E., et al. (1997) Characterization of the yeast transcriptome. Cell 8:243-251
non-annotated SAGE orf Found reverse in NC 001134 between 256812 and 256976 with 100% identity.
See citation Velculescu, V.E., et al. (1997) Characterization of the yeast transcriptome. Cell 8:243-251
7019_at
            902.5
non-annotated SAGE orf Found forward in NC 001134 between 270737 and 270898 with 100% identity.
See citation Velculescu, V.E., et al. (1997) Characterization of the yeast transcriptome. Cell 8:243-251
non-annotated SAGE orf Found reverse in NC 001134 between 305964 and 306119 with 100% identity.
See citation Velculescu, V.E., et al. (1997) Characterization of the yeast transcriptome. Cell 8:243-251
7021 at
non-annotated SAGE orf Found reverse in NC 001134 between 373567 and 373737 with 100% identity.
See citation Velculescu, V.E., et al. (1997) Characterization of the yeast transcriptome. Cell 8:243-251
7022 at
            370.2
non-annotated SAGE orf Found forward in NC_001134 between 391411 and 391557 with 100% identity.
See citation Velculescu, V.E., et al. (1997) Characterization of the yeast transcriptome. Cell 8:243-251
7023_at
            458.3
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non-annotated SAGE orf Found forward in NC_001134 between 407263 and 407424 with 100% identity.
See citation Velculescu, V.E., et al. (1997) Characterization of the yeast transcriptome. Cell 8:243-251
7024 at
            428.7
non-annotated SAGE orf Found reverse in NC 001134 between 480941 and 481075 with 100% identity.
See citation Velculescu, V.E., et al. (1997) Characterization of the yeast transcriptome. Cell 8:243-251
7025 at
non-annotated SAGE orf Found reverse in NC_001134 between 553502 and 553690 with 100% identity.
See citation Velculescu, V.E., et al. (1997) Characterization of the yeast transcriptome. Cell 8:243-251
7026 at
non-annotated SAGE orf Found reverse in NC_001134 between 553777 and 553935 with 100% identity.
See citation Velculescu, V.E., et al. (1997) Characterization of the yeast transcriptome. Cell 8:243-251
            7416.5
non-annotated SAGE orf Found reverse in NC 001134 between 562982 and 563116 with 100% identity.
See citation Velculescu, V.E., et al. (1997) Characterization of the yeast transcriptome. Cell 8:243-251
7028 at
            22.6
non-annotated SAGE orf Found forward in NC 001134 between 592774 and 592914 with 100% identity.
See citation Velculescu, V.E., et al. (1997) Characterization of the yeast transcriptome. Cell 8:243-251
7029 g at 242.6
non-annotated SAGE orf Found forward in NC 001134 between 592774 and 592914 with 100% identity.
See citation Velculescu, V.E., et al. (1997) Characterization of the yeast transcriptome. Cell 8:243-251
non-annotated SAGE orf Found forward in NC_001134 between 592832 and 593005 with 100% identity.
See citation Velculescu, V.E., et al. (1997) Characterization of the yeast transcriptome. Cell 8:243-251
7031 at
            326.6
non-annotated SAGE orf Found reverse in NC 001134 between 615895 and 616062 with 100% identity.
See citation Velculescu, V.E., et al. (1997) Characterization of the yeast transcriptome. Cell 8:243-251
non-annotated SAGE orf Found forward in NC 001134 between 649944 and 650114 with 100% identity.
See citation Velculescu, V.E., et al. (1997) Characterization of the yeast transcriptome. Cell 8:243-251
6985 at
non-annotated SAGE orf Found reverse in NC_001134 between 741739 and 741900 with 100% identity.
See citation Velculescu, V.E., et al. (1997) Characterization of the yeast transcriptome. Cell 8:243-251
non-annotated SAGE orf Found forward in NC_001134 between 35606 and 35800 with 100% identity.
See citation Velculescu, V.E., et al. (1997) Characterization of the yeast transcriptome. Cell 8:243-251
non-annotated SAGE orf Found reverse in NC_001134 between 66854 and 67036 with 100% identity.
See citation Velculescu, V.E., et al. (1997) Characterization of the yeast transcriptome. Cell 8:243-251
6988 at
non-annotated SAGE orf Found forward in NC_001134 between 181316 and 181477 with 100% identity.
See citation Velculescu, V.E., et al. (1997) Characterization of the yeast transcriptome. Cell 8:243-251
6989 at
non-annotated SAGE orf Found reverse in NC_001134 between 593218 and 593355 with 100% identity.
See citation Velculescu, V.E., et al. (1997) Characterization of the yeast transcriptome. Cell 8:243-251
non-annotated SAGE orf Found forward in NC 001134 between 622942 and 623106 with 100% identity.
See citation Velculescu, V.E., et al. (1997) Characterization of the yeast transcriptome. Cell 8:243-251
6991 i at
            211.6
non-annotated SAGE orf Found reverse in NC_001134 between 694564 and 694710 with 100% identity.
See citation Velculescu, V.E., et al. (1997) Characterization of the yeast transcriptome. Cell 8:243-251
6992 r at
non-annotated SAGE orf Found reverse in NC_001134 between 694564 and 694710 with 100% identity.
See citation Velculescu, V.E., et al. (1997) Characterization of the yeast transcriptome. Cell 8:243-251
6993 f at
            1742.3
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non-annotated SAGE orf Found reverse in NC_001134 between 694564 and 694710 with 100% identity. See citation Velculescu, V.E., et al. (1997) Characterization of the yeast transcriptome. Cell 8:243-251

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6994_at
            535.3
non-annotated SAGE orf Found reverse in NC 001134 between 747849 and 748010 with 100% identity.
See citation Velculescu, V.E., et al. (1997) Characterization of the yeast transcriptome. Cell 8:243-251
6995 at
non-annotated SAGE orf Found forward in NC 001134 between 143356 and 143535 with 100% identity.
See citation Velculescu, V.E., et al. (1997) Characterization of the yeast transcriptome. Cell 8:243-251
non-annotated SAGE orf Found reverse in NC 001134 between 159883 and 160056 with 100% identity.
See citation Velculescu, V.E., et al. (1997) Characterization of the yeast transcriptome. Cell 8:243-251
non-annotated SAGE orf Found forward in NC 001134 between 164491 and 164637 with 100% identity.
See citation Velculescu, V.E., et al. (1997) Characterization of the yeast transcriptome. Cell 8:243-251
6998 at
non-annotated SAGE orf Found forward in NC 001134 between 165623 and 165823 with 100% identity.
See citation Velculescu, V.E., et al. (1997) Characterization of the yeast transcriptome. Cell 8:243-251
non-annotated SAGE orf Found forward in NC 001134 between 165783 and 165998 with 100% identity.
See citation Velculescu, V.E., et al. (1997) Characterization of the yeast transcriptome. Cell 8:243-251
non-annotated SAGE orf Found reverse in NC_001134 between 197442 and 197720 with 100% identity.
See citation Velculescu, V.E., et al. (1997) Characterization of the yeast transcriptome. Cell 8:243-251
7001 r at 209.4
non-annotated SAGE orf Found reverse in NC 001134 between 197442 and 197720 with 100% identity.
See citation Velculescu, V.E., et al. (1997) Characterization of the yeast transcriptome. Cell 8:243-251
non-annotated SAGE orf Found reverse in NC_001134 between 235796 and 235936 with 100% identity.
See citation Velculescu, V.E., et al. (1997) Characterization of the yeast transcriptome. Cell 8:243-251
7003 at
non-annotated SAGE orf Found reverse in NC 001134 between 351253 and 351459 with 100% identity.
See citation Velculescu, V.E., et al. (1997) Characterization of the yeast transcriptome. Cell 8:243-251
7004 at
non-annotated SAGE orf Found reverse in NC_001134 between 363544 and 363771 with 100% identity.
See citation Velculescu, V.E., et al. (1997) Characterization of the yeast transcriptome. Cell 8:243-251
non-annotated SAGE orf Found forward in NC_001134 between 419296 and 419436 with 100% identity.
See citation Velculescu, V.E., et al. (1997) Characterization of the yeast transcriptome. Cell 8:243-251
7006 at
non-annotated SAGE orf Found forward in NC_001134 between 477095 and 477283 with 100% identity.
See citation Velculescu, V.E., et al. (1997) Characterization of the yeast transcriptome. Cell 8:243-251
7007_at
            -346.0
non-annotated SAGE orf Found forward in NC 001134 between 480969 and 481103 with 100% identity.
See citation Velculescu, V.E., et al. (1997) Characterization of the yeast transcriptome. Cell 8:243-251
non-annotated SAGE orf Found reverse in NC_001134 between 554862 and 555011 with 100% identity.
See citation Velculescu, V.E., et al. (1997) Characterization of the yeast transcriptome. Cell 8:243-251
7009 g at 163.1
non-annotated SAGE orf Found reverse in NC 001134 between 554862 and 555011 with 100% identity.
See citation Velculescu, V.E., et al. (1997) Characterization of the yeast transcriptome. Cell 8:243-251
non-annotated SAGE orf Found reverse in NC 001134 between 554921 and 555088 with 100% identity.
See citation Velculescu, V.E., et al. (1997) Characterization of the yeast transcriptome. Cell 8:243-251
non-annotated SAGE orf Found forward in NC 001134 between 555545 and 555691 with 100% identity.
See citation Velculescu, V.E., et al. (1997) Characterization of the yeast transcriptome. Cell 8:243-251
6964 s at 338.1
non-annotated SAGE orf Found forward in NC_001134 between 555685 and 555879 with 100% identity.
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See citation Velculescu, V.E., et al. (1997) Characterization of the yeast transcriptome. Cell 8:243-251
6965 i at
           -147.4
non-annotated SAGE orf Found forward in NC 001134 between 555695 and 555919 with 100% identity.
See citation Velculescu, V.E., et al. (1997) Characterization of the yeast transcriptome. Cell 8:243-251
non-annotated SAGE orf Found forward in NC 001134 between 555695 and 555919 with 100% identity.
See citation Velculescu, V.E., et al. (1997) Characterization of the yeast transcriptome. Cell 8:243-251
6967_at
non-annotated SAGE orf Found reverse in NC_001134 between 624453 and 624656 with 100% identity.
See citation Velculescu, V.E., et al. (1997) Characterization of the yeast transcriptome. Cell 8:243-251
6968 at
non-annotated SAGE orf Found reverse in NC 001134 between 681184 and 681420 with 100% identity.
See citation Velculescu, V.E., et al. (1997) Characterization of the yeast transcriptome. Cell 8:243-251
non-annotated SAGE orf Found reverse in NC 001134 between 681366 and 681578 with 100% identity.
See citation Velculescu, V.E., et al. (1997) Characterization of the yeast transcriptome. Cell 8:243-251
6970 at
non-annotated SAGE orf Found reverse in NC 001134 between 681785 and 681940 with 100% identity.
See citation Velculescu, V.E., et al. (1997) Characterization of the yeast transcriptome. Cell 8:243-251
6971_at
non-annotated SAGE orf Found forward in NC_001134 between 697768 and 697947 with 100% identity.
See citation Velculescu, V.E., et al. (1997) Characterization of the yeast transcriptome. Cell 8:243-251
non-annotated SAGE orf Found forward in NC 001134 between 744626 and 744784 with 100% identity.
See citation Velculescu, V.E., et al. (1997) Characterization of the yeast transcriptome. Cell 8:243-251
6973 at
            -81.0
non-annotated SAGE orf Found forward in NC 001134 between 9384 and 9605 with 100% identity. See
citation Velculescu, V.E., et al. (1997) Characterization of the yeast transcriptome. Cell 8:243-251
            -123.9
6974 at
non-annotated SAGE orf Found forward in NC 001134 between 9785 and 9922 with 100% identity. See
citation Velculescu, V.E., et al. (1997) Characterization of the yeast transcriptome. Cell 8:243-251
            3580.1
non-annotated SAGE orf Found forward in NC 001134 between 133720 and 133872 with 100% identity.
See citation Velculescu, V.E., et al. (1997) Characterization of the yeast transcriptome. Cell 8:243-251
6976 at
            3690.7
non-annotated SAGE orf Found reverse in NC 001134 between 167284 and 167427 with 100% identity.
See citation Velculescu, V.E., et al. (1997) Characterization of the yeast transcriptome. Cell 8:243-251
            1184.7
non-annotated SAGE orf Found forward in NC 001134 between 283360 and 283566 with 100% identity.
See citation Velculescu, V.E., et al. (1997) Characterization of the yeast transcriptome. Cell 8:243-251
6978 at
non-annotated SAGE orf Found reverse in NC 001134 between 308633 and 308923 with 100% identity.
See citation Velculescu, V.E., et al. (1997) Characterization of the yeast transcriptome. Cell 8:243-251
6979_at
            397.5
non-annotated SAGE orf Found forward in NC 001134 between 333970 and 334104 with 100% identity.
See citation Velculescu, V.E., et al. (1997) Characterization of the yeast transcriptome. Cell 8:243-251
non-annotated SAGE orf Found reverse in NC 001134 between 376102 and 376293 with 100% identity.
See citation Velculescu, V.E., et al. (1997) Characterization of the yeast transcriptome. Cell 8:243-251
6981 at
non-annotated SAGE orf Found reverse in NC 001134 between 398333 and 398488 with 100% identity.
See citation Velculescu, V.E., et al. (1997) Characterization of the yeast transcriptome. Cell 8:243-251
6982 at
            -21.2
non-annotated SAGE orf Found forward in NC_001134 between 479146 and 479289 with 100% identity.
See citation Velculescu, V.E., et al. (1997) Characterization of the yeast transcriptome. Cell 8:243-251
6983_at
            -54.0
```

non-annotated SAGE orf Found forward in NC_001134 between 741104 and 741241 with 100% identity. See citation Velculescu, V.E., et al. (1997) Characterization of the yeast transcriptome. Cell 8:243-251

6984 at 144.4 A

non-annotated SAGE orf Found forward in NC_001134 between 741803 and 741964 with 100% identity. See citation Velculescu, V.E., et al. (1997) Characterization of the yeast transcriptome. Cell 8:243-251 6938 at 3477.2 P

Saccharomyces cerevisiae chromosome II, complete chromosome sequence. Found forward in NC_001134 between 1 and 1000 with 100% identity.

6939 g at 3177.9 F

Saccharomyces cerevisiae chromosome II, complete chromosome sequence. Found forward in NC 001134 between 1 and 1000 with 100% identity.

6940 s at 168.2 A

Saccharomyces cerevisiae chromosome II, complete chromosome sequence. Found forward in NC_001134 between 1001 and 2000 with 100% identity.

6941 s at 543.3 A

Saccharomyces cerevisiae chromosome II, complete chromosome sequence. Found forward in NC_001134 between 2001 and 3000 with 100% identity.

6942 at 300.2 A

Saccharomyces cerevisiae chromosome II, complete chromosome sequence. Found forward in NC_001134 between 3001 and 4000 with 100% identity.

6943 g at 220.5 A

Saccharomyces cerevisiae chromosome II, complete chromosome sequence. Found forward in NC_001134 between 3001 and 4000 with 100% identity.

6944 at 130.4 A

Saccharomyces cerevisiae chromosome II, complete chromosome sequence. Found forward in NC 001134 between 4001 and 5000 with 100% identity.

6945 g at 702.5 M

Saccharomyces cerevisiae chromosome II, complete chromosome sequence. Found forward in NC_001134 between 4001 and 5000 with 100% identity.

6946 at 711.9 A

Saccharomyces cerevisiae chromosome II, complete chromosome sequence. Found forward in NC_001134 between 5001 and 6000 with 100% identity.

6947_g_at 1202.1 P

Saccharomyces cerevisiae chromosome II, complete chromosome sequence. Found forward in NC_001134 between 5001 and 6000 with 100% identity.

6948 iat 471.4 F

Saccharomyces cerevisiae chromosome II, complete chromosome sequence. Found forward in NC_001134 between 6001 and 6215 with 100% identity.

6949 f at 143.4 A

Saccharomyces cerevisiae chromosome II, complete chromosome sequence. Found forward in NC_001134 between 6001 and 6215 with 100% identity.

6950_at 1301.2 A

snRNA

6951_at 1442.0 P

telomerase RNA component

6952_at 2630.3

telomerase RNA component

6953 at 276.0 A

snRNA

6954 at -133.8

snRNA

6955_s_at -107.0 A

putative pseudo-TY5

6956_s_at -449.0 A

Reverse transcriptase

6957_s_at 276.5 A

```
Bud site selection
6958 s at 3090.3
Mating type protein alpha-2
6959_s_at 1573.1
transcripton factor involved in the regulation of the alpha-specific genes
            -51.5
6960 at
questionable ORF
                        Ρ
6961_g_at 2506.8
questionable ORF
                         Ρ
6915_at
            755.5
catabolic serine (threonine) dehydratase
6916 at
            773.8
weak similarity to yeast translation regulator Gcd6p
6917 at
            153.0
similarity to myosin heavy chain form b from Chicken and Xenopus
6918 at
            921.7
strong similarity to human Rev interacting protein Rip-1
6919_at
            491.9
hypothetical protein
6920_at
            4497.8
Saccharolysin (oligopeptidase yscD)
6921_at
            2142.4
hypothetical protein
6922 at
            780.6
May assist Ste12p in pheromone-dependent expression of KAR3 and CIK1
6923_at
            1124.0
Methyltransferase
6924 at
            532.0
                        Ρ
Protease B Non-derepressible
6925 at
            356.9
involved in laminarinase resistance
6926_at
            4384.1
diadenosine 5,5 -P1,P4-tetraphosphate phosphorylase I
6927_at
            1106.4
hypothetical protein
6928 at
            64.5
strong similarity to sporulation-specific protein Sps2p
6929_at
            236.0
hypothetical protein
                        Ρ
6930_at
            1272.9
weak similarity to human ORF
6931 at
            97.6
                        Α
questionable ORF
                         Ρ
6932_at
            1318.3
hypothetical protein
6933 at
            28441.7
                        Ρ
protein disulfide isomerase
6934 at
            139.3
                        Α
questionable ORF
                         Ρ
6935 at
            677.1
questionable ORF
6936_g_at 1512.7
                        Ρ
questionable ORF
6937_at
            6319.1
Glucokinase
6893_at
            475.5
                         Α
```

```
regulatory protein
6894 at
            723.1
                         Α
Membrane transporter
6895 at
            4500.6
SRO9 may overlap in function with tropomyosin and may be involved in organization of actin filaments
6896 at
            1913.8
similarity to hypothetical protein YDR514c
6897_at
            4677.5
Glutaredoxin (thiol-transferase)
            1716.1
6898 at
similarity to hypothetical S.pombe protein
            843.6
6899 at
Transcription regulator
6900 at
            93.1
possesses a SAM (sterile alpha motif)\; interacts with G protein and Ste11p
6901 at
            1138.9
involved in pre-rRNA processing and ribosome assembly
6902 at
            16712.1
histidinol dehydrogenase
6903_at
            351.5
Microtubule-binding protein
6904_at
            6394.0
weak similarity to glutenins, high molecular weight chain
6905 at
            1180.5
serine\threonine-rich membrane protein
6906 at
            51.1
Protein involved in the integration of lipid signaling pathways with cellular homeostatis
6907 at
            875.6
Amino acid permease
                         Α
6908 at
            51.9
questionable ORF
6909_at
            3484.6
beta-IPM (isopropylmalate) dehydrogenase
6910_at
            2350.7
NifS-like protein
6911 at
            243.4
                         Α
hypothetical protein
6912_at
            309.3
Cell cycle regulated protein required for axial bud formation\; co-assembles with Bud4p at bud sites
6913_at
            512.4
part of budding protein Bud3p due to frameshift in DNA sequence
6914 at
            5173.9
Protein with RNA recognition motifs
6870_at
            56.8
strong similarity to Saccharomyces pastorianus hypothetical protein LgYCL010c
6871 at
            9837.3
Small regulatory subunit of Acetolactate synthase
6872 at
            538.5
Calcofluor White Hypersensitivity
6873 at
            -80.2
questionable ORF
6874_at
            170.0
strong similarity to Saccharomyces pastorianus hypothetical protein LqYCL005w
6875_at
            88.5
17-kDa phosphatidylserine synthase
6876_at
            706.6
```

```
strong similarity to Saccharomyces pastorianus hypothetical protein LgYCL002c
6877_at
            1013.1
Protein involved in retention of membrane proteins, including Sec12p, in the ER\; localized to Golgi,
where it may function in returning membrane proteins to the ER
6878 at
            -230.2
similarity to Dom34p
6879_at
            84.7
                         Α
hypothetical protein
6880 at
            2151.5
conserved potential GTP-ginding protein
6881 at
            480.5
Mitochondrial ribosomal protein MRPL32 (YmL32)
6882 at
            3433.3
FMN-binding protein
                         Ρ
6883 at
            6067.4
non-mitochondrial citrate synthase
6884 at
            130.4
hypothetical protein
6885 at
            1264.4
                         Ρ
SerVThr protein kinase
            2109.3
6886 at
Reduced viability on starvation protein RVS161
6887 at
            406.1
strong similarity to Y.lipolytica GPR1 protein and Fun34p
6888 at
            2146.4
Active transport ATPase
6889 at
            4767.6
weak similarity to M.leprae B1496_F1_41 protein
6890 at
            147483.6
3-phosphoglycerate kinase
6891 at
            194.2
                         Α
DNA polymerase IV
6892 at
            37.9
                         Α
hypothetical protein
6848 at
            862.9
                         Ρ
hypothetical protein
6849 at
            3533.8
similarity to hypothetical S.pombe protein
6850 at
            656.2
Transcription regulator
                        Ρ
6851 at
            595.8
MAK32 sugar kinase
6852_at
            -168.1
                         Α
Transcription regulator
                         Ρ
6853 at
            722.5
MAK31 snRNP
6854 at
Protein induced by heat shock, ethanol treatment, and entry into stationary phase\; located in plasma
membrane
6855 at
            245.6
                         Α
hypothetical protein
                        Ρ
6856_at
            881.4
Membrane transporter
                        Р
6857_at
            543.5
Asn-tRNA synthetase
                         Ρ
6858_f_at
            26343.0
```

```
Proteolipid associated with plasma membrane H(+)-ATPase (Pma1p)
6859 at
            -115.0
                        Α
hypothetical protein
6860 at
            1026.4
                        Ρ
Membrane phospho-diesterase
6861 at
            370.5
GTPase (RAS-related)
6862 at
            691.7
                        Α
Amino acid permease
                        Р
6863_at
            3037.1
required for mitochondrial DNA replication
6864 at
            3035.4
required for mitochondrial DNA replication
6865 at
            1396.0
weak similarity to S.pombe hypothetical protein SPBC4C3.06
6866 at
            46923.8
Ribosomal protein S14A (rp59A)
6867 at
            405.9
Beige Protein Homologue 1
6868 at
            591.5
similarity to mouse nuclear receptor co-repressor N-Cor
6869 at
            4465.1
Probable subunit of 1,3-beta-glucan synthase\; homolog of ELO1
6825 at
            834.7
Component of the exosome 3->5 exoribonuclease complex with Rrp4p, Rrp41p, Rrp42p and Dis3p
(Rrp44p).
                        Р
6826 at
            1699.9
ribokinase
6827 at
            1894.1
May collaborate with Pho86p and Pho84p in inorganic phosphate uptake\; protein contains 12 predicted
transmembrane domains
6828_at
            121.6
GTPVGDP exchange factor for Rsr1 protein
6829_at
            94.2
                        Α
questionable ORF
                        Ρ
6830 at
            1018.0
TATA binding protein-associated factor (TAF)
6831_at
            706.1
                        Α
hypothetical protein
            273.6
6832_at
                        Α
involved in manganese homeostasis
6833 at
            -216.5
                        Α
Protease
6834_at
            1265.9
                        Μ
required for respiration and maintenance of mitochondrial genome
6835 at
            1175.2
Protein carboxyl methylase
6836 at
            -155.6
                        Α
questionable ORF
6837 at
            2421.4
Acyl-CoA cholesterol acyltransferase (sterol-ester synthetase)
6838_at
            192.4
questionable ORF
                        Р
6839 at
            1514.9
weak similarity to ankyrins
6840_at
            1692.6
                        Ρ
```

```
a subunit of RSC, a fifteen-protein chromatin remodeling complex and related to the SwiVsnf Complex.
6841 at
            11592.8
threonine synthase
6842 at
            298.6
                         Α
CTR86 shares a terminator region with THR4. CTR86 contains aGCN4 responsive site suggesting it may
also be involved in amino acid biosynthesis.
6843 at
            1297.8
                         Ρ
regulatory protein
6844 at
            2443.8
weak similarity to hypothetical protein YDL177c
6845 at
            1497.8
regulatory protein
                         Ρ
            2301.5
6846 at
hypothetical protein
6847_g_at 6713.6
                         Ρ
hypothetical protein
6803 at
            5005.2
                         Ρ
similarity to Ytp1p protein
6804 at
            198.7
                         Α
questionable ORF
6805 at
                         Α
            213.2
G10-like protein
                         Ρ
6806 at
            592.9
Transcription factor (fork head domain)
6807 at
            169.4
Zn finger protein, putative ATPase
6808 at
            1773.0
Intracellular transport protein
6809 at
            216.7
similarity to hypothetical S.pombe protein
6810_g_at -20.7
similarity to hypothetical S.pombe protein
6811 at
            2001.8
                         Ρ
cyclophilin homolog
6812 at
            377.9
(required for) Integrity of Mitochondrial Genome 2
6813 at
            1006.5
regulatory protein
                         Ρ
6814 at
            523.6
protein kinase
                         Ρ
6815 at
            2095.1
shows similarity to glucose-6-phosphate dehydrogenase non-catalytic domains\; homologous to Sol1p
and Sol3p
6816_at
            444.3
ERS1 protein, ER defect supressor
6817 at
                         Ρ
            1013.4
hypothetical protein
6818 at
            1316.5
                         Ρ
Necessary for accurate chromosome transmission during cell division
6819 at
            279.8
weak similarity to A.thaliana protein phosphatase 2C
            305.9
6820_at
activation mediator subcomplex of RNA polymerase I holoenzyme
6821_at
            2123.4
weak similarity to Rbk1p
6822_at
            343.9
                         Α
```

```
Thioredoxin type II
6823 at
            3541.3
glucose repression regulatory protein, exhibits similarity to beta subunits of G proteins
6824 at
            -17.3
hypothetical protein
6780 at
                         Ρ
            404.7
hypothetical protein
6781 at
             1037.9
                         Ρ
questionable ORF
                         Ρ
6782_at
             1150.3
nucleic acid-binding protein
6783 at
            6454.7
Actin binding protein
                         Ρ
6784 at
             751.5
predicted GPI-anchored cell wall protein
6785 at
            802.9
hypothetical protein
6786 at
             172.0
Putative serineVthreonine protein kinase most similar to cyclic nucleotide-dependent protein kinase
subfamily and the protein kinase C subfamily
6787 at
            468.4
mutS homolog, forms a complex with Msh2p to repair insertion-deletion mispairs\; redundant with
Pms3VMsh6p in repair of insertion-deletion mispairs
             1717.5
6788 at
nuclear protein that negatively regulates basal transcription
6789 at
            570.5
Cell Division Cycle mutant
6790 at
            293.0
hypothetical protein
6791 s at 5.7
Homeobox-domain containing protein which, together with alpha2, represses transcription of
haploid-specific genes in diploid cells
6792 s at 43.1
Homeobox-domain containing protein which, together with alpha2, represses transcription of
haploid-specific genes in diploid cells
6793 at
             150.5
permease involved in the uptake of glycerophosphoinositol (GroPIns)
6794 at
            -22.4
strong similarity to Pep1p
6795_at
            223.8
strong similarity to Pep1p
6796 at
            39.9
strong similarity to Pep1p
6797_at
             111.1
                         Α
Alcohol dehydrogenase
            590.7
6798 f at
member of the seripauperin protein/gene family (see Gene class PAU)
6799 at
            36.9
Alcohol dehydrogenase
6800 at
            175.6
                         Α
Transcription regulator
6801 at
            73.7
                         Α
hypothetical protein
6802 at
             164.7
                         Α
hypothetical protein
6755_i_at
            2.6
                         Α
```

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hypothetical protein
6756 at
            36.4
                         Α
high-temperature lethal
6757 i at
            -25.8
                         Α
Homeobox-domain containing protein which, together with alpha2, represses transcription of
haploid-specific genes in diploid cells
6758 at
            320.6
hypothetical protein identified by SAGE
6759 at
            2516.2
identified by SAGE
6760 g at 4333.3
                         Ρ
identified by SAGE
6761 at
            -54.6
similarity to starvation induced pSI-7 protein of C. fluvum
6762 s at 256.9
                         Α
Ser√Thr protein kinase
6763 at
            878.7
                         Ρ
homologous to mouse and human Tsg101 tumor susceptibility genes
6764 g at 308.3
homologous to mouse and human Tsg101 tumor susceptibility genes
            -101.5
6765 at
non-annotated SAGE orf Found forward in NC_001135 between 41465 and 41704 with 100% identity.
See citation Velculescu, V.E., et al. (1997) Characterization of the yeast transcriptome. Cell 8:243-251
6766 at
            -168.5
non-annotated SAGE orf Found forward in NC 001135 between 157511 and 157669 with 100% identity.
See citation Velculescu, V.E., et al. (1997) Characterization of the yeast transcriptome. Cell 8:243-251
non-annotated SAGE orf Found forward in NC 001135 between 171344 and 171496 with 100% identity.
See citation Velculescu, V.E., et al. (1997) Characterization of the yeast transcriptome. Cell 8:243-251
6768 at
            450.4
non-annotated SAGE orf Found reverse in NC_001135 between 175695 and 175841 with 100% identity.
See citation Velculescu, V.E., et al. (1997) Characterization of the yeast transcriptome. Cell 8:243-251
6769 at
non-annotated SAGE orf Found forward in NC_001135 between 289916 and 290113 with 100% identity.
See citation Velculescu, V.E., et al. (1997) Characterization of the yeast transcriptome. Cell 8:243-251
non-annotated SAGE orf Found forward in NC_001135 between 127315 and 127521 with 100% identity.
See citation Velculescu, V.E., et al. (1997) Characterization of the yeast transcriptome. Cell 8:243-251
6771 s at 121.9
non-annotated SAGE orf Found forward in NC_001135 between 127315 and 127521 with 100% identity.
See citation Velculescu, V.E., et al. (1997) Characterization of the yeast transcriptome. Cell 8:243-251
6772 at
            -139.7
non-annotated SAGE orf Found forward in NC_001135 between 127457 and 127678 with 100% identity.
See citation Velculescu, V.E., et al. (1997) Characterization of the yeast transcriptome. Cell 8:243-251
non-annotated SAGE orf Found forward in NC 001135 between 18548 and 18736 with 100% identity.
See citation Velculescu, V.E., et al. (1997) Characterization of the yeast transcriptome. Cell 8:243-251
6774 at
            749.2
non-annotated SAGE orf Found forward in NC_001135 between 109969 and 110139 with 100% identity.
See citation Velculescu, V.E., et al. (1997) Characterization of the yeast transcriptome. Cell 8:243-251
6775 at
            4098.8
non-annotated SAGE orf Found reverse in NC_001135 between 130174 and 130308 with 100% identity.
See citation Velculescu, V.E., et al. (1997) Characterization of the yeast transcriptome. Cell 8:243-251
non-annotated SAGE orf Found reverse in NC_001135 between 171326 and 171487 with 100% identity.
See citation Velculescu, V.E., et al. (1997) Characterization of the yeast transcriptome. Cell 8:243-251
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6777_at
            1939.2
non-annotated SAGE orf Found reverse in NC 001135 between 172336 and 172488 with 100% identity.
See citation Velculescu, V.E., et al. (1997) Characterization of the yeast transcriptome. Cell 8:243-251
6778 i at
            2367.2
non-annotated SAGE orf Found reverse in NC 001135 between 204772 and 204939 with 100% identity.
See citation Velculescu, V.E., et al. (1997) Characterization of the yeast transcriptome. Cell 8:243-251
            234.2
non-annotated SAGE orf Found reverse in NC 001135 between 204772 and 204939 with 100% identity.
See citation Velculescu, V.E., et al. (1997) Characterization of the yeast transcriptome. Cell 8:243-251
non-annotated SAGE orf Found reverse in NC 001135 between 286677 and 286817 with 100% identity.
See citation Velculescu, V.E., et al. (1997) Characterization of the yeast transcriptome. Cell 8:243-251
6732 at
            43186.0
non-annotated SAGE orf Found reverse in NC 001135 between 162144 and 162278 with 100% identity.
See citation Velculescu, V.E., et al. (1997) Characterization of the yeast transcriptome. Cell 8:243-251
non-annotated SAGE orf Found reverse in NC 001135 between 162307 and 162573 with 100% identity.
See citation Velculescu, V.E., et al. (1997) Characterization of the yeast transcriptome. Cell 8:243-251
non-annotated SAGE orf Found reverse in NC_001135 between 205411 and 205581 with 100% identity.
See citation Velculescu, V.E., et al. (1997) Characterization of the yeast transcriptome. Cell 8:243-251
6735 i at
non-annotated SAGE orf Found forward in NC 001135 between 258696 and 258884 with 100% identity.
See citation Velculescu, V.E., et al. (1997) Characterization of the yeast transcriptome. Cell 8:243-251
non-annotated SAGE orf Found forward in NC_001135 between 258696 and 258884 with 100% identity.
See citation Velculescu, V.E., et al. (1997) Characterization of the yeast transcriptome. Cell 8:243-251
6737 at
non-annotated SAGE orf Found reverse in NC 001135 between 8959 and 9150 with 100% identity. See
citation Velculescu, V.E., et al. (1997) Characterization of the yeast transcriptome. Cell 8:243-251
6738 at
            -1829.0
non-annotated SAGE orf Found reverse in NC_001135 between 9263 and 9469 with 100% identity. See
citation Velculescu, V.E., et al. (1997) Characterization of the yeast transcriptome. Cell 8:243-251
non-annotated SAGE orf Found forward in NC_001135 between 15484 and 15642 with 100% identity.
See citation Velculescu, V.E., et al. (1997) Characterization of the yeast transcriptome. Cell 8:243-251
6740 at
            -171.6
non-annotated SAGE orf Found forward in NC_001135 between 24097 and 24348 with 100% identity.
See citation Velculescu, V.E., et al. (1997) Characterization of the yeast transcriptome. Cell 8:243-251
6741 at
            341.9
non-annotated SAGE orf Found reverse in NC 001135 between 41458 and 41649 with 100% identity.
See citation Velculescu, V.E., et al. (1997) Characterization of the yeast transcriptome. Cell 8:243-251
non-annotated SAGE orf Found reverse in NC_001135 between 41640 and 41792 with 100% identity.
See citation Velculescu, V.E., et al. (1997) Characterization of the yeast transcriptome. Cell 8:243-251
6743 at
            64.3
non-annotated SAGE orf Found reverse in NC 001135 between 123477 and 123677 with 100% identity.
See citation Velculescu, V.E., et al. (1997) Characterization of the yeast transcriptome. Cell 8:243-251
non-annotated SAGE orf Found forward in NC 001135 between 125368 and 125520 with 100% identity.
See citation Velculescu, V.E., et al. (1997) Characterization of the yeast transcriptome. Cell 8:243-251
non-annotated SAGE orf Found reverse in NC 001135 between 168999 and 169175 with 100% identity.
See citation Velculescu, V.E., et al. (1997) Characterization of the yeast transcriptome. Cell 8:243-251
6746 at
            109.4
non-annotated SAGE orf Found forward in NC_001135 between 288361 and 288519 with 100% identity.
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See citation Velculescu, V.E., et al. (1997) Characterization of the yeast transcriptome. Cell 8:243-251
6747 at
            2212.3
non-annotated SAGE orf Found reverse in NC 001135 between 209220 and 209360 with 100% identity.
See citation Velculescu, V.E., et al. (1997) Characterization of the yeast transcriptome. Cell 8:243-251
non-annotated SAGE orf Found reverse in NC 001135 between 213543 and 213719 with 100% identity.
See citation Velculescu, V.E., et al. (1997) Characterization of the yeast transcriptome. Cell 8:243-251
6749 at
non-annotated SAGE orf Found forward in NC_001135 between 265724 and 265873 with 100% identity.
See citation Velculescu, V.E., et al. (1997) Characterization of the yeast transcriptome. Cell 8:243-251
            -204.0
6750 i at
TY5-1
6751 at
            72.4
                         Α
snRNA
6752 i at
            -159.5
                         Α
Centromere
6753 at
            1544.0
                         Ρ
snRNA
6754 at
            45.4
                         Α
snRNA
            29.5
                         Α
6708 at
snRNA
6709 i at
            103.5
strong similarity to sugar transport proteins
6710 at
            320.2
Hypothetical aryl-alcohol dehydrogenase
6711 at
            239.9
                         Ρ
strong similarity to hypothetical protein YPR079w
6712 at
            518.1
                         Ρ
hypothetical protein
6713 at
            392.4
Protein similar to LIM-domain proteins and to rhoVrac GTPase-activating family of proteins
6714 at
            485.0
                         Ρ
hypothetical protein
6715 at
            -54.8
similarity to E.coli hypothetical protein and to chlorohydrolases
6716 at
            1002.1
hypothetical protein
                         Ρ
6717 at
            3358.0
p-nitrophenyl phosphatase
6718 at
            936.6
Two-component phosphorelay intermediate
6719_at
            239.2
                         Α
protein of unknown function
6720 at
            393.0
hypothetical protein
6721 at
            5567.6
3.6-kDa protein, probably membrane-located
6722_at
            1113.5
hypothetical protein
6723 at
            1023.7
phosphotyrosine-specific protein phosphatase
6724 at
            9072.0
similarity to A.klebsiana glutamate dehydrogenase
6725 at
            2119.3
```

Homothallic switching endonuclease

```
1704.6
6726_at
ADP-ribosylation factor GTPase-activating protein (ARF GAP)
6727 at
            1684.8
similarity to Cdc11p, Cdc3p and human CDC10 protein
6728 at
            465.9
Possible RNA binding protein. Homolog of Whi3.
6729 at
            496.3
weak similarity to mucin
6730 at
            -21.0
strong similarity to hypothetical protein YNL194c and similarity to YML052w
6686 at
            -179.6
questionable ORF
6687 at
            564.5
binds to single-stranded TG1-3 telomere G-tails
6688 at
            2876.3
strong similarity to S.equisimilis hypothetical protein
6689 at
            1355.5
strong similarity to S.equisimilis hypothetical protein
6690 at
            257.0
weak similarity to hypothetical protein YNR061c
6691 at
            606.8
Mitochondrial inner membrane protein involved in import of proteins of the ADPVATP carrier (AAC) family
6692 at
            -220.3
similarity to Jun activation domain binding protein homologue of A. thaliana
6693 at
            602.4
NAD-dependent glutamate dehydrogenase
6694 at
            -120.7
strong similarity to putative protein kinase NPR1
            1186.4
6695 at
has an RNA recognition domain in the N-terminal region
6696 at
            3532.0
Integral membrane component of the endoplasmic reticulum
6697 at
            -114.3
similarity to hypothetical protein YNL176c
            123.0
6698 at
GABA-specific transport protein
6699 at
            390.0
similarity to hypothetical S. pombe protein
6700 at
            10004.7
HMG-like nuclear protein
6701 at
            279.5
Nuclear-export-signal (NES)-containing protein
6702_at
            163.1
weak similarity to transporter proteins
6703 at
            170.8
phorphobilinogen deaminase (uroporphyrinogen synthase), the third step in heme biosynthesis
6704 at
            -40.6
similarity to hypothetical protein YDR233c
6705_at
            428.9
                         Α
similarity to Skt5p
6706 at
            278.6
Mitochondrial ribosomal protein MRPL11 (YmL11)
6707 at
            2677.1
strong similarity to human D1075-like protein
6663_at
            183.2
6-O-methylguanine-DNA methylase
```

```
6664_at
            -76.3
similarity to sugar transporter proteins
6665 at
            2267.1
high copy suppressor of abf2 lacking the HMG1-like mitochondrial HM protein\; putative mitochondrial
carrier protein
6666 at
            505.7
                         Α
Anti-silencing protein that causes depression of silent loci when overexpressed
6667 at
            232.8
hypothetical protein
6668_at
            5371.6
involved in protein transport from endoplasmic reticulum to Golgi
            257.4
6669 at
glucose transporter
                         Ρ
6670 at
            995.2
similarity to N.crassa hypothetical 32 kDa protein
6671 at
            32734.2
ADP-ribosylation factor
6672 s at 28061.8
                        Ρ
Ribosomal protein L35A
6673_at
            1400.4
ubiquitin fusion degradation protein
6674 at
            14.8
hypothetical protein
                         Ρ
6675 at
            764.7
hypothetical protein
6676_at
            869.4
serine-threonine protein phosphatase 2A
            -40.7
6677 at
questionable ORF
6678 at
                         Α
            16.8
hypothetical protein
6679_at
            24631.1
encodes a protein with three regions (ABC) that is spliced to yield the extein AC and the intein B\; AC is a
69K vacuolar (H+)-ATPase, and B is a 50K site-specfic endonuclease named VDE (PI-SceI) that is
homologous to HO. Cleavage is meiosis-specific and induces gene conversion at the TFP1 locus.
6680 s at 60416.1
Ribosomal protein L41A (YL41) (L47A)
6681 at
            373.9
weak similarity to S.pombe hypothetical protein SPAC23H3
6682_at
            47911.7
homocitrate synthase, highly homologous to YDL131W
6683 g at 36903.8
homocitrate synthase, highly homologous to YDL131W
6684_at
            226.6
ATPase inhibitor
                         Ρ
6685 at
            916.2
hypothetical protein
6641 at
            368.9
                         Ρ
PHO85 cyclin
6642 at
            2078.6
D-Lactate Dehydrogenase (Cytochrome)
6643 at
            260.7
similarity to hypothetical protein YCR059c
6644 at
            37.8
                         Α
hypothetical protein
6645_at
            130.4
                         Α
```

```
strong similarity to hypothetical protein YIL079c and weak similarity to cellular nucleic acid binding
proteins
6646 at
            3438.9
mitochondrial enzyme D-lactate ferricytochrome c oxidoreductase
6647 at
            1914.4
hypothetical protein
6648_at
            -70.0
                         Α
questionable ORF
6649 at
            4916.8
Glutamate synthase (NADPH)
6650 at
            334.5
zinc-finger transcription factor of the Zn(2)-Cys(6) binuclear cluster domain type
6651 at
            246.0
protein of unknown function
6652 at
            1175.9
                        Ρ
Long-chain alcohol dehydrogenase (glutathione-dependent formaldehyde dehydrogenase)
6653 at
            919.2
Asparagine-rich protein
6654 at
            1921.5
                        Ρ
weak similarity to Pyrococcus horikoshii hypothetical protein PHBJ019
6655 at
            1331.5
nuclear protein that negatively regulates basal transcription
6656 at
            1142.4
DNA ligase
6657 at
            -94.8
                         Α
questionable ORF
6658 at
            -427.8
                         Α
hypothetical protein
                        Ρ
6659 at
            2230.9
strong similarity to hypothetical protein YLR206w and to human KIAA0171 protein
6660 at
            792.9
Putative RNA helicase of DEAD box family, required for Rap1p localization to telomeres
6661 at
            416.6
                        Ρ
MEK homolog
6662 at
            841.1
                        Ρ
questionable ORF
6618 at
            3762.9
                        Ρ
hypothetical protein
6619 at
            279.4
                        Α
weak similarity to Pas7p
                        Ρ
            1092.1
6620 at
G(sub)2-specific B-type cyclin
6621_at
            107.8
MutS homolog involved in chromosome exchange
6622 at
            2407.9
Something About Silencing 10
6623 at
            -4.5
                        Α
questionable ORF
6624_at
            114.3
                        Α
questionable ORF
6625 at
            1321.2
RNA polymerase III (C) subunit, homologus to human BN51 protein
6626 at
            33.0
hypothetical protein
            1177.4
6627_at
similarity to human mRNA clone RES4-25
```

```
6628_at
            4328.0
                         Ρ
Subunit of the regulatory particle of the proteasome
6629 at
            230.1
                         Α
weak similarity to Orc3p
                         Ρ
6630 at
            4942.1
alpha subunit of the coatamer complex\; gamma-alpha-COP
6631 at
            2535.6
hypothetical protein
6632 at
            7327.7
Cytoplasmic chaperonin subunit required for actin cytoskeleton assembly or function
6633 at
            583.5
Cardiolipin synthase
                         Ρ
6634 at
            625.0
Biotin:apoprotein ligase
            6719.7
6635 at
RNA polymerase II large subunit
6636 at
            354.8
hypothetical protein
6637 at
            187.1
                         Α
suppressor of snf3 mutant
6638 at
            16112.4
ADP-ribosylation factor 2
6639 at
            1907.9
Rho GDP dissociation inhibitor with activity toward Rho1p
6640 at
            633.2
serine-threonine protein phosphatase 2A
6595 at
            864.0
                         Ρ
hypothetical protein
6596 at
            1439.6
Acts together with Cdc4p and Cdc34p to control the G1-S phase transition, assists in mediating the
proteolysis of the Cdk inhibitor Sic1p in late G1
6597_at
            21768.9
homocitrate synthase, highly homologous to YDL182W
6598_at
            1767.2
ATPase stabilizing factor
6599 at
            66034.6
Ribosomal protein P1B (L44) (YP1beta) (Ax)
6600 at
            75266.9
Ribosomal protein P1B (L44) (YP1beta) (Ax)
6601_at
            109.5
                         Α
hypothetical protein
6602 at
            2214.4
                         Ρ
vacuolar H+VCa2+ exchanger
6603_at
            551.0
G1 cyclin
6604 at
            25837.5
Microsomal protein of CDC48\PAS1\SEC18 family of ATPases\; full length homology to mammalian
protein VCP\; involved in secretion, peroxisome formation and gene expression
6605 at
            9007.8
Yeast member of the Histidine Triad protein family (HIT)
6606 at
            8632.9
Yeast member of the Histidine Triad protein family (HIT)
6607 at
            1952.2
similarity to aldose reductases
            212.9
6608 at
                         Α
similarity to hypothetical protein YJL151c
```

```
6609_at
            2720.6
                         Ρ
Ubiquitin-specific protease
6610 at
            762.9
hypothetical protein
6611 at
            823.7
Mitochondrial protein that regulates mitochondrial iron accumulation iron accumulation
6612 at
            412.1
similarity to bovine Graves disease carrier protein
6613 at
            -164.8
                         Α
questionable ORF
6614 at
            1193.7
similarity to hypothetical S. pombe protein
6615 at
            1246.7
Protein with homology to mammalian Nup107p
6616 at
            61.8
hypothetical protein
6617 at
            -405.9
weak similarity to Rhizobium nodulation protein nodG
6573 at
            192.4
similarity to hypothetical protein YDR425w
6574 at
            2061.2
similarity to C-terminus of human TRP-185 protein
6575 at
            1423.0
Component of the exosome 3->5 exoribonuclease complex with Rrp4p, Rrp41p, Rrp43p and Dis3p
(Rrp44p).
                         Ρ
6576_at
            1142.1
hypothetical protein
6577 at
            263.1
                         Α
strong similarity to thiamine-repressed protein Thi4p
6578 at
            596.0
serine-threonine kinase, subunit of transcription factor TFIIK, a subcomplex of TFIIH
6579_at
            -135.8
cox1 pre-mRNA splicing factor
6580_at
            -145.0
Homeobox-domain containing protein which is a positive regulator of PHO5 and other genes
6581 at
            277.7
protein of unknown function
6582 at
            141.6
similarity to H.influenzae sialoglycoprotease (gcp)
6583_at
            1712.7
UDP-N-acetylglucosamine pyrophosphorylase
6584 at
            870.3
largest and catalytic subunit of DNA polymerase III (delta)
6585_at
            232.3
protein kinase
6586 at
            4154.9
similarity to E.coli arsenical pump-driving ATPase
6587 at
            1475.4
weak similarity to myosin heavy chain proteins
6588 at
            464.7
hypothetical protein
                         Ρ
6589_at
            6103.8
Subunit of the regulatory particle of the proteasome
6590 at
            246.2
questionable ORF
                         Ρ
6591_at
            5869.1
```

```
dolichyl phosphate-D-mannose:protein O-D-mannosyltransferase
6592 at
            113.4
questionable ORF
            605.4
                        Ρ
6593 at
dolichyl phosphate-D-mannose:protein O-D-mannosyltransferase
6594 at
            1372.9
Signal recognition particle subunit
6550 at
            316.2
weak similarity to mouse FAF1 protein
            1682.0
6551_at
beta subunit of farnesyltransferase
6552 at
            1019.4
hypothetical protein
                        Ρ
6553 at
            851.9
Suppressor of thermosensitive mutations in the DNA polymerase delta gene
6554 at
            -373.3
Living Under Cap-binding complex expression
6555 at
            6742.8
similarity to hypothetical Synechocystis protein
6556_at
            -250.8
strong similarity to NADH dehydrogenase (ubiquinone)
6557_at
            12221.1
suppressor of the cold-sensitive snRNP biogenesis mutant brr1-1
            43027.1
6558 i at
Ribosomal protein S16B (rp61R)
6559_f_at
            43085.4
Ribosomal protein S16B (rp61R)
6560 at
            17954.9
Ribosomal protein L13A
                        Ρ
6561 at
            58584.9
Acidic ribosomal protein P1A (YP1alpha) (A1)
6562_at
            924.5
positive regulatory factor with thiamin pyrophosphate-binding motif for thiamin metabolism
6563_at
            449.9
MDS1 related protein kinase
6564 at
            68.7
MDS1 related protein kinase
6565_at
            1855.1
                        Ρ
malate dehydrogenase
6566_at
            434.5
                        Ρ
Required for the vacuolar morphogenesis in yeast
6567 at
            495.6
hypothetical protein
            67631.8
6568_f_at
Ribosomal protein L31A (L34A) (YL28)
6569 at
            88599.2
Ribosomal protein L31A (L34A) (YL28)
6570 at
            698.6
weak similarity to spindle pole body protein NUF1
6571 at
            670.4
weak similarity to Cyprinus carpio calcium channel protein
6572_at
            3048.1
weak similarity to hypothetical protein YMR040w
            417.0
6527_at
                        Α
questionable ORF
                        Ρ
6528_at
            3379.0
```

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Bromodomain protein, homolog of Bdf1
6529 at
            138.4
translational activator of cytochrome b
6530 at
            117.3
                         Α
questionable ORF
                         Ρ
6531_at
            1306.6
Subunit VIIa of cytochrome c oxidase
6532 at
            6191.9
Mitochondrial form of NADP-specific isocitrate dehydrogenase
6533 at
40 kDa farnesylated protein associated with peroxisomes
6534 at
            2007.0
ubiquitin-conjugating enzyme
6535 at
            1216.7
weak similarity to human estrogen-responsive finger protein
6536 at
            282.0
questionable ORF
6537 f at
            48159.2
                        Ρ
Ribosomal protein S29B (S36B) (YS29)
6538 at
            4263.9
similarity to C.elegans hypothetical protein
6539 at
            202.2
A mutation in this gene results in RADiation sensitivity and recombination defects, which are general
properties of the RAD52 epistasis group mutants. rad59 is epistatic to rad52 for its repair and
recombination defects. The RAD59 gene product has homology to the Rad52 protein.
6540 at
            1075.6
Integrin analogue gene
6541 at
            241.7
                        Α
hypothetical protein
                         Ρ
6542 at
            2060.3
transcription factor
            37011.3
6543_at
mannose-1-phosphate guanyltransferase, GDP-mannose pyrophosphorylase
6544_at
            485.1
hypothetical protein
                        Ρ
6545 at
            958.2
hypothetical protein
6546_at
            2465.2
putative 1-acyl-sn-gylcerol-3-phosphate acyl transferase
6547_at
            1850.0
Protein homologous to human La (SS-B) autoantigen
6548 at
            563.4
                        Α
questionable ORF
6549_at
            310.7
                         Α
KRE9 homolog
            862.6
                         Ρ
6504 at
SIT4 suppress mutations in DBF2
6505 at
            2452.4
hypothetical protein
                         Ρ
6506 at
            1271.6
homologous to Yml37p, component of the 37 S subunit of mitochondrial ribosomes
6507_at
            440.9
FAD synthetase
6508 at
            278.8
Necessary for the stability and/or processing of some large mitochondrial transcripts
6509_at
            373.3
```

```
snRNA-associated protein
6510 at
            847.8
regulator of silent mating loci
6511 at
            275.6
questionable ORF
                         Р
6512 at
            1775.4
N-terminal acetyltransferase
6513 at
            4903.9
questionable ORF
6514_at
             1478.6
similarity to mucin proteins
6515 at
             150.0
strong similarity to glucan 1,4-alpha-glucosidase
6516 at
            744.1
strong similarity to RIB2 protein
6517 at
            856.6
G-protein coupled receptor
6518 at
            -297.0
questionable ORF
6519_at
            886.2
similarity to H.influenzae hypothetical protein HI0174
6520_at
            111.8
questionable ORF
                         Ρ
6521 at
            1369.1
DEAD box protein 10
                         Ρ
6522_at
            715.1
RNA splicing factor
6523 at
            7194.0
                         Ρ
actin-related protein
            232.7
                         Α
6524 at
serine\/threonine\/tyrosine protein kinase (dual specificity), able to autophosphorylate itself as well as
Mad1p. A mutation predicted to abolish kinase function not only eliminates in vitro protein kinase activity,
but also behaves like a null mutation in vivo, suggesting that kinase activity contributes to the essential
function of the protein.
6525 at
            564.1
                         Ρ
hypothetical protein
6526 at
             198.4
                         Α
questionable ORF
                         Ρ
6482 at
            911.4
ser/thr protein kinase of the DEAD/DEAH box family
6483 at
            413.9
strong similarity to acid phosphatase
6484_at
            -7.2
                         Α
questionable ORF
6485 at
            3175.3
glycerol-3-phosphate dehydrogenase
6486 at
            485.5
Similar to GPM1 (phosphoglycerate mutase)
6487 at
            3981.9
involved in ubiquitin degradation pathway
6488 at
            1032.0
similarity to Osh1p
6489 at
            308.8
p24 protein involved in membrane trafficking
6490_at
            750.7
serineVthreonine protein kinase
```

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6491_at
            -13.3
                        Α
questionable ORF
6492 at
            4840.5
                        Ρ
similarity to rat synaptic glycoprotein SC2
6493 at
            14215.8
nucleolar protein, homologous to mammalian fibrillarin
6494 at
            1105.8
Protein involved in hexose metabolism
6495 at
            4671.6
strong similarity to hypothetical protein YBR016w and YDR210w
6496 at
            57.5
                        Α
questionable ORF
6497 at
            962.1
similarity to hypothetical protein YBR014c and glutaredoxins
            494.8
6498 at
questionable ORF
6499 at
            848.6
                        Ρ
subunit of the anaphase promoting complex (APC)
6500 at
            3751.2
Probable 26S protease subunit and member of CDC48VPAS1VSEC18 family of ATPases
6501 at
            561.4
serine-threonine protein phosphatase
6502 at
            592.0
                        Ρ
Stoichiometric member of mediator complex
6503 at
            2111.1
ATP synthase delta subunit
6459_at
            385.1
Mitotic omosome Determinant\; similar to S. pombe RAD21\; may function in chromosome
morphogenesis from S phase through mitosis
6460 at
            933.8
HMG1-box containing protein
6461_at
            267.4
similarity to hypothetical protein YFR048w, YDR282c and S.pombe hypothetical protein SPAC12G12.14
6462_at
            1339.8
neutral trehalase (alpha,alpha-trehalase)
6463 at
            12599.3
Yeast Ran Binder #1\; suppressor of FUS1\; homolog of mouse HTF9a and human RanBP1
6464 at
            199.9
strong similarity to hypothetical protein YBR005w
6465_at
            685.3
RecA homolog (similar to DMC1, RAD51, and RAD55), interacts with Rad 55p by two-hybrid analysis
6466 at
            398.8
required for sorting of Mod5p
            455.7
6467_at
gene dosage suppressors of the conditional growth defect of several temperature-sensitive A kinase
mutants
6468 at
            1037.9
n-(5 -phosphoribosyl)-anthranilate isomerase
6469_at
            393.3
                        Α
questionable ORF
6470 at
            40.3
                        Α
galactokinase
6471 at
            -175.6
                        Α
hypothetical protein
                        Ρ
6472_at
            13443.7
ABC transporter
```

```
6473_i_at
            34396.4
Ribosomal protein L4B (L2B) (rp2) (YL2)
6474 at
            487.5
similarity to human hypothetical KIAA0186 protein
6475 at
            38.4
weak similarity to chicken neurofilament triplet M protein
6476 at
            -40.3
hypothetical protein
6477_at
            334.3
                         Α
hypothetical protein
6478 at
            770.5
Shows homology to basic leucine zipper family of transcription factors
6479 at
            -12.9
strong similarity to hypothetical protein YBR042c
6480 at
            1308.3
glycine cleavage T protein (T subunit of glycine decarboxylase complex
6481 at
weak similarity to uridine kinases and phosphoribulokinases
6436 at
            737.8
DEAD-box protein, putative RNA helicase
6437 at
            -31.3
                         Α
cik1 suppressor
                         Ρ
6438 at
            15048.7
seryl-tRNA synthetase
6439 at
            36.7
                         Α
hypothetical protein
                         Ρ
6440 at
            821.7
strong similarity to DNA-binding protein Reb1p
6441 at
            1139.8
                         Ρ
Loss Upsets Vacuole
                         Ρ
6442 at
            655.0
regulatory subunit for protein phosphatase Glc7p
6443 at
            282.8
hypothetical protein
6444 at
            318.6
Protein involved in the same pathway as Rad26p, has beta-transducin (WD-40) repeats
6445 at
            515.0
hypothetical protein
                         Ρ
6446 at
            7670.2
strong similarity to S.pombe obr1
            13577.3
6447 at
strong similarity to putative heat shock protein YRO2
6448 at
            1262.4
Transcriptional activator of lysine pathway genes with 2-aminoadipate semialdehyde as co-inducer\;
saccharopine reductase synthesis
6449 at
            470.7
                         M
identified by SAGE expression analysis
6450 at
            6369.4
DAHP synthase\; a.k.a. phospho-2-dehydro-3-deoxyheptonate aldolase, phenylalanine-inhibited\;
phospho-2-keto-3-deoxyheptonate aldolase\; 2-dehydro-3-deoxyphosphoheptonate aldolase\;
3-deoxy-D-arabine-heptulosonate-7-phosphate synthase
6451 at
            1374.7
similarity to enoyl CoA hydratase
6452 at
            24057.1
lysyl-tRNA synthetase
                         Ρ
6453_at
            2376.8
```

```
P-type ATPase involved in Na+ efflux
6454 g at 5041.5
P-type ATPase involved in Na+ efflux
6455_s_at 2646.3
plasma membrane protein\; putative Na+ pump\; P-type ATPase
            444.4
6456 at
weak similarity to bacterial ribosomal S10 proteins
6457 at
            -94.1
hypothetical protein
6458_at
            224.9
                         Α
Suppressor of SNf
                         Ρ
6413 at
            1107.4
Coproporphyrinogen III oxidase
6414 at
            1889.4
strong similarity to S.acidocaldarius transcription elongation factor tfs
6415 at
            1854.8
Valine transporter
6416 at
            4270.1
                         Ρ
uroporphyrinogen decarboxylase
6417_at
            185.2
                         Α
questionable ORF
6418_at
            654.1
similarity to C.elegans K06H7.3 protein
            150570.5
6419 at
triosephosphate isomerase
6420_at
            1528.8
similarity to hypothetical A. thaliana protein BAC F7G19
6421 at
            237.6
cyclin-like kinase required for late nuclear division
6422 at
            127.1
questionable ORF
6423_at
            352.7
ubiquitin-conjugating enzyme, E2
6424_at
            4494.6
strong similarity to SPS2 protein
6425 at
            1022.4
hypothetical protein
6426_at
            261.2
                         Α
weak similarity to L.lactis mleR protein
6427_at
            187.7
                         Α
TriGlyceride Lipase
6428 at
            328.0
ubiquitin-conjugating enzyme
6429_at
            2432.4
similarity to mouse putative CCAAT binding factor CBF1 and CBF2
6430 at
            1206.9
similarity to E.coli modF and photorepair protein phrA
6431 at
            4689.6
Probable component of serine palmitoyltransferase, which catalyzes the first step in biosynthesis of
long-chain sphingolipids
6432 at
            1241.8
weak similarity to glia maturation factor beta
6433 at
            35105.4
Ribosomal protein S13 (S27a) (YS15)
6434 at
            78.6
hypothetical protein
```

```
6435_at
            560.9
similarity to hypothetical protein YER139c
6391 at
            137.4
                         Α
similarity to YNL099c
                         Ρ
6392 at
            1000.8
involved in genome stability
6393 at
            79.8
ubiquitin isopeptidase
6394 at
                         Α
            -5.4
hypothetical protein
6395 at
            2248.0
                         Ρ
similarity to O.aries arylalkylamine N-acetyltransferase
6396 at
            2078.9
inositolphosphotransferase 1
6397 at
            630.5
component of SWIVSNF global transcription activator complex
6398 at
            1439.2
Trehalose-6-phosphate phosphatase
6399 at
            421.3
protein phosphatase type 2A
6400 at
            417.1
RecA homolog (related to DMC1, RAD51, RAD57), interacts with Rad51p and Rad57p by two-hybrid
analysis
6401 at
            31003.1
                         Ρ
putative cell surface glycoprotein
6402 at
            75.3
                         Α
Preferential Use of Neither donor locus during mating type switching.
6403 at
            1006.4
cytochrome c oxidase-specific assembly factor
6404 at
            387.1
vacuolar protein sorting
6405_at
            1721.8
Asparagine and serine-rich protein
6406_at
            221.8
Involved in telemere length regulation, may be functional in telemere metabolism during late S phase
6407 at
            2344.0
similarity to hypothetical S.pombe protein
6408 at
            1105.3
similarity to hypothetical C.elegans protein
6409_at
            691.3
coordinates regulation of alpha-factor receptor signalling and induction of morphogenesis during
conjugation
6410_at
            11910.9
endoplasmic reticulum protein that is part of the Sec61 trimeric complex and the Ssh1 trimeric complex
6411 at
            1520.5
involved in processing rRNA precursor species to mature rRNAs
6412 at
            11.4
involved in 3 splice site choices and 2nd step of splicing
6368 at
            406.0
weak similarity to Streptococcus transposase
6369_at
            781.8
weak similarity to YRO2 protein
6370 at
            3568.6
strong similarity to human RNase L inhibitor and M.jannaschii ABC transporter protein
6371_at
            2317.2
ubiquitin-conjugating enzyme
```

```
6372_at
            1280.9
similarity to P.falciparum ATPase 2
6373 g at 4828.9
similarity to P.falciparum ATPase 2
6374 at
            2375.3
questionable ORF
6375_at
            227.1
                         Α
hypothetical protein
6376 at
            733.3
                         Ρ
putative zinc finger protein
6377 at
             1445.4
Homolog of the human GTBP protein, forms a complex with Msh2p to repair both single-base and
insertion-deletion mispairs, redundant with Msh3p in repair of insertion-deletion mispairs
6378 at
            2149.7
similarity to Legionella glutaredoxin-like protein
6379 at
            7183.1
Homolog of mammalian 14-3-3 proteins
6380 at
            1263.0
similarity to Dictyostelium development-specific membrane protein
6381_at
            2034.6
weak similarity to proliferation-associated protein
6382 at
            8.5
hypothetical protein
                         Ρ
            652.0
6383 at
Protein of the pheromone pathway
6384_at
            343.3
hypothetical protein
6385_at
            665.5
                         Α
similarity to mouse hypothetical protein
6386 at
            73.7
Actin-related protein
6387_at
             240.7
strong similarity to Emp70 protein
6388 at
            -103.3
Probably has role late in meiosis following DNA replication
6389 at
            427.5
similarity to Mpa43p
6390_at
            446.7
DNA replication fork blocking protein
            286.3
6346_at
strong similarity to alanine transaminase
6347 at
            -55.7
                         Α
questionable ORF
            382.0
6348_at
                         Α
42-kDa nuclear protein
            37.3
                         Α
6349 at
questionable ORF
6350 at
            554.4
similarity to bacterial ribosomal L34 proteins
6351 at
            686.9
similarity to bacterial ribosomal L1 proteins
6352_at
            479.1
similarity to mouse ligatin, a trafficking receptor for phosphoglycoproteins
6353 at
            83.2
subunit of the anaphase promoting complex (APC)
6354_at
             1835.9
```

```
similarity to B. subtilis tetracyclin resistance
6355 at
            1409.6
N2,N2-dimethylguanosine-specific tRNA methyltransferase
6356 at
            524.0
weak similarity to YNC2beta protein
6357 at
            867.5
SerineVthreonine protein kinase
6358 at
            30.1
helix-loop-helix protein
6359_at
            -179.5
                         Α
hypothetical protein
6360 at
            -109.0
                         Α
ExtraCellular Mutant
6361 at
            11.0
                         Α
similarity to hypothetical protein YLR246w and YOL003c
6362 at
            7207.3
pentafunctional arom polypeptide (contains: 3-dehydroquinate synthase, 3-dehydroquinate dehydratase
(3-dehydroquinase), shikimate 5-dehydrogenase, shikimate kinase, and epsp synthase)
6363 at
            1048.6
weak similarity to Sec27p, YMR131c and human retinoblastoma-binding protein
            5871.4
6364 at
fibrim homolog (actin-filament bundling protein)
6365 at
            215.1
weak similarity to sea urchin myosin heavy chain
6366 at
            20.8
similarity to hypothetical protein YJL149w
6367 at
            -27.4
strong similarity to hypothetical protein YLR108c
            47115.4
6323 at
questionable ORF
6324_g_at 26197.9
                         Ρ
questionable ORF
6325 at
            1706.0
Metal resistance protein with similarity to human cystic fibrosis protein CFTR and multidrug resistance
proteins
6326 at
            60.6
                         Α
questionable ORF
6327_at
            1281.5
Reduced growth phenotype
6328_at
            212.7
Hyperrecombination protein that suppresses intrachromosomal excision recombination
6329 at
            3131.3
ubiquitin-like protein
                         Ρ
            1911.3
6330_at
ubiquitin-like protein
                         Ρ
6331 at
            1673.7
weak similarity H.influenzae protoporphyrinogen oxidase (hemK) homolog
6332 at
            678.9
hypothetical protein
6333 at
            169.8
Member of beta-transducin-related (WD-40) protein family
6334 at
            1591.0
mating-type regulation protein
6335 at
            5648.2
aspartyl protease related to Yap3p
6336_at
            269.7
                         Α
```

```
TFIID subunit
                         Ρ
6337 at
            411.6
transcriptional activator
6338 at
                         Ρ
            615.9
Ethanolamine Kinase
                         Ρ
6339 at
            1798.5
dihydrolipoyl transsuccinylase component of alpha-ketoglutarate dehydrogenase complex in mitochondria
6340 at
            -107.0
questionable ORF
                         Ρ
6341 at
            1367.6
Protein with variable number of tandem repeats of a 64 amino-acid polypeptide, potential Ca2+-binding
site, and pleckstrin homology domain
6342 at
            230.4
member of the CCCH zinc finger protein family that has two or more repeats of a novel zinc finger motif
consisting of Cys and His residues in the form Cx8Cx5Cx3H [where x is a variable amino acid (aa)]
6343 at
            2208.2
weak similarity to C.elegans hypothetical protein CET26E3
6344 at
            2172.8
hypothetical protein
6345_at
            102432.5
questionable ORF
6300_g_at 52810.0
                         Ρ
questionable ORF
                         Ρ
6301 at
            33620.6
cyclophilin peptidyl-prolyl cis-trans isomerase
6302_at
            3610.8
RNA polymerase I subunit A14
6303 at
            1992.7
questionable ORF
                         Ρ
            8102.4
6304 at
aspartic beta semi-aldehyde dehydrogenase
6305_at
            710.3
Leucine permease transcriptional regulator
6306 at
            165.1
Ssy1p controls expression of several transporter genes, including BAP2, TAT1, PTR2 and YDR046c
6307 at
            1047.7
protein phosphatase Two C-Interacting protein
6308 at
            536.1
Nap1p-binding protein
6309_at
            1909.1
weak similarity to S.pombe hypothetical protein
6310 at
            929.8
Hydrophilic protein involved at the late stage of secretion
            1512.0
6311_at
weak similarity to hypothetical C.elegans protein
            1112.3
6312 at
107 kDa component of the Exocyst complex\; required for exocytosis.
6313 at
            1908.6
TFIID subunit
            3085.4
                         Ρ
6314 at
Cell cycle protein necessary for passage through START
6315_at
            653.5
Binds Sin3p in two-hybrid assay
6316 at
            6740.6
Guanine nucleotide exchange protein for ARF
6317_at
            1202.5
```

```
Similar to HSP26\; expression is regulated by stress conditions
6318 at
            4304.0
putative translation factor
6319 at
            426.1
                         Α
Regulator of arginine-responsive genes with ARG80 and ARG81
6320 at
            5182.4
Non-histone protein
6321 at
            307.4
similarity to S.pombe hypothetical protein SPAC2F7.15
6322 at
            717.0
transcription factor\; genetic and mutant analyses suggest that Ngg1p (Ada3p) is part of two
transcriptional adaptorVHAT (histone acetyltransferase complexes, the 0.8 MD ADA complex and the 1.8
MD SAGA complex
6278 at
            3814.1
ubiquitin-conjugating enzyme
6279 at
            2397.3
succinate dehydrogenase membrane anchor subunit
6280 at
            269.1
                         Α
hypothetical protein
6281_at
            -199.5
                         Α
hypothetical protein
                         Ρ
6282 at
            710.9
Sister chromatid cohesion protein
6283 at
            336.1
Involved in silencing at telomeres, HML and HMR
6284 at
            1267.5
Protein that affects bud emergence, intrachromosomal recombination, and nuclear division
6285 at
            129.2
weak similarity to thioredoxin
6286 at
            413.2
Aip Three Complex\; interacts with AIP3, localized to the nucleus
6287_at
            307.8
strong similarity to Msf1p
6288_at
            399.5
                         Ρ
hypothetical protein
6289 at
            386.5
                         Α
questionable ORF
6290 at
            3314.2
Cytoplasmic chaperonin of the Cct ring complex (previously called TCP1 or TRiC), distantly related to
Tcp1p and to Hsp60
                         Р
6291 at
            940.2
Hydrophilic suppressor of ypt1 involved in vesicle trafficking between ER and Golgi
6292_at
            3070.7
strong similarity to TATA-binding protein-interacting protein 49 - rat
6293 at
            352.8
Homolog of SIR2
6294 at
            480.3
                         Α
nucleoporin
6295 at
                         Α
            261.4
questionable ORF
6296_at
            2587.1
Mitochondrial RNA helicase of the DEAD box family
6297 at
            521.7
RNA-binding protein involved in cleavage step of mRNA 3 -end formation, prior to polyadenylation
6298 at
            1212.2
similarity to C.elegans hypothetical protein T05G5.5
```

```
6299_at
            726.1
                         Ρ
cytochrome b translational activator
6255 at
            913.6
hypothetical protein
6256 at
            222.8
                         Α
questionable ORF
                         Ρ
6257_at
            742.5
similarity to hypothetical protein YLR238w
6258_at
            999.8
component of spindle pole
6259 at
            315.1
hypothetical protein
6260 at
            133.5
                         Α
questionable ORF
6261 at
            1039.7
                         Р
Involved in ubiquinone biosynthesis
6262 at
            520.5
similarity to A.eutrophus cation efflux system membrane protein czcD, rat zinc transport protein ZnT-1
and Cot1p
            534.5
6263 at
EST1-like bcy1 Suppressor
6264 at
            456.9
Ume6p is a C6 zinc finger URS1-binding protein that is a key regulator required for both repression and
induction of early meiotic genes, and for sporulation\; Ume6p rquires Ume4 for mitotic repression and
interacts with and requires Ime1p and Rim11p for induction of meiosis-specific transcription
6265 at
             1826.1
Phosphatidylinositol 4-phosphate kinase
6266 at
            1354.5
questionable ORF
6267 at
            5385.8
strong similarity to hypothetical protein YBR016w
6268 at
            2723.5
Translation initiation factor eIF-2B epsilon subunit
6269 at
            9384.4
chaperonin subunit alpha
6270 at
            71.0
regulatory protein involved in control of sterol uptake
6271 at
            5223.2
similarity to hypothetical protein YNL281w
6272 at
             185.0
hypothetical protein
6273_at
             107.4
positive transcriptional regulator of ADH2 and peroxisomal protein genes
6274 at
            405.2
cell cycle arrest protein
6275 at
            88.3
Septin-related protein expressed during sporulation
            100.0
6276_at
                         Α
hypothetical protein
6277_at
            175.2
                         Α
questionable ORF
6232 at
            391.3
weak similarity to the beta subunit of an ER luminal alpha-glucosidase from mouse
6233 at
            883.5
strong similarity to hypothetical protein YLR225c
```

```
6234_at
            169.7
                         Α
similarity to Ifh1p
6235 at
            10259.6
                         Ρ
Histone H2B (HTB1 and HTB2 code for nearly identical proteins)
6236 i at
            33666.9
Histone H2A (HTA1 and HTA2 code for nearly identical proteins)
6237 at
            23144.2
cytosolic adenylate kinase
6238 at
            279.3
regulator of silent mating loci
6239 at
            575.8
Component of pre-mRNA cleavage and polyadenylation factor I, interacts with Rna14p and Rna15p
6240 at
            908.1
hypothetical protein
6241 at
            -44.8
                         Α
questionable ORF
6242 at
            163.2
                         Α
hypothetical protein
6243 at
            3255.2
                         Ρ
5-aminolevulinate synthase
6244 at
            19391.8
similarity to hypothetical protein YDL204w
6245 at
            12414.7
                         Ρ
homoaconitase
6246 at
            533.8
                         Α
U1 snRNP protein that shares 50\% sequence similarity with Prp39p U1 snRNP protein and has multiple
copies of the crn-like TPR motif
6247 at
            310.7
similarity to hypothetical A. thaliana protein
6248 at
            85.3
Mitochondrial ribosomal protein MRPL7 (YmL7)
6249_at
            6179.7
encodes a subunit of yeast coatomer
6250 at
            1372.5
                         Ρ
hypothetical protein
6251 at
            74.6
                         Α
Snurp = Small nuclear ribonucleoprotein particle of MW 56 kDa. Associated with the U1 snRNP\; no
counterpart in mammalian U1 snRNP. Serine-rich.
6252 at
            -242.8
                         Α
questionable ORF
                         Ρ
            473.3
6253 at
putative amidase
6254_at
            266.9
                         Α
Required for the first step of splicing in vitro
6209 at
            453.6
69-kDa protein containing tetratricopeptide repeat (TPR)
6210 at
            1762.3
                         Ρ
galactosyltransferase
6211 at
            974.2
involved in targeting and fusion of ER to golgi transport vesicles
6212_at
            35.5
strong similarity to Sks1p
6213 at
            1285.5
strong similarity to E.coli thermoresistant gluconokinase
6214_at
            79.7
weak similarity to cytochrome b
```

```
6215_at
            88.9
                         Α
hypothetical protein
                         Ρ
6216 at
            1661.4
coiled-coil protein multicopy suppressor of loss of PP2A
6217 at
            154.1
Negative effect on expression of several genes transcribed by RNA polymerase II\; BTF3 homolog
6218 at
            -2.4
zinc finger DNA binding factor, transcriptional regulator of sulfur amino acid metabolism, highly
homologous to Met31p
6219_at
            164.4
Protein necessary for stability of ARS-CEN plasmids\; suggested to be required for kinetochore function
            396.0
6220 at
weak similarity to hypothetical S.pombe hypothetical protein SPBC29A3
6221 at
            -111.2
catalase A
6222 at
            387.9
                         Α
Transcription regulator
                         Ρ
6223 at
            1922.3
Mitochondrial heat shock protein 78 kDa
6224_at
            121.8
                         Α
bZIP protein
6225_at
            512.9
                         Α
hypothetical protein
                         Ρ
6226 at
            2043.0
Exo-1,3-b-glucanase
            856.8
6227_at
hypothetical protein
6228_at
            286.4
                         Α
DNA-damage inducible gene
6229 at
            1299.7
Ankyrin repeat-containing protein
6230_at
            190.2
C3HC4 zinc-binding integral peroxisomal membrane protein
6231_at
            879.9
similarity to hypothetical C.elegans protein
6187 at
            1604.6
weak similarity to human TAFII100 and other WD-40 repeat containing proteins
6188 at
            221.3
mitochondrial tryptophanyl-tRNA synthetase
6189_at
            14.9
                         Α
questionable ORF
6190 at
            1147.7
Copper-transporting P-type ATPase with similarity to human Menkes and Wilsons genes
6191_at
            617.5
questionable ORF
                         Ρ
6192 at
            798.2
Cvtoplasmic glyoxylase-II
6193 at
            -0.9
weak similarity to YOR042w
6194 at
            -52.0
hypothetical protein
6195_at
            370.0
weak similarity to YOR042w
6196 at
            21919.5
strong similarity to Hordeum vulgare blt101 protein
6197_at
            211.6
```

```
Protein is 61\% identical to Msn3p
6198 at
            -28.3
                         Α
hypothetical protein
6199 at
            126.8
                         Α
hypothetical protein
                         Ρ
6200 at
            1266.6
Putative 3 ->5 exoribonuclease\; component of exosome complex of 3 ->5 exonucleases
6201 at
            1075.3
hypothetical protein
6202_at
            289.5
similarity to hypothetical protein YDL001w, YFR048w and S.pombe hypothetical protein SPAC12G12.14
            507.6
6203 at
eukaryotic initiation factor 2 alpha (eIF2-alpha) kinase
6204 at
            1233.9
Diacylglycerol Pyrophosphate Phosphatase
6205 at
            427.5
Synaptonemal complex protein, component of the central element
6206 at
            447.8
hypothetical protein
6207_at
            642.6
                         Ρ
similarity to inositolmonophosphatases
6208 at
            99.6
hypothetical protein
                         Α
6163 at
            315.7
hypothetical protein
6164_at
            -1.9
                         Α
questionable ORF
                         Ρ
6165 at
            1027.0
similarity to B. subtilis helicases
6166 at
            1406.1
signal recognition particle receptor - alpha subunit
            1968.3
6167_at
putative protein phosphatase
6168 at
            4007.6
dihydrosphingosine phosphate lyase (also known as sphingosine phosphate lyase)
6169 at
weak similarity to Uso1p, YPR179c and fruit fly tropomyosin
6170_at
            925.3
hypothetical protein
6171_at
            1678.7
Syringomycin response protein 2
6172 at
            1493.6
ATP synthase subunit 5\; oligomycin sensitivity-conferring protein
6173_at
            1153.0
involved in protein transport step at the Brefeldin A blocks
6174 at
            1848.1
gamma-glutamyl kinase
6175 at
            1633.0
Component of pre-mRNA cleavage factor II (CFII)\, 150-kDa protein associated with polyadenylation
factor 1 (PF I)
6176 at
            911.0
                         Μ
weak similarity to human GPI-anchor biosynthesis protein
6177 at
            872.2
similarity to transcriptional regulator proteins
            3395.9
6178_at
Cyclophilin D, Peptidyl-prolyl cis-trans isomerase D
```

```
6179_at
            668.1
Yeast member of the Histidine Triad protein family (HIT)
6180 i at
            276.5
Yeast member of the Histidine Triad protein family (HIT)
6181 r at
            -196.6
Yeast member of the Histidine Triad protein family (HIT)
6182 f at
            -614.6
Yeast member of the Histidine Triad protein family (HIT)
6183 at
            475.0
weak similarity to S.pombe hypothetical protein SPAC6F6
6184 at
            1787.4
similarity to Pmt1p, Pmt2p, Pmt3p and Pmt5p
            625.2
6185 at
RNA polymerase II holoenzyme component
6186 at
            3766.4
GTPase-interacting component 2
6140 at
            2526.4
Suppresor of mar1-1 (sir2) mutation
6141 at
            452.4
Component of transcription initiation factor IIb, 75 kDa subunit
            9895.8
6142 i at
high copy suppressor of G beta subunit temperature sensitive mutation
6143 f at
            10112.9
high copy suppressor of G beta subunit temperature sensitive mutation
6144 at
            111.3
Phosphatidylinositol(3)-phosphate binding
6145 at
            139.3
weak similarity to hypothetical S.pombe protein
6146 at
            35.7
hypothetical protein
6147_at
                         Ρ
            856.4
hypothetical protein
6148 at
            280.4
                         Α
hypothetical protein
6149 at
            306.4
                         Α
Involved in minichromosome maintenance
6150 at
            777.5
hypothetical protein
                         Ρ
6151 at
            529.8
similarity to hypothetical S. pombe protein and weak similarity to bovine auxilin
6152 at
            10671.8
Asparaginase I, intracellular isozyme
6153_at
            850.6
Mitochondrial ribosomal protein MRPL35 (YmL35)
6154 at
            3398.7
subunit e of mitochondrial F1F0-ATPase
6155 at
            68.3
cytosolic and peripheral membrane protein with three zinc fingers\; cysteine rich regions of amino acids
are essential for function
6156 at
            2176.6
weak similarity to beta transducin from S. pombe and other WD-40 repeat containing proteins
6157_at
            1122.8
weak similarity to S.pombe hypothetical protein SPAC1B9
6158 at
            253.3
strong similarity to YHR080c, similarity to YFL042c and YLR072w
6159_at
            356.8
```

```
questionable ORF
6160 at
            3343.8
Skp1p encodes Cbf3d, a 29 Kd kinetochore protein subunit of CBF3, a multiprotein complex which binds
to the CDE III element of centromeres. In addition, Skp1p is a subunit of the SculCdc4 (also termed
SCFCdc4p) complex, which also contains the ubiquitin ligase Cdc34p, the cullin Cdc53p, and Cdc4p.
SculCdc4 complexes transfer ubiquitin to phosphorylated Sic1p, and substrate recognition is thought to
involve the Cdc4p and Skp1p subunits. Following the SculCdc4-mediated monoubiquitination of Sic1p, a
polyubiquitin chain is added, andubiquitinated Sic1p is then degraded by the 26S proteosome.
6161 at
            795.7
48-kDa peroxisomal integral membrane protein
6162 at
            563.5
similarity to hypothetical S. pombe protein
6117 at
            927.6
Protein involved in the attachment of glycosylphosphatidylinositol (GPI) anchors to proteins
6118 at
            312.5
similarity to E.coli hypothetical protein and weak similarity to RNA helicase MSS116 / YDR194c
6119 at
            563.6
similarity to hypothetical S. pombe protein
6120 at
            597.7
similarity to nuclear Sth1p, Snf2p and related proteins
            4095.2
6121 at
Multicopy suppressor of snf1 mutation
6122 at
            503.6
weak similarity to B. subtilis hypothetical protein X
6123 at
            669.3
Mitochondrial ribosomal protein MRPS28 (E. coli S15)
6124 at
            441.6
similarity to Erc1p
            1175.0
                         Р
6125 at
weak similarity to hypothetical protein YOR004w
6126 at
            357.8
questionable ORF
6127 at
            27091.2
strong similarity to arginine-tRNA ligase
6128 f at 14471.3
Hexose transporter
6129_f_at
            12311.4
                         Ρ
Hexose transporter
6130 at
            -501.6
                         Α
hypothetical protein
6131 at
            47118.7
                         Ρ
High-affinity glucose transporter
6132 at
            674.5
similarity to hypothetical S.pombe protein
6133 at
            912.2
37 kDa mitochondrial ribosomal protein
6134 at
            1490.5
similarity to hypothetical protein YHR097c
6135 at
            2348.0
GPI-anchored aspartic protease
6136 at
            189.2
protein of unknown function
6137 at
            1064.4
                         Ρ
required for bud growth
6138 at
            268.3
```

weak similarity to hypothetical proteins YOL092w, YBR147w and YMR010w

```
6139_at
                         Ρ
            8948.9
Thioredoxin reductase
6095 at
            650.5
                         Α
anthranilate phosphoribosyl transferase
6096 at
            329.8
questionable ORF
6097_at
            559.5
component of the spindle pole body that interacts with Spc42p, calmodulin, and a 35 kDa protein
6098 at
            1274.9
hypothetical protein
6099_at
            505.8
strong similarity to hypothetical protein YHR108w and weak similarity to signal transducing adaptor from
mouse and man
6100 at
            603.6
                         Α
hypothetical protein
6101 at
            -393.2
                         Α
questionable ORF
                         Р
6102 at
            887.6
hypothetical protein
6103_at
            495.8
                         Α
91 kDa tau91 subunit of transcription factor IIIC (TFIIIC)
6104 at
            182.0
Establishes Silent omatin
            2422.8
6105 at
Homolog of DSS1\; similar to hypothetical protein from S. pombe
6106 at
            449.2
Member of the beta transducin family
            2496.9
6107 at
weak similarity to Streptococcus M protein
6108 at
            137.3
similarity to YOL106w and YER181c
6109_at
            1209.9
                         Ρ
hypothetical protein
6110_at
            2393.6
                         Ρ
homologous to the aldo-keto reductase protein family
6111 at
            218.6
DNA repair protein
                         Р
6112 at
            730.5
hypothetical protein
            213.7
6113_at
                         Α
similarity to chitinases
6114 at
            1084.0
                         Ρ
similarity to hypothetical S. pombe protein
6115_at
            2149.5
strong similarity to human BDR-1 protein and other calcium binding proteins
            -44.2
6116 at
similarity to hypothetical A. thaliana protein BAC F21M12
6072 at
            429.0
Mitochondrial protein of the CDC48VPAS1VSEC18 ATPase family, required for expression of functional
Rieske iron-sulfur protein
6073 at
            810.7
adrenodoxin oxidoreductase homolog
6074 at
            740.1
ATP synthase subunit f
                         Ρ
6075_at
            826.6
Sm-like protein
```

```
6076_at
            321.8
Contains a Rho-GAP domain and two LIM domains. Has strong similarity to Rga1p. Has some similarity
to all known Rho-GAPs.
            5196.8
6077 at
similarity to Pdc6p, Thi3p and to pyruvate decarboxylases
6078 at
            3866.8
Nuclear RNA-binding RNA annealing protein
6079 at
            3456.8
Nuclear RNA-binding RNA annealing protein
6080 at
            81004.4
Ribosomal protein P2B (YP2beta) (L45)
6081 at
            -37.4
weak similarity to S.pombe paramyosin
6082 at
            1480.9
strong similarity to Y.lipolytica GPR1 gene
6083 at
            177.8
MMS and UV Sensitive\; Mus81p and Rad54p are found together in a complex from whole-cell extracts
6084 at
            343.4
similarity to Itr1p and Itr2p and E.coli araE
6085_at
            5140.9
involved in endocytosis
6086 at
            396.0
GTPase activating protein (GAP) for RHO1
6087 at
            766.4
Protein with homology to mammalian ubiquitin activating (E1) enzyme
6088 at
            478.4
strong similarity to hypothetical protein YOR013w
            960.3
6089 at
transcription factor, member of the histone acetyltransferase SAGA complex
6090 at
            125.1
mRNA (identified by a library screen) that causes growth arrest when overexpressed
6091_at
            1393.7
probable 26S protease subunit and member of the CDC48VPAS1VSEC18 family of ATPases
6092_at
            2122.1
Sxm1p
6093 at
            -16.4
                         Α
hypothetical protein
6094 at
            1113.6
repressor of class II transcription
6049_at
            2338.2
similarity to human KIAA0007 gene
6050 at
            4218.1
Hypoxanthine Phosphoribosyltransferase
            964.8
6051_at
similarity to C. fasciculata inosine-uridine preferring nucleoside hydrolase (EC 3.2.2.1)
6052 at
Cytochrome P450 56, Dit2p catalyzes oxidation of N-formyl tyrosine to N,N-bisformyl dityrosine in vitro
6053 at
            -371.2
questionable ORF
6054 at
            -153.4
                         Α
first enzyme in dityrosine synthesis in the outer layer of the spore wall pathway converting L-tyrosine to
N-formyl-L-tyrosine, expressed late (10-16 hr) in sporulation
6055 at
            2800.9
dissociable subunit of RNA polymerase II
            424.1
6056 at
263-amino acid mitochondrial ribosomal large subunit protein\; similar to L23 family of ribosomal proteins
```

```
6057_at
            313.2
probable multidrug resistance transporter
6058 at
            1279.8
weak similarity to Myo1p
                         Ρ
6059 at
            2282.2
glycinamide ribotide transformylase
6060_at
            241.3
similarity to Nfi1p
6061 at
            1376.2
farnesyl cysteine-carboxyl methyltransferase
6062 at
            877.1
weak similarity to Der1p
6063 at
            180.6
weak similarity to NADH dehydrogenase
6064 at
            1011.2
questionable ORF
6065 at
            231.6
                         Α
Protein required for retention of luminal ER proteins
6066 at
            1062.6
strong similarity to bacterial leucyl aminopeptidase
6067_at
            861.0
SYnthetic lethal with cdcForty
6068 at
            1134.5
questionable ORF
6069 i at
            37376.1
Ribosomal protein L12B (L15B) (YL23)
6070 s at 33643.8
Ribosomal protein L12B (L15B) (YL23)
6071 at
            317.7
similar to E. coli DinB and S. cerevisiae REV1
6026 at
            1113.1
Type 1 membrane protein with EF hand motif
6027 at
            222.0
                         Α
hypothetical protein
6028 at
            593.6
                         Μ
SNF1 protein kinase substrate
6029 at
            1101.4
Transcriptional activator involved in resistance to 1,10-phenanthroline\; member of yeast Jun-family of
transcription factors related to mammalian c-jun
6030_at
            4359.5
putative light chain of dynein
6031 at
            263.5
similarity to hypothetical protein YDL113c
6032_at
            547.1
                         Ρ
questionable ORF
6033 at
            1869.5
Subunit of the regulatory particle of the proteasome
6034 at
            723.0
hypothetical protein
6035 at
            7172.7
Translation initiation factor 3 p33 subunit
6036_at
            1416.6
similarity to C.perfringens hypothetical hypA protein
6037_at
            360.1
questionable ORF
                         Ρ
6038_at
            4552.6
```

```
nuclear shuttling protein with an RNA recognition motif
6039 g at 21426.0
nuclear shuttling protein with an RNA recognition motif
6040_i_at
            22052.7
questionable ORF
6041 at
            1377.6
similarity to S.pombe hypothetical protein
6042 at
            423.9
similarity to YOL141w and hypothetical C.elegans protein
6043_at
            153.0
serine-threonine phosphatase Z
6044 at
            -154.9
hypothetical protein
6045 at
            319.2
                         Α
strong similarity to hypothetical protein YML018c
6046 at
            296.5
Loss of rDNA silencing
                         Р
6047 at
            790.3
Pachytene CHeckpoint
6048 at
            880.1
                         Р
Adenine phosphoribosyltransferase
6003 at
            -25.8
                         Α
questionable ORF
                         Ρ
            720.6
6004 at
RNA polymerase II holoenzyme component
6005 at
            882.9
similarity to hypothetical protein YGL144c and YDL109c
6006 at
            114.0
questionable ORF
6007 at
            94.3
                         Α
ExtraCellular Mutant
6008_at
            437.3
transcription factor, member of ADA and SAGA, two transcriptional adaptorVHAT (histone
acetyltransferase)complexes
6009_at
            824.6
hypothetical protein
6010 at
            521.1
                         Ρ
strong similarity to Yox1p
6011 at
            1917.3
similarity to human sphingomyelin phosphodiesterase
6012 at
            158.6
strong similarity to thiol-specific antioxidant proteins
            10409.9
6013_at
guanylate kinase
6014 at
                         Α
            37.3
questionable ORF
                         Ρ
6015 at
            1401.4
Na+VH+ exchanger
6016 at
            2398.5
hect-domain-containing protein, required for G2VM transition\; similar to RSP5\; contains motifs typical of
protein kinases
6017_at
            225.8
similarity to hypothetical protein YML034w and YML033w
6018 at
            117.6
                         Α
weak similarity to YNL326c
6019_at
            258.8
```

```
TFIIH subunit Tfb3, contains ring finger motif\; similar to mammalian CAK subunit
6020 r at 1161.4
a-factor mating pheromone precursor
6021_f_at
            13.4
a-factor mating pheromone precursor
6022 at
            951.3
Mitochondrial ribosomal protein MRPL28 (YmL28)
6023 at
            1169.1
Nuclear-localized protein containing zinc finger motifs
6024 at
            861.5
negative regulator of prp genes
6025 at
            3088.9
Protein arginine methyltransferase
5980 at
            1132.4
similarity to ser/thr protein kinase
5981 at
            15.0
questionable ORF
5982 at
            624.8
                         Α
tSNARE that affects a Late Golgi compartment
5983_at
            623.1
hypothetical protein
5984_at
            161.6
similarity to chromosome segregation protein Cse1p
5985 at
            15019.3
Ribosomal protein L27B
5986_at
            829.2
similarity to P.falciparum 41-2 protein antigen
5987 at
            392.5
essential splicing factor
                         Р
5988 at
            593.4
similarity to C-terminal region of YOR019w
5989_at
            -171.1
hypothetical protein
5990 at
            3119.6
                         Ρ
hypothetical protein
                         Ρ
5991 at
            1057.6
protein serineVthreonine kinase
5992_at
            391.6
                         Α
RNAse MRP protein component
5993_at
            354.3
weak similarity to YHR150w
5994 at
            234.1
MAP kinase-associated protein
5995_at
            1198.8
repressible alkaline phosphatase
5996 at
            335.9
                         Α
hypothetical protein
5997 at
            7231.2
                         Ρ
alpha-1,2-mannosyltransferase
5998 at
            493.1
May interact with actin as a component or controller of the assembly or stability of the actin cytoskeleton
5999_at
            398.5
similarity to trichohyalin
                         Р
6000 at
            792.0
weak similarity to Snf7p
                         Ρ
6001_at
            2519.0
```

```
3,4-dihydroxy-2-butanone 4-phosphate synthase
6002 at
            592.2
Protein required in the absence of Cin8p
5958 at
            131.0
hypothetical protein
                         Ρ
5959 at
            547.4
SerVThr protein kinase
5960 at
            -22.1
                         Α
questionable ORF
                         Ρ
5961_at
            4304.2
strong similarity to hypothetical protein YOL002c
5962 at
            248.3
hypothetical protein
                         Ρ
5963 at
            792.3
hypothetical protein
5964 at
            102.4
                         Α
Vacuolar sorting protein
                         Р
5965 at
            2215.0
similarity to hypothetical human and C.elegans proteins
5966_at
            7935.8
myo-inositol transporter
                         Ρ
5967 at
            1177.3
membrane glycoprotein, sorted by HDEL retrieval system
            722.1
5968 at
weak similarity to hypothetical C.elegans protein, M.genitalium peptide chain release factor 1 and
YJL149w
5969 at
            32840.7
60S ribosomal protein L37B (L43) (YL35)
5970 at
            19.4
similarity to hypothetical protein YLR183c
5971_at
            9571.6
S-adenosylmethionine synthetase
5972 at
            258.2
Lipid phosphate phosphatase
5973 at
            836.7
similarity to hypothetical T.brucei protein
5974 at
            402.8
                         Α
high copy suppressor of ts mutations in DNA polymerase alpha
5975 at
            567.0
similarity to FET3, YFL041w and F.floriforme diphenol oxidase
            2287.8
5976 at
putative serineVthreonine kinase
5977_at
            7441.7
high-affinity glutamine permease
5978 at
            155.2
                         Α
questionable ORF
5979 at
            3748.0
may be involved in function and Vor structure of the eukaryotic kinetochore
5935 at
            527.4
weak similarity to C. elegans protein F25H9.7 and to the human complement 3 precursor
5936_at
            945.5
questionable ORF
5937 at
            2143.5
Glutaredoxin (thioltransferase) (glutathione reductase)
5938_at
            260.1
strong similarity to hypothetical protein YCL036w
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```
5939_at
            231.9
regulates the copper-dependent mineralization of copper sulfide complexes on the cell surface in cells
cultured in medium containing copper salts
5940 at
             1643.4
strong similarity to glucokinase
5941 at
            707.9
weak similarity to hypothetical S.pombe protein
5942 at
             1005.1
Protein disulfide isomerase homolog
5943 at
             1843.7
FKBP (FK506 binding protein) 13\; peptidylprolyl cis-trans isomerase activity
5944 at
            502.1
weak similarity to transcription factors of the zinc finger class
5945 at
            558.9
questionable ORF
5946 at
            -488.8
                         Α
Middle Vlate gene of meiosis
5947 at
            59.3
serine\/threonine kinase homologous to Ste20p\; expressed in middle\/late meiosis
5948_at
            246.0
similarity to hypothetical human protein and YIL044c
5949 at
            -280.5
hypothetical protein
                         Α
5950 at
            397.6
questionable ORF
5951_at
            1121.8
weak similarity to Plasmodium yoelii rhoptry protein
5952 at
            190.2
similarity to Lre1p
                         Р
            3118.1
5953 at
ubiquinol-cytochrome c oxidoreductase subunit 7 (14 kDa)
5954_at
            657.1
5,5 -P-1,P-4-tetraphosphate phosphorylase II
5955_at
             1921.4
similarity to hypothetical A. thaliana and C. elegans proteins
5956 at
             109.5
weak similarity Plasmodium repeat organellar protein
            3084.9
5957 at
strong similarity to hypothetical proteins YPL280w, YOR391c and YMR322c
5913_at
            390.1
similarity to YOR383c, Sta1p and pig mucin
5914 at
            235.8
                         Α
hypothetical protein
            -182.9
5915_at
sugar transporter-like protein
5916 at
             111.8
                         Α
questionable ORF
5917 at
            1280.0
                         Ρ
Phenylacrylic acid decarboxylase
5918 at
             1454.5
similarity to E.coli hypothetical 55.3 kDa protein in rfah-rfe intergenic region
5919 at
             102.9
hypothetical protein
5920 at
             149.7
                         Α
similarity to dihydroflavonol-4-reductases
5921_at
            3313.4
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hypothetical protein identified by SAGE
5922 s at 3043.9
homing endonuclease with protein splicing activity
5923 at
            1794.8
identified by SAGE
5924 at
            7110.1
identified by SAGE
5925 at
            189554.7
identified by SAGE
                         Ρ
5926_g_at 248477.9
identified by SAGE
                         Р
5927 at
            2244.0
Involved in pre-tRNA splicing and in uptake of branched-chain amino acids
5928 at
non-annotated SAGE orf Found forward in NC 001136 between 169497 and 169697 with 100% identity.
See citation Velculescu, V.E., et al. (1997) Characterization of the yeast transcriptome. Cell 8:243-251
5929 at
            474.8
non-annotated SAGE orf Found reverse in NC 001136 between 340810 and 340977 with 100% identity.
See citation Velculescu, V.E., et al. (1997) Characterization of the yeast transcriptome. Cell 8:243-251
5930 at
non-annotated SAGE orf Found reverse in NC_001136 between 372033 and 372221 with 100% identity.
See citation Velculescu, V.E., et al. (1997) Characterization of the yeast transcriptome. Cell 8:243-251
non-annotated SAGE orf Found forward in NC 001136 between 578355 and 578501 with 100% identity.
See citation Velculescu, V.E., et al. (1997) Characterization of the yeast transcriptome. Cell 8:243-251
5932 at
            703.6
non-annotated SAGE orf Found reverse in NC 001136 between 603587 and 603805 with 100% identity.
See citation Velculescu, V.E., et al. (1997) Characterization of the yeast transcriptome. Cell 8:243-251
5933 at
            -364.7
non-annotated SAGE orf Found forward in NC 001136 between 691007 and 691207 with 100% identity.
See citation Velculescu, V.E., et al. (1997) Characterization of the yeast transcriptome. Cell 8:243-251
non-annotated SAGE orf Found reverse in NC 001136 between 1108272 and 1108490 with 100%
identity. See citation Velculescu, V.E., et al. (1997) Characterization of the yeast transcriptome. Cell
8:243-251
5887 i at
            235175.5
non-annotated SAGE orf Found reverse in NC_001136 between 1489561 and 1489731 with 100%
identity. See citation Velculescu, V.E., et al. (1997) Characterization of the yeast transcriptome. Cell
8:243-251
5888 at
non-annotated SAGE orf Found reverse in NC 001136 between 169634 and 169786 with 100% identity.
See citation Velculescu, V.E., et al. (1997) Characterization of the yeast transcriptome. Cell 8:243-251
non-annotated SAGE orf Found reverse in NC_001136 between 436971 and 437174 with 100% identity.
See citation Velculescu, V.E., et al. (1997) Characterization of the yeast transcriptome. Cell 8:243-251
5890 i at
            681.8
non-annotated SAGE orf Found forward in NC 001136 between 437405 and 437677 with 100% identity.
See citation Velculescu, V.E., et al. (1997) Characterization of the yeast transcriptome. Cell 8:243-251
non-annotated SAGE orf Found forward in NC 001136 between 437405 and 437677 with 100% identity.
See citation Velculescu, V.E., et al. (1997) Characterization of the yeast transcriptome. Cell 8:243-251
non-annotated SAGE orf Found reverse in NC 001136 between 512499 and 512651 with 100% identity.
See citation Velculescu, V.E., et al. (1997) Characterization of the yeast transcriptome. Cell 8:243-251
5893 at
            18.8
non-annotated SAGE orf Found forward in NC_001136 between 629245 and 629457 with 100% identity.
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See citation Velculescu, V.E., et al. (1997) Characterization of the yeast transcriptome. Cell 8:243-251
5894 at
            276.5
non-annotated SAGE orf Found reverse in NC 001136 between 1301069 and 1301203 with 100%
identity. See citation Velculescu, V.E., et al. (1997) Characterization of the yeast transcriptome. Cell
8:243-251
5895 at
            265.1
non-annotated SAGE orf Found forward in NC_001136 between 31938 and 32096 with 100% identity.
See citation Velculescu, V.E., et al. (1997) Characterization of the yeast transcriptome. Cell 8:243-251
5896 at
non-annotated SAGE orf Found forward in NC_001136 between 54150 and 54302 with 100% identity.
See citation Velculescu, V.E., et al. (1997) Characterization of the yeast transcriptome. Cell 8:243-251
non-annotated SAGE orf Found reverse in NC 001136 between 76964 and 77110 with 100% identity.
See citation Velculescu, V.E., et al. (1997) Characterization of the yeast transcriptome. Cell 8:243-251
5898 at
            127.6
non-annotated SAGE orf Found reverse in NC 001136 between 104660 and 104806 with 100% identity.
See citation Velculescu, V.E., et al. (1997) Characterization of the yeast transcriptome. Cell 8:243-251
5899 i at
            13433.9
non-annotated SAGE orf Found forward in NC 001136 between 130177 and 130317 with 100% identity.
See citation Velculescu, V.E., et al. (1997) Characterization of the yeast transcriptome. Cell 8:243-251
non-annotated SAGE orf Found forward in NC_001136 between 130499 and 130633 with 100% identity.
See citation Velculescu, V.E., et al. (1997) Characterization of the yeast transcriptome. Cell 8:243-251
5901 at
            3625.7
non-annotated SAGE orf Found forward in NC 001136 between 192383 and 192544 with 100% identity.
See citation Velculescu, V.E., et al. (1997) Characterization of the yeast transcriptome. Cell 8:243-251
non-annotated SAGE orf Found forward in NC 001136 between 217255 and 217434 with 100% identity.
See citation Velculescu, V.E., et al. (1997) Characterization of the yeast transcriptome. Cell 8:243-251
5903 at
non-annotated SAGE orf Found forward in NC_001136 between 241211 and 241405 with 100% identity.
See citation Velculescu, V.E., et al. (1997) Characterization of the yeast transcriptome. Cell 8:243-251
5904 at
            4025.4
non-annotated SAGE orf Found forward in NC_001136 between 370713 and 370868 with 100% identity.
See citation Velculescu, V.E., et al. (1997) Characterization of the yeast transcriptome. Cell 8:243-251
non-annotated SAGE orf Found forward in NC_001136 between 370892 and 371032 with 100% identity.
See citation Velculescu, V.E., et al. (1997) Characterization of the yeast transcriptome. Cell 8:243-251
5906 r at
non-annotated SAGE orf Found forward in NC_001136 between 370892 and 371032 with 100% identity.
See citation Velculescu, V.E., et al. (1997) Characterization of the yeast transcriptome. Cell 8:243-251
5907 at
            162.6
non-annotated SAGE orf Found forward in NC_001136 between 473863 and 474021 with 100% identity.
See citation Velculescu, V.E., et al. (1997) Characterization of the yeast transcriptome. Cell 8:243-251
            18928.5
non-annotated SAGE orf Found forward in NC 001136 between 509189 and 509365 with 100% identity.
See citation Velculescu, V.E., et al. (1997) Characterization of the yeast transcriptome. Cell 8:243-251
5909 at
            -49.7
non-annotated SAGE orf Found reverse in NC 001136 between 542450 and 542596 with 100% identity.
See citation Velculescu, V.E., et al. (1997) Characterization of the yeast transcriptome. Cell 8:243-251
5910_at
            6502.4
non-annotated SAGE orf Found forward in NC_001136 between 654446 and 654610 with 100% identity.
See citation Velculescu, V.E., et al. (1997) Characterization of the yeast transcriptome. Cell 8:243-251
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non-annotated SAGE orf Found reverse in NC_001136 between 683771 and 683923 with 100% identity. See citation Velculescu, V.E., et al. (1997) Characterization of the yeast transcriptome. Cell 8:243-251

5912_at 374.8 A

non-annotated SAGE orf Found forward in NC_001136 between 886950 and 887105 with 100% identity. See citation Velculescu, V.E., et al. (1997) Characterization of the yeast transcriptome. Cell 8:243-251 5864 at 349.3 A

non-annotated SAGE orf Found forward in NC_001136 between 930871 and 931032 with 100% identity. See citation Velculescu, V.E., et al. (1997) Characterization of the yeast transcriptome. Cell 8:243-251 5865, at 157.5 A

non-annotated SAGE orf Found reverse in NC_001136 between 971521 and 971670 with 100% identity. See citation Velculescu, V.E., et al. (1997) Characterization of the yeast transcriptome. Cell 8:243-251

non-annotated SAGE orf Found reverse in NC_001136 between 971619 and 971783 with 100% identity. See citation Velculescu, V.E., et al. (1997) Characterization of the yeast transcriptome. Cell 8:243-251 5867 at 171.9 A

non-annotated SAGE orf Found reverse in NC_001136 between 1014227 and 1014367 with 100% identity. See citation Velculescu, V.E., et al. (1997) Characterization of the yeast transcriptome. Cell 8:243-251

5868 at 359.2 A

non-annotated SAGE orf Found forward in NC_001136 between 1021700 and 1021852 with 100% identity. See citation Velculescu, V.E., et al. (1997) Characterization of the yeast transcriptome. Cell 8:243-251

5869 at -3.9 A

non-annotated SAGE orf Found reverse in NC_001136 between 1078478 and 1078672 with 100% identity. See citation Velculescu, V.E., et al. (1997) Characterization of the yeast transcriptome. Cell 8:243-251

5870 at 276.1 A

non-annotated SAGE orf Found reverse in NC_001136 between 1149727 and 1149861 with 100% identity. See citation Velculescu, V.E., et al. (1997) Characterization of the yeast transcriptome. Cell 8:243-251

5871 at -295.8 A

non-annotated SAGE orf Found reverse in NC_001136 between 1162667 and 1162810 with 100% identity. See citation Velculescu, V.E., et al. (1997) Characterization of the yeast transcriptome. Cell 8:243-251

5872 at 279.4 A

non-annotated SAGE orf Found forward in NC_001136 between 1224746 and 1225015 with 100% identity. See citation Velculescu, V.E., et al. (1997) Characterization of the yeast transcriptome. Cell 8:243-251

5873_at 493.9 P

non-annotated SAGE orf Found reverse in NC_001136 between 1276382 and 1276564 with 100% identity. See citation Velculescu, V.E., et al. (1997) Characterization of the yeast transcriptome. Cell 8:243-251

5874_at 403.5 F

non-annotated SAGE orf Found forward in NC_001136 between 1385570 and 1385815 with 100% identity. See citation Velculescu, V.E., et al. (1997) Characterization of the yeast transcriptome. Cell 8:243-251

5875_s_at -194.0 A

non-annotated SAGE orf Found forward in NC_001136 between 1385623 and 1385760 with 100% identity. See citation Velculescu, V.E., et al. (1997) Characterization of the yeast transcriptome. Cell 8:243-251

5876 at 2469.3 P

non-annotated SAGE orf Found reverse in NC_001136 between 1410191 and 1410346 with 100% identity. See citation Velculescu, V.E., et al. (1997) Characterization of the yeast transcriptome. Cell 8:243-251

5877 i at 762.2 F

non-annotated SAGE orf Found reverse in NC_001136 between 34050 and 34184 with 100% identity. See citation Velculescu, V.E., et al. (1997) Characterization of the yeast transcriptome. Cell 8:243-251 5878_r_at 2257.1 P

non-annotated SAGE orf Found reverse in NC_001136 between 34050 and 34184 with 100% identity. See citation Velculescu, V.E., et al. (1997) Characterization of the yeast transcriptome. Cell 8:243-251 5879 at 3888.1 non-annotated SAGE orf Found forward in NC 001136 between 160791 and 160925 with 100% identity. See citation Velculescu, V.E., et al. (1997) Characterization of the yeast transcriptome. Cell 8:243-251 5880 at 2516.7 non-annotated SAGE orf Found reverse in NC 001136 between 217125 and 217325 with 100% identity. See citation Velculescu, V.E., et al. (1997) Characterization of the yeast transcriptome. Cell 8:243-251 5881 at 325.7 non-annotated SAGE orf Found forward in NC_001136 between 309589 and 309750 with 100% identity. See citation Velculescu, V.E., et al. (1997) Characterization of the yeast transcriptome. Cell 8:243-251 5882 at non-annotated SAGE orf Found forward in NC 001136 between 681671 and 681811 with 100% identity. See citation Velculescu, V.E., et al. (1997) Characterization of the yeast transcriptome. Cell 8:243-251 5883 i at -182.0non-annotated SAGE orf Found forward in NC 001136 between 871688 and 871912 with 100% identity. See citation Velculescu, V.E., et al. (1997) Characterization of the yeast transcriptome. Cell 8:243-251 5884 r at -138.4 non-annotated SAGE orf Found forward in NC 001136 between 871688 and 871912 with 100% identity. See citation Velculescu, V.E., et al. (1997) Characterization of the yeast transcriptome. Cell 8:243-251 1033.2 non-annotated SAGE orf Found forward in NC_001136 between 937524 and 937712 with 100% identity. See citation Velculescu, V.E., et al. (1997) Characterization of the yeast transcriptome. Cell 8:243-251 5886 at -112.5 non-annotated SAGE orf Found forward in NC 001136 between 1022638 and 1022775 with 100% identity. See citation Velculescu, V.E., et al. (1997) Characterization of the yeast transcriptome. Cell 8:243-251 5841 at 244.6 non-annotated SAGE orf Found forward in NC 001136 between 1022913 and 1023059 with 100% identity. See citation Velculescu, V.E., et al. (1997) Characterization of the yeast transcriptome. Cell 8:243-251 5842_at 136.7 non-annotated SAGE orf Found reverse in NC 001136 between 1045240 and 1045398 with 100% identity. See citation Velculescu, V.E., et al. (1997) Characterization of the yeast transcriptome. Cell 8:243-251 5843 at -149.2non-annotated SAGE orf Found forward in NC_001136 between 1095473 and 1095631 with 100% identity. See citation Velculescu, V.E., et al. (1997) Characterization of the yeast transcriptome. Cell 8:243-251 5844_at -2.8 non-annotated SAGE orf Found reverse in NC 001136 between 1164717 and 1164953 with 100% identity. See citation Velculescu, V.E., et al. (1997) Characterization of the yeast transcriptome. Cell 8:243-251 5845_at 334.5 non-annotated SAGE orf Found reverse in NC 001136 between 1204280 and 1204438 with 100% identity. See citation Velculescu, V.E., et al. (1997) Characterization of the yeast transcriptome. Cell 8:243-251 5846 at 800.4 Α non-annotated SAGE orf Found forward in NC 001136 between 1480287 and 1480421 with 100% identity. See citation Velculescu, V.E., et al. (1997) Characterization of the yeast transcriptome. Cell 8:243-251 5847 at 70.1 non-annotated SAGE orf Found reverse in NC 001136 between 48402 and 48554 with 100% identity.

non-annotated SAGE orf Found reverse in NC_001136 between 48561 and 48719 with 100% identity.

5848 at

13.7

See citation Velculescu, V.E., et al. (1997) Characterization of the yeast transcriptome. Cell 8:243-251

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5849 at
            846.8
non-annotated SAGE orf Found reverse in NC 001136 between 169367 and 169609 with 100% identity.
See citation Velculescu, V.E., et al. (1997) Characterization of the yeast transcriptome. Cell 8:243-251
non-annotated SAGE orf Found forward in NC 001136 between 362352 and 362528 with 100% identity.
See citation Velculescu, V.E., et al. (1997) Characterization of the yeast transcriptome. Cell 8:243-251
5851 at
non-annotated SAGE orf Found reverse in NC_001136 between 366186 and 366452 with 100% identity.
See citation Velculescu, V.E., et al. (1997) Characterization of the yeast transcriptome. Cell 8:243-251
5852 at
non-annotated SAGE orf Found reverse in NC 001136 between 369351 and 369551 with 100% identity.
See citation Velculescu, V.E., et al. (1997) Characterization of the yeast transcriptome. Cell 8:243-251
5853 at
non-annotated SAGE orf Found reverse in NC 001136 between 386539 and 386772 with 100% identity.
See citation Velculescu, V.E., et al. (1997) Characterization of the yeast transcriptome. Cell 8:243-251
5854 at
            132.3
non-annotated SAGE orf Found reverse in NC 001136 between 471227 and 471388 with 100% identity.
See citation Velculescu, V.E., et al. (1997) Characterization of the yeast transcriptome. Cell 8:243-251
5855 at
            -187.2
non-annotated SAGE orf Found forward in NC_001136 between 542286 and 542432 with 100% identity.
See citation Velculescu, V.E., et al. (1997) Characterization of the yeast transcriptome. Cell 8:243-251
non-annotated SAGE orf Found reverse in NC 001136 between 545720 and 545920 with 100% identity.
See citation Velculescu, V.E., et al. (1997) Characterization of the yeast transcriptome. Cell 8:243-251
5857 g at -174.2
non-annotated SAGE orf Found reverse in NC 001136 between 545720 and 545920 with 100% identity.
See citation Velculescu, V.E., et al. (1997) Characterization of the yeast transcriptome. Cell 8:243-251
5858 at
non-annotated SAGE orf Found reverse in NC 001136 between 545791 and 545997 with 100% identity.
See citation Velculescu, V.E., et al. (1997) Characterization of the yeast transcriptome. Cell 8:243-251
non-annotated SAGE orf Found reverse in NC 001136 between 721872 and 722042 with 100% identity.
See citation Velculescu, V.E., et al. (1997) Characterization of the yeast transcriptome. Cell 8:243-251
5860 g at 66.5
non-annotated SAGE orf Found reverse in NC 001136 between 721872 and 722042 with 100% identity.
See citation Velculescu, V.E., et al. (1997) Characterization of the yeast transcriptome. Cell 8:243-251
5861 at
non-annotated SAGE orf Found reverse in NC 001136 between 721952 and 722089 with 100% identity.
See citation Velculescu, V.E., et al. (1997) Characterization of the yeast transcriptome. Cell 8:243-251
non-annotated SAGE orf Found reverse in NC 001136 between 909885 and 910028 with 100% identity.
See citation Velculescu, V.E., et al. (1997) Characterization of the yeast transcriptome. Cell 8:243-251
5863_at
            -127.6
non-annotated SAGE orf Found reverse in NC 001136 between 1182750 and 1182914 with 100%
identity. See citation Velculescu, V.E., et al. (1997) Characterization of the yeast transcriptome. Cell
8:243-251
5817 at
            499.6
                         Α
non-annotated SAGE orf Found reverse in NC 001136 between 1251950 and 1252093 with 100%
identity. See citation Velculescu, V.E., et al. (1997) Characterization of the yeast transcriptome. Cell
8:243-251
5818 at
            42.2
non-annotated SAGE orf Found reverse in NC 001136 between 1258336 and 1258488 with 100%
identity. See citation Velculescu, V.E., et al. (1997) Characterization of the yeast transcriptome. Cell
8:243-251
5819_at
            1557.2
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See citation Velculescu, V.E., et al. (1997) Characterization of the yeast transcriptome. Cell 8:243-251

non-annotated SAGE orf Found reverse in NC_001136 between 1353218 and 1353430 with 100% identity. See citation Velculescu, V.E., et al. (1997) Characterization of the yeast transcriptome. Cell 8:243-251 5820_at 392.8 Α non-annotated SAGE orf Found reverse in NC 001136 between 1385513 and 1385758 with 100% identity. See citation Velculescu, V.E., et al. (1997) Characterization of the yeast transcriptome. Cell 8:243-251 5821 at 78.6 non-annotated SAGE orf Found reverse in NC_001136 between 1394780 and 1394965 with 100% identity. See citation Velculescu, V.E., et al. (1997) Characterization of the yeast transcriptome. Cell 8:243-251 5822 at 224.7 non-annotated SAGE orf Found reverse in NC 001136 between 1518910 and 1519074 with 100% identity. See citation Velculescu, V.E., et al. (1997) Characterization of the yeast transcriptome. Cell 8:243-251 5823 at non-annotated SAGE orf Found reverse in NC 001136 between 1519095 and 1519325 with 100% identity. See citation Velculescu, V.E., et al. (1997) Characterization of the yeast transcriptome. Cell 8:243-251 5824_i_at -99.7 non-annotated SAGE orf Found forward in NC_001136 between 174671 and 174826 with 100% identity. See citation Velculescu, V.E., et al. (1997) Characterization of the yeast transcriptome. Cell 8:243-251 non-annotated SAGE orf Found forward in NC 001136 between 174671 and 174826 with 100% identity. See citation Velculescu, V.E., et al. (1997) Characterization of the yeast transcriptome. Cell 8:243-251 5826 at -33.2 non-annotated SAGE orf Found reverse in NC 001136 between 235889 and 236071 with 100% identity. See citation Velculescu, V.E., et al. (1997) Characterization of the yeast transcriptome. Cell 8:243-251 5827 at non-annotated SAGE orf Found reverse in NC 001136 between 286761 and 286994 with 100% identity. See citation Velculescu, V.E., et al. (1997) Characterization of the yeast transcriptome. Cell 8:243-251 non-annotated SAGE orf Found forward in NC 001136 between 371892 and 372080 with 100% identity. See citation Velculescu, V.E., et al. (1997) Characterization of the yeast transcriptome. Cell 8:243-251 5829 at non-annotated SAGE orf Found reverse in NC 001136 between 423540 and 423701 with 100% identity. See citation Velculescu, V.E., et al. (1997) Characterization of the yeast transcriptome. Cell 8:243-251 5830 at non-annotated SAGE orf Found reverse in NC 001136 between 428438 and 428608 with 100% identity. See citation Velculescu, V.E., et al. (1997) Characterization of the yeast transcriptome. Cell 8:243-251 5831 at non-annotated SAGE orf Found reverse in NC 001136 between 463178 and 463426 with 100% identity. See citation Velculescu, V.E., et al. (1997) Characterization of the yeast transcriptome. Cell 8:243-251 5832_i_at -194.7 non-annotated SAGE orf Found reverse in NC 001136 between 541225 and 541422 with 100% identity. See citation Velculescu, V.E., et al. (1997) Characterization of the yeast transcriptome. Cell 8:243-251 non-annotated SAGE orf Found reverse in NC 001136 between 541225 and 541422 with 100% identity. See citation Velculescu, V.E., et al. (1997) Characterization of the yeast transcriptome. Cell 8:243-251 non-annotated SAGE orf Found reverse in NC 001136 between 541225 and 541422 with 100% identity. See citation Velculescu, V.E., et al. (1997) Characterization of the yeast transcriptome. Cell 8:243-251

non-annotated SAGE orf Found reverse in NC_001136 between 541283 and 541441 with 100% identity. See citation Velculescu, V.E., et al. (1997) Characterization of the yeast transcriptome. Cell 8:243-251

5835 i at

5836_at

-280.5

17.1

non-annotated SAGE orf Found reverse in NC_001136 between 558081 and 558245 with 100% identity. See citation Velculescu, V.E., et al. (1997) Characterization of the yeast transcriptome. Cell 8:243-251 5837 at non-annotated SAGE orf Found reverse in NC 001136 between 664944 and 665141 with 100% identity. See citation Velculescu, V.E., et al. (1997) Characterization of the yeast transcriptome. Cell 8:243-251 5838 at 718.4 non-annotated SAGE orf Found reverse in NC_001136 between 678003 and 678185 with 100% identity. See citation Velculescu, V.E., et al. (1997) Characterization of the yeast transcriptome. Cell 8:243-251 5839 at 1466.6 non-annotated SAGE orf Found forward in NC_001136 between 733117 and 733251 with 100% identity. See citation Velculescu, V.E., et al. (1997) Characterization of the yeast transcriptome. Cell 8:243-251 1478.8 non-annotated SAGE orf Found reverse in NC 001136 between 792041 and 792292 with 100% identity. See citation Velculescu, V.E., et al. (1997) Characterization of the yeast transcriptome. Cell 8:243-251 5792 at 1291.0 non-annotated SAGE orf Found reverse in NC 001136 between 812871 and 813017 with 100% identity. See citation Velculescu, V.E., et al. (1997) Characterization of the yeast transcriptome. Cell 8:243-251 5793 at 571.2 non-annotated SAGE orf Found forward in NC 001136 between 909701 and 909844 with 100% identity. See citation Velculescu, V.E., et al. (1997) Characterization of the yeast transcriptome. Cell 8:243-251 non-annotated SAGE orf Found forward in NC_001136 between 945505 and 945678 with 100% identity. See citation Velculescu, V.E., et al. (1997) Characterization of the yeast transcriptome. Cell 8:243-251 5795 at -26.0 non-annotated SAGE orf Found reverse in NC 001136 between 976132 and 976302 with 100% identity. See citation Velculescu, V.E., et al. (1997) Characterization of the yeast transcriptome. Cell 8:243-251 non-annotated SAGE orf Found forward in NC 001136 between 979658 and 979807 with 100% identity. See citation Velculescu, V.E., et al. (1997) Characterization of the yeast transcriptome. Cell 8:243-251 5797 at non-annotated SAGE orf Found forward in NC_001136 between 1013666 and 1013818 with 100% identity. See citation Velculescu, V.E., et al. (1997) Characterization of the yeast transcriptome. Cell 8:243-251 5798 at non-annotated SAGE orf Found forward in NC 001136 between 1013978 and 1014130 with 100% identity. See citation Velculescu, V.E., et al. (1997) Characterization of the yeast transcriptome. Cell 8:243-251 5799 at 823.6 non-annotated SAGE orf Found forward in NC 001136 between 1108476 and 1108613 with 100% identity. See citation Velculescu, V.E., et al. (1997) Characterization of the yeast transcriptome. Cell 8:243-251 5800 at 2806.9 non-annotated SAGE orf Found reverse in NC_001136 between 1233267 and 1233506 with 100% identity. See citation Velculescu, V.E., et al. (1997) Characterization of the yeast transcriptome. Cell 8:243-251 5801 at -112.3non-annotated SAGE orf Found forward in NC 001136 between 1359610 and 1359834 with 100% identity. See citation Velculescu, V.E., et al. (1997) Characterization of the yeast transcriptome. Cell 8:243-251 5802 at -233.6 non-annotated SAGE orf Found forward in NC_001136 between 1362215 and 1362352 with 100% identity. See citation Velculescu, V.E., et al. (1997) Characterization of the yeast transcriptome. Cell 8:243-251 5803 at 558.3

non-annotated SAGE orf Found reverse in NC_001136 between 1500930 and 1501154 with 100% identity. See citation Velculescu, V.E., et al. (1997) Characterization of the yeast transcriptome. Cell

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8:243-251
                        Ρ
5804 at
            1282.3
snRNA
5805_i_at
            258.2
                        Α
Centromere
5806_i_at
            224.5
                        Α
snRNA
5807_at
            2251.2
                        Ρ
snRNA
5808_i_at
            -188.6
                        Α
questionable ORF
5809 i at
            2.7
                        Α
similarity to subtelomeric encoded proteins
5810_s_at 638.4
similarity to subtelomeric encoded proteins
5811 at
            -174.4
similarity to YJR108w
5812 at
            20.6
                        Α
hypothetical protein
5813_at
            6045.1
                        Ρ
strong similarity to Aip2p
5814_at
            113.8
                        Α
hypothetical protein
            -34.6
5815 at
                        Α
weak similarity to YKL083w
5816 at
            1266.0
Histone and other Protein Acetyltransferase); Has sequence homology to known HATs and NATs
5769 at
            580.0
probably multidrug resistance protein
5770 at
            134.2
similarity to YBL089w
                        Ρ
5771_at
            1796.6
arginine permease
5772_at
            273.2
Non-membrane-embedded, PEST sequence-containing protein
5773 at
Kinesin-related protein involved in establishment and maintenance of mitotic spindle
5774_at
            2764.5
vacuolar protease B
5775_at
            1957.9
high copy suppressor of imp1 mutation, may be required for the function of the Imp1 peptidase andVor
the protein sorting machinery
5776_at
            254.9
hypothetical protein
5777 at
            14911.4
                        Ρ
Phosphoacetylglucosamine Mutase
5778 at
            -22.3
hypothetical protein
5779_at
            1427.9
subunit of a cytoplasmic histone acetyltransferase
5780_at
            2553.8
DNA polymerase V that has motifs typical of DNA polymerase family
5781 i at
            29236.2
Ribosomal protein L12A (L15A) (YL23)
5782_at
            541.6
glucose-repressible protein
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Ρ
5783_at
            1549.7
ATPase family gene
                         Ρ
5784 at
            1748.8
Vacuolar H-ATPase D subunit of the V1 catalytic sector
5785 at
            553.5
Mitochondrial ribosomal protein L2 of the large subunit
5786 f at
            304.1
member of the seripauperin protein\( \text{gene family (see Gene_class PAU)} \)
5787 at
            89.2
hypothetical protein
5788_at
            4323.2
                         Ρ
strong similarity to Osm1p
5789 at
            4310.4
Threonine Aldolase
5790 at
            248.7
                         Α
weak similarity to cytochrome c oxidase III of T.brucei kinetoplast
5791 at
             1024.0
hypothetical protein
5747 at
            2225.3
                         Ρ
weak similarity to Mad1p
            5209.8
5748 at
Guanosine diphosphatase of Golgi membrane
5749 at
            -254.5
strong similarity to Utr1p
5750 at
            17984.1
weak similarity to Bacillus 1,3-1,4-beta-glucanase
5751 at
            100.1
iso-2-cytochrome c
                         Ρ
5752 at
            1506.6
similarity to K.oxytoca enolase-phosphatase E-1
5753 at
            4964.0
ubiquitin-like protein
5754 at
            3770.4
Mannan 8\; Protein of the endoplasmic reticulum with a role in retention of glycosyltransferases in the
Golgi, also involved in osmotic sensitivity and resistance to aminonitrophenyl propanediol
5755 at
            -93.4
protein of unknown function
            105086.7
5756 at
Translation initiation factor eIF-5A
5757_at
            21530.1
weak similarity to Sauroleishmania mitochondrial hypothetical ORF-5 protein
5758 at
             1583.5
Member of complex that acts at ARS s to initiate replication
5759_at
            7008.6
                         Р
P-type ATPase
5760 at
            171.8
                         Α
ExtraCellular Mutant
5761 at
            185.9
                         Α
similarity to hypothetical protein YNR027w
5762 at
             -53.2
hypothetical protein
                         Ρ
5763 at
            35008.0
Vacuolar ATP synthase 17-kDa proteolipid C subunit of VO sector\; dicyclohexylcarbodiimide binding
subunit
5764_at
            22668.2
strong similarity to high mobility group-like protein Nhp2p
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5765_at
            326.2
                         Α
hypothetical protein
                         Ρ
5766 at
            2156.1
Rieske iron-sulfur protein of the mitochondrial cytochrome bc1 complex
5767 at
            313.4
hypothetical protein
5768 at
            410.6
                         M
ARF GTPVGDP exchange factor
5724 at
            -28.7
orotidine-5 -phosphate decarboxylase
5725 at
            359.5
similarity to O.formigenes oxalyl-CoA decarboxylase
            120.6
5726 at
Protein involved in DNA repair
5727_at
            907.1
weak similarity to Rad50p
5728 i at
            66593.1
Proteolipid associated with plasma membrane H(+)-ATPase (Pma1p)
5729 f at
            22674.2
Proteolipid associated with plasma membrane H(+)-ATPase (Pma1p)
5730 at
            2908.8
hypothetical protein
5731 at
            735.4
similarity to human nucleotide pyrophosphatase
5732 at
            2266.7
weak similarity to Spa2p
5733 at
            242.0
                         Α
hypothetical protein
            1564.1
5734 at
An armadillo repeat-containing protein localized on the vacuolar membrane
5735 at
            340.6
1,4-glucan-6-(1,4-glucano)-transferase
5736 at
            -279.8
                         Α
hypothetical protein
5737 at
            27717.4
transcriptional activator of amino acid biosynthetic genes
5738 at
            -191.1
hypothetical protein
                         Ρ
5739 at
            2543.5
similarity to S.pombe pac2 protein
5740 at
            754.8
similarity to peroxisomal membrane and mitochondrial carrier proteins
5741_at
            422.9
                         Α
hypothetical protein
5742 at
            340.8
Shows sequence similarity to GOG5, a gene involved in vanadate resistance
5743 at
            2026.1
Putative homolog of subunit 2 of bovine prefoldin, a chaperone comprised of six subunits
            8388.3
5744 at
oligosaccharyl transferase glycoprotein complex, beta subunit
5745_at
            5162.7
hypothetical protein
                         Ρ
5746 at
            1616.7
Alpha-1,3-mannosyltransferase
5701_at
            1732.1
                         Ρ
weak similarity to chicken microfibril-associated protein
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5702_at
            11447.9
                         Ρ
mannose-6-phosphate isomerase
5703 at
            4514.9
                         Ρ
similarity to hypothetical E.coli and C.elegans proteins
5704 at
            480.5
similarity to Gda1p
                         Ρ
5705 at
            6041.1
similarity to P.polycephalum myosin-related protein mlpA
5706 at
            511.6
Required for viability in the absence of the kinesin-related mitotic motor Cin8p\; required for normal
microtubule stability
5707 at
            4224.6
putattive ORF identified by SAGE
5708 at
            1829.3
SEC3 encodes the 144 kD and 91 kD components of the Exocyst complex\; the 91 kD component is a
C-terminal proteolytic breakdown product of full length Sec3p
5709 at
            5851.1
May coordinate the Ran-dependent (GSP1VGSP2) association and disassociation reactions of nuclear
import\; human homologue complements yeast mutants
5710_at
            1429.7
similarity to L.pneumophila dlpA protein
5711 at
            9604.4
Cold-shock induced protein of the Srp1p\/Tip1p family of serine-alanine-rich proteins
5712 at
            3647.1
22.6 kDa proteasome subunit
5713 at
            465.4
helicase-like protein
            756.9
                         Ρ
5714 at
protoporphyrinogen oxidase
5715 at
            11.7
Acyl-CoA synthetase (fatty acid activator 2)
5716_at
            932.8
Blnding to Microtubules
5717_at
            2745.0
ATP-dependent metalloprotease
5718 at
            -432.4
component of spindle pole
5719 at
            1372.6
putative neutral sphingomyelinase
            6499.8
5720_at
homologous to Sbh1p
5721 at
            2668.8
                         Ρ
nucleotide binding regulatory protein
            4249.3
5722_at
component of the regulatory module of the 26S proteasome, homologous to human p58 subunit
5723 at
subunit of RNA polymerase II holoenzymeVmediator complex
5678 at
            7853.4
delta 1-pyrroline-5-carboxylate reductase
5679 at
            532.7
                         Ρ
similarity to carnitine O-acetyltransferase Yat1p
5680_at
            8773.5
gamma subunit of translational initiation factor eIF-2
5681 at
            2119.8
phosphatidylserine synthase
5682_at
            893.8
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glucose repression protein
5683 at
            269.5
similarity to Miq1p
5684 at
            725.6
Associated with U1 snRNP as part of the Sm-core that is common to all spliceosomal snRNPs
5685 at
            1950.4
similarity to mouse nucleolin
5686 at
            2571.4
ras-like GTPase, highly homologous to YPT32
5687 at
            106.5
Putative participant in 3 mRNA processing
5688 at
            508.8
weak similarity to Nmd2p, Kex1p and hamster nucleolin
5689 at
            697.3
hypothetical protein
5690 at
            1424.9
                         Р
hypothetical protein
5691 at
            11037.2
strong similarity to members of the ABC transporter family
5692_at
            11.0
strong similarity to hypothetical protein YGL224c
5693 at
            -6.7
hypothetical protein
                         Ρ
5694 at
            360.5
Homologous to VRG4
5695 at
            158.7
                         Α
positive nitrogen regulatory protein
            571.4
5696 at
                         Р
weak similarity to DNA repair protein Rad2p and Dsh1p
5697 at
            129.8
responsible for the reduction of methionine sulfoxide
5698_at
            27455.5
putative S-adenosyl-L-homocysteine hydrolase
5699_at
            8963.6
hypothetical protein
5700 at
            84.8
Required for full sporulation. Dispensable for axial cores but required for full chromosome pairing seen by
in situ hybridization, heteroduplex DNA, synaptonemal complexes, meiotic intra- and interchromosomal
gene conversion, reciprocal recombination and viable spores, mei4 has near wild-type chromosome
condensation, executes both divisions with a delay in meiosis II, is rescued by spo13 and is epiststic to
rad52, and is classified and an early recombination function. mRNA is meiosis-specific and has 88 bp
intron at 5 end spliced independently of MER1.
5655_n_at -88.7
Required for full sporulation. Dispensable for axial cores but required for full chromosome pairing seen by
in situ hybridization, heteroduplex DNA, synaptonemal complexes, meiotic intra- and interchromosomal
gene conversion, reciprocal recombination and viable spores, mei4 has near wild-type chromosome
condensation, executes both divisions with a delay in meiosis II, is rescued by spo13 and is epiststic to
rad52, and is classified and an early recombination function. mRNA is meiosis-specific and has 88 bp
intron at 5 end spliced independently of MER1.
5656 at
            489.3
weak similarity to transcription factor Sko1p
5657 at
            275.2
hypothetical protein
5658 at
            558.2
member of the AAA ATPase family of proteins
5659_at
            2921.8
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Homologous to E. coli DnaJ\; contains leucine zipper-like motif
5660 at
            194.9
putative ORF identified by SAGE
5661 at
            3132.8
strong similarity to hypothetical S.pombe protein YER049W
5662 at
            1011.1
hypothetical protein
5663 at
            206.6
similarity to C.elegans hypothetical protein
            4515.4
5664 at
Aspartate kinase (L-aspartate 4-P-transferase) (EC 2.7.2.4)
5665 at
            499.8
strong similarity to mitochondrial phosphate carrier protein
5666 at
            55.8
Glc7-interacting protein\; shares homology with PIG2\; contains conserved 25 residue motif, called the
GVNK motif, also found in GAC1, PIG1, PIG2, and RGI, the mammalian type 1 phosphatase targeting
subunit.
5667 at
            7431.0
                         Ρ
ATP phosphoribosyltransferase
5668 at
            6310.0
purine-cytosine permease
5669 g at 5365.9
                         Ρ
purine-cytosine permease
5670 i at 51602.5
Ribosomal protein L34A
5671_s_at 102141.0
                         Ρ
Ribosomal protein L34A
5672 at
            7723.2
                         Ρ
Inhibitor of cell Growth\; heat shock inducible
5673 at
            922.0
cytochrome c oxidase assembly factor
5674_at
            255.2
                         Α
PHO85 cyclin
5675 at
            759.1
                         Ρ
purine-cytosine permease
5676 at
            -282.2
purine-cytosine permease
5677_at
            665.9
Protein homologous to beta-keto-acyl synthase
5633_at
            1792.4
DL-glycerol-3-phosphatase
5634 at
            1905.6
Suppressor of the Transcriptional (T) defect of Hpr1 (H) by Overexpression (O)
            2044.4
5635_at
similarity to hypothetical protein YIL056w
5636_at
            283.9
                         Α
isocitrate Ivase
5637 at
            350.9
                         Ρ
strong similarity to cell division control protein Cdc4p
5638 g at 805.6
strong similarity to cell division control protein Cdc4p
5639_at
            221.9
hypothetical protein
5640_at
            276.6
strong similarity to hypothetical protein YIL057c
5641_at
            1119.8
```

```
putative zinc finger protein
5642 at
            3448.9
N-acetyl-gamma-glutamyl-phosphate reductase and acetylglutamate kinase
5643 at
            4519.9
ribonucleotide reductase
5644 at
            1361.6
hypothetical protein
5645 at
            26961.0
Homolog of S. pombe Nrf1 (97\% identical in predicted amino acid sequence), which was identified in a
genetic screen by its ability to reverse the Cdc42p suppression of a cdc24-4ts mutant
5646 at
            1214.5
aldehyde dehydrogenase (NAD+)
5647 s at 27835.4
40S ribosomal protein S24A
5648 at
            739.2
Protein tyrosine phosphatase
5649 at
            611.7
similarity to killer toxin Khr1p
5650 at
            399.9
hypothetical protein
5651 at
                         Α
            250.5
similarity to E.coli X-Pro aminopeptidase II
5652 at
            874.0
hypothetical protein
                         Ρ
5653 at
            1175.4
hypothetical protein
5654 at
            229.4
                         Α
strong similarity to phosphoglycerate dehydrogenases
5610 at
            934.1
similarity to M.sexta steroid regulated MNG10 protein
5611 at
            4410.1
hypothetical protein
5612 at
            477.7
                         Α
questionable ORF
                         Α
5613 at
            53.6
weak similarity to myosins
5614 at
            6765.9
                         Ρ
threonine deaminase
                         Ρ
5615 at
            958.2
similarity to E.coli prolyl-tRNA synthetase
5616 at
            4298.9
homologous to Sbh2p
5617_at
            1341.3
Derepression Of Telomeric silencing
5618 at
            4422.8
Protein phosphatase type 2C
5619 at
            5129.3
anthranilate synthase Component I
5620 at
            7617.9
vitamin B12-(cobalamin)-independent isozyme of methionine synthase (also called
N5-methyltetrahydrofolate homocysteine methyltransferase or 5-methyltetrahydropteroyl triglutamate
homocysteine methyltransferase)
5621 at
            1132.0
                         Ρ
hypothetical protein
5622_at
            882.5
weak similarity to S.epidermidis PepB protein
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5623_at
                         Ρ
            588.8
similarity to hypothetical protein YBL059w
5624 at
            45.8
similarity to hypothetical protein YBL059w
5625 at
            8212.3
                        Ρ
20S proteasome subunit (beta3)
5626 at
            2359.2
RecA homology; Rad51p colocalizes to ~65 spots with Dmc1p prior to synapsis (independently of ZIP1
and DMC1), and interacts with Rad52p and Rad55p by two-hybrid analysis\; human Rad51p homolog
interacts with Brca2 protein which has been implicated in causing breast cancer
5627 at
            -59.9
sporulation-specific homolog of csd4
5628 at
            -10.7
weak similarity to ribosomal S3 proteins
5629 at
            -98.6
                        Α
ubiquitin carboxyl-terminal hydrolase
5630 at
            1183.2
ribose-phosphate pyrophosphokinase 2
5631 at
            832.5
ubiquitin-conjugating enzyme
5632 at
            467.5
Protein involved in targeting of plasma membrane [H+]ATPase
5588 at
            567.6
member of 70 kDa heat shock protein family
5589 at
            325.7
                         Α
hypothetical protein
                         Ρ
5590 at
            3251.6
Nucleoporin similar to Nup157p and to mammalian Nup155p
5591 at
            67.3
                         Α
hypothetical protein
5592 at
            1516.8
homologous to S. pombe RAE1 gene\; 2-hybrid analysis demonstrates an interaction with Srp1p and
Rip1p\; copurifies with Nup116p
5593_at
            322.2
putative transcriptional activator of FLO1
5594 at
            -191.3
putative transcriptional activator of FLO1
5595_at
            5029.0
Karyopherin beta 4
5596_at
            -41.7
                         Α
transcription factor
5597 at
            2068.1
U6 snRNA associated protein
5598_at
            953.8
                         Р
similarity to Emp70p
5599 at
            1202.6
Protein which binds Bem1p and contains a proline-rich sequence, an SH3 domain, and a pleckstrin
homology domain
5600 at
            1003.7
sporulation-specific protein
5601 at
            -280.1
zinc-finger protein
                         Ρ
5602 at
            1018.7
Transmembrane osmosensor
5603 at
            865.5
weak similarity to E.herbicola tyrosine permease
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5604_at
            167.2
                         Α
questionable ORF
                         Ρ
5605 at
            8429.7
Likely to be involved in regulating INO1 expression, suppressor of a dominant nuclear mutation that is
inositol-dependent in the presence of choline
5606 at
            96.4
hypothetical protein
5607_at
            1746.5
                         Ρ
Zinc-finger-containing protein with similarity to Gcs1p and Sps18p
5608_at
            257.1
plasma membrane-bound casein kinase I homolog
5609 at
            397.6
weak similarity to Dictyostelium WD40 repeat protein 2
5565 at
            1489.9
Rsp5p encodes a hect (homologous to E6-AP C terminus) and encodes a ubiquitin-protein ligase (E3
enzyme)
5566 at
            3227.3
weak similarity to E.coli colicin N
5567 at
            1106.9
Lethal with conditional pap1 allele
5568 at
            342.7
                         Α
hypothetical protein
5569 at
            278.9
DNA polymerase alpha suppressing protein kinase
5570 at
            851.4
similarity to Msn2p and weak similarity to Msn4p
5571 at
            13114.2
Ribosomal protein S26B
                        Ρ
5572 at
            1518.3
Paralog of MDS3
5573_at
            298.1
protein phosphatase type I
5574 at
            3274.0
protein phosphatase type I
5575 at
            270.2
weak similarity to S.pombe SPBC13G1 and C.elegans F26F2.d hypothetical proteins
5576 at
            114.9
hypothetical protein
                         Ρ
5577 at
            3127.7
GDP dissociation inhibitor
5578 at
            250.3
weak similarity to Mycoplasma hominis P120 protein
5579_at
            105.7
similarity to hypothetical protein YDR066c
5580 at
            524.4
                         Ρ
hypothetical protein
5581 at
            3165.9
cytochrome oxidase assembly factor
5582_at
            56.2
3-methyladenine DNA glycosylase
5583_at
            1033.9
                         Ρ
DNA Damage Inducible
                         Ρ
5584 at
            619.9
Putative Ubiquitin-specific protease
5585_at
            2494.0
Iron permease
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5586_at
                         Ρ
            1921.4
Sm-like protein
5587 at
            199.6
                         Α
weak similarity to mouse NAD(P)H dehydrogenase (quinone)
5542 at
            3643.0
TATA-binding protein (tflld)
5543 at
            491.7
Protein with coiled-coil domain
5544 at
            357.8
strong similarity to putative cell surface glycoprotein Sed1p
5545 at
            1804.2
Ubiquitin-specific protease
5546 at
            3427.7
weak similarity to E.coli hypothetical protein f470
5547 at
            12058.9
                         Α
translational activator of cytochrome c oxidase subunit III
5548 at
            3376.1
Required for correct assembly of the cytochrome c oxidase and the ATP synthase complex
5549 at
            2155.5
Rho-type GTPase activating protein (GAP)
5550 at
            3020.0
similarity to hypothetical C. elegans protein C27H6.5
5551 at
            372.3
                         Α
hypothetical protein
5552 at
            394.4
                         Μ
weak similarity to Afr1p
5553_at
            2426.8
Transcriptional regulator which functions in modulating the activity of the general transcription machinery
in vivo
                         Р
            637.0
5554 at
non-specific DNA binding protein (sin1)
5555_at
            160.0
Nucleotide excision repair protein
5556_at
            803.5
weak similarity to E.coli cation transport protein
5557 at
            624.3
                         Ρ
transcriptional regulator
5558 at
            16109.7
Poly(A) binding protein, cytoplasmic and nuclear
5559_at
            1521.5
similarity to ATPase P.falciparum ATPase 2
            750.5
5560 at
SerineVthreonine protein kinase
            412.0
5561_at
tRNA nucleotidyltransferase (tRNA CCA-pyrophosphorylase)
5562 at
            53.2
Repressor of PHR1 transcription\; binds to PHR1 URS
5563 at
            501.7
Adenylate kinase (mitochondrial GTP:AMP phosphotransferase)
5564 at
            780.3
DNA repair helicase component of transcription factor b
5520_at
            1247.5
putative ATP-dependent RNA helicase
            510.1
5521_at
checkpoint protein
5522_at
            389.6
                         Α
```

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similarity to Legionella glutaredoxin-like protein
5523 at
            421.0
similarity to hypothetical protein YHR209w
5524 at
            944.6
DNA Helicase I
            14348.1
5525 at
Ribosomal protein L23B (L17aB) (YL32)
5526 at
            10772.9
alpha subunit of pyruvate dehydrogenase (E1 alpha)
5527 at
            -2.2
meiosis-specific protein related to RecA and Rad51p. Dmc1p colocalizes with Rad51p to discrete
subnuclear sites in nuclear spreads during mid prophase, briefly colocalizes with Zip1p, and then
disappears by pachytene
5528 at
            113.3
meiosis-specific protein related to RecA and Rad51p. Dmc1p colocalizes with Rad51p to discrete
subnuclear sites in nuclear spreads during mid prophase, briefly colocalizes with Zip1p, and then
disappears by pachytene
5529 at
            291.7
Meiosis-specific protein required for spore formation
5530_at
            264.5
                         Α
questionable ORF
5531 at
            436.0
                         Α
hypothetical protein
5532 at
            745.3
similarity to human 5,10-methenyltetrahydrofolate synthetase
5533 at
            -109.0
similarity to multidrug resistance proteins Pdr3p and Pdr1p
5534 at
            142.2
strong similarity to Rtm1p
            566.6
5535 at
weak similarity to hypothetical protein YMR316w
5536_at
            373.9
similarity to killer toxin KHS precursor
5537_at
            236.8
                         Α
hypothetical protein
                         Ρ
5538 at
            1864.1
Translocase in inner membrane of mitochondria involved in mitochondrial protein import
5539_at
            256.5
                         Α
hypothetical protein
5540_at
            -72.1
                         Α
hypothetical protein identified by SAGE
5541 at
            498.1
                         Α
questionable ORF
                         Ρ
5497_at
            470.2
questionable ORF
5498 at
            108.4
                         Α
questionable ORF
5499 at
            261.4
                         Α
questionable ORF
                         Ρ
5500 at
            553.1
questionable ORF
5501_at
            -78.2
                         Α
questionable ORF
5502_at
            68.2
                         Α
questionable ORF
5503_at
            99.2
                         Α
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questionable ORF
5504 at
            -84.2
                         Α
questionable ORF
5505 at
            -54.2
                         Α
hypothetical protein
5506_s_at 493.9
                         Α
ubiquitin-conjugating enzyme\; ubiquitin-protein ligase
5507_at
            1029.0
non-annotated SAGE orf Found forward in NC_001137 between 67199 and 67363 with 100% identity.
See citation Velculescu, V.E., et al. (1997) Characterization of the yeast transcriptome. Cell 8:243-251
5508 at
            -982.8
non-annotated SAGE orf Found reverse in NC 001137 between 159380 and 159517 with 100% identity.
See citation Velculescu, V.E., et al. (1997) Characterization of the yeast transcriptome. Cell 8:243-251
non-annotated SAGE orf Found reverse in NC 001137 between 187315 and 187524 with 100% identity.
See citation Velculescu, V.E., et al. (1997) Characterization of the yeast transcriptome. Cell 8:243-251
5510 at
            -50.2
non-annotated SAGE orf Found reverse in NC 001137 between 251194 and 251418 with 100% identity.
See citation Velculescu, V.E., et al. (1997) Characterization of the yeast transcriptome. Cell 8:243-251
5511 at
            1417.4
non-annotated SAGE orf Found reverse in NC_001137 between 288425 and 288625 with 100% identity.
See citation Velculescu, V.E., et al. (1997) Characterization of the yeast transcriptome. Cell 8:243-251
non-annotated SAGE orf Found reverse in NC 001137 between 550562 and 550699 with 100% identity.
See citation Velculescu, V.E., et al. (1997) Characterization of the yeast transcriptome. Cell 8:243-251
5513 at
            165.1
non-annotated SAGE orf Found reverse in NC 001137 between 90086 and 90226 with 100% identity.
See citation Velculescu, V.E., et al. (1997) Characterization of the yeast transcriptome. Cell 8:243-251
5514 at
            4182.6
non-annotated SAGE orf Found reverse in NC 001137 between 31419 and 31562 with 100% identity.
See citation Velculescu, V.E., et al. (1997) Characterization of the yeast transcriptome. Cell 8:243-251
non-annotated SAGE orf Found reverse in NC 001137 between 64206 and 64373 with 100% identity.
See citation Velculescu, V.E., et al. (1997) Characterization of the yeast transcriptome. Cell 8:243-251
5516 at
            5417.2
non-annotated SAGE orf Found reverse in NC 001137 between 67364 and 67504 with 100% identity.
See citation Velculescu, V.E., et al. (1997) Characterization of the yeast transcriptome. Cell 8:243-251
5517 at
            17725.6
non-annotated SAGE orf Found reverse in NC 001137 between 122338 and 122532 with 100% identity.
See citation Velculescu, V.E., et al. (1997) Characterization of the yeast transcriptome. Cell 8:243-251
non-annotated SAGE orf Found forward in NC 001137 between 251443 and 251697 with 100% identity.
See citation Velculescu, V.E., et al. (1997) Characterization of the yeast transcriptome. Cell 8:243-251
5519_at
            83.3
non-annotated SAGE orf Found reverse in NC 001137 between 258517 and 258651 with 100% identity.
See citation Velculescu, V.E., et al. (1997) Characterization of the yeast transcriptome. Cell 8:243-251
non-annotated SAGE orf Found reverse in NC 001137 between 308191 and 308394 with 100% identity.
See citation Velculescu, V.E., et al. (1997) Characterization of the yeast transcriptome. Cell 8:243-251
5474 at
non-annotated SAGE orf Found reverse in NC 001137 between 314164 and 314310 with 100% identity.
See citation Velculescu, V.E., et al. (1997) Characterization of the yeast transcriptome. Cell 8:243-251
5475 at
            808.3
non-annotated SAGE orf Found forward in NC_001137 between 401911 and 402066 with 100% identity.
See citation Velculescu, V.E., et al. (1997) Characterization of the yeast transcriptome. Cell 8:243-251
5476_at
            3125.1
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non-annotated SAGE orf Found reverse in NC_001137 between 407032 and 407214 with 100% identity.
See citation Velculescu, V.E., et al. (1997) Characterization of the yeast transcriptome. Cell 8:243-251
            3480.2
non-annotated SAGE orf Found reverse in NC 001137 between 499172 and 499306 with 100% identity.
See citation Velculescu, V.E., et al. (1997) Characterization of the yeast transcriptome. Cell 8:243-251
5478 i at
            337.5
non-annotated SAGE orf Found reverse in NC_001137 between 561482 and 561634 with 100% identity.
See citation Velculescu, V.E., et al. (1997) Characterization of the yeast transcriptome. Cell 8:243-251
5479 r at 44.2
non-annotated SAGE orf Found reverse in NC_001137 between 561482 and 561634 with 100% identity.
See citation Velculescu, V.E., et al. (1997) Characterization of the yeast transcriptome. Cell 8:243-251
            629.9
non-annotated SAGE orf Found reverse in NC 001137 between 561482 and 561634 with 100% identity.
See citation Velculescu, V.E., et al. (1997) Characterization of the yeast transcriptome. Cell 8:243-251
5481 at
            -20.4
non-annotated SAGE orf Found reverse in NC 001137 between 84843 and 84983 with 100% identity.
See citation Velculescu, V.E., et al. (1997) Characterization of the yeast transcriptome. Cell 8:243-251
5482 at
non-annotated SAGE orf Found reverse in NC 001137 between 118455 and 118607 with 100% identity.
See citation Velculescu, V.E., et al. (1997) Characterization of the yeast transcriptome. Cell 8:243-251
non-annotated SAGE orf Found forward in NC_001137 between 251078 and 251278 with 100% identity.
See citation Velculescu, V.E., et al. (1997) Characterization of the yeast transcriptome. Cell 8:243-251
5484 at
            115.6
non-annotated SAGE orf Found forward in NC 001137 between 303311 and 303496 with 100% identity.
See citation Velculescu, V.E., et al. (1997) Characterization of the yeast transcriptome. Cell 8:243-251
non-annotated SAGE orf Found reverse in NC 001137 between 545280 and 545498 with 100% identity.
See citation Velculescu, V.E., et al. (1997) Characterization of the yeast transcriptome. Cell 8:243-251
5486 at
non-annotated SAGE orf Found reverse in NC_001137 between 15653 and 15832 with 100% identity.
See citation Velculescu, V.E., et al. (1997) Characterization of the yeast transcriptome. Cell 8:243-251
5487 at
non-annotated SAGE orf Found reverse in NC_001137 between 46025 and 46180 with 100% identity.
See citation Velculescu, V.E., et al. (1997) Characterization of the yeast transcriptome. Cell 8:243-251
non-annotated SAGE orf Found reverse in NC_001137 between 117014 and 117220 with 100% identity.
See citation Velculescu, V.E., et al. (1997) Characterization of the yeast transcriptome. Cell 8:243-251
5489 at
non-annotated SAGE orf Found reverse in NC_001137 between 117183 and 117380 with 100% identity.
See citation Velculescu, V.E., et al. (1997) Characterization of the yeast transcriptome. Cell 8:243-251
5490 at
            -124.7
non-annotated SAGE orf Found reverse in NC_001137 between 135405 and 135575 with 100% identity.
See citation Velculescu, V.E., et al. (1997) Characterization of the yeast transcriptome. Cell 8:243-251
non-annotated SAGE orf Found reverse in NC 001137 between 137782 and 137961 with 100% identity.
See citation Velculescu, V.E., et al. (1997) Characterization of the yeast transcriptome. Cell 8:243-251
5492 at
            -107.6
non-annotated SAGE orf Found reverse in NC_001137 between 144048 and 144257 with 100% identity.
See citation Velculescu, V.E., et al. (1997) Characterization of the yeast transcriptome. Cell 8:243-251
5493 at
            113.8
non-annotated SAGE orf Found forward in NC_001137 between 167407 and 167559 with 100% identity.
See citation Velculescu, V.E., et al. (1997) Characterization of the yeast transcriptome. Cell 8:243-251
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non-annotated SAGE orf Found reverse in NC_001137 between 177402 and 177560 with 100% identity. See citation Velculescu, V.E., et al. (1997) Characterization of the yeast transcriptome. Cell 8:243-251

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5495_at
            12.7
non-annotated SAGE orf Found forward in NC 001137 between 194842 and 194988 with 100% identity.
See citation Velculescu, V.E., et al. (1997) Characterization of the yeast transcriptome. Cell 8:243-251
5496 g at -20.3
non-annotated SAGE orf Found forward in NC 001137 between 194842 and 194988 with 100% identity.
See citation Velculescu, V.E., et al. (1997) Characterization of the yeast transcriptome. Cell 8:243-251
non-annotated SAGE orf Found reverse in NC 001137 between 225472 and 225738 with 100% identity.
See citation Velculescu, V.E., et al. (1997) Characterization of the yeast transcriptome. Cell 8:243-251
non-annotated SAGE orf Found reverse in NC 001137 between 225472 and 225738 with 100% identity.
See citation Velculescu, V.E., et al. (1997) Characterization of the yeast transcriptome. Cell 8:243-251
5451 at
non-annotated SAGE orf Found forward in NC 001137 between 249314 and 249451 with 100% identity.
See citation Velculescu, V.E., et al. (1997) Characterization of the yeast transcriptome. Cell 8:243-251
non-annotated SAGE orf Found forward in NC 001137 between 284319 and 284474 with 100% identity.
See citation Velculescu, V.E., et al. (1997) Characterization of the yeast transcriptome. Cell 8:243-251
non-annotated SAGE orf Found forward in NC_001137 between 284585 and 284719 with 100% identity.
See citation Velculescu, V.E., et al. (1997) Characterization of the yeast transcriptome. Cell 8:243-251
5454 at
non-annotated SAGE orf Found forward in NC 001137 between 289637 and 289906 with 100% identity.
See citation Velculescu, V.E., et al. (1997) Characterization of the yeast transcriptome. Cell 8:243-251
non-annotated SAGE orf Found reverse in NC_001137 between 311731 and 311907 with 100% identity.
See citation Velculescu, V.E., et al. (1997) Characterization of the yeast transcriptome. Cell 8:243-251
5456 at
non-annotated SAGE orf Found reverse in NC 001137 between 312162 and 312425 with 100% identity.
See citation Velculescu, V.E., et al. (1997) Characterization of the yeast transcriptome. Cell 8:243-251
5457 at
non-annotated SAGE orf Found forward in NC_001137 between 382263 and 382427 with 100% identity.
See citation Velculescu, V.E., et al. (1997) Characterization of the yeast transcriptome. Cell 8:243-251
non-annotated SAGE orf Found forward in NC_001137 between 434581 and 434727 with 100% identity.
See citation Velculescu, V.E., et al. (1997) Characterization of the yeast transcriptome. Cell 8:243-251
5459 at
            -173.8
non-annotated SAGE orf Found forward in NC_001137 between 434925 and 435077 with 100% identity.
See citation Velculescu, V.E., et al. (1997) Characterization of the yeast transcriptome. Cell 8:243-251
5460 at
            2157.2
non-annotated SAGE orf Found reverse in NC 001137 between 467935 and 468081 with 100% identity.
See citation Velculescu, V.E., et al. (1997) Characterization of the yeast transcriptome. Cell 8:243-251
non-annotated SAGE orf Found reverse in NC_001137 between 504589 and 504738 with 100% identity.
See citation Velculescu, V.E., et al. (1997) Characterization of the yeast transcriptome. Cell 8:243-251
5462 at
            134.6
non-annotated SAGE orf Found forward in NC 001137 between 564706 and 564843 with 100% identity.
See citation Velculescu, V.E., et al. (1997) Characterization of the yeast transcriptome. Cell 8:243-251
non-annotated SAGE orf Found reverse in NC 001137 between 52351 and 52515 with 100% identity.
See citation Velculescu, V.E., et al. (1997) Characterization of the yeast transcriptome. Cell 8:243-251
           1129.7
non-annotated SAGE orf Found reverse in NC 001137 between 52351 and 52515 with 100% identity.
See citation Velculescu, V.E., et al. (1997) Characterization of the yeast transcriptome. Cell 8:243-251
5465 f at 4459.5
non-annotated SAGE orf Found reverse in NC_001137 between 52351 and 52515 with 100% identity.
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See citation Velculescu, V.E., et al. (1997) Characterization of the yeast transcriptome. Cell 8:243-251
5466 i at
           -156.8
non-annotated SAGE orf Found reverse in NC 001137 between 52391 and 52549 with 100% identity.
See citation Velculescu, V.E., et al. (1997) Characterization of the yeast transcriptome. Cell 8:243-251
non-annotated SAGE orf Found reverse in NC 001137 between 52391 and 52549 with 100% identity.
See citation Velculescu, V.E., et al. (1997) Characterization of the yeast transcriptome. Cell 8:243-251
5468 at
non-annotated SAGE orf Found forward in NC_001137 between 77473 and 77622 with 100% identity.
See citation Velculescu, V.E., et al. (1997) Characterization of the yeast transcriptome. Cell 8:243-251
5469 at
non-annotated SAGE orf Found forward in NC 001137 between 84901 and 85035 with 100% identity.
See citation Velculescu, V.E., et al. (1997) Characterization of the yeast transcriptome. Cell 8:243-251
            1128.2
non-annotated SAGE orf Found forward in NC 001137 between 89863 and 90009 with 100% identity.
See citation Velculescu, V.E., et al. (1997) Characterization of the yeast transcriptome. Cell 8:243-251
5471 at
            10977.1
non-annotated SAGE orf Found forward in NC 001137 between 122467 and 122670 with 100% identity.
See citation Velculescu, V.E., et al. (1997) Characterization of the yeast transcriptome. Cell 8:243-251
5472_at
            -205.8
non-annotated SAGE orf Found reverse in NC_001137 between 212096 and 212341 with 100% identity.
See citation Velculescu, V.E., et al. (1997) Characterization of the yeast transcriptome. Cell 8:243-251
non-annotated SAGE orf Found reverse in NC 001137 between 212169 and 212351 with 100% identity.
See citation Velculescu, V.E., et al. (1997) Characterization of the yeast transcriptome. Cell 8:243-251
5437 s at 49.2
non-annotated SAGE orf Found reverse in NC 001137 between 212169 and 212351 with 100% identity.
See citation Velculescu, V.E., et al. (1997) Characterization of the yeast transcriptome. Cell 8:243-251
5438 at
non-annotated SAGE orf Found reverse in NC 001137 between 250626 and 250775 with 100% identity.
See citation Velculescu, V.E., et al. (1997) Characterization of the yeast transcriptome. Cell 8:243-251
non-annotated SAGE orf Found forward in NC 001137 between 272216 and 272383 with 100% identity.
See citation Velculescu, V.E., et al. (1997) Characterization of the yeast transcriptome. Cell 8:243-251
5440 at
            155.7
non-annotated SAGE orf Found forward in NC 001137 between 367587 and 367721 with 100% identity.
See citation Velculescu, V.E., et al. (1997) Characterization of the yeast transcriptome. Cell 8:243-251
5441 at
non-annotated SAGE orf Found forward in NC 001137 between 412758 and 412901 with 100% identity.
See citation Velculescu, V.E., et al. (1997) Characterization of the yeast transcriptome. Cell 8:243-251
non-annotated SAGE orf Found forward in NC 001137 between 422493 and 422669 with 100% identity.
See citation Velculescu, V.E., et al. (1997) Characterization of the yeast transcriptome. Cell 8:243-251
5443_g_at -440.0
non-annotated SAGE orf Found forward in NC 001137 between 422493 and 422669 with 100% identity.
See citation Velculescu, V.E., et al. (1997) Characterization of the yeast transcriptome. Cell 8:243-251
non-annotated SAGE orf Found forward in NC 001137 between 422560 and 422781 with 100% identity.
See citation Velculescu, V.E., et al. (1997) Characterization of the yeast transcriptome. Cell 8:243-251
non-annotated SAGE orf Found reverse in NC 001137 between 441063 and 441299 with 100% identity.
See citation Velculescu, V.E., et al. (1997) Characterization of the yeast transcriptome. Cell 8:243-251
5446 r at 13.9
non-annotated SAGE orf Found reverse in NC_001137 between 441063 and 441299 with 100% identity.
See citation Velculescu, V.E., et al. (1997) Characterization of the yeast transcriptome. Cell 8:243-251
5447_at
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1639.9

```
non-annotated SAGE orf Found forward in NC_001137 between 546517 and 546675 with 100% identity.
See citation Velculescu, V.E., et al. (1997) Characterization of the yeast transcriptome. Cell 8:243-251
5448 at
            553.6
snRNA
5412 at
            111.5
                        Α
snRNA
5413_at
            1247.2
                        Ρ
RNase P RNA
5414_i_at
            -9.4
                        Α
Centromere
5415_r_at
            24.0
                        Α
Centromere
            183.3
5416 at
snRNA R14
            2635.2
                        Ρ
5417 at
snRNA U4
5418 at
            526.2
                        Α
snRNA
5419 at
            1133.2
                        Ρ
small cytoplasmic RNA
5420_s_at 3672.2
                        Α
weak similarity to hypothetical E.coli protein
5421 i at
           -271.5
similarity to mouse period clock protein
5422 s at 657.2
similarity to mouse period clock protein
5423 s at 507.3
strong similarity to aryl-alcohol dehydrogenases
5424 at
            110.8
Hypothetical aryl-alcohol dehydrogenase (AAD)
5425 at
            60.2
                        Α
Amino acid permease
5426 at
            208.8
                        Α
similarity to channel proteins
5427 at
            18.7
dihydroxyacetone kinase
5428 at
            34.9
strong similarity to Mal63p, YPR196w and Mal13p
5429 at
            -155.3
putative pseudogene
5430 at
            291.3
                        Μ
ALuminium Resistance 2
5431_at
            476.8
                        Α
weak similarity to Npl6p
                        Ρ
5432 at
            1511.8
47 kDa type I transmembrane protein localized to the Golgi
5433 at
            1000.0
similarity to S.pombe hypothetical protein SPAC2F7.18c
5434 at
            335.9
weak similarity to middle part of C.elegans myosin heavy chain A
5435 at
            11655.2
phosphomannomutase
                        Ρ
5389 at
            613.1
weak similarity to human dystrophin
5390 at
            1413.6
multicopper oxidase, type 1 integral membrane protein
```

```
5391_at
            -8.1
similarity to yeast glucose transport proteins
5392 at
            84781.9
Actin
5393 at
            8574.2
Ras-like GTP-binding protein\; most similar to mammalian Rab1A protein
5394 at
            12246.6
beta-tubulin
5395 at
            2118.4
mitochondrial RNA polymerase II
            4975.0
5396 at
Ribosomal protein L22B (L1c) (rp4) (YL31)
5397 at
            228.6
similarity to hypothetical S. pombe protein and to C.elegans F35D11 protein
5398 at
            615.0
Trehalose-associated protein kinase related to S. pombe cek1+
5399 at
            10.2
questionable ORF
5400 at
            128.7
similarity to several transaminases
5401 at
            914.7
Cyclin-dependent kinase-activating kinase
5402 at
            593.9
                         Μ
ABC ATPase
5403 at
            499.5
weak similarity to P.falciparum Pfmdr2 protein
5404 at
            -141.8
alpha-factor pheromone receptor\; seven-transmembrane domain protein
            665.0
5405 at
                         Ρ
Negatively regulates COPII vesicle formation
5406 at
            438.9
Probable chromatin protein because of homology to Drosophila Enahncer of Polycomb
5407 at
            847.6
similarity to repeat structures in a Plasmodium falciparum protein (MESA) that binds human erythrocyte
protein 4.1.
5408 at
            6775.0
Phenylalanyl-tRNA synthetase, beta subunit, cytoplasmic
5409 at
            294.6
transcriptional activator with GATA-1-type Zn finger DNA-binding motif
5410_f_at
            917.1
member of the seripauperin protein/gene family (see Gene class PAU)
5411 at
            -58.9
hypothetical protein
            9367.8
5367_at
dihydrolipoamide dehydrogenase precursor (mature protein is the E3 component of alpha-ketoacid
dehydrogenase complexes)
5368 at
            810.6
snRNP G protein (the homologue of the human Sm-G)
5369 at
            1533.1
similarity to hypothetical S. pombe protein and to hypothetical C.elegans B0024.12 protein
5370 at
            1677.0
DnaJ homolog involved in mitochondrial biogenesis and protein folding
            -142.5
5371 at
weak similarity to YDR504c
            450.6
5372 at
12 kDa heat shock protein
```

```
5373_at
            728.5
weak similarity to Dictyostelium protein kinase
5374 at
            -121.7
questionable ORF
5375 at
            -46.7
                         Α
hypothetical protein
5376_at
            -129.1
High-affinity hexose transporter
5377_at
            1244.8
Involved in ammonia regulation of GAP1 activity
5378 at
            8963.8
questionable ORF
            631.2
5379 at
beta subunit of large (heterotrimeric) G-proteins (beta-transducin)
5380 at
            1495.0
omosome segregation protein
5381 at
            784.2
weak similarity to Mms19p
5382 at
            1624.1
hypothetical protein
5383 at
            2050.9
Ras-like small GTP-binding protein
5384 at
            8562.7
strong similarity to hypothetical protein YPL019c
5385 at
            98.7
meiosis specific protein, E.coli MutS protein, localizes to discrete sites on meiotic chromosomes
5386 at
            1661.9
ATP-dependent RNA helicase
5387 at
            791.6
Depressed growth-rate protein
5388 at
            2072.8
weak similarity to rabbit triadin Spp41p
5344 at
            848.6
96 kDa nucleoporin-interacting component
5345 at
            688.5
hypothetical protein
5346 at
            5812.9
Similar to S. pombe PAD1 gene product
5347 at
            313.0
similarity to hypothetical A. thaliana proteins
            3596.8
5348 at
similarity to X-Pro dipeptidases
5349_at
            315.0
weak similarity to YER176w
5350 at
            -39.6
weak similarity to human centromere protein E
5351 at
            3714.8
Member of ATP-binding cassette (ABC) family of proteins
            3480.3
5352 at
encodes putative deubiquitinating enzyme
5353_at
            1012.5
ochre suppressor tyr-tRNA
5354 at
            -324.2
similarity to hypothetical protein YOL019w
5355_at
            848.1
                         Р
similarity to YOL017w
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5356_at
            437.6
Calmodulin-dependent protein kinase
5357 at
            211.2
Glycogen synthase (UDP-gluocse--starch glucosyltransferase)
5358 at
            1073.3
similarity to mammalian neurofilament proteins and to Dictyostelium protein kinase
5359 at
            720.0
hypothetical protein
5360 at
            2800.3
similarity to human glutaminyl-peptide cyclotransferase
5361 at
            2096.9
type II PI(4)P5-kinase (PIP4,5 kinase) similar to human PIP5K-II
5362 at
            803.9
hypothetical protein
                         Ρ
5363 at
            1057.3
similarity to hypothetical protein YPL100w
5364 at
            424.7
similarity to Rod1p
5365 at
            78.3
poly(A) binding protein\; related to PES4 protein homolog YHR015w
5366 s at 2126.5
similarity to Acanthamoeba myosin heavy chain IC and weak similarity to other myosin class I heavy
chains
5322 at
                         Α
            340.3
Histidinolphosphatase
5323 at
            -159.3
                         Α
hypothetical protein
5324 at
            -145.7
                         Α
hypothetical protein
                         Ρ
            2141.1
5325 at
soluble tyrosine-specific protein phosphatase
5326_at
            255.9
Regulator of expression of the PTR2, GAP1, and BAP2 genes\; involved in the the control of peptide
transport
5327 at
            821.4
                         Ρ
subunit of assimilatory sulfite reductase
5328 at
            1358.1
                         Ρ
nuclear protein related to ScII (chicken), XCAPE (xenopus), and cut14 (S. pombe)\; involved in
chromosome segregation and condensation, interacts with Smc1p and Trf4p
5329_s_at 117410.0
Ribosomal protein L2A (L5A) (rp8) (YL6)
5330 at
            54.5
weak similarity to S.pombe polyadenylate-binding protein, YPR112c and Sbp1p
            26465.1
5331_at
Ribosomal protein L29 (YL43)
5332 at
            6796.8
ubiquinol-cytochrome c oxidoreductase subunit 6 (17 kDa)
5333 at
            173.4
myc-type helix-loop-helix transcription factor
5334 at
            220.1
hypothetical protein
                         Ρ
5335_at
            1333.2
cell division control protein
5336 at
            2361.6
Rsc8 is the eighth largest subunit of RSC, a fifteen-protein chromatin remodeling complex and related to
the SwiVsnf Complex.
```

```
5337_at
            149.8
strong similarity to mouse lymphocyte specific helicase
5338 at
            639.3
similarity to hypothetical protein YGL228w
5339 at
            430.3
155 kDa SIT4 protein phosphatase-associated protein
5340 at
            627.4
weak similarity to dnaJ-like heat shock proteins
5341 at
            497.9
hypothetical protein
5342 at
            445.7
                         Α
hypothetical protein
                         Ρ
5343 at
            13772.6
similarity to hypothetical protein YBR281c
5299 at
            375.6
                        Ρ
similarity to mitochondrial citrate transport proteins
5300 at
            31.6
hypothetical protein
5301 at
            2814.3
strong similarity to human quinolinate phosphoribosyltransferase
5302 at
            210.4
similarity to hypothetical S.pombe protein SPAC12G12.14 and to YDL001w and YDR282c
5303 at
            1653.5
mitochondrial ribosomal protein (precursor)
5304 at
            5495.9
proteasome subunit necessary for peptidyl glutamyl peptide hydrolyzing activity
5305 at
            2828.5
Coatomer (COPI) complex delta subunit
5306 at
            1828.1
cytoplasmic 32 - 34 kDa protein
5307 at
            797.3
Hexokinase I (PI) (also called Hexokinase A)
5308 at
            -209.4
hypothetical protein
5309 at
            -159.4
                         Α
questionable ORF
5310 at
            662.4
strong similarity to beta-cystathionases
5311 at
            -56.8
weak similarity to Cha4p
                         Ρ
5312 s at 372.5
hypothetical protein
5313_s_at 1536.3
Mob1p-like protein
5314 at
            170.9
                         Α
hypothetical protein
5315 at
            279.5
                         Α
questionable ORF
5316_at
                         Ρ
            1076.6
questionable ORF
5317_s_at 326.3
similarity to hypothetical protein YLR072w
5318 s at 2872.0
bZIP (basic-leucine zipper) protein
5319_at
            3522.2
non-annotated SAGE orf Found reverse in NC_001138 between 76336 and 76470 with 100% identity.
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See citation Velculescu, V.E., et al. (1997) Characterization of the yeast transcriptome. Cell 8:243-251
5320 at
            4.7
non-annotated SAGE orf Found forward in NC 001138 between 101436 and 101573 with 100% identity.
See citation Velculescu, V.E., et al. (1997) Characterization of the yeast transcriptome. Cell 8:243-251
non-annotated SAGE orf Found forward in NC 001138 between 234229 and 234471 with 100% identity.
See citation Velculescu, V.E., et al. (1997) Characterization of the yeast transcriptome. Cell 8:243-251
non-annotated SAGE orf Found reverse in NC_001138 between 44407 and 44547 with 100% identity.
See citation Velculescu, V.E., et al. (1997) Characterization of the yeast transcriptome. Cell 8:243-251
5275 i at
non-annotated SAGE orf Found reverse in NC 001138 between 101326 and 101529 with 100% identity.
See citation Velculescu, V.E., et al. (1997) Characterization of the yeast transcriptome. Cell 8:243-251
non-annotated SAGE orf Found reverse in NC 001138 between 101326 and 101529 with 100% identity.
See citation Velculescu, V.E., et al. (1997) Characterization of the yeast transcriptome. Cell 8:243-251
5277 at
            5983.7
non-annotated SAGE orf Found reverse in NC 001138 between 224760 and 224996 with 100% identity.
See citation Velculescu, V.E., et al. (1997) Characterization of the yeast transcriptome. Cell 8:243-251
5278 at
            422.7
non-annotated SAGE orf Found forward in NC_001138 between 226566 and 226700 with 100% identity.
See citation Velculescu, V.E., et al. (1997) Characterization of the yeast transcriptome. Cell 8:243-251
non-annotated SAGE orf Found reverse in NC 001138 between 184330 and 184470 with 100% identity.
See citation Velculescu, V.E., et al. (1997) Characterization of the yeast transcriptome. Cell 8:243-251
5280 i at
            -207.6
non-annotated SAGE orf Found reverse in NC 001138 between 5806 and 6033 with 100% identity. See
citation Velculescu, V.E., et al. (1997) Characterization of the yeast transcriptome. Cell 8:243-251
5281 f at -92.9
non-annotated SAGE orf Found reverse in NC 001138 between 5806 and 6033 with 100% identity. See
citation Velculescu, V.E., et al. (1997) Characterization of the yeast transcriptome. Cell 8:243-251
non-annotated SAGE orf Found reverse in NC 001138 between 48096 and 48248 with 100% identity.
See citation Velculescu, V.E., et al. (1997) Characterization of the yeast transcriptome. Cell 8:243-251
5283 at
non-annotated SAGE orf Found forward in NC 001138 between 48548 and 48715 with 100% identity.
See citation Velculescu, V.E., et al. (1997) Characterization of the yeast transcriptome. Cell 8:243-251
non-annotated SAGE orf Found forward in NC 001138 between 48735 and 48926 with 100% identity.
See citation Velculescu, V.E., et al. (1997) Characterization of the yeast transcriptome. Cell 8:243-251
non-annotated SAGE orf Found reverse in NC 001138 between 111442 and 111588 with 100% identity.
See citation Velculescu, V.E., et al. (1997) Characterization of the yeast transcriptome. Cell 8:243-251
5286_at
            -169.1
non-annotated SAGE orf Found forward in NC 001138 between 119115 and 119252 with 100% identity.
See citation Velculescu, V.E., et al. (1997) Characterization of the yeast transcriptome. Cell 8:243-251
non-annotated SAGE orf Found forward in NC 001138 between 184290 and 184454 with 100% identity.
See citation Velculescu, V.E., et al. (1997) Characterization of the yeast transcriptome. Cell 8:243-251
non-annotated SAGE orf Found forward in NC 001138 between 265809 and 265952 with 100% identity.
See citation Velculescu, V.E., et al. (1997) Characterization of the yeast transcriptome. Cell 8:243-251
5289 at
            486.1
non-annotated SAGE orf Found forward in NC_001138 between 27951 and 28130 with 100% identity.
See citation Velculescu, V.E., et al. (1997) Characterization of the yeast transcriptome. Cell 8:243-251
5290_at
            -48.5
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non-annotated SAGE orf Found forward in NC_001138 between 97531 and 97710 with 100% identity.
See citation Velculescu, V.E., et al. (1997) Characterization of the yeast transcriptome. Cell 8:243-251
5291 at
            360.0
non-annotated SAGE orf Found forward in NC 001138 between 161226 and 161405 with 100% identity.
See citation Velculescu, V.E., et al. (1997) Characterization of the yeast transcriptome. Cell 8:243-251
5292 at
            683.2
non-annotated SAGE orf Found reverse in NC_001138 between 181991 and 182221 with 100% identity.
See citation Velculescu, V.E., et al. (1997) Characterization of the yeast transcriptome. Cell 8:243-251
5293 g at 100.6
non-annotated SAGE orf Found reverse in NC_001138 between 181991 and 182221 with 100% identity.
See citation Velculescu, V.E., et al. (1997) Characterization of the yeast transcriptome. Cell 8:243-251
5294 at
ARS605 Found forward in NC 001138 between 135973 and 136029 with 100% identity.
5295 f at
            282.4
ARS607 Found forward in NC 001138 between 199390 and 199446 with 100% identity.
5296 i at
            -289.1
ARS608 Found forward in NC 001138 between 216458 and 216508 with 100% identity.
5297 at
Protein with strong similarity to subtelomerically-encoded proteins including Cos2p, Cos4p, Cos8p,
YIR040c, Cos5p, Cos9p, and Cos6p
            -98.5
5298 at
                         Α
similarity to hypothetical protein YER187w
5251 f at
            896.6
                        Ρ
strong similarity to members of the Srp1/Tip1 family
5252 at
            47.1
GPI-anchored aspartic protease
5253 g at 101.6
GPI-anchored aspartic protease
            -239.6
5254 i at
strong similarity to hypothetical protein YOR387c
5255 s at -70.4
strong similarity to hypothetical protein YOR387c
5256 at
            388.0
                         Α
similarity to Mnn1p
5257 at
                         Ρ
            1101.1
alcohol dehydrogenase isoenzyme IV
5258 at
            1212.0
high-affinity zinc transport protein
5259 at
            359.2
putative transcription factor, has five zinc fingers
5260 at
            18840.0
Hexokinase II (PII) (also called Hexokinase B)
5261 at
            1176.9
Protein involved in interorganelle communication between mitochondria, peroxisomes, and nucleus
5262 at
            120.3
C4 zinc finger DNA-binding protein of low sequence specificity in vitro\; Probable 119 kD DNAVRNA
helicase family member
5263 at
            -137.2
                         Α
hypothetical protein
5264 at
            -118.8
Required for ZIPpering up meiotic chromosomes during chromosome synapsis
5265 at
            1559.7
3,5-Cyclic-nucleotide phosphodiesterase, low affinity
5266 at
            827.3
similarity to hypothetical protein YHR036w
```

5267_at

797.5

```
weak similarity to C.elegans dom-3 protein
5268 at
            28209.4
strong similarity to glutamine--tRNA ligase
5269_at
            438.2
Nuclear protein
5270 at
            497.8
tRNA-specific adenosine deaminase 1 (TAD1)\; Tad1p\/scADAT1
5271 at
            2995.0
weak similarity to Drosophila ANK protein
            1412.5
5272_at
                         Р
similarity to Cse1p
5273 at
            73.6
                         Α
Doc1p and Cdc26p are associated with the anaphase-promoting complex and are involved in the
degradation of Clb2p
5229 at
            265.4
                         Α
questionable ORF
5230 at
            3097.1
                         Ρ
Protein required for accurate mitotic chromosome segregation
5231 at
            -62.3
transcriptional activator protein of CYC1
5232 at
            718.3
strong similarity to gidA E.coli protein
5233 at
            -437.8
                         Α
questionable ORF
5234 at
            18884.6
                         Ρ
glycinamide ribotide synthetase and aminoimidazole ribotide synthetase
5235_at
            604.4
113kD component of the Exocyst complex, which contains the gene products encoded by SEC3, SEC5,
SEC6, SEC8, SEC10, SEC15 and EXO70.
5236 n at 25.1
weak similarity to P.falciparum dihydropteroate synthase
5237_at
            909.8
weak similarity to P.falciparum dihydropteroate synthase
5238_at
            1863.2
hypothetical protein
5239 at
            213.0
                         Α
hypothetical protein
5240 at
            693.9
SAP4 is related to SAP155, SAP185, and SAP190, all of which associate with the SIT4 protein
phosphatase
                         Ρ
5241 at
            3449.9
mRNA (identified by a library screen) that causes growth arrest when overexpressed
5242_at
            263.7
TOR inhibitor
5243 at
            5087.3
                         Ρ
9.5-kDa zeta subunit of oligosaccharyltransferase complex
5244 at
            1207.9
similarity to N.crassa cytochrome-c oxidase chain V
5245 at
            6535.0
May regulate Golgi function and glycosylation in Golgi
5246 at
            741.0
strong similarity to hypothetical protein YER037w
5247 at
            313.1
weak similarity to Clostridium regulatory protein
5248 at
            -468.9
hypothetical protein
```

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2068.6
                         Ρ
5249_at
Ngg1p-interacting factor 3
5250 at
            4259.0
weak similarity to V.alginolyticus bolA protein
5206 at
            747.2
hypothetical protein
5207_at
            57.3
                         Α
questionable ORF
5208 at
            243.2
                         Α
questionable ORF
                         Ρ
5209 at
            593.8
Kinesin-related protein
            262.3
5210 at
Cyclin-like protein that interacts with Pho85p in affinity chromatography
5211 at
            304.4
questionable ORF
5212 at
            1660.6
antiviral protein, mRNA is induced early in meiosis
5213 at
            -97.1
hydrophilic protein, heptad repeat motif
5214 at
            515.2
similarity to M.jannaschii hypothetical proteins MJ1157 and MJ1478
5215 at
            1337.0
ras-like GTPase, highly homologous to YPT31
5216 at
            1462.5
Protein containing zinc fingers very similar to zinc fingers in Mig1p
5217 at
            147.6
Member of a family of proteins, including Sip1p and Gal83p, that interact with Snf1p and Snf4p and are
involved in the response to glucose starvation
            6020.7
5218 at
transcription factor
5219_at
            3384.5
presumed vesicle coat protein
5220_at
            -19.5
fatty-acyl coenzyme A oxidase
5221_at
            658.9
                         Ρ
questionable ORF
5222 at
            839.8
carboxypeptidase B-like processing protease
5223_at
            8873.7
aromatic amino acid aminotransferase
5224 at
            915.3
Member of the MCMVP1 family of proteins involved in DNA replication
5225_at
            8923.6
type I transmemebrane protein, component of COPII-coated, ER-derived transport vesicles
            744.3
5226 at
questionable ORF
5227 at
            3171.4
                         Ρ
weak similarity to Yip1p
                         Ρ
5228 at
            607.1
Mck1 Dosage Suppressor 3\; negative regulator of early meiotic gene expression
            1901.7
5183 at
hypothetical protein
5184 at
            3148.7
translational activator of GCN4 through activation of GCN2 in response to starvation
5185_at
            99.8
```

```
Protein with similarity to Hda1p, Rpd3p, Hos1p, and Hos3p
5186 at
            877.0
questionable ORF
5187_at
            23.4
                         Α
IME4 appears to activate IME1 in response to cell-type and nutritional signals and thereby regulate
meiosis
5188 at
            4180.9
subunit VIa of cytochrome c oxidase, may specifically interact with ATP
5189 at
            263.8
Protein phosphatase 2A regulatory subunit B
5190 i at
            71734.9
Ribosomal protein S26A
                         Р
5191 f at
            87756.7
Ribosomal protein S26A
5192 at
            66.1
                         Α
hypothetical protein
5193 at
            1976.8
                         Ρ
subunit IV of cytochrome c oxidase
5194 at
            2495.8
similarity to hypothetical protein Fcy21p and weak similarity to FCY2 protein
5195 at
            1195.2
weak similarity to dehydrogenases
5196 at
            527.2
strong similarity to Emericella nidulans cystathionine beta-lyase
5197 at
            -204.1
hypothetical protein
5198 at
            402.0
                         Α
questionable ORF
                         Ρ
5199 at
            1973.7
Glycine-threonine-serine repeat protein
5200 at
            358.6
                         Α
Protein kinase
                         Ρ
5201 at
            598.9
ser/thr protein kinase
5202 at
            -29.7
                         Α
questionable ORF
5203 at
            2686.6
multicopy suppressor of POP2
5204 at
            559.7
weak similarity to Oryctolagus calcium channel BIII
5205 at
            107.2
involved in meiotic recombination and chromosome metabolism
5161 at
            428.0
weak similarity to C.elegans hypothetical protein R08D7.1
5162 at
DNA strand-transfer protein exoribonuclease I\; catalyzes the formation of hybrid DNA in vitro\; has 5
-to-3 exonuclease activity on DNA and RNA\: binds to G4 tetraplex DNA and cuts in a single-stranded
region 5 to the G4 structure\; protein increases several-fold in meiotic cells
5163 at
            2236.6
nuclear pore complex protein with GLFG repetitive sequence motif
5164 at
            2057.1
Contains domains found in the DEAD protein family of ATP-dependent RNA helicases\; high-copy
suppressor of kem1 null mutant
5165 at
            23.2
                         Α
hypothetical protein
                         Ρ
5166_at
            492.5
```

```
Protein involved in translation initiation
5167 at
            362.8
                         Α
questionable ORF
5168_at
            1870.3
                         Ρ
Ca++-Pump, ATPase
                         Ρ
5169 at
            890.0
Activator of transcription
5170 at
            503.9
                         Α
questionable ORF
                         Ρ
5171_at
            547.2
similarity to S.pombe hypothetical protein SPAC31A2.10
5172 at
            610.0
Required for X-ray damage repair, mitotic recombination, and full meiotic recombination. mRNA increases
in meiosis.
5173 at
            661.5
                         Ρ
Involved in sterol uptake
5174 at
            2432.4
                         Ρ
hypothetical protein
5175 at
            287.4
similarity to hypothetical protein YLR047c and Fre2p
5176 at
            1164.5
hypothetical protein
5177 at
            -113.7
SerineVthreonine protein kinase
5178 at
            3323.5
similarity to V.vinifera dihydroflavonol 4-reductase
5179 at
            207.0
                         Α
vacuolar alpha mannosidase
5180 at
            293.2
polypeptide subunit of a yeast type 1 protein geranylgeranyltransferase
5181_at
            792.7
aminoadipate-semialdehyde dehydrogenase small subunit (alpha-aminoadipate reductase)
5182 at
            523.6
                         Α
questionable ORF
5137 at
            675.5
Peroxisomal peripheral membrane protein (peroxin) involved in import of peroxisomal matrix proteins
5138 at
            608.5
negative regulator of URS2 of the HO promoter
5139 at
            1030.0
                         Ρ
Shows similarity to the Snf2p family of DNA-dependent ATPases
5140 at
            273.4
questionable ORF
                         Ρ
5141_at
            15912.4
Chorismate synthase
5142 i at
            23693.1
                         Ρ
Ribosomal protein L9A (L8A) (rp24) (YL11)
5143 at
            -148.3
hypothetical protein
            133.4
5144 at
transport protein that interacts with Sec20p\; required for protein transport from the endoplasmic reticulum
to the golgi apparatus
5145_at
            304.6
strong similarity to hypothetical protein YDL109c
5146 at
            249.7
Mitochondrial polypeptide chain release factor
5147_at
            576.7
```

```
Most likely an alpha 1,2 mannosyltransferase utilized for the addition of the third mannose onto the GPI
core structure.
5148 at
            675.3
similarity to human human E6-associated protein
5149 at
            642.3
weak similarity to Lactobacillus putative histidine protein kinase SppK
5150 at
            257.9
strong similarity to hypothetical protein YPL221w
5151_at
            68.5
                         Α
hypothetical protein
5152 at
            5173.4
encodes beta -subunit of yeast coatomer
5153 at
            276.7
weak similarity to E.coli ftsJ protein
                         Ρ
5154 at
            508.9
PHO85 cyclin
5155 at
            662.5
                         Ρ
similarity to hypothetical protein YPL216w
5156 at
            118.7
questionable ORF
5157_at
            267.6
                         Α
weak similarity to S.pombe hypothetical protein C3H1.12C
5158 at
            2026.1
mRNA guanylyltransferase (mRNA capping enzyme), alpha subunit
5159 at
            467.0
hypothetical protein
5160 at
            495.7
                         Α
weak similarity to rat cysteine string protein
            436.6
5115 at
SOH1 encodes a novel 14-kD protein with limited sequence similarity to RNA polymerases. The Soh1
protein interacts with a DNA repair protein, Rad5p, in a two-hybrid system assay.
5116_at
            1658.2
required for inositol prototrophy
5117_at
            1003.8
putative methylenetetrahydrofolate reductase (mthfr)
5118 at
            107.8
similarity to S.pombe hypothetical protein
            103382.1
5119 at
Ribosomal protein S2 (S4) (rp12) (YS5)
5120_at
            1396.3
                         Ρ
nuclear polyadenylated RNA binding protein
5121 at
                         Ρ
            684.1
hypothetical protein
            5701.4
5122_at
pre-mRNA processing factor involved in disassembly of spliceosomes after the release of mature mRNA
5123 at
            687.9
multicopy suppressor of a cytochrome b mRNA translation defect, essential for the electron transfer in the
bc1 complex
5124 at
            -193.7
                         Α
questionable ORF
5125_at
            77.0
                         Α
hypothetical protein
5126 at
                         Ρ
            715.2
beta-transducin homolog
5127_at
            340.9
                         Α
associates with Snf1p
```

```
5128_at
            924.8
                         Ρ
weak similarity to H.influenzae permease
5129 at
            662.1
                         М
weak similarity to YOR165w
5130 at
            2062.9
                         Р
TATA-binding protein-associated-factor
5131_at
            1647.2
hypothetical protein
5132 at
            847.2
                         Ρ
hypothetical protein
5133 at
            95.2
                         Α
questionable ORF
5134 at
            429.3
weak similarity to hypotetical S.pombe protein
            1068.6
5135 at
strong similarity to hypothetical protein YBR238c
5136 at
            3499.2
light chain for myosin Myo2p
5092 at
            9485.7
Associated with tRNA and amino acyl-tRNA synthetases\; has affinity for quadruplex nucleic acids
5093 at
            249.7
similarity to glucose transport proteins
5094 at
            66710.2
Ribosomal protein L28 (L29) (rp44) (YL24)
5095 at
            6268.7
questionable ORF
5096 at
            810.8
strong similarity to hypothetical protein YBR242w
5097 at
            1606.8
nuclear pore protein, homologous to sec13
5098 at
            1513.2
similarity to putative human GTP-binding protein MMR1
5099 at
            -51.7
hypothetical protein
5100 at
            3736.2
pheromone response pathway suppressor
5101 at
            248.2
                         Α
similarity to copper homeostasis protein Cup9p
5102 at
            408.5
cytosolic and peripheral membrane protein
5103 at
            541.1
135-kDa protein that is subunit of poly(A) ribonuclease
5104_at
            1142.3
component of spindle pole
5105 at
            2015.2
Nuclear pore complex protein with GLFG motif
5106 at
            859.6
35 kDa nucleotide binding protein
5107_at
            598.1
Ligase Interacting Factor 1\; physically interacts with DNA ligase 4 protein (Lig4p)
5108_at
            21960.9
alpha mating factor
                         Ρ
5109 at
            1356.4
questionable ORF
5110_at
            1908.7
Similar to ubiquitin conjugating protein family
```

```
5111_at
            397.2
Coiled-coil protein involved in spindle-assembly checkpoint
5112 at
            364.2
weak similarity to Staphylococcus aureus nuclease (SNase)
5113 at
            1026.8
strong similarity to hypothetical protein YPL189w
5114 at
            463.5
suppressor of GTPase mutant
5069 at
            1417.8
strong similarity to hypothetical protein YPL191c
5070 at
            104.0
hypothetical protein
5071 at
            898.1
strong similarity to C.elegans R07E5.13 protein
5072 at
            476.3
hypothetical protein
5073 at
            2863.3
ATP-dependent RNA helicase CA3 of the DEADVDEAH box family
5074 at
            5480.1
Transporter (permease) for choline and nitrogen mustard\; share homology with UGA4
5075 i at
            24890.1
Ribosomal protein L7A (L6A) (rp11) (YL8)
5076 f at
            17081.3
Ribosomal protein L7A (L6A) (rp11) (YL8)
5077 at
            -100.0
Mitotic Membrane Component
5078 at
            -25.7
                        Α
questionable ORF
            1248.2
                        Ρ
5079 at
heat shock transcription factor
5080 at
            229.0
                        Α
questionable ORF
5081 at
            500.2
Putative transcription factor that binds the consensus site PyPuCACCCPu
5082 at
            1353.7
RNA polymerase II subunit
5083 at
            -248.4
                        Α
questionable ORF
5084 at
            1138.1
                        Ρ
probable ribosomal protein L12
            1356.3
5085 at
weak similarity to H.influenzae hypothetical protein
5086_at
            959.1
hypothetical protein
5087 at
            495.1
                        Ρ
glycosyltransferase
5088 at
            446.6
similarity to YLR276c and YKR024c
5089 at
            502.6
pseudouridine synthase 2
5090_at
            2700.5
pyruvate carboxylase
5091 at
            220.0
Death Upon Overexpression
5047_at
            578.2
strong similarity to hypothetical protein YBR216c
```

```
5048_at
            20.5
similarity to rat branched-chain alpha-ketoacid dehydrogenase kinase
5049 at
            1579.0
ubiquitin conjugating (E2) enzyme, separate domains of Rad6p interact with Ubr1 (an E3 ubiquitin ligase
needed for multiubiquitination), and Rad18p (a single-stranded DNA-binding protein). The C-terminal 23
residues are critical for sporulation and histone polyubiquitinating activity, but not UV repair or induced
mutagenesis.
5050 at
            241.7
hypothetical protein
5051_at
            850.8
homologue of pombe SDS23\; localizes to spindle pole body
5052 at
            18161.7
delta-9-fatty acid desaturase
5053 at
            971.6
strong similarity to D.melagonaster cni protein
5054 at
            466.7
strong similarity to hypothetical proteins YAR031w, YGL051w, YAR028w, YAR033w and YCR007c
5055 at
            195.5
questionable ORF
5056_at
            -1.0
strong similarity to YAR033w protein
5057 at
            836.4
hypothetical protein
5058 at
            890.3
mRNA cap-binding protein (eIF-4F), 130K subunit
            9440.0
5059 at
ATPase
5060 at
            748.0
similarity to hypothetical S. pombe protein
5061 at
            116.4
hypothetical protein
5062_at
                         Ρ
            569.2
hypothetical protein
5063 at
            366.3
component of the cleavage and polyadenylation factor CF I involved in pre-mRNA 3 -end processing
5064 at
            883.7
RNA polymerase II elongation factor
5065_at
            945.6
questionable ORF
5066_at
            351.2
                         Α
weak similarity to YJL109c
5067 at
            2306.3
delta-aminolevulinate dehydratase (porphobilinogen synthase)
5068_at
            1242.4
similarity to V. vinifera dihydroflavonol reductase
5024 at
            913.8
membrane-bound mannosyltransferase
5025 at
            2972.7
similarity to E.coli hypothetical 23K protein
5026 at
            1009.9
Mtf1 Two Hybrid Clone 2
5027_at
            185.2
C2H2 zinc finger protein which resembles the mammalian Egr and Wilms tumour proteins
5028 at
            -108.6
                         Α
questionable ORF
5029_at
            44.6
                         Α
```

```
Meiosis-specific gene required for the pairing of homologous chromosomes
5030 at
            169.5
adhesion subunit of a-agglutinin
5031 at
            61640.8
Ribosomal protein L24A (rp29) (YL21) (L30A)
5032 at
            73047.3
Large ribosomal subunit protein L30 (L32) (rp73) (YL38)
5033_at
            1420.8
weak similarity to human chromatin assembly factor I p150 chain
5034_at
            1158.8
glucanase gene family member
5035 at
            3686.1
glucosidase I
                         Ρ
5036 at
            27157.9
tryptophan synthetase
5037 at
            502.7
                         Ρ
Probable transcription factor, polyglutamine domain protein
5038 at
            524.7
questionable ORF
5039_at
            2059.7
                         Ρ
weak similarity to Vsp27p
5040 at
            6101.6
required for protein glycosylation
5041 at
            957.2
DNA damage-responsive protein
5042 at
            3187.5
hypothetical protein
5043 at
            2565.0
                         Ρ
beta (38kDa) subunit of casein kinase II (CKII)
5044 at
            571.5
Homolog of E. coli Hsc20 co-chaperone protein
5045_at
            341.7
                         Α
arginyl-tRNA-protein transferase
5046_at
            979.1
pleiotropic drug resistance regulatory protein
                        Ρ
5002 at
            336.6
hypothetical protein
5003 at
            2823.9
similarity to Drosophila pumilio protein and Mpt5p protein
5004_at
            1456.0
zinc-finger transcription factor of the Zn(2)-Cys(6) binuclear cluster domain type
5005 at
            5802.8
Sterol C-24 reductase
5006_at
            2490.9
Proteasome subunit YC7alpha\/Y8 (protease yscE subunit 7)
5007 at
            367.1
                         M
similarity to hypothetical S. pombe protein
5008 at
            13274.9
                         Ρ
isopropylmalate isomerase
5009 at
            52337.5
                         Ρ
plasma membrane H+-ATPase
5010_at
            74.8
questionable ORF
                         Ρ
5011 at
            1762.9
putative vacuolar Ca2+ ATPase
5012_at
            -28.4
                         Α
```

```
weak similarity to Xenopus kinesin-related protein Eg5
5013 at
            576.3
weak similarity to Tup1p
5014 at
            374.6
protein required for Clb2 and Ase1 degradation
5015 at
            718.9
p24 protein involved in membrane trafficking
5016 at
            3122.3
putative 3-beta-hydroxysteroid dehydrogenase
5017_at
            1222.2
similarity to C.elegans hypothetical M142.5 protein
5018 at
            680.7
similarity to C.elegans hypothetical M142.5 protein
5019 at
            456.4
similarity to hypothetical S. pombe protein
5020 at
            453.6
similarity to D.melanogaster lin19 protein
5021 at
            845.2
strong similarity to hypothetical protein YLR324w
5022_at
            1234.6
transcription initiation factor TFIIF middle subunit
5023_at
            35.0
RNA splicing factor associated with U5 snRNP
            2745.1
4979 at
                         Ρ
choline phosphate cytidylyltransferase (also called phosphoethanolamine cytidylyltransferase or
phosphocholine cytidylyltransferase)
4980 at
            1832.6
                         Ρ
ATPase stabilizing factor
            1294.7
4981 at
Putative t-SNARE of the plasma membrane
4982 at
            188.6
strong similarity to hypothetical protein YLR328w
4983 g at 1014.4
strong similarity to hypothetical protein YLR328w
4984 at
            477.9
                         Α
questionable ORF
4985 at
            1207.7
similarity to E.nidulans cysteine synthase
4986 at
            212.1
Associated with U1 snRNP (no counterpart in mammalian U1 snRNP. Contains few SR-, RE- and
RD-dipeptides.
4987 at
            4436.0
putative integral membrane protein
            164.2
4988_at
similarity to hypothetical protein YGR031w
4989 at
            329.6
weak similarity to M.jannaschii hypothetical protein MJ1317
4990 at
            1405.7
hypothetical protein
4991 at
            -20.0
                         Α
questionable ORF
4992_at
            1031.5
gamma-aminobutyrate (GABA) transaminase (4-aminobutyrate aminotransferase)
4993 at
            6074.6
Vacuolar H-ATPase 14 kDa subunit (subunit F) of the catalytic (V1) sector
4994_at
            656.6
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similarity to M.leprae yfcA protein
4995 at
            -20.5
                         Α
questionable ORF
4996 at
            240.6
                         Α
acts in concert with Mid2p to transduce cell wall stress signals
4997 at
            448.5
weak similarity to Methanobacterium thermoautotrophicum hypothetical protein MTH972
4998 at
            139.9
questionable ORF
                         Ρ
4999_at
            1324.7
hypothetical protein
5000 i at
            11274.6
                         Ρ
Ribosomal protein S25A (S31A) (rp45) (YS23)
5001 f at
            66637.1
Ribosomal protein S25A (S31A) (rp45) (YS23)
4956 at
            974.0
40 kDa putative membrane-spanning ATPase
4957 at
            912.9
integral subunit of RNase P and apparent subunit of RNase MRP
4958 at
            704.3
similarity to hypothetical protein YGR015c and weak similarity H.influenzae dihydrolipoamide
acetyltransferase
4959 at
            2248.4
catalytic component of 1,3-beta-D-glucan synthase
4960 at
            1174.9
hypothetical protein
                         Ρ
4961 at
            2354.6
hypothetical protein
4962 at
            141.9
Cwh8p contains 3 short stretches of amino acids that are characteristic for a wide variety of
phosphatases, including lipid phosphatases and a protein phosphatase.
4963_at
            15156.0
Acyl-CoA-binding protein (ACBP)VDiazepam binding inhibitor (DBI)Vendozepine (EP)
4964_at
            1703.7
strong similarity to hypothetical protein YLR350w
4965 at
            -131.8
questionable ORF
4966 at
            268.5
MAP protein kinase homolog involved in pheromone signal transduction
4967_at
            585.7
Among a group of genes whose products are necessary for bud-site selection\; likely involvement in
positioning the proximal pole signal
4968_at
            54.7
                         Α
hypothetical protein
4969 at
            263.5
                         Α
strong similarity to transaldolase
4970 at
            828.3
zinc finger protein\; negative regulator of meiosis\; directly repressed by a1-a2 regulator
4971_at
            218.0
                         Α
questionable ORF
4972 at
            65.3
                         Α
hypothetical protein
                         Ρ
4973 at
            624.0
transcription factor tau (TFIIIC) subunit 131
4974 at
            905.3
ubiquitin fusion degradation protein
```

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4975_at
            3460.0
                        Ρ
Protein that suppresses to allele of CDC4 when overexpressed
4976 at
            4.1
                        Α
questionable ORF
4977 at
            -26.6
                        Α
questionable ORF
4978 at
            -67.2
                         Α
similarity to ser/thr protein kinases
4934 at
            -194.9
                        Α
hypothetical protein
4935 at
            1805.6
similarity to C.elegans E04D5.1 protein
4936 at
            3207.0
high affinity methionine permease
            901.9
4937 at
                        Α
Member of RSC complex
4938 at
            332.3
Required for amino acid permease transport from the Golgi to the cell surface
4939 at
            316.9
similarity to mouse calcium-binding protein
4940 at
            231.9
sporulation-specific homologue of the yeast CDC3V10V11V12 family of bud neck microfilament genes and
is regulated by ABFI
                        Ρ
4941 at
            30390.8
C-4 sterol methyl oxidase
4942 at
            12469.7
-phosphoribosylformyl glycinamidine synthetase
4943 at
            722.5
Cytochrome OXidase gene 18
4944 at
            1375.2
Zn-finger protein, transcriptional regulator
4945_at
            505.3
questionable ORF
4946_at
            408.5
similarity to P.putida phthalate transporter
4947 at
            56.8
similarity to hypothetical protein YBR105c
4948 at
            420.1
                        Α
weak similarity to transcription factors
4949_at
            118.4
                        Α
weak similarity to Rod1p
4950 at
            -65.4
                        Α
questionable ORF
            374.0
4951_at
GDP-GTP Exchange Protein (GEP) for the Rho1p Small GTP-binding Protein
4952 at
            471.6
similarity to hypothetical protein YLR373c
4953 at
            180.9
factor stimulating decay of mRNAs containing premature stop codons\; acts with Nmd2p and Nam7p
4954 at
            339.2
questionable ORF
4955_at
            417.6
Homolog of human core snRNP protein D1, involved in snRNA maturation
4911 at
            220.4
                        Α
RNA splicing factor
                        Ρ
4912_at
            990.3
```

а

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Mitochondrial ribosomal protein MRPL25 (YmL25)
4913 at
            1106.8
peroxisome associated protein containing a PTS1 signal
4914 at
            2241.2
Polypeptide 3 of a Yeast Non-native Actin Binding Complex, homolog of a component of the bovine
NABC complex
                         Ρ
4915 at
            2868.5
hypothetical protein
4916 at
            1712.5
Twinfilin A, an actin monomer sequestering protein
4917 at
            345.5
weak similarity to mammalian myosin heavy chain
            3208.6
4918 at
20 kDa mitochondrial outer membrane protein import receptor
4919 at
            1702.0
translation initiation factor eIF2B, 71 kDa (delta) subunit\; translational repressor of GCN4 protein
4920 at
            577.7
35 kDa mitochondrial ribosomal small subunit protein
4921 i at
            74066.4
60S ribosomal protein L11B (L16B) (rp39B) (YL22)
4922 at
            4519.1
strong similarity to hypothetical protein YPL004c
4923 at
            -279.2
Third, minor isozyme of pyruvate decarboxylase
4924 at
            56.6
                         Α
cytoplasmic catalase T
4925 at
            182.9
                         Α
weak similarity to rat tropomyosin
4926 at
            2376.7
hypothetical protein
4927 at
            174.7
                         Α
pre-mRNA splicing protein
4928 at
            944.3
SerineVthreonine protein kinase
            605.8
4929 at
similarity to hypothetical S.pombe protein
4930 at
            12803.7
mitochondrial and cytoplasmic valyl-tRNA synthetase
4931 at
            2654.2
Putative 3 ->5 exoribonuclease\; component of exosome complex of 3 ->5 exonucleases
4932 at
            548.1
similarity to bovine Graves disease carrier protein
4933 at
            2079.9
transcriptional activator of the SKN7 mediated two-component regulatory system
4888 at
Esp1 promotes sister chromatid separation by mediating dissociation from the chromatin of the cohesin
Scc1. The anaphase-promoting complex promotes anaphase by mediating destruction of Pds1 which
binds to Esp1 and inhibits its activity
4889 at
            290.1
involved in controlling telomere length
4890 at
            646.8
Mac1-dependent regulator
4891 at
            535.4
weak similarity to B.subtilis YqgP
            696.1
                         Ρ
4892 at
hypothetical protein
```

```
4893_at
            1424.1
similarity to zebrafish essential for embryonic development gene pescadillo
4894 at
            846.8
subunit of RNA polymerase II holoenzyme\/mediator complex
4895 at
            1879.8
Protein involved in vacuolar H-ATPase assembly or function
4896 at
            7016.1
hypothetical protein
4897_at
            -161.3
                         Α
questionable ORF
4898 at
            487.5
G(sub)2-specific B-type cyclin
4899 at
            17.9
B-type cyclin
4900 at
            339.6
                         Α
weak similarity to YLR099c and YDR125c
4901 at
            230.1
                        Α
weak similarity to mosquito carboxylesterase
4902 at
            226.9
mitochondrial protein with homology to the mammalian SURF-1 gene
4903 at
            629.1
Duo1 And Mps1 interacting
4904 at
            70.1
                         Α
questionable ORF
4905_g_at 462.1
                         Α
questionable ORF
4906 at
            -638.8
                         Α
questionable ORF
4907 at
            604.9
                        М
transcriptional regulator, interacts with histones, primarily histone H3, possesses nucleosome assembly
activity
4908_at
            286.8
                         Α
hypothetical protein
4909_f_at
            22718.1
Ribosomal protein S23A (S28A) (rp37) (YS14)
4910 at
            873.4
Contains GLFG repeats in N-terminal half and heptad repeats in C-terminal half
            468.3
4865_at
required for ER to golgi vesicle docking
4866_at
            935.5
ammonia permease
4867 at
            344.0
                        Ρ
hypothetical protein
4868_at
            1347.0
serine\/threonine phosphatase
4869 at
            15993.2
asparagine synthetase
4870 at
            2196.6
similarity to S.pombe hypothetical protein SPAC24H6.11c
4871 at
            -295.1
weak similarity to hypothetical protein YPR156c
4872_at
            197.8
weak similarity to mouse T10 protein
4873 at
            2150.1
hypothetical protein
                        Ρ
4874_at
            532.8
```

```
SYnthetic lethal with cdcForty
4875 at
            403.9
weak similarity to myosin heavy chain proteins
4876 at
            339.5
strong similarity to Nce2p
4877 at
            1179.4
mitochondrial protein, prohibitin homolog\; similar to S. cerevisiae Phb2p
4878 at
            -174.0
Member of ubiquitin-conjugating protein family
4879 at
            753.6
hypothetical protein
4880 at
            3267.7
                         Ρ
proteasome component Y13
4881 at
            1712.2
weak similarity to chicken growth factor receptor-binding protein GRB2 homolog
4882 g at 1561.3
weak similarity to chicken growth factor receptor-binding protein GRB2 homolog
4883 at
            489.9
questionable ORF
4884_i_at
            8882.7
                         Ρ
similarity to multidrug resistance proteins
4885 at
            9.4
                         Α
questionable ORF
                         Ρ
4886 at
            599.5
110 kDa subunit of the centromere binding factor CBF3
4887 at
            165.2
strong similarity to hypothetical protein YPR157w
4842 at
            1020.4
similarity to hypothetical protein YPR158w
4843 at
            769.0
encodes a predicted type II membrane protein highly homologous to Kre6p
4844_at
            178.2
component of the biosynthetic pathway producing the thiazole precursor of thiamine
4845_at
            1097.2
similarity to C.elegans hypothetical protein
4846 at
            1349.8
                         Ρ
hypothetical protein
                                                                                                     Ν
4847_at
                         Ρ
            666.1
alpha-acetyltransferase that acts on methionine termini
4848_at
            86318.7
Ribosomal protein L24B (rp29) (YL21) (L30B)
4849 at
            718.2
hypothetical protein
4850_at
            -9.8
                         Α
hypothetical protein
                         Ρ
4851 i at
            2353.0
questionable ORF
4852_s_at 1789.1
                         Ρ
questionable ORF
4853 at
            245.7
                         Α
GTP-binding protein of the ras superfamily involved in bud site selection
4854 at
            35.0
hypothetical protein
4855_at
            237.7
                         Α
strong similarity to hypothetical proteins YKR076w and YMR251w
4856_at
            11763.4
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```
Cystathionine beta-synthase
4857 at
            417.4
hypothetical protein
4858 at
            3774.7
Phosphatidyl-ethanolamine N-methyltransferase
4859 at
            -521.9
involved in mRNA transport
4860 at
            6216.6
nuclear localization sequence binding protein
4861_at
            429.7
questionable ORF
                        Ρ
4862 at
            2609.8
hypothetical protein
4863_at
                         Ρ
            3056.1
mRNA cap-binding protein (eIF-4F), 150K subunit, highly homologous to Tif4632p, homologs of
mammalian p220
                        Р
4864 at
            787.3
GTP-binding protein
4819 at
            49.8
                         Α
questionable ORF
4820 at
            456.5
                         Ρ
hypothetical protein
                         Р
4821 at
            903.9
Involved in biosynthetic pathway for cell wall beta-glucans
4822 at
            2827.3
Clathrin light chain
4823 at
            150.2
                         Α
hypothetical protein
                        Р
4824 at
            738.1
similarity to Rib2p
            671.3
4825 at
phosphatidylserine decarboxylase located in vacuole or Golgi
4826 at
            394.7
mitochondrial methionyl-tRNA synthetase
4827 at
            1190.9
Golgi membrane protein
4828 at
            1796.3
strong similarity to human GTP-binding protein
4829 at
            365.9
Essential for the expression and activity of ubiquinol-cytochrome c reductase
4830 at
            16207.3
Squalene monooxygenase
4831_at
            169.3
                        Α
questionable ORF
                         Ρ
4832 at
            1828.3
Alcohol acetyltransferase
4833 at
            3064.2
Poly(A)-binding protein binding protein
4834_at
            454.4
                        Α
hypothetical protein
                        Ρ
4835_at
            17812.1
Ribonucleotide Reductase
4836 at
            3934.9
similarity to YHR004c-a
                        Ρ
4837_at
            2422.5
questionable ORF
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3130.9
4838_at
7.3 kDa subunit 9 of the ubiquinol cytochrome c oxidoreductase complex
4839 at
            1803.6
Ubiquitin-protein ligase
4840 at
            7334.0
                         Ρ
tyrosyl-tRNA synthetase, cytoplasmic
4841_at
            1212.2
Transcription factor TFIIF large subunit
4797 at
            2286.1
HMG1V2 homolog
4798 at
            -380.3
SerineVthreonine protein kinase required for cell cycle arrest in response to loss of microtubule function
4799 at
            8793.8
similarity to Aspergillus fumigatus rAsp
4800 at
            55.7
                         Α
questionable ORF
4801 at
            3420.5
                         Ρ
histidine permease
4802 i at
            99032.7
                         Ρ
Glyceraldehyde-3-phosphate dehydrogenase 3
4803 at
            1773.0
Protein X component of mitochondrial pyruvate dehydrogenase complex
4804 at
            456.3
xylulokinase
                         Ρ
4805 at
            1589.5
homolog of RNAse PH
4806 at
            835.3
weak similarity to Tetrahymena acidic repetitive protein arp1
4807 at
            460.1
involved in nitrosoguanidine resistance
4808 at
            2650.9
hypothetical protein
4809 at
            1211.3
dolichyl phosphate-D-mannose:protein O-D-mannosyltransferase
4810 at
            1418.7
weak similarity to rape guanine nucleotide regulatory protein
4811 at
            331.3
strong similarity to translation elongation factor eEF1 alpha chain Cam1p
4812 at
            588.0
phosphorylcholine transferase\; or cholinephosphate cytidylyltransferase
4813 at
            469.2
weak similarity to X.laevis protein-tyrosin-phosphatase cdc homolog 2 and to hypothetical protein
YPR200c
4814_at
            18252.2
encodes the cytoplasmic trifunctional enzyme C1-tetrahydrofolate synthase
4815 at
            270.4
similarity to S.pombe hypothetical protein D89234
4816 at
            743.4
similarity to Xenopus transcription factor Oct-1.17
4817 at
            203.9
electron-transferring flavoprotein, beta chain
            1458.5
4818 at
phosphoserine phosphatase
            13306.1
4774_at
thioredoxin
4775_at
            4499.8
                         Ρ
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similarity to M.jannaschii GTP-binding protein and to M.capricolum hypothetical protein SGC3
4776 at
            1734.2
zinc finger protein
4777_at
            66.8
                         Α
weak similarity to S.pombe hypothetical protein SPAC18B11.03c
4778 at
            474.6
involved in 7-aminocholesterol resistance
4779 f at
            17978.4
Ribosomal protein S0A
                         Ρ
4780_at
            29749.4
Ribosomal protein S0A
                         Ρ
4781 at
            590.5
strong similarity to hypothetical S. pombe protein
4782 at
            443.6
Participates in synthesis of N-acetylglucoaminylphosphatidylinositol, the first intermediate in synthesis of
glycosylphosphatidylinositol (GPI) anchors
4783 at
            949.2
putative calcium channel
4784 at
            167.3
omosome region maintenance protein
4785 at
            519.5
questionable ORF
4786 at
            1328.4
Mitochondrial ribosomal protein MRPL9 (YmL9) (E. coli L3) (human MRL3)
4787 at
            -330.3
similarity to hypothetical protein YHR149c
4788 at
            -152.0
translational activator of cytochrome c oxidase subunit III
4789 at
            616.7
weak similarity to hypothetical protein YFR021w
4790 at
            481.0
strong similarity to drug resistance protein SGE1
4791 at
            369.2
weak similarity to human p55CDC and Cdc20p
4792 at
            -68.8
                         Α
hypothetical protein
4793 at
            1412.6
De-repression of ITR1 Expression
4794 at
            1195.4
questionable ORF
4795 at
            2086.8
                         Ρ
57 kDa nuclear protein
                         Α
4796_at
            248.8
questionable ORF
4751 at
                         Ρ
            2946.0
mitochondrial protein, prohibitin homolog\; homolog of mammalian BAP37 and S. cerevisiae Phb1p
4752 at
            964.7
possible homolog of human 26S proteasome regulatory subunit p28
            4170.9
4753 at
Positive regulatory protein of phosphate pathway
            22480.7
4754 at
Flavohemoglobin
4755 at
            1493.5
                         Ρ
hypothetical protein
                         Α
4756_at
            111.1
questionable ORF
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4757_at
            339.8
weak similarity to YOR019w
4758 at
            377.2
protein containing kelch repeats, similar to YHR158c and YPL263c
4759 at
            348.7
weak similarity to hypothetical protein YHR160c
4760 at
            36824.4
phosphofructokinase alpha subunit
4761 at
            1010.5
Yeast Assembly Polypeptide, member of AP180 protein family, binds Pan1p and clathrin
4762 at
            166.8
questionable ORF
4763 at
            226.0
strong similarity to hypothetical protein YHR162w
4764 at
            2454.9
                        Ρ
Succinate-CoA Ligase (ADP-Forming)
4765 at
            2337.3
similarity to hypothetical S.pombe protein
4766 at
            1063.9
RNA polymerase III transcription factor with homology to TFIIB
4767 at
            11.5
hypothetical protein
4768 at
            85.5
                        Α
similar to SOL3
4769 at
            56.2
Mga1p shows similarity to heat shock transcription factor
4770 at
            1192.5
weak similarity to human cleavage stimulation factor 64K chain
4771 at
            525.7
hypothetical protein
4772_at
            394.4
                         Α
histone acetyltransferase
                        Ρ
4773 at
            7144.1
Proteasome subunit
4729 i at
            90555.2
                        Ρ
enolase I
4730_s_at 238347.9
enolase I
                        Ρ
4731 at
            1657.9
COQ6 monooxygenase
4732 at
            107.6
6-phosphogluconate dehydrogenase
4733_at
            1281.3
similarity to C.elegans C16C10.1
4734 at
homolog of xeroderma pigmentosum group G (XPG) protein, copufurifies with transcription factor, TFIIH,
mRNA is cell cycle regulated and induced by DNA damage and by meiosis (different cis-sites utilized in
damage and meiotic induction
4735_at
            271.1
                         Α
questionable ORF
                        Ρ
4736_at
            7249.7
similarity to allantoate transport protein
4737 at
            2742.3
putative beta adaptin component of the membrane-associate clathrin assembly complex
4738_at
            653.5
ser/thr protein kinase
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4739_at
                         Ρ
            536.1
weak similarity to E.coli lipase like enzyme
4740 at
            15529.1
methionyl tRNA synthetase
4741 at
            160.7
questionable ORF
                        Ρ
4742 at
            943.7
hypothetical protein
4743 at
            2706.5
                        Ρ
GTP-cyclohydrolase I
4744 at
            836.3
weak similarity to S.pombe hypothetical protein SPAC17A5
4745 at
            -224.0
questionable ORF
4746 at
                         Ρ
            1362.2
Member of CDC48VPAS1VSEC18 family of ATPases
4747 at
            510.0
strong similarity to S.pombe RNA helicase
4748 at
            578.4
similarity to hypothetical S.pombe protein SPAC12G12.02
4749 at
            -118.4
similarity to hypothetical protein YMR295c
4750 at
            1695.0
Component of the TAFII complex required for activated transcription
4705 at
            1441.9
hypothetical protein
            1398.3
                         Ρ
4706 at
ribonuclease H
4707 at
            1155.1
                        Ρ
similarity to hypothetical S.pombe protein
4708 at
            212.3
similarity to C.elegans LET-858
4709 at
            56470.2
glucanase gene family member
            3040.0
4710 at
weak similarity to Cbf5p
4711_at
            14463.3
                        Ρ
ABC transporter
4712 at
            19473.7
                        Ρ
Cell wall endo-beta-1,3-glucanase
4713 at
            830.3
similarity to hypothetical protein YMR310c
4714_at
            2204.5
similarity to mouse Surf-4 protein
4715 at
            24986.2
Zuotin, putative Z-DNA binding protein
4716 at
            993.1
Biotin synthase
4717_at
            150.4
                        Α
strong similarity to maltase
4718_at
            178.2
maltose pathway regulatory protein
4719 at
            259.6
alpha-glucoside transporter
            52.0
4720_at
                         Α
hypothetical protein
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4721_at
            -14.9
                         Α
hypothetical protein
4722 s at -46.8
                         Α
strong similarity to hypothetical protein YBR300c
4723 f at
            -508.8
strong similarity to members of the Srp1p/Tip1p family
4724_i_at
            478.2
hypothetical protein
4725 f at
            365.4
hypothetical protein
4726 at
            130.7
                         Α
identified by SAGE
4727 s at 634.2
Protein essential for mitochondrial biogenesis and cell viability
4728 at
            23.7
                         Α
non-annotated SAGE orf Found reverse in NC 001139 between 110655 and 110840 with 100% identity.
See citation Velculescu, V.E., et al. (1997) Characterization of the yeast transcriptome. Cell 8:243-251
4681 at
            7222.0
non-annotated SAGE orf Found reverse in NC 001139 between 323513 and 323677 with 100% identity.
See citation Velculescu, V.E., et al. (1997) Characterization of the yeast transcriptome. Cell 8:243-251
non-annotated SAGE orf Found reverse in NC_001139 between 836149 and 836340 with 100% identity.
See citation Velculescu, V.E., et al. (1997) Characterization of the yeast transcriptome. Cell 8:243-251
4683 at
            650.5
non-annotated SAGE orf Found reverse in NC 001139 between 836381 and 836659 with 100% identity.
See citation Velculescu, V.E., et al. (1997) Characterization of the yeast transcriptome. Cell 8:243-251
non-annotated SAGE orf Found reverse in NC 001139 between 904806 and 904952 with 100% identity.
See citation Velculescu, V.E., et al. (1997) Characterization of the yeast transcriptome. Cell 8:243-251
4685 at
            1274.9
non-annotated SAGE orf Found reverse in NC_001139 between 905006 and 905158 with 100% identity.
See citation Velculescu, V.E., et al. (1997) Characterization of the yeast transcriptome. Cell 8:243-251
non-annotated SAGE orf Found reverse in NC_001139 between 939417 and 939581 with 100% identity.
See citation Velculescu, V.E., et al. (1997) Characterization of the yeast transcriptome. Cell 8:243-251
non-annotated SAGE orf Found reverse in NC_001139 between 225922 and 226092 with 100% identity.
See citation Velculescu, V.E., et al. (1997) Characterization of the yeast transcriptome. Cell 8:243-251
4688 at
non-annotated SAGE orf Found forward in NC_001139 between 323656 and 323817 with 100% identity.
See citation Velculescu, V.E., et al. (1997) Characterization of the yeast transcriptome. Cell 8:243-251
4689 at
            128.7
non-annotated SAGE orf Found reverse in NC_001139 between 324866 and 325024 with 100% identity.
See citation Velculescu, V.E., et al. (1997) Characterization of the yeast transcriptome. Cell 8:243-251
non-annotated SAGE orf Found forward in NC 001139 between 363944 and 364078 with 100% identity.
See citation Velculescu, V.E., et al. (1997) Characterization of the yeast transcriptome. Cell 8:243-251
4691 at
            4120.1
non-annotated SAGE orf Found forward in NC 001139 between 437993 and 438127 with 100% identity.
See citation Velculescu, V.E., et al. (1997) Characterization of the yeast transcriptome. Cell 8:243-251
4692 f at 599.7
non-annotated SAGE orf Found reverse in NC_001139 between 536199 and 536372 with 100% identity.
See citation Velculescu, V.E., et al. (1997) Characterization of the yeast transcriptome. Cell 8:243-251
4693 i at
            -202.2
non-annotated SAGE orf Found reverse in NC_001139 between 931768 and 932025 with 100% identity.
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See citation Velculescu, V.E., et al. (1997) Characterization of the yeast transcriptome. Cell 8:243-251

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4694_at
            28.4
non-annotated SAGE orf Found reverse in NC 001139 between 974228 and 974395 with 100% identity.
See citation Velculescu, V.E., et al. (1997) Characterization of the yeast transcriptome. Cell 8:243-251
4695 at
non-annotated SAGE orf Found forward in NC 001139 between 299797 and 299946 with 100% identity.
See citation Velculescu, V.E., et al. (1997) Characterization of the yeast transcriptome. Cell 8:243-251
non-annotated SAGE orf Found forward in NC 001139 between 312929 and 313105 with 100% identity.
See citation Velculescu, V.E., et al. (1997) Characterization of the yeast transcriptome. Cell 8:243-251
non-annotated SAGE orf Found forward in NC 001139 between 326361 and 326609 with 100% identity.
See citation Velculescu, V.E., et al. (1997) Characterization of the yeast transcriptome. Cell 8:243-251
4698 at
non-annotated SAGE orf Found reverse in NC 001139 between 366397 and 366531 with 100% identity.
See citation Velculescu, V.E., et al. (1997) Characterization of the yeast transcriptome. Cell 8:243-251
non-annotated SAGE orf Found forward in NC 001139 between 393563 and 393697 with 100% identity.
See citation Velculescu, V.E., et al. (1997) Characterization of the yeast transcriptome. Cell 8:243-251
4700 at
non-annotated SAGE orf Found forward in NC_001139 between 400350 and 400547 with 100% identity.
See citation Velculescu, V.E., et al. (1997) Characterization of the yeast transcriptome. Cell 8:243-251
4701 at
            3098.9
non-annotated SAGE orf Found reverse in NC 001139 between 554044 and 554199 with 100% identity.
See citation Velculescu, V.E., et al. (1997) Characterization of the yeast transcriptome. Cell 8:243-251
non-annotated SAGE orf Found forward in NC_001139 between 669960 and 670145 with 100% identity.
See citation Velculescu, V.E., et al. (1997) Characterization of the yeast transcriptome. Cell 8:243-251
4703 at
non-annotated SAGE orf Found forward in NC 001139 between 670145 and 670321 with 100% identity.
See citation Velculescu, V.E., et al. (1997) Characterization of the yeast transcriptome. Cell 8:243-251
4704 at
non-annotated SAGE orf Found reverse in NC_001139 between 736379 and 736513 with 100% identity.
See citation Velculescu, V.E., et al. (1997) Characterization of the yeast transcriptome. Cell 8:243-251
non-annotated SAGE orf Found forward in NC_001139 between 772010 and 772228 with 100% identity.
See citation Velculescu, V.E., et al. (1997) Characterization of the yeast transcriptome. Cell 8:243-251
4659 at
            1429.9
non-annotated SAGE orf Found forward in NC_001139 between 777630 and 777860 with 100% identity.
See citation Velculescu, V.E., et al. (1997) Characterization of the yeast transcriptome. Cell 8:243-251
4660 i at
non-annotated SAGE orf Found forward in NC 001139 between 783944 and 784078 with 100% identity.
See citation Velculescu, V.E., et al. (1997) Characterization of the yeast transcriptome. Cell 8:243-251
non-annotated SAGE orf Found forward in NC_001139 between 783944 and 784078 with 100% identity.
See citation Velculescu, V.E., et al. (1997) Characterization of the yeast transcriptome. Cell 8:243-251
4662 at
            27959.9
non-annotated SAGE orf Found forward in NC 001139 between 827159 and 827320 with 100% identity.
See citation Velculescu, V.E., et al. (1997) Characterization of the yeast transcriptome. Cell 8:243-251
non-annotated SAGE orf Found forward in NC 001139 between 836328 and 836597 with 100% identity.
See citation Velculescu, V.E., et al. (1997) Characterization of the yeast transcriptome. Cell 8:243-251
non-annotated SAGE orf Found reverse in NC 001139 between 853388 and 853528 with 100% identity.
See citation Velculescu, V.E., et al. (1997) Characterization of the yeast transcriptome. Cell 8:243-251
4665 at
            -76.5
non-annotated SAGE orf Found reverse in NC_001139 between 949043 and 949216 with 100% identity.
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See citation Velculescu, V.E., et al. (1997) Characterization of the yeast transcriptome. Cell 8:243-251 4666 r at 6954.9 non-annotated SAGE orf Found reverse in NC 001139 between 970567 and 970722 with 100% identity. See citation Velculescu, V.E., et al. (1997) Characterization of the yeast transcriptome. Cell 8:243-251 non-annotated SAGE orf Found forward in NC 001139 between 973737 and 973922 with 100% identity. See citation Velculescu, V.E., et al. (1997) Characterization of the yeast transcriptome. Cell 8:243-251 4668 at non-annotated SAGE orf Found forward in NC_001139 between 974544 and 974699 with 100% identity. See citation Velculescu, V.E., et al. (1997) Characterization of the yeast transcriptome. Cell 8:243-251 4669 i at non-annotated SAGE orf Found reverse in NC 001139 between 1037741 and 1037887 with 100% identity. See citation Velculescu, V.E., et al. (1997) Characterization of the yeast transcriptome. Cell 8:243-251 4670 f at 1644.1 non-annotated SAGE orf Found reverse in NC 001139 between 1037741 and 1037887 with 100% identity. See citation Velculescu, V.E., et al. (1997) Characterization of the yeast transcriptome. Cell 8:243-251 4671 at 225.9 non-annotated SAGE orf Found reverse in NC_001139 between 1037796 and 1037987 with 100% identity. See citation Velculescu, V.E., et al. (1997) Characterization of the yeast transcriptome. Cell 8:243-251 4672 at non-annotated SAGE orf Found forward in NC 001139 between 110756 and 110950 with 100% identity. See citation Velculescu, V.E., et al. (1997) Characterization of the yeast transcriptome. Cell 8:243-251 4673 at 262.4 non-annotated SAGE orf Found reverse in NC 001139 between 255333 and 255473 with 100% identity. See citation Velculescu, V.E., et al. (1997) Characterization of the yeast transcriptome. Cell 8:243-251 4674 at non-annotated SAGE orf Found forward in NC 001139 between 255355 and 255549 with 100% identity. See citation Velculescu, V.E., et al. (1997) Characterization of the yeast transcriptome. Cell 8:243-251 non-annotated SAGE orf Found forward in NC 001139 between 384772 and 384945 with 100% identity. See citation Velculescu, V.E., et al. (1997) Characterization of the yeast transcriptome. Cell 8:243-251 4676 at 209.5 non-annotated SAGE orf Found reverse in NC 001139 between 394718 and 394915 with 100% identity. See citation Velculescu, V.E., et al. (1997) Characterization of the yeast transcriptome. Cell 8:243-251 non-annotated SAGE orf Found forward in NC 001139 between 773986 and 774189 with 100% identity. See citation Velculescu, V.E., et al. (1997) Characterization of the yeast transcriptome. Cell 8:243-251 non-annotated SAGE orf Found forward in NC 001139 between 1069513 and 1069650 with 100% identity. See citation Velculescu, V.E., et al. (1997) Characterization of the yeast transcriptome. Cell 8:243-251 4679 at non-annotated SAGE orf Found forward in NC 001139 between 1083045 and 1083293 with 100% identity. See citation Velculescu, V.E., et al. (1997) Characterization of the yeast transcriptome. Cell 8:243-251 non-annotated SAGE orf Found reverse in NC 001139 between 10114 and 10350 with 100% identity. See citation Velculescu, V.E., et al. (1997) Characterization of the yeast transcriptome. Cell 8:243-251 non-annotated SAGE orf Found reverse in NC 001139 between 74536 and 74757 with 100% identity. See citation Velculescu, V.E., et al. (1997) Characterization of the yeast transcriptome. Cell 8:243-251 4632_g_at 5.5 non-annotated SAGE orf Found reverse in NC_001139 between 74536 and 74757 with 100% identity.

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See citation Velculescu, V.E., et al. (1997) Characterization of the yeast transcriptome. Cell 8:243-251
4633 at
            37.3
non-annotated SAGE orf Found reverse in NC 001139 between 74628 and 74810 with 100% identity.
See citation Velculescu, V.E., et al. (1997) Characterization of the yeast transcriptome. Cell 8:243-251
non-annotated SAGE orf Found reverse in NC 001139 between 93374 and 93667 with 100% identity.
See citation Velculescu, V.E., et al. (1997) Characterization of the yeast transcriptome. Cell 8:243-251
4635 g at -81.5
non-annotated SAGE orf Found reverse in NC_001139 between 93374 and 93667 with 100% identity.
See citation Velculescu, V.E., et al. (1997) Characterization of the yeast transcriptome. Cell 8:243-251
4636 i at
            -226.7
non-annotated SAGE orf Found reverse in NC 001139 between 93459 and 93722 with 100% identity.
See citation Velculescu, V.E., et al. (1997) Characterization of the yeast transcriptome. Cell 8:243-251
            -122.5
non-annotated SAGE orf Found reverse in NC 001139 between 93459 and 93722 with 100% identity.
See citation Velculescu, V.E., et al. (1997) Characterization of the yeast transcriptome. Cell 8:243-251
4638 i at
            114.1
non-annotated SAGE orf Found reverse in NC 001139 between 148828 and 148968 with 100% identity.
See citation Velculescu, V.E., et al. (1997) Characterization of the yeast transcriptome. Cell 8:243-251
4639 f at 777.2
non-annotated SAGE orf Found reverse in NC_001139 between 148828 and 148968 with 100% identity.
See citation Velculescu, V.E., et al. (1997) Characterization of the yeast transcriptome. Cell 8:243-251
non-annotated SAGE orf Found forward in NC 001139 between 319819 and 320073 with 100% identity.
See citation Velculescu, V.E., et al. (1997) Characterization of the yeast transcriptome. Cell 8:243-251
4641 s at 452.9
non-annotated SAGE orf Found forward in NC 001139 between 319845 and 319982 with 100% identity.
See citation Velculescu, V.E., et al. (1997) Characterization of the yeast transcriptome. Cell 8:243-251
4642 i at
            -247.8
non-annotated SAGE orf Found reverse in NC 001139 between 401513 and 401656 with 100% identity.
See citation Velculescu, V.E., et al. (1997) Characterization of the yeast transcriptome. Cell 8:243-251
non-annotated SAGE orf Found reverse in NC 001139 between 401513 and 401656 with 100% identity.
See citation Velculescu, V.E., et al. (1997) Characterization of the yeast transcriptome. Cell 8:243-251
4644 i at
            265.7
non-annotated SAGE orf Found forward in NC 001139 between 405114 and 405266 with 100% identity.
See citation Velculescu, V.E., et al. (1997) Characterization of the yeast transcriptome. Cell 8:243-251
non-annotated SAGE orf Found reverse in NC 001139 between 544488 and 544628 with 100% identity.
See citation Velculescu, V.E., et al. (1997) Characterization of the yeast transcriptome. Cell 8:243-251
non-annotated SAGE orf Found forward in NC 001139 between 619977 and 620162 with 100% identity.
See citation Velculescu, V.E., et al. (1997) Characterization of the yeast transcriptome. Cell 8:243-251
4647_at
non-annotated SAGE orf Found forward in NC 001139 between 700362 and 700583 with 100% identity.
See citation Velculescu, V.E., et al. (1997) Characterization of the yeast transcriptome. Cell 8:243-251
non-annotated SAGE orf Found reverse in NC 001139 between 701262 and 701477 with 100% identity.
See citation Velculescu, V.E., et al. (1997) Characterization of the yeast transcriptome. Cell 8:243-251
non-annotated SAGE orf Found reverse in NC 001139 between 701262 and 701477 with 100% identity.
See citation Velculescu, V.E., et al. (1997) Characterization of the yeast transcriptome. Cell 8:243-251
4650 f at
            288.0
non-annotated SAGE orf Found reverse in NC_001139 between 701262 and 701477 with 100% identity.
See citation Velculescu, V.E., et al. (1997) Characterization of the yeast transcriptome. Cell 8:243-251
4651_at
            827.9
```

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non-annotated SAGE orf Found reverse in NC_001139 between 707583 and 707720 with 100% identity.
See citation Velculescu, V.E., et al. (1997) Characterization of the yeast transcriptome. Cell 8:243-251
            1161.7
non-annotated SAGE orf Found reverse in NC 001139 between 707915 and 708058 with 100% identity.
See citation Velculescu, V.E., et al. (1997) Characterization of the yeast transcriptome. Cell 8:243-251
4653 at
            375.3
non-annotated SAGE orf Found reverse in NC_001139 between 708217 and 708372 with 100% identity.
See citation Velculescu, V.E., et al. (1997) Characterization of the yeast transcriptome. Cell 8:243-251
4654 at
non-annotated SAGE orf Found reverse in NC_001139 between 711888 and 712022 with 100% identity.
See citation Velculescu, V.E., et al. (1997) Characterization of the yeast transcriptome. Cell 8:243-251
non-annotated SAGE orf Found reverse in NC 001139 between 801856 and 801993 with 100% identity.
See citation Velculescu, V.E., et al. (1997) Characterization of the yeast transcriptome. Cell 8:243-251
4656 f at
            808.4
non-annotated SAGE orf Found forward in NC 001139 between 818376 and 818591 with 100% identity.
See citation Velculescu, V.E., et al. (1997) Characterization of the yeast transcriptome. Cell 8:243-251
non-annotated SAGE orf Found reverse in NC 001139 between 823398 and 823550 with 100% identity.
See citation Velculescu, V.E., et al. (1997) Characterization of the yeast transcriptome. Cell 8:243-251
non-annotated SAGE orf Found reverse in NC_001139 between 823398 and 823550 with 100% identity.
See citation Velculescu, V.E., et al. (1997) Characterization of the yeast transcriptome. Cell 8:243-251
4609 at
            149.1
non-annotated SAGE orf Found reverse in NC 001139 between 919562 and 919735 with 100% identity.
See citation Velculescu, V.E., et al. (1997) Characterization of the yeast transcriptome. Cell 8:243-251
non-annotated SAGE orf Found reverse in NC 001139 between 994368 and 994517 with 100% identity.
See citation Velculescu, V.E., et al. (1997) Characterization of the yeast transcriptome. Cell 8:243-251
non-annotated SAGE orf Found reverse in NC_001139 between 994531 and 994671 with 100% identity.
See citation Velculescu, V.E., et al. (1997) Characterization of the yeast transcriptome. Cell 8:243-251
4612 at
non-annotated SAGE orf Found reverse in NC_001139 between 994842 and 994976 with 100% identity.
See citation Velculescu, V.E., et al. (1997) Characterization of the yeast transcriptome. Cell 8:243-251
non-annotated SAGE orf Found forward in NC_001139 between 23385 and 23675 with 100% identity.
See citation Velculescu, V.E., et al. (1997) Characterization of the yeast transcriptome. Cell 8:243-251
4614 at
non-annotated SAGE orf Found reverse in NC_001139 between 52581 and 52715 with 100% identity.
See citation Velculescu, V.E., et al. (1997) Characterization of the yeast transcriptome. Cell 8:243-251
4615 at
            1996.3
non-annotated SAGE orf Found forward in NC_001139 between 94489 and 94638 with 100% identity.
See citation Velculescu, V.E., et al. (1997) Characterization of the yeast transcriptome. Cell 8:243-251
non-annotated SAGE orf Found forward in NC 001139 between 129257 and 129394 with 100% identity.
See citation Velculescu, V.E., et al. (1997) Characterization of the yeast transcriptome. Cell 8:243-251
4617 at
            806.6
non-annotated SAGE orf Found reverse in NC_001139 between 139723 and 139965 with 100% identity.
See citation Velculescu, V.E., et al. (1997) Characterization of the yeast transcriptome. Cell 8:243-251
4618_at
            1780.8
non-annotated SAGE orf Found reverse in NC_001139 between 163077 and 163232 with 100% identity.
See citation Velculescu, V.E., et al. (1997) Characterization of the yeast transcriptome. Cell 8:243-251
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non-annotated SAGE orf Found reverse in NC_001139 between 199054 and 199209 with 100% identity. See citation Velculescu, V.E., et al. (1997) Characterization of the yeast transcriptome. Cell 8:243-251

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4620_at
            137.7
non-annotated SAGE orf Found reverse in NC 001139 between 249627 and 249773 with 100% identity.
See citation Velculescu, V.E., et al. (1997) Characterization of the yeast transcriptome. Cell 8:243-251
4621 at
            509.9
non-annotated SAGE orf Found forward in NC 001139 between 274428 and 274583 with 100% identity.
See citation Velculescu, V.E., et al. (1997) Characterization of the yeast transcriptome. Cell 8:243-251
non-annotated SAGE orf Found forward in NC 001139 between 318551 and 318691 with 100% identity.
See citation Velculescu, V.E., et al. (1997) Characterization of the yeast transcriptome. Cell 8:243-251
non-annotated SAGE orf Found reverse in NC 001139 between 474298 and 474432 with 100% identity.
See citation Velculescu, V.E., et al. (1997) Characterization of the yeast transcriptome. Cell 8:243-251
4624 at
non-annotated SAGE orf Found forward in NC 001139 between 512819 and 513070 with 100% identity.
See citation Velculescu, V.E., et al. (1997) Characterization of the yeast transcriptome. Cell 8:243-251
non-annotated SAGE orf Found reverse in NC 001139 between 533928 and 534068 with 100% identity.
See citation Velculescu, V.E., et al. (1997) Characterization of the yeast transcriptome. Cell 8:243-251
non-annotated SAGE orf Found forward in NC_001139 between 576609 and 576782 with 100% identity.
See citation Velculescu, V.E., et al. (1997) Characterization of the yeast transcriptome. Cell 8:243-251
4627 at
non-annotated SAGE orf Found reverse in NC 001139 between 604571 and 604726 with 100% identity.
See citation Velculescu, V.E., et al. (1997) Characterization of the yeast transcriptome. Cell 8:243-251
non-annotated SAGE orf Found forward in NC_001139 between 682320 and 682556 with 100% identity.
See citation Velculescu, V.E., et al. (1997) Characterization of the yeast transcriptome. Cell 8:243-251
4629 at
non-annotated SAGE orf Found reverse in NC 001139 between 727849 and 728022 with 100% identity.
See citation Velculescu, V.E., et al. (1997) Characterization of the yeast transcriptome. Cell 8:243-251
4630 at
            634.7
non-annotated SAGE orf Found forward in NC_001139 between 733406 and 733621 with 100% identity.
See citation Velculescu, V.E., et al. (1997) Characterization of the yeast transcriptome. Cell 8:243-251
non-annotated SAGE orf Found forward in NC 001139 between 757467 and 757625 with 100% identity.
See citation Velculescu, V.E., et al. (1997) Characterization of the yeast transcriptome. Cell 8:243-251
4586 at
non-annotated SAGE orf Found forward in NC_001139 between 787843 and 788070 with 100% identity.
See citation Velculescu, V.E., et al. (1997) Characterization of the yeast transcriptome. Cell 8:243-251
4587_at
            -111.4
non-annotated SAGE orf Found forward in NC 001139 between 788087 and 788224 with 100% identity.
See citation Velculescu, V.E., et al. (1997) Characterization of the yeast transcriptome. Cell 8:243-251
non-annotated SAGE orf Found forward in NC_001139 between 810111 and 810293 with 100% identity.
See citation Velculescu, V.E., et al. (1997) Characterization of the yeast transcriptome. Cell 8:243-251
4589 g at 194.4
non-annotated SAGE orf Found forward in NC 001139 between 810111 and 810293 with 100% identity.
See citation Velculescu, V.E., et al. (1997) Characterization of the yeast transcriptome. Cell 8:243-251
non-annotated SAGE orf Found forward in NC 001139 between 810221 and 810499 with 100% identity.
See citation Velculescu, V.E., et al. (1997) Characterization of the yeast transcriptome. Cell 8:243-251
non-annotated SAGE orf Found forward in NC 001139 between 810507 and 810659 with 100% identity.
See citation Velculescu, V.E., et al. (1997) Characterization of the yeast transcriptome. Cell 8:243-251
4592 at
            -67.3
non-annotated SAGE orf Found forward in NC_001139 between 867541 and 867681 with 100% identity.
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See citation Velculescu, V.E., et al. (1997) Characterization of the yeast transcriptome. Cell 8:243-251 4593 at 138.9 non-annotated SAGE orf Found reverse in NC 001139 between 878323 and 878487 with 100% identity. See citation Velculescu, V.E., et al. (1997) Characterization of the yeast transcriptome. Cell 8:243-251 non-annotated SAGE orf Found forward in NC_001139 between 965707 and 965874 with 100% identity. See citation Velculescu, V.E., et al. (1997) Characterization of the yeast transcriptome. Cell 8:243-251 4595 at non-annotated SAGE orf Found reverse in NC_001139 between 974572 and 974772 with 100% identity. See citation Velculescu, V.E., et al. (1997) Characterization of the yeast transcriptome. Cell 8:243-251 4596 at -88.6 non-annotated SAGE orf Found forward in NC 001139 between 1007443 and 1007601 with 100% identity. See citation Velculescu, V.E., et al. (1997) Characterization of the yeast transcriptome. Cell 8:243-251 4597_at 143.1 Α non-annotated SAGE orf Found forward in NC 001139 between 1011451 and 1011660 with 100% identity. See citation Velculescu, V.E., et al. (1997) Characterization of the yeast transcriptome. Cell 8:243-251 4598 g at -96.2 non-annotated SAGE orf Found forward in NC_001139 between 1011451 and 1011660 with 100% identity. See citation Velculescu, V.E., et al. (1997) Characterization of the yeast transcriptome. Cell 8:243-251 4599 i at 168.6 non-annotated SAGE orf Found forward in NC 001139 between 1011506 and 1011688 with 100% identity. See citation Velculescu, V.E., et al. (1997) Characterization of the yeast transcriptome. Cell 8:243-251 4600 at 1296.5 non-annotated SAGE orf Found forward in NC 001139 between 1012179 and 1012379 with 100% identity. See citation Velculescu, V.E., et al. (1997) Characterization of the yeast transcriptome. Cell 8:243-251 4601 at 5135.1 non-annotated SAGE orf Found forward in NC_001139 between 1057363 and 1057593 with 100% identity. See citation Velculescu, V.E., et al. (1997) Characterization of the yeast transcriptome. Cell 8:243-251 4602 at 1138.1 non-annotated SAGE orf Found reverse in NC 001139 between 1058818 and 1058976 with 100% identity. See citation Velculescu, V.E., et al. (1997) Characterization of the yeast transcriptome. Cell 8:243-251 4603 at 255.2 Α snRNA Α 4604 i at 308.1 snRNA 4605_s_at 417.1 Α snRNA 4606 at 258.5 Α snRNA 4607 at 161.0 Α snRNA 4561_s_at 259.0 Α snRNA 4562 at -98.5 Α similarity to C.carbonum toxin pump 4563 f at 1719.3 strong similarity to members of the Srp1p/Tip1p family 4564_at -3.2 similarity to subtelomeric encoded proteins

```
4565_at
            76.1
                         Α
ExtraCellular Mutant
4566 at
            264.2
                         Α
similarity to subtelomeric encoded proteins
4567 at
            173.2
weak similarity to Drosophila hypothetical protein 6
4568 at
            264.6
similarity to C.carbonum toxin pump
4569 at
            948.6
weak similarity to YPL208w
4570 at
            249.4
Cytochrome B pre-mRNA processing protein
4571 at
            -2.0
                         Α
hypothetical protein
4572 at
            386.7
                         Α
very low affinity methionine permease
4573_at
            148.9
ABC transporter
4574 at
            20402.6
Single-strand nucleic acid binding protein
4575 i at
            36620.4
Ribosomal protein L8A (rp6) (YL5) (L4A)
4576 at
            470.7
glyerol kinase (converts glycerol to glycerol-3-phosphate
4577 at
            1564.3
SNARE protein with a C-terminal membrane anchor
4578 at
            1187.4
ExtraCellular Mutant
                        Ρ
4579 at
            1821.7
hypothetical protein
4580 at
            541.0
Putative integral membrane protein containing novel cysteine motif. Similarity to SLG1 (WSC1), WSC2
and WSC3
4581_at
            3237.8
Meiotic regulatory protein\; Cys-His zinc fingers
4582 at
            713.5
hypothetical protein
                         Ρ
            2091.4
4583_at
transcriptional regulator
4584_at
            236.4
RNA binding domain (N-term) with asparagine rich region?
4539 at
            725.1
hypothetical protein
4540_at
            -119.7
Encodes one of the earliest meiosis-specific recombination functions.
4541 at
            635.2
weak similarity to Pseudomonas gamma-butyrobetaine hydroxylase
4542 at
            2398.5
negative regulator of phospholipid biosynthesis
4543 at
            625.6
Similiar to clathrin coat proteins
4544_at
            -153.5
Dimerization cofactor of homeodomian protein NF1-alpha
4545 at
            777.9
Probable transmembrane protein PTM1
4546_at
            548.7
```

```
Urea transporter
                        Ρ
4547 at
            21311.6
Ribosomal protein S20
4548 at
            -88.5
                         Α
GTP-binding protein and glycogen phosphorylase (weak)
4549 at
            782.8
similarity to C.elegans hypothetical protein F21D5.2
4550 at
            -68.4
UDP Glucose pyrophosphorylase
            5662.6
4551_at
ribose-phosphate pyrophosphokinase 3
4552 at
            59.4
similarity to C.elegans hypothetical protein
4553 at
            493.4
bZip DNA binding proteins
4554 at
            1192.4
Potential formate transporter nirC
4555 at
            1232.5
serine\threonine protein kinase
4556_at
            -82.3
                        Α
hypothetical protein
4557 at
            50.9
                        Α
hypothetical protein
            252.0
4558 at
mitochondrial ribosomal protein, homologous to E. coli ribosomal protein S2, component of the 37 S
subunit of mitochondrial ribosomes
4559 at
            415.7
                        Α
YKL008c
                        Ρ
4560 at
            1084.6
SH3 domain
            10863.0
4515 i at
Ribosomal protein L14B
                        Ρ
4516 f at
            21268.5
Ribosomal protein L14B
4517 at
                        Ρ
            766.0
60kD chaperonin (weak)
4518 at
            1877.9
8.5 kDa subunit of the ubiqunol-cytochrome c oxidoreductase complex
4519 at
Mitochondrial carrier protein/Grave s disease carrier protein
            1301.9
4520 at
thiF, moeB, ubiquitin activating enzyme (all weak)
4521_at
            254.2
similarity to YLL010c, YLR019w
4522 at
            1975.5
alpha subunit of G protein coupled to mating factor receptors
4523 at
May act cooperatively with Mrs5p in mitochondrial protein import or other related essential mitochondrial
processes
4524 at
            767.4
Zinc finger (Cys(2)-His(2))
4525_at
            28008.4
cytochrome P450 lanosterol 14a-demethylase
4526 at
            5265.3
Manganese-containing superoxide dismutase
4527_at
            2385.4
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similarity to S.pombe hypothetical protein
4528 i at
            46642.4
Ribosomal protein L27A
4529_f_at
            32858.9
                        Ρ
Ribosomal protein L27A
4530 at
            317.4
                         Α
Seryl-tRNA synthetase
                         Ρ
4531 at
            1111.2
Vacuolar protein sorting
4532_at
            978.3
subunit of the major N alpha-acetyltransferase, complexes with the catalytic subunit of
N-a-acetyltransferase (Nat1)
4533 at
            -54.2
Encodes a 33.4 kDa basic protein that localizes to the nucleus. Thought to be a meiosis-specific negative
regulator of M-phase during meiosis I, coordinating sister-chromatidVcentromere cohesion with nuclear
division. Spo13p has transcriptional activation activity in one-hybrid analysis.
4534 at
            194.2
PolyA-binding protein
4535 at
            559.4
                         Ρ
SH3 domain in C-terminus
4536 at
            589.2
strong similarity to S.douglasii YSD83
4537 at
            2706.5
argininosuccinate lyase
                         Ρ
4538 at
            10116.6
Asparaginyl-tRNA synthetase
4493 at
            17832.6
                        Ρ
Aminoacyl tRNA-synthetase
            66706.4
4494 at
                        Ρ
40S Ribosomal protein S27B (rp61) (YS20)
4495 at
            18.3
                         Α
ExtraCellular Mutant
4496 at
            129.0
                         Α
RAS-related protein
4497 at
            425.9
                         Ρ
Class II Myosin
4498 at
            878.5
53 kDa subunit of the mitochondrial processing protease
4499 at
            18870.6
homoserine kinase
            9447.1
                         Ρ
4500 at
proteolipid protein of the proton ATPase
4501_at
            7481.8
Subunit of 26S Proteasome (PA700 subunit)
4502 at
            2396.0
Dipeptidyl aminopeptidase B (DPAP B)
4503 at
            946.6
Thymidylate synthase (putative\; weak)
4504 at
            3851.3
                        Р
putative protein kinase
                         Ρ
4505 at
            268.8
Pif1p, mitochondrial DNA repair and recombination protein
4506 at
            652.7
ethionine resistance protein
4507_at
            496.1
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Pro1p (Gamma-glutamyl kinase)

```
4508_at
            261.8
                        Α
hypothetical protein
4509 at
            97.3
                        Α
Sec23p (weak)
4510 at
            445.6
                        Α
similarity to hypothetical protein YGL247w
4511_at
            1051.8
delta-1-pyrroline-5-carboxylate dehydrogenase
4512 at
            283.0
Killed in Mutagen, sensitive to Diepoxybutane and Vor Mitomycin C
4513 at
            3483.5
Aldehyde dehydrogenases
4514 at
            11270.0
13-kDa vacuolar H-ATPase subunit
4469 at
            968.5
weak similarity to Hit1p
4470 at
            1528.5
RNA polymerase II holoenzyme\/mediator subunit
4471 at
            8382.2
NADP-cytochrome P450 reductase
4472_s_at 507.5
2-deoxyglucose-6-phosphate phosphatase
4473 i at 838.2
2-deoxyglucose-6-phosphate phosphatase
4474 at
            1640.1
hypothetical protein
4475 at
            1894.9
Inositol monophosphatase
            3331.7
4476 at
arginineValanine aminopeptidase
4477_at
            -264.8
similarity to multidrug resistance proteins
4478 at
            1291.9
similarity to S.pombe dihydrofolate reductase and YOR280c
4479 at
            302.3
questionable ORF
4480 at
            1153.8
localized to mitochondrial membrane
4481 at
            2333.8
subunit VI of cytochrome c oxidase
4482 at
            1354.9
weak similarity to P.yoelii rhoptry protein
4483_s_at 34675.2
copper-binding metallothionein
4484 s at 2741.0
weak similarity to YOR262w
4485 at
            3879.8
Peptidylprolyl isomerase (cyclophilin) ER or secreted
4486_at
            410.9
RNA polymerase II transcriptional regulation mediator
4487 at
            256.6
weak similarity to Ustilago hordei B east mating protein 2
4488 at
            429.3
required for V-ATPase activity
            553.6
4489_at
GTPase-interacting component 1
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4490_at
            1198.0
                         Ρ
Protein subunit of nuclear ribonuclease P (RNase P)
4491 at
            1954.5
weak similarity to translational activator CBS2
4492 at
            14554.2
Hsp70 Protein
4446 at
            1553.0
RRP3 is a DEAD box gene homologous to eIF-4a which encodes an RNA-dependent ATPase possessing
helicase activity which is not specific for RNA
            1401.3
4447 at
                         Р
homologous to Ssf2p
4448 at
            5.3
                         Α
hypothetical protein
                         Ρ
4449 at
            9672.2
Deoxyhypusine synthase
4450 at
            895.7
3->5 exoribonuclease\; Component of the exosome 3->5 exonuclease complex with Rrp41p, Rrp42p,
Rrp43p and Dis3p (Rrp44p).
4451 at
            642.5
strong similarity to N.crassa met-10+ protein
4452 at
            929.5
                         Р
G1VS cyclin (weak)
                         Р
4453 at
            4480.5
2,3-oxidosqualene-lanosterol cyclase
4454 at
            359.9
                         Α
Oxysterol-binding protein
4455 at
            1499.9
weak similarity to B.subtilis spore outgrowth factor B
4456 at
            168.8
ribosomal protein of the small subunit, mitochondrial
4457 at
            770.1
weak similarity to C.elegans hypothetical protein CEW09D10
4458 at
            695.3
                         Ρ
hypothetical protein
4459 at
            330.9
Ire1p is a transmembrane protein that has both serine-threonine kinase and endoribonuclease activities
4460 i at
            10.3
                         Α
Ire1p is a transmembrane protein that has both serine-threonine kinase and endoribonuclease activities
4461 r at
            19.0
Ire1p is a transmembrane protein that has both serine-threonine kinase and endoribonuclease activities
4462 at
            794.8
similarity to hypothetical protein YDR326c, YFL042c and YLR072w
4463 at
            491.2
weak similarity to human C1D protein
4464 at
            1271.8
SerVThr protein kinase
4465 at
            1075.8
                         Ρ
hypothetical protein
                         Ρ
4466_at
            1302.2
Transcription factor
4467 at
            1116.0
weak similarity to fruit fly brahma transcriptional activator
4468 at
            604.1
putative RNA binding protein, involved in meiosis-specific splicing of the REC107 transcripts in
cooperation with the Mer1 protein
4423_at
            525.3
```

```
hypothetical protein
4424 at
            1184.9
similarity to hypothetical protein YNL075w
4425 at
            18975.3
small nucleolar RNP proteins
4426 at
            212.9
NuBbiN
                         Ρ
4427_at
            701.9
Arginyl-tRNA synthetase
4428_at
            218.1
                         Α
High-affinity glucose transporter
4429 at
            -94.4
the AHT1 DNA sequence is upstream of HXT4 and contains an HXT4 regulatory element which is a
multicopy suppressor of glucose transport defects\; probable non-functional ORF
4430 at
            7145.5
High-affinity hexose (glucose) transporter
4431 at
            76.7
hypothetical protein
4432 at
            -38.2
                         Α
hexose transporter
                         Ρ
4433 at
            1157.7
strong similarity to hypothetical protein YDR348c
4434 at
            109.2
strong similarity to hypothetical protein YDR348c
4435 at
            3702.6
binds to Sed5p and Sec23p by distinct domains
4436 at
            1423.9
ATMVMec1VTOR1+2-related
4437 at
            1181.1
                        Ρ
hypothetical protein
4438 at
                         Ρ
            776.2
Bad in glucose or big cells
4439 at
            231.8
Bad in glucose or big cells
4440 at
            785.4
SerVThr protein kinase
4441 at
            1081.6
functionally redundant and similar in structure to SBE2
4442 at
            918.9
Aldo-keto reductase
4443 at
            230.7
weak similarity to Mvp1p
4444_at
            725.2
Thioredoxin reductase
4445 at
            1313.3
Component of 10 nm filaments of mother-bud neck (septin)
4401 at
            4155.4
strong similarity to hypothetical protein YDR358w
4402_at
            198.8
                         Α
hypothetical protein
                         Ρ
4403 at
            1224.1
p24 protein involved in membrane trafficking
4404 at
            793.4
moeB, thiF, UBA1
4405_at
            1748.8
Cystathionine gamma-synthase
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```
4406_at
            1471.1
                        Ρ
Vacuolar aminopeptidase
4407 at
            623.7
                         Ρ
SH3 domain
4408 at
            1598.9
                         Ρ
strong similarity to hypothetical protein YNL116w
4409_at
            210.3
hypothetical protein
4410 at
            2301.2
71-kDa component of the protein translocase of the outer membrane of mitochondria
4411 at
            152.2
50-kDa subunit of ORC
                         Ρ
4412 at
            912.2
trithorax
            840.4
                         Ρ
4413 at
mutS homolog involved in mitochondrial DNA repair
4414 at
            1325.7
weak similarity to C.elegans hypothetical protein
4415 at
            495.4
similarity to hypothetical C. elegans protein F45G2.a
4416 at
            225.5
sn-1,2-diacylglycerol ethanolamine- and cholinephosphotranferase
4417 at
            1247.4
sn-1,2-diacylglycerol ethanolamine- and cholinephosphotranferase
4418 at
            30.7
meiosis-specific gene, mRNA is sporulation-specific
4419 at
            63.7
                         Α
questionable ORF
            -103.8
                         Α
4420 at
hypothetical protein
4421 at
            981.9
(H)igh copy (S)uppressor of (N)34 dominant negative allele of SEC4. Suppression is very specific to this
allele. It has no affect on the analogous YPT1 allele. No homology or known function.
4422_at
            5898.9
UPRTase
            110.1
4378 at
                         Α
Centractin
                         Р
            634.1
4379 at
weak similarity to T.brucei H+-transporting ATP synthase
4380_at
            247.1
Highly acidic C-terminus
                        Р
4381 at
            1914.4
Carboxypeptidase
4382_at
            4601.6
similarity to hypothetical protein YNL156c
4383 at
            -63.7
                         Α
hypothetical protein
4384_at
            4464.4
                         Ρ
membrane-bound casein kinase I homolog
4385 at
            4589.7
17 kDa protein
                         Ρ
4386_at
            4257.0
aromatic amino acid aminotransferase II
4387_at
            1251.3
hypothetical protein
4388_at
            -2.2
                         Α
```

```
sporulation-specific wall maturation protein
4389 at
            47.1
                         Α
hypothetical protein
4390 at
            81.1
                         Α
hypothetical protein
                         Ρ
4391_at
            2017.0
weak similarity to cytochrome-c oxidases
4392 at
            9633.8
Ser-Thr rich protein
4393 at
            1115.4
subunit of RNA polymerase II
4394 at
            948.9
dCMP deaminase
4395 at
            35.9
                         Α
questionable ORF
4396 at
            1838.2
                         Ρ
similarity to pheromone-response G-protein Mdg1p
4397 at
            239.8
Mitochondrial ribosomal protein MRPL6 (YmL6)
4398 at
            658.7
ribosomal protein (weak similarity)
4399 at
            529.9
similarity to hypothetical protein YGR221c
4400 at
            -318.1
weak similarity to YDR479c
4356 at
            773.5
hypothetical protein
4357 at
            895.1
                         Р
20 kDa protein with negatively charged C-terminus required for function\; thought to be a positive
regulator of exit from M-phase in mitosis and meiosis. Spo12p interacts with Dbf2p and Dbf20p protein
kinases.
4358_at
            205.4
                         Α
sporulation protein
4359_at
            1255.4
Establishes Silent omatin
4360 at
            699.7
Snf1-interacting protein Sip3p
4361 at
            227.9
weak similarity to mouse kinesin KIF3B
            178.3
4362_at
mRNA is induced early in meiosis
4363 at
            883.3
protein containing kelch repeats, similar to YGR238c
4364_at
            39.8
                         Α
hypothetical protein
4365 at
            159.2
weak similarity to hypothetical protein YGR239c
4366 at
            1587.0
Yeast Assembly Polypeptide, member of AP180 protein family, binds Pan1p and clathrin
4367 at
strong similarity to hypothetical protein YGR243w
4368_at
            2815.7
shows similarity to glucose-6-phosphate dehydrogenase non-catalytic domains\; homologous to Sol2p
and Sol1p
                         Ρ
4369_at
            623.7
DNA replication helicase
```

```
4370_at
                         Ρ
            1504.2
RNA splicing factor
4371 at
            175.3
                         Α
Cell division cycle protein
                         Ρ
4372 at
            384.9
hypothetical protein
4373_at
            327.0
                         Α
GTP-binding protein
4374 at
            2147.9
                         Ρ
DEAD-box protein
                         Ρ
4375 at
            3607.8
putative Upf1p-interacting protein
            330.6
4376 at
                         Α
autophagy
4377_at
            93.2
                         Α
spindle pole body component, associates in a complex with Spc98p and Tub4p perhaps as part of the
microtubule attachment site of the SBP
4333 at
            125.3
                         Α
hypothetical protein
4334_i_at
            202996.9
                         Ρ
enolase
                         Ρ
4335 at
            2054.1
Putative low-affinity copper transport protein
4336 at
            438.6
Dimethylaniline monoxygenase
4337_at
            184.8
weak similarity to Spombe pac2 protein
4338 at
            156.1
Zinc finger (6-Cys)
                         Р
4339 at
            14131.6
NAPDH dehydrogenase (old yellow enzyme), isoform 2
4340_at
            540.4
hypothetical protein
4341 at
            1488.7
similarity to mouse TEG-261 protein
4342 at
            628.0
                         Ρ
hypothetical protein
4343 at
            26284.6
Phosphogluconate Dehydrogenase (Decarboxylating)
4344_at
            36.8
Involved in the control of meiotic nuclear divisions and spore formation
4345 at
            -188.5
hypothetical protein
4346_at
            1292.0
similarity to C.elegans hypothetical protein C10C5.6
            141.9
4347_at
confers sensitivity to killer toxin
4348 at
            2308.0
                         Ρ
similarity to hypothetical C. elegans proteins F17c11.7
4349 at
            -193.0
similarity to peptidyl-tRNA hydrolases
            10588.0
4350_at
squalene synthetase
4351_at
            911.9
protein of unknown function
4352_at
            465.8
```

```
hypothetical protein
            11578.2
4353 at
GAL4 enhancer protein, homolog of human alpha NAC subunit of the nascent-polypeptide-associated
complex
4354 at
            914.2
similarity to hypothetical protein YOR147w
4355 at
            903.4
hypothetical protein
4310 at
            1165.0
                        Ρ
hypothetical protein
                        Ρ
4311 at
            1584.7
hypothetical protein
4312 at
            340.1
strong similarity to hypothetical protein YHR199c
            2198.2
4313 at
strong similarity to hypothetical protein YHR198c
4314 at
            5837.6
homolog of the mammalian S5a protein, component of 26S proteasome
4315 at
            2142.0
Cytosolic exopolyphosphatase
4316 at
            317.5
similarity to S.pombe hypothetical protein SPAC17G6
4317 at
            1449.8
similarity to alpha-mannosidases
4318 at
            1636.9
cAMP-dependent protein kinase homolog, suppressor of cdc25ts
4319 at
            1474.7
Protein with similarity to DNA-binding region of heat shock transcription factors
4320 at
            580.9
weak similarity to YPL165c
4321 at
            8558.8
branched-chain amino acid transaminase, highly similar to mammalian ECA39, which is regulated by the
oncogene myc
4322_at
            554.3
UDP-glucose-4-epimerase (GAL10, galE)
           18499.4
4323 f at
IMP dehydrogenase\; probable PUR5 gene
4324_s_at 1211.0
gene in Y repeat region
            84.0
4325_at
                        Α
questionable ORF
4326 at
            438.8
                        Α
questionable ORF
            34.9
4327_at
                        Α
questionable ORF
4328 at
            -98.4
                        Α
questionable ORF
4329 at
            508.6
                        Α
questionable ORF
                        Ρ
4330 at
            4351.5
questionable ORF
4331_at
            179.9
                        Α
questionable ORF
4332_at
            161.3
                        Α
questionable ORF
                        Ρ
4286_s_at 1960.4
```

```
Highly acidic C-terminus
4287 s at 212.2
similarity to hypothetical protein YER175c
4288 at
            689.4
                         Р
non-annotated SAGE orf Found reverse in NC 001140 between 34593 and 34790 with 100% identity.
See citation Velculescu, V.E., et al. (1997) Characterization of the yeast transcriptome. Cell 8:243-251
non-annotated SAGE orf Found reverse in NC 001140 between 518765 and 518938 with 100% identity.
See citation Velculescu, V.E., et al. (1997) Characterization of the yeast transcriptome. Cell 8:243-251
non-annotated SAGE orf Found reverse in NC 001140 between 519037 and 519228 with 100% identity.
See citation Velculescu, V.E., et al. (1997) Characterization of the yeast transcriptome. Cell 8:243-251
4291 i at
            -229.5
non-annotated SAGE orf Found reverse in NC 001140 between 91713 and 91919 with 100% identity.
See citation Velculescu, V.E., et al. (1997) Characterization of the yeast transcriptome. Cell 8:243-251
non-annotated SAGE orf Found reverse in NC 001140 between 146614 and 146772 with 100% identity.
See citation Velculescu, V.E., et al. (1997) Characterization of the yeast transcriptome. Cell 8:243-251
non-annotated SAGE orf Found forward in NC_001140 between 370055 and 370342 with 100% identity.
See citation Velculescu, V.E., et al. (1997) Characterization of the yeast transcriptome. Cell 8:243-251
4294 at
non-annotated SAGE orf Found forward in NC 001140 between 56060 and 56263 with 100% identity.
See citation Velculescu, V.E., et al. (1997) Characterization of the yeast transcriptome. Cell 8:243-251
non-annotated SAGE orf Found forward in NC_001140 between 80439 and 80615 with 100% identity.
See citation Velculescu, V.E., et al. (1997) Characterization of the yeast transcriptome. Cell 8:243-251
4296 at
non-annotated SAGE orf Found reverse in NC 001140 between 122543 and 122758 with 100% identity.
See citation Velculescu, V.E., et al. (1997) Characterization of the yeast transcriptome. Cell 8:243-251
4297 at
non-annotated SAGE orf Found forward in NC_001140 between 146159 and 146308 with 100% identity.
See citation Velculescu, V.E., et al. (1997) Characterization of the yeast transcriptome. Cell 8:243-251
non-annotated SAGE orf Found reverse in NC_001140 between 167438 and 167620 with 100% identity.
See citation Velculescu, V.E., et al. (1997) Characterization of the yeast transcriptome. Cell 8:243-251
4299 at
non-annotated SAGE orf Found reverse in NC_001140 between 225199 and 225351 with 100% identity.
See citation Velculescu, V.E., et al. (1997) Characterization of the yeast transcriptome. Cell 8:243-251
4300 at
            474.3
non-annotated SAGE orf Found reverse in NC 001140 between 374400 and 374564 with 100% identity.
See citation Velculescu, V.E., et al. (1997) Characterization of the yeast transcriptome. Cell 8:243-251
non-annotated SAGE orf Found forward in NC_001140 between 508759 and 508923 with 100% identity.
See citation Velculescu, V.E., et al. (1997) Characterization of the yeast transcriptome. Cell 8:243-251
4302 at
            284.1
non-annotated SAGE orf Found forward in NC 001140 between 209467 and 209637 with 100% identity.
See citation Velculescu, V.E., et al. (1997) Characterization of the yeast transcriptome. Cell 8:243-251
non-annotated SAGE orf Found forward in NC 001140 between 467972 and 468148 with 100% identity.
See citation Velculescu, V.E., et al. (1997) Characterization of the yeast transcriptome. Cell 8:243-251
non-annotated SAGE orf Found forward in NC 001140 between 528967 and 529113 with 100% identity.
See citation Velculescu, V.E., et al. (1997) Characterization of the yeast transcriptome. Cell 8:243-251
4305 at
            196.1
non-annotated SAGE orf Found reverse in NC_001140 between 5662 and 5796 with 100% identity. See
```

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citation Velculescu, V.E., et al. (1997) Characterization of the yeast transcriptome. Cell 8:243-251
4306 i at
           -431.9
non-annotated SAGE orf Found reverse in NC 001140 between 5778 and 5924 with 100% identity. See
citation Velculescu, V.E., et al. (1997) Characterization of the yeast transcriptome. Cell 8:243-251
non-annotated SAGE orf Found reverse in NC 001140 between 5778 and 5924 with 100% identity. See
citation Velculescu, V.E., et al. (1997) Characterization of the yeast transcriptome. Cell 8:243-251
4308 at
non-annotated SAGE orf Found reverse in NC_001140 between 202505 and 202657 with 100% identity.
See citation Velculescu, V.E., et al. (1997) Characterization of the yeast transcriptome. Cell 8:243-251
4309 i at
non-annotated SAGE orf Found forward in NC 001140 between 203161 and 203328 with 100% identity.
See citation Velculescu, V.E., et al. (1997) Characterization of the yeast transcriptome. Cell 8:243-251
non-annotated SAGE orf Found forward in NC 001140 between 203161 and 203328 with 100% identity.
See citation Velculescu, V.E., et al. (1997) Characterization of the yeast transcriptome. Cell 8:243-251
4262 i at
non-annotated SAGE orf Found forward in NC 001140 between 203174 and 203335 with 100% identity.
See citation Velculescu, V.E., et al. (1997) Characterization of the yeast transcriptome. Cell 8:243-251
4263 at
non-annotated SAGE orf Found reverse in NC_001140 between 204089 and 204277 with 100% identity.
See citation Velculescu, V.E., et al. (1997) Characterization of the yeast transcriptome. Cell 8:243-251
non-annotated SAGE orf Found reverse in NC 001140 between 422491 and 422676 with 100% identity.
See citation Velculescu, V.E., et al. (1997) Characterization of the yeast transcriptome. Cell 8:243-251
4265 s at -94.9
non-annotated SAGE orf Found reverse in NC 001140 between 422739 and 422921 with 100% identity.
See citation Velculescu, V.E., et al. (1997) Characterization of the yeast transcriptome. Cell 8:243-251
4266 at
            1617.0
non-annotated SAGE orf Found reverse in NC 001140 between 422746 and 422961 with 100% identity.
See citation Velculescu, V.E., et al. (1997) Characterization of the yeast transcriptome. Cell 8:243-251
non-annotated SAGE orf Found reverse in NC 001140 between 458162 and 458326 with 100% identity.
See citation Velculescu, V.E., et al. (1997) Characterization of the yeast transcriptome. Cell 8:243-251
4268 at
non-annotated SAGE orf Found reverse in NC 001140 between 522720 and 522872 with 100% identity.
See citation Velculescu, V.E., et al. (1997) Characterization of the yeast transcriptome. Cell 8:243-251
non-annotated SAGE orf Found forward in NC 001140 between 530130 and 530267 with 100% identity.
See citation Velculescu, V.E., et al. (1997) Characterization of the yeast transcriptome. Cell 8:243-251
non-annotated SAGE orf Found reverse in NC 001140 between 530754 and 530897 with 100% identity.
See citation Velculescu, V.E., et al. (1997) Characterization of the yeast transcriptome. Cell 8:243-251
4271_at
non-annotated SAGE orf Found reverse in NC 001140 between 531037 and 531177 with 100% identity.
See citation Velculescu, V.E., et al. (1997) Characterization of the yeast transcriptome. Cell 8:243-251
non-annotated SAGE orf Found reverse in NC 001140 between 111584 and 111718 with 100% identity.
See citation Velculescu, V.E., et al. (1997) Characterization of the yeast transcriptome. Cell 8:243-251
non-annotated SAGE orf Found forward in NC 001140 between 157505 and 157675 with 100% identity.
See citation Velculescu, V.E., et al. (1997) Characterization of the yeast transcriptome. Cell 8:243-251
4274 at
            477.9
non-annotated SAGE orf Found forward in NC_001140 between 175186 and 175365 with 100% identity.
See citation Velculescu, V.E., et al. (1997) Characterization of the yeast transcriptome. Cell 8:243-251
4275_at
            126.6
```

```
non-annotated SAGE orf Found forward in NC_001140 between 198428 and 198592 with 100% identity.
See citation Velculescu, V.E., et al. (1997) Characterization of the yeast transcriptome. Cell 8:243-251
4276 at
            101.3
non-annotated SAGE orf Found reverse in NC_001140 between 410821 and 411015 with 100% identity.
See citation Velculescu, V.E., et al. (1997) Characterization of the yeast transcriptome. Cell 8:243-251
4277_i_at
            -103.1
Centromere
4278 at
            640.3
                         Α
snRNA
4279_at
            427.9
                         Α
snRNA
4280 f at
            -906.9
                         Α
strong similarity to members of the Srp1p/Tip1p family
4281 i at
            196.1
                         Α
High-affinity hexose transporter
4282 f at
            640.2
High-affinity hexose transporter
4283 at
            161.9
                         Α
L-serine dehydratase
4284_at
            -274.0
                         Α
serine dehydratase
4285 at
            135.1
similarity to allantoate permease Dal5p
                         Ρ
4237 at
            496.5
putative pseudogene
                         Ρ
4238_at
            247.6
Nit1 nitrilase
4239 at
            -1.8
                         Α
questionable ORF
                         Ρ
4240 at
            595.8
hypothetical protein
4241_at
            17.3
peroxisomal 3-oxoacyl CoA thiolase
4242_at
            331.3
Bni1p-related protein, helps regulate reorganization of the actin cytoskeleton, potential target of Rho4p
4243 at
            1247.1
similarity to hypothetical protein YKR100c
4244 at
            1267.1
hypothetical protein
4245_at
            185.8
                         Α
Ubiquitin-specific protease
4246 at
            427.2
glycerol-3-phosphate dehydrogenase, mitochondrial
4247_at
            1743.9
transcription factor
                         Ρ
4248 at
            1567.1
Resistant to Rapamycin Deletion
4249 at
            500.3
hypothetical protein
4250 at
            385.2
similarity to mitochondrial aldehyde dehydrogenase Ald1p
4251 at
            50.7
Protein required for S-phase (DNA synthesis) initiation or completion
4252 at
            1450.1
similarity to Mlp1p and myosin heavy chains
4253_i_at
            46360.2
```

```
Ribosomal protein L40A
4254 at
            1437.7
histidine kinase osmosensor that regulates an osmosensing MAP kinase cascade and is similar to
bacterial two-component regulators
4255 at
            167.0
ExtraCellular Mutant
                         Ρ
4256 at
            1828.8
similarity to E.coli pantothenate synthetase
4257 at
            154.0
                         Α
Dmc1p interacting protein
4258 at
            488.1
DNA helicase homolog\; homolog of human XPBC, ERCC3
4259 at
            5924.9
molecular chaperone
4260 at
            -208.3
                         Α
questionable ORF
4215_g_at 387.5
                         Α
questionable ORF
4216 at
            1217.0
                        Ρ
localizes to the plasma membrane
4217 at
            127.0
subunit of DNA polymerase-zeta (Pol-zeta), an enzyme whose sole function appears to be translesion
synthesis
                        Α
4218 at
            444.3
Tropomyosin isoform 2
4219 at
            1768.4
similarity to M.musculus aminopeptidase
4220 at
            232.2
45-kDa mitochondrial outer membrane protein
4221 at
            1248.8
                        Ρ
similarity to Ymk1p
4222_at
            330.1
mitochondrial inner membrane carrier protein for FAD
4223_at
            53626.6
Ribosomal protein L16A (L21A) (rp22) (YL15)
4224 at
            -1.1
hypothetical protein
4225_at
            619.7
similarity to Drosophila fork head protein
4226_at
            554.4
similarity to Put3p and to hypothetical protein YJL206c
4227 at
            1988.6
similarity to hypothetical human protein
4228_at
            978.7
Involved in nucleotide excision repair and regulation of TFIIH
4229 at
            1682.9
weak similarity to Smy2p
4230 at
            1445.1
helicase related protein, snf2 homolog
4231 at
            3694.9
alpha-ketoglutarate dehydrogenase
4232_at
            1699.9
similarity to C.perfringens nanH protein
            7866.7
4233 at
involved in cell cycle regulation and aging
4234_at
            61.9
```

```
hypothetical protein
4235 at
            281.5
similarity to antibiotic resistance proteins
4236 at
            21.9
                         Α
similarity to antibiotic resistance proteins
4192 at
            358.8
inhibitor of ras
4193 at
            1544.7
                         Ρ
ras homolog--GTP binding protein
4194 at
            2645.8
hydrophobic transmembrane domain
4195 at
            3210.4
                         Ρ
histidinol-phosphate aminotransferase
4196 at
            2544.2
159-kDa nucleoporin with coiled-coil domain and repeated motifs typical of nucleoporins
4197 at
            1520.6
voltage dependent anion channel (YVDAC2)
4198 at
            149.3
strong similarity to dual-specificity phosphatase Msg5p
4199_at
            647.3
similarity to ankyrin and coiled-coil proteins
4200 at
            168.7
Cytochrome-c oxidase chain Vb
4201 at
            972.0
weak similarity to hypothetical C.elegans protein
4202 at
            2901.3
The Sec23p-Sec24p complex is one of three cytoplamic COPII factors involved in ER to Golgi transport
4203 at
            2275.1
similarity to hypothetical S. pombe protein
4204 at
            98.9
6-Phosphofructose-2-kinase
4205_at
            321.7
weak similarity to probable transcription factor Ask10p
4206_at
            819.7
similarity to hypothetical S. pombe protein
4207 at
            1156.9
weak similarity to Dph2 protein
4208_at
            -72.7
strong similarity to YIL014c-a
4209_at
            -10.2
DNA-binding transcriptional repressor
4210 at
            81.9
similarity to mouse Gcap1 protein and fruit fly Bkm-like sex-determining region hypothetical protein
CS314
4211 at
            225.9
intracellular glucoamylase
4212 g at 243.9
intracellular glucoamylase
4213 at
            249.7
Formation of Mitochondrial Cytochromes 1
4214 at
            148.8
                         Α
hypothetical protein
                         Ρ
4170 at
            528.0
hypothetical protein
            26.1
4171_at
probable serineVthreonine-protein kinase
```

```
4172_at
            23754.2
                         Ρ
Homo-isocitrate dehydrogenase
4173 at
            197.2
weak similarity to S.pombe hypothetical protein SPBC16A3
4174 at
            231.8
hypothetical protein
                         Ρ
4175_at
            1142.1
weak similarity to spt5p
4176 at
            638.4
similarity to hypothetical S. pombe protein
4177 at
            300.6
similarity to hypothetical protein YLR036c
            1848.9
4178 at
weak similarity to A.thaliana aminoacid permease AAP4
4179 at
            911.7
hypothetical protein
4180 at
            42.4
                         Α
hypothetical protein
4181 at
            1014.5
                         Ρ
Putative mannosyltransferase of the KRE2 family
4182 at
            135.9
Functions are similar to those of SIN3 and RPD3
4183 at
            1500.1
hypothetical protein
                         Ρ
4184 s at
            1558.2
Ty3-2 orf C fragment
4185 at
            389.3
                         М
strong similarity to hypothetical protein YDL175c
            14904.2
4186 at
Threonyl-tRNA synthetase, cytoplasmic
4187 at
            377.1
                         Α
hypothetical protein
4188 at
            1366.9
                         Ρ
epsilon-COP coatomer subunit Sec28p
4189_at
            7826.2
RPN2p is a component of the 26S proteosome
4190 at
            963.2
strong similarity to E.coli phosphoglycerate dehydrogenase
4191 at
            226.4
weak similarity to mouse polycystic kidney disease-related protein
4147 at
            -34.5
Meiosis-specific protein involved in homologous chromosome synapsis and chiasmata formation
4148 at
            77.1
                         Α
hypothetical protein
4149 at
            893.2
                         Ρ
mitochondrial acidic matrix protein
4150 at
            1567.7
88 kD component of the Exocyst complex, which contains the gene products encoded by SEC3, SEC5,
SEC6, SEC8, SEC10, SEC15 and EXO70
4151 at
            1280.5
hypothetical protein
                         Ρ
4152_at
            990.2
similarity to C.elegans hypothetical protein
4153 at
            750.9
weak similarity to fowlpox virus major core protein
4154_at
            1530.8
```

```
nuclear protein, interacts with Gsp1p and Crm1p
4155 at
            3963.5
Arp Complex Subunit
4156 at
            308.7
                         Α
U1snRNP 70K protein homolog
4157_at
            439.0
questionable ORF
4158 at
            14.4
                         Α
hypothetical protein
4159_at
            291.4
                         Α
hypothetical protein
4160 at
            59.5
                         Α
strong similarity to YER067w
4161 at
            2180.4
similarity to YER064c
4162 at
            121.9
                         Α
hypothetical protein
4163 at
            224.0
                         Α
weak similarity to fruit fly NADH dehydrogenase
4164_at
            31014.6
DL-glycerol-3-phosphatase
4165 i at
            54640.8
Ribosomal protein L34B
4166 at
            10790.7
Maintenance of Mitochondrial DNA 1
4167_at
            454.3
PHO85 cyclin
                         Р
4168 at
            1253.3
Protein required for filamentous growth, cell polarity, and cellular elongation
4169 at
            1766.5
ATPase that leads to neomycin-resistant protein when overexpressed
4124_at
            5755.4
plasma membrane protein
4125 at
            333.4
Met30p contains five copies of WD40 motif and interacts with and regulates Met4p
4126 at
            207.7
Protein with 30\%% identity to protein corresponding to YER054
4127_at
            268.5
weak similarity to zinc finger protein Gcs1p
            8573.4
4128_at
                        Ρ
cytochrome b reductase
4129 at
            266.0
similarity to rat branched-chain alpha-ketoacid dehydrogenase kinase
            5438.7
4130_at
similarity to S.pombe hypothetical protein
4131 at
            1061.7
                         Ρ
weak similarity to T.brucei NADH dehydrogenase
4132 at
            4755.3
hypothetical protein
                         Ρ
4133 at
            1719.3
General negative regulator of transcription\; may inhibit RNA polymerase II transcription machinery
4134 at
            174.1
hypothetical protein
                         Р
4135 at
            702.5
weak similarity to human cAMP responce element-binding protein
4136_at
            2055.6
```

```
alpha subunit of casein kinase II
4137 at
            1771.2
beta subunit of capping protein
4138 at
            2470.8
                        Ρ
regulatory subunit of cAMP-dependent protein kinase
4139 at
            480.5
hypothetical protein
                         Ρ
4140 at
            691.4
Suppressor of Mif Two
4141 at
            2864.2
integral nuclear membrane protein
4142 at
            -31.5
strong similarity to hypothetical protein YPR071w
4143 at
            -265.1
                         Α
putative pseudogene
                         Ρ
4144 at
            1654.0
hypothetical protein
4145_at
            427.5
                         Α
Irregular
4146_at
            -350.0
weak similarity to E.gracilis RNA polymerase subunit
4101 at
            351.2
hypothetical protein
4102_at
            644.1
similarity to mouse MHC H-2K/t-w5-linked ORF precursor
4103 at
            3044.4
48.8 kDa protein involved in mitochondrial protein import
            2566.8
4104 at
45 kDa subunit of RNA polymerase II
4105 at
            612.5
phosphoribosyl-5-amino-1-phosphoribosyl-4-imidazolecarboxiamide isomerase
4106_at
            403.3
weak similarity to S.pombe hypothetical protein SPAC3F10
4107_at
            352.5
hypothetical protein
                         Ρ
4108 at
            838.2
18.3 kD integral membrane protein
4109 at
            -279.9
encodes a-cell barrier activity on alpha factor
4110_at
            -138.2
strong similarity to hypothetical protein YIL102c
4111 at
            965.1
                         Ρ
similarity to Mnn1p
4112_at
            324.5
Putative member of the ABC family of membrane transporters
            77.5
4113 at
hypothetical protein
4114 at
            6246.8
                         Ρ
strong similarity to members of the Srp1p/Tip1p family
4115 at
            1378.2
Derepression Of Telomeric silencing
4116_at
            955.3
181aa protein - 20.5 kD
                         Р
4117_at
            342.5
181aa protein - 20.5 kD
                         Ρ
4118_at
            1067.4
```

```
Acyl CoA synthase
                         Ρ
4119 at
             1933.8
hypothetical protein
4120 at
            441.4
                         Α
similarity to C.elegans hypothetical protein
4121 at
            351.0
similarity to Flx1p
4122 at
            2238.8
similarity to protein disulfide isomerases
4123 at
            867.1
Synaptobrevin (t-SNARE) homolog present on ER vesicles recycling from Golgi
4079 at
            818.9
strong similarity to Nbp35p and human nucleotide-binding protein
4080 at
             449.0
phosphatidylinositol 4,5-bisphosphate 5-phosphatase
4081 at
            397.8
similarity to S.pombe hypothetical protein, weak similarity to human ankyrin
4082 at
             170.1
similarity to D.melanogaster RNA binding protein
4083_at
            964.1
weak similarity to ATP-dependent RNA helicases
4084 at
             1914.9
weak similarity to mammalian neurofilament triplet H proteins
4085 at
            631.8
DnaJ-like protein required for Peroxisome biogenesis); Djp1p is located in the cytosol
4086 at
             172.9
similarity to RNA-binding proteins
            5550.4
4087 at
polyA-specific ribonuclease
4088 at
            472.0
hypothetical protein
4089_at
            570.6
p48 polypeptide of DNA primase
4090_at
            292.3
encodes YU2B, a component of yeast U2 snRNP
4091 at
            961.9
                         Ρ
hypothetical protein
4092_at
             1278.7
restores protein transport when overexpressed and rRNA stability to a sec23 mutation
4093_at
            5905.0
contains multiple WD repeats and interacts with Qsr1p in two hybrid
4094 at
            -165.4
strong similarity to YLR013w, similarity to YMR136w
4095_at
            74.0
                         Α
hypothetical protein
4096 at
            -31.2
an integral subunit of RNase P but not RNase MRP
4097 at
            849.9
                         Ρ
weak similarity to YOL036w
4098 at
            55.5
Transcriptional activator of sulfur amino acid metabolism
4099_at
            234.4
bZIP protein\; transcription factor
4100 at
            934.5
cell surface flocculin with structure similar to serine Vthreonine-rich GPI-anchored cell wall proteins
4056_at
            35.6
```

```
hypothetical protein
4057 at
            1140.8
mitochondrial RNA splicing
4058 at
            1804.1
signal peptidase subunit
4059 at
            898.2
Transcriptional activator for allantoin and GABA catabolic genes, contains a Zn[2]-Cys[6] fungal-type
binuclear cluster domain in the N-terminal region
4060 at
            207.4
                         Α
G1 Factor needed for normal G1 phase
4061 at
            540.0
hypothetical protein
4062 at
            1653.1
nitrogen starvation-induced protein phosphatase
            78.1
4063 at
allantoinase
4064 at
            198.0
                         Α
allantoin permease
4065 at
            14.2
                         Α
allantoicase
4066_at
            385.2
                         Α
involved in nitrogen-catabolite metabolism
4067 at
            104.6
                         Α
Malate synthase 2
4068 at
            -581.4
                         Α
ureidoglycolate hydrolase
4069 at
            855.4
may be involved in the remodeling chromatin structure
4070 at
            2876.9
saccharopine dehydrogenase
4071 at
            2165.5
similarity to human corticosteroid 11-beta-dehydrogenase
4072 at
            1193.2
                        Ρ
similarity to E.coli fabD
            4916.7
4073 at
putative glutathione-peroxidase
4074 at
            887.4
Glutathione transferase
4075 at
            189.9
                        Α
GPI-anchored aspartic protease
4076 f at -15.7
similarity to members of the Srp1p/Tip1p family
4077_at
            237.0
weak similarity to B.licheniformi hypothetical protein P20
4078 i at
            82.3
putative pseudogene
4032 f at 456.6
                         Α
putative pseudogene
4033_f_at
                         Ρ
            1667.0
putative pseudogene
            -226.7
4034 at
                         Α
hypothetical protein
4035 at
            21.5
                         Α
questionable ORF
4036_at
            55.5
                         Α
questionable ORF
```

```
4037_at
            -24.2
                         Α
questionable ORF
4038 at
            517.3
                         Α
questionable ORF
4039 at
            -191.1
                         Α
questionable ORF
4040 at
            91.3
                         Α
questionable ORF
4041 at
            95.9
                         Α
hypothetical protein
4042 at
            374.8
                         Α
questionable ORF
4043 s at 138.9
invertase (sucrose hydrolyzing enzyme)
4044 s at 642.9
Mps One Binder
4045 s at -167.3
Ribonucleotide reductase (ribonucleoside-diphosphate reductase) large subunit
4046 at
            169.7
non-annotated SAGE orf Found forward in NC_001141 between 197558 and 197818 with 100% identity.
See citation Velculescu, V.E., et al. (1997) Characterization of the yeast transcriptome. Cell 8:243-251
4047 at
non-annotated SAGE orf Found forward in NC 001141 between 268308 and 268472 with 100% identity.
See citation Velculescu, V.E., et al. (1997) Characterization of the yeast transcriptome. Cell 8:243-251
non-annotated SAGE orf Found forward in NC_001141 between 414832 and 414975 with 100% identity.
See citation Velculescu, V.E., et al. (1997) Characterization of the yeast transcriptome. Cell 8:243-251
4049_at
non-annotated SAGE orf Found forward in NC 001141 between 438483 and 438695 with 100% identity.
See citation Velculescu, V.E., et al. (1997) Characterization of the yeast transcriptome. Cell 8:243-251
4050 at
non-annotated SAGE orf Found forward in NC_001141 between 144104 and 144268 with 100% identity.
See citation Velculescu, V.E., et al. (1997) Characterization of the yeast transcriptome. Cell 8:243-251
non-annotated SAGE orf Found forward in NC 001141 between 173167 and 173406 with 100% identity.
See citation Velculescu, V.E., et al. (1997) Characterization of the yeast transcriptome. Cell 8:243-251
4052 i at
non-annotated SAGE orf Found forward in NC_001141 between 324288 and 324437 with 100% identity.
See citation Velculescu, V.E., et al. (1997) Characterization of the yeast transcriptome. Cell 8:243-251
4053 s at 1047.7
non-annotated SAGE orf Found forward in NC 001141 between 324288 and 324437 with 100% identity.
See citation Velculescu, V.E., et al. (1997) Characterization of the yeast transcriptome. Cell 8:243-251
non-annotated SAGE orf Found forward in NC_001141 between 350298 and 350507 with 100% identity.
See citation Velculescu, V.E., et al. (1997) Characterization of the yeast transcriptome. Cell 8:243-251
4055 at
            -85.3
non-annotated SAGE orf Found forward in NC 001141 between 398511 and 398723 with 100% identity.
See citation Velculescu, V.E., et al. (1997) Characterization of the yeast transcriptome. Cell 8:243-251
4009 at
non-annotated SAGE orf Found forward in NC 001141 between 26990 and 27169 with 100% identity.
See citation Velculescu, V.E., et al. (1997) Characterization of the yeast transcriptome. Cell 8:243-251
            -112.6
non-annotated SAGE orf Found reverse in NC 001141 between 139370 and 139600 with 100% identity.
See citation Velculescu, V.E., et al. (1997) Characterization of the yeast transcriptome. Cell 8:243-251
4011 at
            151.4
non-annotated SAGE orf Found reverse in NC_001141 between 139503 and 139682 with 100% identity.
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See citation Velculescu, V.E., et al. (1997) Characterization of the yeast transcriptome. Cell 8:243-251
4012 at
            443.8
non-annotated SAGE orf Found forward in NC 001141 between 169709 and 169858 with 100% identity.
See citation Velculescu, V.E., et al. (1997) Characterization of the yeast transcriptome. Cell 8:243-251
non-annotated SAGE orf Found reverse in NC 001141 between 210545 and 210736 with 100% identity.
See citation Velculescu, V.E., et al. (1997) Characterization of the yeast transcriptome. Cell 8:243-251
4014 at
non-annotated SAGE orf Found forward in NC_001141 between 230002 and 230175 with 100% identity.
See citation Velculescu, V.E., et al. (1997) Characterization of the yeast transcriptome. Cell 8:243-251
4015 at
non-annotated SAGE orf Found forward in NC 001141 between 258363 and 258509 with 100% identity.
See citation Velculescu, V.E., et al. (1997) Characterization of the yeast transcriptome. Cell 8:243-251
non-annotated SAGE orf Found forward in NC 001141 between 258506 and 258640 with 100% identity.
See citation Velculescu, V.E., et al. (1997) Characterization of the yeast transcriptome. Cell 8:243-251
4017 at
non-annotated SAGE orf Found reverse in NC 001141 between 324125 and 324358 with 100% identity.
See citation Velculescu, V.E., et al. (1997) Characterization of the yeast transcriptome. Cell 8:243-251
4018 at
non-annotated SAGE orf Found reverse in NC_001141 between 385561 and 385698 with 100% identity.
See citation Velculescu, V.E., et al. (1997) Characterization of the yeast transcriptome. Cell 8:243-251
non-annotated SAGE orf Found reverse in NC 001141 between 385816 and 385959 with 100% identity.
See citation Velculescu, V.E., et al. (1997) Characterization of the yeast transcriptome. Cell 8:243-251
4020 at
            375.9
non-annotated SAGE orf Found reverse in NC 001141 between 386017 and 386157 with 100% identity.
See citation Velculescu, V.E., et al. (1997) Characterization of the yeast transcriptome. Cell 8:243-251
4021 at
non-annotated SAGE orf Found forward in NC 001141 between 387799 and 388053 with 100% identity.
See citation Velculescu, V.E., et al. (1997) Characterization of the yeast transcriptome. Cell 8:243-251
non-annotated SAGE orf Found forward in NC 001141 between 425520 and 425678 with 100% identity.
See citation Velculescu, V.E., et al. (1997) Characterization of the yeast transcriptome. Cell 8:243-251
4023 s at 65.5
non-annotated SAGE orf Found forward in NC 001141 between 21392 and 21526 with 100% identity.
See citation Velculescu, V.E., et al. (1997) Characterization of the yeast transcriptome. Cell 8:243-251
4024 at
non-annotated SAGE orf Found reverse in NC 001141 between 30695 and 30898 with 100% identity.
See citation Velculescu, V.E., et al. (1997) Characterization of the yeast transcriptome. Cell 8:243-251
non-annotated SAGE orf Found reverse in NC 001141 between 51611 and 51751 with 100% identity.
See citation Velculescu, V.E., et al. (1997) Characterization of the yeast transcriptome. Cell 8:243-251
4026_at
            -121.1
non-annotated SAGE orf Found forward in NC 001141 between 122286 and 122549 with 100% identity.
See citation Velculescu, V.E., et al. (1997) Characterization of the yeast transcriptome. Cell 8:243-251
non-annotated SAGE orf Found forward in NC 001141 between 154868 and 155122 with 100% identity.
See citation Velculescu, V.E., et al. (1997) Characterization of the yeast transcriptome. Cell 8:243-251
4028 at
non-annotated SAGE orf Found reverse in NC 001141 between 231169 and 231306 with 100% identity.
See citation Velculescu, V.E., et al. (1997) Characterization of the yeast transcriptome. Cell 8:243-251
4029 at
            633.8
non-annotated SAGE orf Found reverse in NC_001141 between 355843 and 356004 with 100% identity.
See citation Velculescu, V.E., et al. (1997) Characterization of the yeast transcriptome. Cell 8:243-251
4030_at
            1554.0
```

non-annotated SAGE orf Found forward in NC_001141 between 385618 and 385767 with 100% identity. See citation Velculescu, V.E., et al. (1997) Characterization of the yeast transcriptome. Cell 8:243-251 4031 at 484.0 snRNA 3983 at 132.5 cytochrome-c oxidase subunit II 3984 r at -72.4 questionable ORF Found forward in NC_001224 between 74495 and 74804 with 99.677419% identity. 3985 i at -788.4 questionable ORF Found forward in NC_001224 between 74495 and 74804 with 99.677419% identity. 3986 f at -142.2 questionable ORF Found forward in NC 001224 between 74495 and 74804 with 99.677419% identity. 3987 at 69.3 similarity to Podospora cytb intron 1a and coll intron protein 2 Found forward in NC 001224 between 74755 and 75949 with 97.154812% identity. 3988 at -52.6 cytochrome-c oxidase chain III 3989 at -82.8 strong similarity to maturase-related hypothetical protein RF2 3990_i_at -146.2 similarity to hypothetical protein Sgc2p Found forward in NC_001224 between 75041 and 75472 with 64.392324% identity. 3991 r at -145.7 similarity to hypothetical protein Sqc2p Found forward in NC 001224 between 75041 and 75472 with 64.392324% identity. 3992 f at 1235.4 similarity to hypothetical protein Sqc2p Found forward in NC 001224 between 75041 and 75472 with 64.392324% identity. 3993 at -59.0 strong similarity to Yeast (S.uvarum) mitochondria RF2 gene and maturase-related hypothetical protein RF2 3994 at 658.9 similarity to Sauroleishmania NADH dehydrogenase (ubiquinone) chain 5 Found forward in NC 001224 between 3940 and 4167 with 99.122807% identity. 3995 i at 35.2 RF2 protein Found forward in NC 001224 between 8526 and 8736 with 84.489796% identity. 3996 s at 657.3 cytochrome-c oxidase subunit I Found forward in NC_001224 between 13818 and 13988 with 100% identity. 3997_at 764.0 questionable ORF Found reverse in NC 001224 between 13748 and 14122 with 100% identity. 3998 at 191.4 COX1 intron 1 protein Found forward in NC_001224 between 13818 and 16322 with 99.92016% identity. 3999 at COX1 intron 2 protein Found forward in NC 001224 between 16473 and 18830 with 99.872774% identity. 4000 at COX1 intron 3 protein Found forward in NC 001224 between 18992 and 19996 with 98.308458% identity. 4001 at 1159.0 cytochrome-c oxidase subunit I Found forward in NC 001224 between 20508 and 20984 with 99.790356% identity. 4002 at -10.2 DNA endonuclease I-Scell Found forward in NC_001224 between 20985 and 21935 with 99.684543% identity.

4003_s_at 1136.5

cytochrome-c oxidase subunit I Found forward in NC_001224 between 21995 and 22246 with 97.22222% identity. 4004 at 349.7 probable mRNA maturase al5-alpha Found forward in NC 001224 between 21995 and 23167 with 99.40324% identity. 4005 at 8245.7 cytochrome-c oxidase subunit I Found forward in NC_001224 between 23612 and 23746 with 100% identity. 4006 at -73.5 COX1 intron protein al5-beta Found forward in NC_001224 between 24120 and 25151 with 96.317829% identity. 4007 at 71.0 cytochrome-c oxidase subunit I Found forward in NC 001224 between 26228 and 26530 with 99.339934% identity. 4008 at 171.4 Α cytochrome-c oxidase subunit I Found forward in NC 001224 between 26627 and 26701 with 100% identity. 3956 i at 753.4 F1F0-ATPase complex, F0 subunit 8 Found forward in NC_001224 between 27666 and 27812 with 99.319728% identity. 3957 r at 540.2 F1F0-ATPase complex, F0 subunit 8 Found forward in NC_001224 between 27666 and 27812 with 99.319728% identity. 3958 r at 55.5 similarity to mouse Gcap1 Found forward in NC 001224 between 28122 and 28444 with 88.588589% identity. 3959 at -94.8 F1F0-ATPase complex, FO A subunit Found forward in NC_001224 between 28487 and 29266 with 97.564103% identity. -101.8 3960 at endonuclease SCEI, small subunit Found forward in NC_001224 between 46046 and 46361 with 69.393939% identity. 3961 i at 103.3 endonuclease SCEI, small subunit Found forward in NC_001224 between 8238 and 8509 with 72.463768% identity. 3962 f at 218.3 endonuclease SCEI, small subunit Found forward in NC 001224 between 8238 and 8509 with 72.463768% identity. 3963 at 33.0 endonuclease SCEI, small subunit Found forward in NC_001224 between 11057 and 11551 with 65.530303% identity. 3964 at -8.9 endonuclease SCEI, small subunit Found forward in NC_001224 between 77067 and 77606 with 61.663653% identity. 3965 i at 350.5 ORF5 Found forward in NC_001224 between 30874 and 31014 with 100% identity. 3966 i at -40.6 similarity to T.brucei mitochondrion protein SGC6 Found reverse in NC 001224 between 34032 and 34430 with 88.279302% identity. 3967 r at -281.5 similarity to T.brucei mitochondrion protein SGC6 Found reverse in NC_001224 between 34032 and 34430 with 88.279302% identity. 3968 s at 167.6

ubiquinol--cytochrome-c reductase subunit (cytochrome B) Found forward in NC 001224 between 36540

and 36954 with 100% identity. 3969_at 17.5 A

mRNA maturase bl2 Found forward in NC_001224 between 37723 and 38579 with 99.883314% identity. 3970 s at 265.8 ubiquinol--cytochrome-c reductase subunit (cytochrome B) Found forward in NC 001224 between 39141 and 39217 with 100% identity. 3971 at 101.9 mRNA maturase bl3 Found forward in NC 001224 between 39141 and 40265 with 98.577778% identity. 3972 s at 115.6 ubiquinol--cytochrome-c reductase subunit (cytochrome B) Found forward in NC 001224 between 40841 and 41093 with 100% identity. 3973 at -114.3 mRNA maturase bl4 Found forward in NC 001224 between 40815 and 42251 with 99.860821% identity. 3974 at 306.6 ubiquinol--cytochrome-c reductase subunit (cytochrome B) Found forward in NC 001224 between 42508 and 42561 with 100% identity. 3975 at 315.1 Α ubiquinol--cytochrome-c reductase subunit (cytochrome B) Found forward in NC 001224 between 43297 and 43647 with 100% identity. 3976 at 24360.2 F1F0-ATPase complex, F0 subunit 9 Found forward in NC 001224 between 46723 and 46953 with 100% identity. 3977 i at 424.3 similarity to honeybee mitochondrion NADH dehydrogenase chain 6 (SGC4) Found reverse in NC 001224 between 48858 and 49169 with 99.679487% identity. 3978 r at -227.8 similarity to honeybee mitochondrion NADH dehydrogenase chain 6 (SGC4) Found reverse in NC 001224 between 48858 and 49169 with 99.679487% identity. 3979 i at 89.6 mitochondrial ribosomal protein Found forward in NC_001224 between 48901 and 50097 with 98.436214% identity. 3980 r at -731.8 mitochondrial ribosomal protein Found forward in NC_001224 between 48901 and 50097 with 98.436214% identity. 3981 at 23.5 probable mRNA maturase in 21S rRNA intron Found forward in NC 001224 between 61193 and 61729 with 100% identity. 3982 at -231.4 kanamycin resistance casette 3932 at -178.8 Α MAL-activator 23 (MAL23) gene 3933_s_at 281.8 Required for the catabolism of melibiose and regulated by several GAL genes 3934 at 312.3 Α Protein that confers resistance to molasses -268.2 3935 at Tropomyosin-related protein with transmembrane domain and basic C-terminal 3936 at 486.3 invertase (sucrose hydrolyzing enzyme) 3937 g at 1449.2 invertase (sucrose hydrolyzing enzyme) 3938 at 1640.9 Protein involved in targeting of plasma membrane [H+]ATPase 3939 at 106.3 Probable aldehyde dehydrogenase (EC 1.2.1.-) 3940 at 106.5

Degradation in the Endoplasmic Reticulum

541.9

3941 at

```
SerVThr protein kinase
3942 at
            2340.0
bZIP (basic-leucine zipper) protein
3943 i at
            6637.9
bZIP (basic-leucine zipper) protein
3944 f at 844.3
bZIP (basic-leucine zipper) protein
3945 at
            474.6
Protein essential for mitochondrial biogenesis and cell viability
3946 at
            812.4
Protein essential for mitochondrial biogenesis and cell viability
3947 at
            3151.4
strong similarity to holacid-halidohydrolase
3948 s at 347.6
probable serineVthreonine-specific protein kinase (EC 2.7.1.-)
3949 i at
            1853.2
protein of unknown function
3950 at
            967.1
Rho family GTPase
3951_at
            2336.5
                        Ρ
micron plasmid recombinase
3952_at
            11281.1
micron plasmid rep1 protein
            4175.6
3953 at
micron plasmid D protein
3954_at
            6486.1
micron plasmid rep2 protein
3955_at
            418.5
micron plasmid recombinase
3907 f at
          744.4
strong similarity to subtelomeric encoded proteins
3908_i_at
            139.2
                        Α
Ty1 LTR
3909_f_at 8.4
                        Α
Ty1 LTR
3910_at
            8.5
                        Α
Ty1 LTR
3911_at
            -57.2
                        Α
Ty1 LTR
3912_f_at
            28139.3
                        Ρ
Ty1 LTR
3913 s at 21517.9
                        Ρ
Full length Ty1
                        Ρ
3914_s_at 38684.5
Full length Ty1
3915_s_at 86419.4
                        Ρ
Full length Ty1
3916_s_at 131689.2
Full length Ty1
3917 f at 70265.7
                        Ρ
Full length Ty1
3918_f_at 48535.5
                        Ρ
Full length Ty1
3919_f_at
            44583.4
Saccharomyces cerevisiae chromosome I, complete chromosome sequence. Found reverse in
```

NC_001133 between 160593 and 164183 with 100% identity.

2

2

2

2

2

```
3920_f_at 105386.2
                      Ρ
Saccharomyces cerevisiae chromosome I, complete chromosome sequence. Found reverse in
NC 001133 between 160593 and 164183 with 100% identity.
3921 s at 34316.8
Saccharomyces cerevisiae chromosome I, complete chromosome sequence. Found reverse in
NC 001133 between 164540 and 165862 with 100% identity.
3922 f at 25296.0
Ty1 LTR
3923 f at 517.1
                      Α
tRNA-Ala
3924 f at 604.3
                      Ρ
tRNA-Ser
3925 f at
           13397.0
Ty3 LTR Found forward in NC 001133 between 182610 and 182949 with 100% identity.
3926 f at
          17338.3
Ty1 LTR
3927_f_at 8904.2
                      Ρ
Ty2 LTR
3928_f_at 118.5
                       Α
Ty1 LTR
                       Α
3929_s_at 85.3
tRNA-Thr
3930 i at -179.8
                       Α
Ty1 LTR
3931 f at 995.3
                       Α
Ty1 LTR
                       Ρ
3884 f at
           1244.9
tRNA-Glu
3885 f at 179.7
                      Α
tRNA-Ala
3886_f_at -36.0
                       Α
Ty3 LTR
3887 f at 736.8
                       Ρ
Ty4 LTR
3888 s at -218.5
                      Α
Saccharomyces cerevisiae chromosome X, complete chromosome sequence. Found forward in
NC_001142 between 197614 and 198699 with 100% identity.
3889 s at 143.5
Saccharomyces cerevisiae chromosome X, complete chromosome sequence. Found forward in
NC_001142 between 197614 and 198699 with 100% identity.
3890 s at -80.8
Saccharomyces cerevisiae chromosome X, complete chromosome sequence. Found forward in
NC_001142 between 197614 and 198858 with 100% identity.
3891_s_at -314.9
                      Α
Saccharomyces cerevisiae chromosome X, complete chromosome sequence. Found forward in
NC_001142 between 198701 and 203026 with 100% identity.
3892 s at -234.8
Saccharomyces cerevisiae chromosome X, complete chromosome sequence. Found forward in
NC_001142 between 198701 and 203026 with 100% identity.
3893 s at -530.1
Saccharomyces cerevisiae chromosome X, complete chromosome sequence. Found forward in
NC_001142 between 198701 and 203026 with 100% identity.
3894 s at -69.6
Saccharomyces cerevisiae chromosome X, complete chromosome sequence. Found forward in
NC_001142 between 198701 and 203026 with 100% identity.
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3895_s_at 28.2

Saccharomyces cerevisiae chromosome X, complete chromosome sequence. Found forward in NC_001142 between 198701 and 203026 with 100% identity.

NC_001142		
3896_s_at		Α
Full length T	y4	
3897 s at	-18.1	Α
Full length T 3898_s_at	\/A	
2000 a at	400.0	Α
3898_S_at	-102.3	А
Full length T		
3899_s_at	804.7	Р
Full length T	v4	
3900_f_at		Р
Full langth T	7.7	•
Full length T		_
3901_f_at	769.8	Ρ
Tv4 LTR		
3902 f at	16842.8	Р
Tv1 I TR		
3902_f_at Ty1 LTR 3903_i_at	-443.0	Α
3903_i_at	-443.0	А
Ty1 LTR 3904_f_at		
3904_f_at	5601.9	Ρ
Ty1 LTR		
3905_s_at	925.7	Ρ
tRNA-Asp	020.7	•
	005.0	^
3906_f_at	235.8	Α
tRNA-Arg		
3859_i_at	-9.3	Α
Ty1 LTR		
3860 f at	15136.7	Р
3000_i_at	13130.7	
IYILIK		_
3861_f_at	41435.6	Ρ
3860_f_at Ty1 LTR 3861_f_at Ty1 LTR		
3862_f_at	115.2	Α
tRNA-Arg		
	02.7	Α
3863_f_at	-92.7	А
tRNA-Arg		
3864_i_at	-1693.6	Α
Ty1 LTR		
3865_f_at	42.2	Α
Tv1 TD	12.2	, ,
Ty1 LTR	47.0	^
3866_at Ty1 LTR	-17.9	Α
Ty1 LTR		
3867_s_at	984.0	Ρ
tRNA-Val		
3868_s_at	96.8	Α
	90.0	$\overline{}$
tRNA-Met		_
3869_f_at	-16.2	Α
tRNA-Gly		
3870_s_at	403.5	Α
tRNA-Lys		
	276.7	۸
3871_at	-376.7	Α
Ty4 LTR		
3872_i_at	-157.0	Α
Ty1 LTR		
3873 f at	-255.3	Α
3872_i_at Ty1 LTR 3873_f_at Ty1 LTR		, ,
3874_i_at	00.0	Α
	-98.9	А
Ty1 LTR		

```
-75.2
3875_f_at
                      Α
Ty1 LTR
3876 at
           212.8
                      Α
Ty4 LTR
3877_at
           120.2
                      Α
Ty1 LTR
                      Ρ
3878_s_at
           483.2
tRNA-Leu
3879_f_at
           24363.8
                      Ρ
Ty1 LTR
3880_f_at 86085.3
Saccharomyces cerevisiae chromosome X, complete chromosome sequence. Found forward in
NC 001142 between 473751 and 477716 with 100% identity.
3881_f_at 72809.6
Full length Ty1
3882_f_at 44867.2
                      Ρ
Full length Ty1
3883_f_at 27960.1
                      Ρ
Ty1 LTR
3835_s_at 124100.2
Saccharomyces cerevisiae chromosome X, complete chromosome sequence. Found forward in
NC_001142 between 479334 and 483300 with 100% identity.
3836 f at 27737.8
Full length Ty1
3837_f_at 24821.1
                      Ρ
Ty1 LTR
3838 s at -337.7
                      Α
tRNA-Met
3839 at
           -89.4
                      Α
Ty1 LTR
3840_f_at
           163.4
                      Α
tRNA-Ser
3841 at
           55.6
                      Α
Ty1 LTR
3842 f at
           -949.7
                      Α
tRNA-Gly
3843_at
           337.2
                      М
Ty1 LTR
                      Ρ
3844 f at
           22777.4
Ty1 LTR
3845_i_at
           -21.9
                      Α
tRNA-Arg
3846_f_at
           -565.3
                      Α
tRNA-Arg
3847 i at
           -576.2
                      Α
Ty1 LTR
                      Ρ
3848 f at
           6844.7
Ty1 LTR
3849_f_at
                      Ρ
           27643.1
Ty1 LTR
3850_at
           343.0
                      Ρ
Ty1 LTR
3851_s_at 1786.5
Protein with similarity to members of the Ybr302pVYcr007pVCos8pVCos9p family, coded from
subtelomeric region
                      Ρ
3852_f_at 3576.5
```

```
Protein with similarity to members of the Ybr302pVYcr007pVCos8pVCos9p family, coded from
subtelomeric region
3853 f at
           186.8
strong similarity to subtelomeric encoded proteins
           -309.3
3854 f at
strong similarity to Gin11p, YKL225w and other subtelomeric encoded proteins
3855_s_at -174.8
strong similarity to subtelomeric encoded proteins
3856_at
           -265.2
                       Α
tRNA-Thr
3857 at
           -884.3
                       Α
Ty1 LTR
3858 s at -526.7
                       Α
tRNA-Asn
3812 at
           -132.7
                       Α
Ty1 LTR
3813_f_at
           626.8
                       Α
tRNA-Glu
3814_f_at
           19.0
                       Α
tRNA-Arg
3815_i_at
           -216.5
                       Α
Ty1 LTR
3816 f at -11.0
                       Α
Ty1 LTR
                       Ρ
3817_f_at
           13875.2
Ty3 LTR
           -168.0
3818 at
                       Α
Ty1 LTR
3819_f_at
           444.2
                       Α
tRNA-Ala
3820_f_at
           1830.5
                       Ρ
Ty1 LTR
3821_f_at
           -45.6
                       Α
tRNA-His
3822 f at
           6694.6
                       Ρ
Ty1 LTR
3823_f_at
                       Ρ
           12035.7
Ty1 LTR
3824 f at
                       Ρ
           30991.7
Ty1 LTR
3825 at
           3.4
                       Α
Ty1 LTR
3826_at
           -583.0
                       Α
Ty1 LTR
3827 f at
           200.4
                       Α
tRNA-Arg
3828 f at
           256.5
                       Α
Ty1 LTR
3829_f_at
           31579.1
                       Ρ
Ty1 LTR
3830_f_at
           105.3
                       Α
tRNA-Ala
3831 s at -168.9
                       Α
strong similarity to subtelomeric encoded proteins
3832_s_at -610.0
```

strong similarity to subtelomeric encoded proteins

```
3833_f_at -114.3
                       Α
Ty5 LTR
3834 s at 322.1
                       Α
strong similarity to subtelomeric encoded proteins
3789 s at -113.7
strong similarity to subtelomeric encoded proteins
3790_s_at 2583.6
strong similarity to subtelomeric encoded proteins
3791_s_at -181.3
strong similarity to subtelomeric encoded proteins
3792 s at 7715.8
strong similarity to subtelomeric encoded proteins
3793 f at 2927.7
Ty1 LTR
3794_f_at 92.9
                       Α
tRNA-Ser
3795 at
           -122.0
                       Α
Ty3 LTR
3796_f_at
           350.1
tRNA-Ala
3797_f_at
           22993.5
                       Ρ
Ty1 LTR
                      Ρ
3798 s at 265813.0
Saccharomyces cerevisiae chromosome XII, complete chromosome sequence. Found reverse in
NC 001144 between 215441 and 219403 with 100% identity.
           16806.2
3799_f_at
Ty1 LTR
3800_at
           -208.8
                       Α
Ty1 LTR
3801_f_at
           108.9
                       Α
Ty1 LTR
3802_f_at
           10969.1
                       Α
Ty3 LTR
3803_f_at
           -109.0
                       Α
tRNA-Arg
3804_f_at
           658.8
                       Ρ
tRNA-GIn
                       Ρ
3805_f_at
          9150.9
Ty1 LTR
3806_s_at 41644.2
                       Ρ
35S ribosomal RNA
3807_s_at 123306.2
                       Ρ
35S ribosomal RNA
                       Ρ
3808_s_at 89419.2
35S ribosomal RNA
3809_s_at 26054.1
                       Ρ
35S ribosomal RNA
3810_s_at 21331.8
                       Ρ
35S ribosomal RNA
                       Ρ
3811_s_at 34288.9
35S ribosomal RNA
                       Ρ
3764_s_at 45538.9
35S ribosomal RNA
3765_s_at 88415.0
25S ribosomal RNA
                       Ρ
3766_s_at 112873.3
```

```
Ρ
3767 s at 36557.5
18S ribosomal RNA
3768_i_at 50737.4
                      Ρ
5S ribosomal RNA
3769_s_at 51931.6
5S ribosomal RNA
3770 i at 35487.0
                      Ρ
5S ribosomal RNA
                       Ρ
3771_f_at 28585.4
Ty1 LTR
3772 f at 109219.4
Full length Tv1
                      Ρ
3773_f_at 54379.5
Full length Ty1
                      Ρ
3774 f at
          148556.1
Saccharomyces cerevisiae chromosome XII, complete chromosome sequence. Found reverse in
NC 001144 between 476334 and 480296 with 100% identity.
3775 f at 23000.0
                      Ρ
Ty1 LTR
3776_i_at 774.2
                      Α
Ty1 LTR
3777 f at 307.4
                      Α
Ty1 LTR
                      Ρ
3778_f_at 24675.5
Ty1 LTR
                      Ρ
3779 f at 82129.8
Saccharomyces cerevisiae chromosome XII, complete chromosome sequence. Found forward in
NC 001144 between 594749 and 598706 with 100% identity.
3780 f at 14271.8
                      Ρ
Full length Ty1
3781_f_at 62232.1
                      Ρ
Full length Ty1
3782_f_at 28610.5
                      Ρ
Ty1 LTR
3783 at
           99.5
                      Α
Ty1 LTR
3784_at
           -274.1
                       Α
Ty4 LTR
3785_f_at
           29900.7
                      Ρ
Ty1 LTR
3786 s at 85431.8
TY1B protein Found forward in NC_001144 between 652918 and 653385 with 100% identity.
3787_f_at
          78130.3
Saccharomyces cerevisiae chromosome XII, complete chromosome sequence. Found forward in
NC_001144 between 654177 and 656387 with 100% identity.
3788 f at 157947.4
Saccharomyces cerevisiae chromosome XII, complete chromosome sequence. Found forward in
NC_001144 between 654177 and 656387 with 100% identity.
3740 f at 69379.0
Full length Ty1
3741_f_at 73030.6
                      Ρ
Full length Ty1
                      Р
3742_f_at 25916.7
Ty1 LTR
3743_f_at 1020.6
                      Α
```

25S ribosomal RNA

+DNIA Ala		
tRNA-Ala 3744_i_at	2573.1	Р
Ty3 LTR	2070.1	•
3745_f_at	1471.2	Р
Ty3 LTR	1 17 1.2	•
3746_at	234.1	Α
Tv1 LTR		
3747 at	-56.7	Α
Tv1 LTR		
Ty1 LTR 3747_at Ty1 LTR 3748_i_at	281.2	Α
Ty1 LTR		
3749_r_at	-118.6	Α
Ty1 LTR		
3750_f_at	47.2	Α
Ty1 LTR		
3751 f at	23252.1	Ρ
Ty2 LTR		
3752_f_at	3419.5	Ρ
Ty2 LTR 3752_f_at Ty1 LTR 3753_s_at		
3753_s_at	94.4	Α
tRNA-lle		
3754_s_at	47.8	Α
tRNA-Ser		
3755_f_at	179.6	Α
Ty3 LTR		
3756_i_at	-47.7	Α
Ty1 LTR		_
3757_f_at	8930.0	Р
Ty1 LTR 3758_f_at	4700.0	_
3/58_f_at	1762.9	Р
tRNA-Glu	7070 4	_
3759_f_at	7872.4	Р
Ty1 LTR	000.0	_
3760_at	899.2	Р
tRNA-Arg	22654.4	D
3761_f_at	33654.4	Р
Ty2 LTR	610.0	Α
3762_s_at	ces cerevisia	
Jaconaronny	,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,	10 C

Saccharomyces cerevisiae chromosome XII, complete chromosome sequence. Found forward in NC_001144 between 941478 and 942778 with 100% identity.

3763 s at 582.7 A

Saccharomyces cerevisiae chromosome XII, complete chromosome sequence. Found forward in NC_001144 between 941478 and 942778 with 100% identity.

3717_s_at 3233.1 P

Saccharomyces cerevisiae chromosome XII, complete chromosome sequence. Found forward in NC_001144 between 942777 and 946791 with 100% identity.

3718 s at 2485.3 P

Saccharomyces cerevisiae chromosome XII, complete chromosome sequence. Found forward in NC_001144 between 942777 and 946791 with 100% identity.

3719 s at 5880.6 P

Saccharomyces cerevisiae chromosome XII, complete chromosome sequence. Found forward in NC_001144 between 942777 and 946791 with 100% identity.

3720 f at 77479.6 P

Saccharomyces cerevisiae chromosome XII, complete chromosome sequence. Found forward in NC_001144 between 942777 and 946791 with 100% identity.

3721_s_at 473.8 P

```
Full length Ty2
                       Ρ
3722 s at 13350.5
Full length Ty2
3723_f_at 98174.0
                       Ρ
Full length Ty2
3724_f_at 32420.2
                       Ρ
Ty2 LTR
3725_at
           552.0
                       Α
Ty1 LTR
3726_f_at
           16040.0
                        Ρ
Ty2 LTR
                       Ρ
3727 f at 19337.2
Full length Ty2
                       Ρ
3728 f at 96891.8
Saccharomyces cerevisiae chromosome XII, complete chromosome sequence. Found reverse in
NC 001144 between 976606 and 980109 with 100% identity.
3729 f at 10798.9
Ty2 LTR
3730 at
           326.4
Ty1 LTR
3731_s_at 117.8
                        Α
strong similarity to subtelomeric encoded proteins
3732 s at 272.0
strong similarity to subtelomeric encoded proteins
3733 s at 250.2
strong similarity to subtelomeric encoded proteins
3734 s at 654.0
strong similarity to subtelomeric encoded proteins
3735 f at 16442.2
strong similarity to subtelomeric encoded proteins
3736_s_at 56.1
strong similarity to subtelomeric encoded proteins
3737 s at 271.6
strong similarity to subtelomeric encoded proteins
3738 s at 6920.6
Protein with strong similarity to subtelomerically-encoded proteins such as Cos5p. Ybr302p. Cos3p.
Cos1p, Cos4p, Cos6p, Cos6p, Cos9p (COS3 and YBR302C code for identical proteins)
3739 f at
           4296.9
Protein with strong similarity to subtelomerically-encoded proteins such as Cos5p, Ybr302p, Cos3p,
Cos1p, Cos4p, Cos6p, Cos6p, Cos9p (COS3 and YBR302C code for identical proteins)
3695 f at 207.1
tRNA-Arg
3696_at
           307.8
                        Α
Ty1 LTR
3697 f at 51988.5
                        Ρ
Ty2 LTR
3698 f at -1136.3
                       Α
tRNA-Gly
3699_f_at
           31353.1
                        Ρ
Ty1 LTR
3700_f_at 50334.4
                       Ρ
Full length Ty1
3701_f_at 28594.7
Ty1 LTR
                       Ρ
3702_f_at
           28491.6
Ty1 LTR
```

3703_f_at 157780.5 P
Saccharomyces cerevisiae chromosome XIII, complete chromosome sequence. Found forward in NC_001145 between 197939 and 201896 with 100% identity.

NC_001145		
3704_f_at	97346.4	Ρ
Full length T	v1	
3705 f at	53224 B	Ρ
Full length T	v1	•
ozoc f -t	y I	_
3706_f_at	19137.2	Р
Ty1 LTR		
3707_f_at	415.9	Α
tRNA-Ser		
3708_at	135.5	Α
	100.0	
Ty4 LTR		_
3709_f_at	864.2	Р
tRNA-Glu		
3710_f_at	812.3	Α
tRNA-Ala		
2711 f of	25503.7	Р
3711_f_at Ty1 LTR 3712_s_at	20003.7	Г
Ty1 LTR		
3712_s_at	613.8	Α
Full length T	v1	
3713_s_at	334.2	Α
Full length T	v1	
		_
3714_f_at	59588.7	Р
Full length T	y1	
3715_f_at	27606.7	Ρ
Ty1 LTR		
	386.6	Α
	300.0	$\overline{}$
tRNA-His		_
3671_f_at Ty1 LTR 3672_f_at	24010.3	Ρ
Ty1 LTR		
3672 f at	42128.2	Ρ
Full length T		
	25705.2	Р
	23703.2	Г
Ty1 LTR		
	84.2	Α
Ty1 LTR		
3675_r_at	-15.9	Α
Ty1 LTR		
	70.0	
3676_f_at	-76.3	Α
Ty1 LTR		
3677_f_at	290.2	Α
Tv1 LTR		
Ty1 LTR 3678_at	-432.8	Α
Ty1 LTR	402.0	
TYTEIK	000 7	
3679_at	-388.7	Α
Ty1 LTR		
3680_i_at	63.6	Α
Ty1 LTR		
3681_s_at	151.8	Α
	131.0	^
Ty1 LTR		_
3682_i_at	-324.8	Α
Ty1 LTR		
3683 f at	134.8	Α
Ty1 LTR 3683_f_at Ty1 LTR		
3684_f_at	592.1	Р
5004_I_at	J3Z. I	г

```
Ty4 LTR
3685 f at 3247.6
                       Ρ
Ty1 LTR
3686_f_at
           85.5
                       Α
Ty1 LTR
3687_f_at
           2.6
                       Α
tRNA-Arg
3688_f_at
                       Ρ
           254.9
tRNA-Ala
                       Ρ
3689_f_at
           15061.8
Ty2 LTR
3690_f_at
           -168.1
                       Α
tRNA-GIn
3691_f_at
           330.7
                       Α
Ty4 LTR
3692 at
           -72.8
                       Α
Ty1 LTR
3693_f_at
           361.1
                       Α
Ty1 LTR
3694_at
           81.1
                       Α
strong similarity to subtelomeric encoded proteins
3646_s_at -13.9
strong similarity to subtelomeric encoded proteins
3647_f_at 192.7
strong similarity to subtelomeric encoded proteins
           10648.6
3648_f_at
Protein with similarity to subtelomerically-encoded proteins such as Cos5p, Ybr302p, Cos3p, Cos1p,
Cos4p, Cos8p, Cos6p, Cos9p
3649_f_at
           193.9
                       Α
tRNA-Gly
3650_f_at -10.7
                       Α
Ty4 LTR
                       Ρ
3651 f at 21889.2
Ty1 LTR
3652 f at 53606.7
                       Ρ
Full length Ty1
3653_f_at 23204.2
                       Ρ
Ty1 LTR
3654 i at
           236.7
                       Α
Ty3 LTR
3655 f at
           -163.8
                       Α
Ty3 LTR
3656_f_at
           20779.3
                       Ρ
Ty1 LTR
                       Ρ
3657 f at
           71801.3
Saccharomyces cerevisiae chromosome XIV, complete chromosome sequence. Found forward in
NC 001146 between 520758 and 524702 with 100% identity.
3658 f at 86812.1
Full length Ty1
3659 f at
           32335.8
                       Ρ
Full length Ty1
3660_f_at 22246.9
                       Ρ
Ty1 LTR
3661_at
                       Ρ
           1254.2
Ty3 LTR
                       Ρ
3662_f_at
           12569.7
```

```
Ty3 LTR
3663 f at 385.0
                       Α
Ty4 LTR
3664_f_at 31723.2
                       Ρ
Tv2 LTR
3665_f_at 89615.2
                       Ρ
Full length Ty2
3666_f_at
           102085.4
                       Ρ
Saccharomyces cerevisiae chromosome XIV, complete chromosome sequence. Found reverse in
NC_001146 between 562383 and 566402 with 100% identity.
3667 f at 20683.6
Ty2 LTR
                       Ρ
3668 f at 550.6
tRNA-Pro
3669 f at
                       Ρ
          15167.2
Ty1 LTR
3670 f at
           65.1
                       Α
Ty4 LTR
3621_i_at
           -222.8
Ty3 LTR
3622_f_at
           16493.1
                       Р
Ty3 LTR
                       Ρ
3623 f at
           14752.3
Ty1 LTR
3624_at
           134.1
                       Α
Ty1 LTR
3625 at
           277.4
                       Α
Protein with strong similarity to subtelomerically-encoded proteins such as Cos5p, Ybr302p, Cos3p,
Cos1p, Cos4p, Cos8p, Cos6p, Cos9p
3626 i at
           36.2
Protein with strong similarity to subtelomerically-encoded proteins such as Cos5p, Ybr302p, Cos3p,
Cos1p, Cos4p, Cos8p, Cos6p, Cos9p
3627 r at -251.5
Protein with strong similarity to subtelomerically-encoded proteins such as Cos5p, Ybr302p, Cos3p,
Cos1p, Cos4p, Cos8p, Cos6p, Cos9p
3628 f at
           142.7
Protein with strong similarity to subtelomerically-encoded proteins such as Cos5p, Ybr302p, Cos3p,
Cos1p, Cos4p, Cos8p, Cos6p, Cos9p
3629 f at
           289.0
strong similarity to subtelomeric encoded proteins
3630 at
           -58.0
Ty1 LTR
3631_s_at 187.8
                       Α
Ty4 LTR
3632 at
           -190.2
                       Α
Ty1 LTR
3633 f at
           -391.3
                       Α
tRNA-Gly
3634_f_at
           493.0
                       Ρ
Ty1 LTR
3635_f_at
           26541.5
                       Ρ
Ty1 LTR
3636 f at
           130182.6
Saccharomyces cerevisiae chromosome XV, complete chromosome sequence. Found forward in
NC_001147 between 119305 and 123267 with 100% identity.
3637_f_at 73719.8
```

	_	
Full length T	y1	
3638_f_at	43016.2	Р
Full length T	√y1	
3639_f_at		Ρ
Ty1 LTR		•
	400.4	۸
3640_f_at	-462.4	Α
tRNA-Gly		
3641_f_at	-105.9	Α
Ty3 LTR		
	24.1	Α
3642_at	24.1	^
Ty1 LTR 3643_i_at Ty1 LTR 3644_f_at		
3643_i_at	-449.0	Α
Tv1 LTR		
3644 f at	617.6	Α
Ty1 LTR	017.0	, ,
IVILIR		_
3645_f_at	-534.1	Α
tRNA-Gly		
3597_at	216.6	Α
Ty1 LTR		
	040.4	^
3598_f_at	243.1	Α
tRNA-Arg		
3599_at	-270.1	Α
Ty1 LTR		
191 LIIX	005.4	^
3600_i_at Ty3 LTR 3601_f_at	-965.4	Α
Ty3 LTR		
3601 f at	-113.3	Α
Ty3 LTR		
3602_at	250.2	Α
	-250.2	А
Ty1 LTR		
3603_at	-164.9	Α
Ty1 LTR		
3604_f_at	-294.5	Α
	254.5	^
tRNA-Gly		
3605_f_at	247.6	Α
Ty1 LTR		
3606 f at	25863.6	Р
Ty1 LTR 3606_f_at Ty1 LTR 3607_f_at	20000.0	•
191 LIK	10011	_
3607_f_at	46641.0	Р
Full length T	⁻ y1	
	26066.3	Р
Ty1 LTR		
3609_i_at	210 6	۸
	-218.6	Α
Ty1 LTR		
3610_f_at	24.9	Α
Ty1 LTR		
	-118.0	Α
3611_f_at	110.0	^
Ty1 LTR 3612_f_at Ty2 LTR 3613_i_at		_
3612_f_at	22454.8	Р
Ty2 LTR		
3613 i at	101.8	Α
Ty1 LTR		•
1 y 1 L 1 K	4705 4	^
3614_f_at	1735.4	Α
Ty1 LTR		
3615_i_at	-48.5	Α
Ty1 LTR		
3616_f_at	258.4	Α
JU IU_I_al	200.4	^

```
Ty1 LTR
3617_f_at 539.7
                      Ρ
Ty4 LTR
3618_f_at 28713.6
                      Ρ
Ty2 LTR
3619_f_at 56108.2
                      Ρ
Full length Ty2
                      Ρ
3620_f_at
          59439.0
Saccharomyces cerevisiae chromosome XV, complete chromosome sequence. Found reverse in
NC_001147 between 704417 and 708436 with 100% identity.
3572 f at 21075.7
Ty2 LTR
3573 f at
           600.7
                      Α
Ty4 LTR
3574_f_at
          594.8
                      Ρ
tRNA-Ala
3575_f_at
          8847.7
                      Ρ
Ty3 LTR
3576_f_at
           334.3
                      Α
Ty3 LTR
3577_at
           -237.2
                      Α
Ty1 LTR
3578 f at
                      Ρ
           11778.3
Ty2 LTR
                      Ρ
3579 f at 64414.6
Saccharomyces cerevisiae chromosome XV, complete chromosome sequence. Found forward in
NC 001147 between 971863 and 975882 with 100% identity.
3580 f at 84052.6
Full length Ty2
3581_f_at 10949.4
                      Ρ
Ty2 LTR
3582_f_at 20755.7
                      Ρ
Ty1 LTR
3583_i_at
          -158.5
                      Α
Ty1 LTR
3584_f_at -17.0
                      Α
Ty1 LTR
3585_f_at
           -202.8
                      Α
Ty3 LTR
3586_f_at
           24661.6
                      Ρ
Ty1 LTR
3587_f_at
           147127.6
Saccharomyces cerevisiae chromosome XVI, complete chromosome sequence. Found forward in
NC_001148 between 58054 and 62016 with 100% identity.
3588 f at 99230.3
Full length Ty1
3589 f at 46969.6
                      Ρ
Full length Ty1
3590_f_at 27003.1
                      Ρ
Ty1 LTR
3591_f_at
          11141.7
                      Ρ
Ty2 LTR
3592_i_at
           -646.6
                      Α
Ty1 LTR
3593_f_at
                      Ρ
           10430.7
Ty1 LTR
```

3594_f_at	1171.7	Ρ
tRNA-Glu		
3595_at	-39.4	Α
Ty1 LTR		
3596_f_at	19427.6	Ρ
Ty2 LTR		
3548_s_at	219.4	Ρ
tRNA-Cys		
3549_f_at	-147.4	Α
Ty1 LTR		
3550_i_at	237.1	Α
Ty1 LTR		
3551_f_at	383.0	Α
Ty1 LTR		
3552_f_at	93.4	Α
Ty1 LTR		
3553_f_at	162.2	Α
Ty4 LTR		
3554_f_at		Ρ
Full length T	•	
3555_s_at		Α
Saccharomy	icas caravis	iaa a

Saccharomyces cerevisiae chromosome XVI, complete chromosome sequence. Found reverse in NC_001148 between 437328 and 439490 with 100% identity.

3556_s_at 136.3 A

Saccharomyces cerevisiae chromosome XVI, complete chromosome sequence. Found reverse in NC_001148 between 437328 and 439490 with 100% identity.

3557_s_at 70.1 A

Saccharomyces cerevisiae chromosome XVI, complete chromosome sequence. Found reverse in NC_001148 between 439423 and 442737 with 100% identity.

3558_f_at	575.4	Р
Ty4 LTR		_
3559_f_at	20243.4	Р
Ty1 LTR		_
3560_at	59.2	Α
Ty1 LTR		_
3561_f_at	-605.0	Α
tRNA-Gly		_
3562_f_at	554.1	Α
tRNA-Ser		
3563_s_at	-71.8	Α
tRNA-Thr		
3564_f_at	17754.7	Р
Ty3 LTR		
3565_at	3573.6	Α
Ty1 LTR		
3566_i_at	-17.9	Α
Ty1 LTR		
3567_r_at	115.3	Α
Ty1 LTR		
3568_f_at	351.0	Α
Ty1 LTR		
3569_at	-182.2	Α
Ty1 LTR		
3570_f_at	2482.2	Р
Ty1 LTR		_
3571_f_at	29033.1	Р

```
Ty1 LTR
3524 f at 14461.6
                       Ρ
Full length Ty1
3525_f_at 65718.3
                       Ρ
Full length Ty1
3526_f_at 87288.6
                       Ρ
Saccharomyces cerevisiae chromosome XVI, complete chromosome sequence. Found reverse in
NC_001148 between 804996 and 808958 with 100% identity.
3527_f_at 30260.2
Ty1 LTR
3528_f_at
           25398.5
                       Ρ
Ty1 LTR
3529 f at
           69089.9
                       Ρ
Full length Ty3
3530_f_at
           25296.0
                       Ρ
Ty1 LTR
3531_at
           154.5
                       Α
Ty1 LTR
3532_f_at
           28520.7
                       Ρ
Ty1 LTR
3533_f_at
           21469.3
                       Ρ
Full length Ty1
                       Ρ
3534 f at
           28079.6
Ty1 LTR
                       Ρ
3535_i_at
           452.1
Ty3 LTR
                       Ρ
3536 f at
           12365.7
Ty3 LTR
3537_f_at
           1579.9
                       Α
tRNA-Ala
3538_f_at
           -807.0
                       Α
tRNA-Gly
                       Ρ
3539 f at
           5767.3
Ty3 LTR
3540 at
                       Α
           -149.9
Ty4 LTR
3541_at
           90.4
                       Α
Ty4 LTR
           18862.2
                       Ρ
3542 f at
strong similarity to subtelomeric encoded proteins
3543 s at 4427.7
strong similarity to subtelomeric encoded proteins
3544_at
           -38.2
strong similarity to subtelomeric encoded proteins
3545 i at
           291.6
Ty1 LTR
3546 f at -135.9
                       Α
Ty1 LTR
3547_f_at
           9759.6
                       Ρ
Ty2 LTR
3500_f_at
           -417.8
                       Α
Ty1 LTR
3501_f_at
                       Ρ
           15407.0
Ty2 LTR
           69915.0
3502_f_at
```

Saccharomyces cerevisiae chromosome II, complete chromosome sequence. Found forward in

NC_001134 between 31221 and 35240 with 100% identity. 3503_f_at 71845.2 Full length Ty2 3504_f_at 15741.1 Ρ Ty2 LTR 3505_s_at 137.9 Α Ty1 LTR Ρ 3506_s_at 1142.0 Ty4 LTR 3507_at 80.5 Α Ty1 LTR 3508_f_at -583.4 Α tRNA-Gly 10357.9 Ρ 3509_f_at Ty3 LTR 3510_s_at -1.6 Α Ty1 LTR Ρ 3511_f_at 21597.1 Ty1 LTR 3512_f_at 43039.4 Ρ Full length Ty1 28490.5 Ρ 3513_f_at Ty1 LTR 3514 f at 48.6 Α tRNA-Ser 239.7 3515_at Α Ty1 LTR 3516_f_at 21926.8 Ρ Ty1 LTR Ρ 3517_f_at 57980.8 Full length Ty1 3518_f_at 14723.2 Ρ Ty1 LTR 3519_f_at 289.3 Ρ Ty1 LTR 3520 s at 113.6 Α tRNA-Val 3521_i_at 51.8 Α Ty1 LTR 3522_f_at Ρ 2537.6 Ty1 LTR 3523_at 157.6 Α Ty1 LTR -155.7 3477_at Α Ty1 LTR 3478_f_at 798.3 Ρ tRNA-GIn 3479_f_at -53.4 Α tRNA-Arg 3480_at -81.4 Α Ty1 LTR 3481_at 144.9 Α Ty1 LTR Ρ 3482_f_at 1413.7 tRNA-Glu Ρ 3483_f_at 4164.1

```
Protein with similarity to members of the Cos3VCos5VCos1VCos4VCos8VCos9 family, coded from
subtelomeric region
3484_f_at -319.4
                       Α
Ty5 LTR
3485 at
           -250.9
                       Α
Full length Ty5
           -158.1
3486_at
                       Α
Full length Ty5
3487_g_at -182.6
                       Α
Full length Ty5
3488 at
           58.5
                       Α
Full length Ty5
3489 f at -15.1
                       Α
Full length Ty5
3490_f_at 24.2
                       Α
Ty5 LTR
3491_f_at 1139.4
                       Ρ
tRNA-Glu
3492_f_at 5248.4
                       Ρ
Ty1 LTR
3493_f_at
           42160.4
                       Ρ
Ty1 LTR
3494 f at
                      Ρ
           18577.8
Ty1 LTR
                       Ρ
3495_f_at
           757.8
Ty1 LTR
                       Ρ
3496 f at
           31296.2
Ty2 LTR
                      Ρ
3497_f_at 59315.8
Saccharomyces cerevisiae chromosome III, complete chromosome sequence. Found forward in
NC_001135 between 86005 and 90030 with 100% identity.
3498_f_at 71148.4
Full length Ty2
3499_f_at 19804.3
                      Ρ
Ty2 LTR
3451 f at
                       Ρ
           2059.5
tRNA-Pro
                      Ρ
3452_f_at
          21958.1
Ty1 LTR
3453_at
           -154.4
                      Α
strong similarity to subtelomeric encoded proteins
3454_s_at 180.2
tRNA-Asn
3455_f_at
           -1093.8
                       Α
tRNA-Gly
3456_i_at
           68.6
                       Α
Ty1 LTR
3457_f_at
           7849.3
                       Ρ
Ty1 LTR
3458_f_at
           447.2
                       Α
Ty1 LTR
3459_at
           -251.3
                       Α
Ty1 LTR
3460_at
           -46.5
                       Α
Ty4 LTR
                       Ρ
3461_f_at
           14827.9
```

```
Ty1 LTR
3462_f_at
           662.7
                       Ρ
tRNA-GIn
3463_at
           286.8
                       Α
Ty1 LTR
3464_at
           147.2
                       Α
Ty1 LTR
3465_at
           56.6
                       Α
Ty5 LTR
3466_i_at
           -104.6
                       Α
Ty1 LTR
3467_f_at
           -823.1
                       Α
Ty1 LTR
3468_i_at
           10.0
                       Α
Ty1 LTR
3469 f at
           -172.6
                       Α
Ty1 LTR
3470_i_at
          -19.1
                       Α
Protein with strong similarity to other subtelomerically-encoded proteins such as Cos5p, Ybr302p, Cos3p,
Cos1p, Cos4p, Cos8p, Cos6p, Cos9p
3471_f_at
           3337.8
Protein with strong similarity to other subtelomerically-encoded proteins such as Cos5p, Ybr302p, Cos3p,
Cos1p, Cos4p, Cos8p, Cos6p, Cos9p
3472 f at -923.5
tRNA-Gly
3473_f_at
          46.4
                       Α
tRNA-Ala
3474_f_at
          5408.5
                       Ρ
Ty1 LTR
3475 f at
           290.6
                       Α
Ty4 LTR
3476_f_at
           377.1
                       Α
tRNA-Ser
3427_at
           361.9
                       Α
Ty1 LTR
           8177.0
                       Ρ
3428 f at
Ty1 LTR
                       Ρ
3429_f_at
          24761.5
Ty2 LTR
3430_f_at
          118249.3
                       Ρ
Full length Ty2
                       Ρ
3431_f_at 67318.8
Saccharomyces cerevisiae chromosome IV, complete chromosome sequence. Found reverse in
NC_001136 between 514037 and 518056 with 100% identity.
3432 f at
           19626.2
Ty2 LTR
3433 i at
           528.3
                       Α
Ty1 LTR
3434_f_at
           729.7
                       Α
Ty1 LTR
3435_f_at
           5540.8
                       Ρ
Ty1 LTR
3436 f at
           303.8
                       Α
tRNA-GIn
3437_f_at
           177.9
                       Α
tRNA-Arg
```

```
tRNA-Arg
                       Ρ
3439 f at
           400.6
tRNA-GIn
3440 f at
           31044.1
                      Ρ
Ty1 LTR
3441_f_at 77615.4
                      Ρ
Full length Ty1
3442_f_at 73699.6
                      Ρ
Full length Ty1
3443 f at 59037.7
Saccharomyces cerevisiae chromosome IV, complete chromosome sequence. Found reverse in
NC 001136 between 645851 and 649813 with 100% identity.
3444 f at 35058.7
Ty1 LTR
3445 f at
           256.7
                       Α
Ty3 LTR
3446_i_at
           -357.1
                       Α
Ty1 LTR
3447_f_at
           155.4
                       Α
Ty1 LTR
                       Ρ
3448_s_at 3891.8
Ty3 LTR
3449 i at
                       Α
           59.0
Ty1 LTR
3450_r_at -73.0
                       Α
Ty1 LTR
3404_f_at
           500.9
                      Ρ
Ty1 LTR
                      Ρ
3405 f at
           815.3
tRNA-GIn
3406_f_at
                      Ρ
           26535.6
Ty1 LTR
3407_at
           -285.8
                       Α
Saccharomyces cerevisiae chromosome IV, complete chromosome sequence. Found forward in
NC 001136 between 804494 and 805681 with 100% identity.
3408_f_at 12872.9
Ty1 LTR
                      Р
3409 f at 81209.7
Saccharomyces cerevisiae chromosome IV, complete chromosome sequence. Found forward in
NC 001136 between 873398 and 877417 with 100% identity.
3410_f_at 82106.2
Full length Ty2
3411_f_at 10788.1
                      Ρ
Ty1 LTR
3412_f_at 18748.5
                      Ρ
Full length Ty1
                      Ρ
3413 f at 70935.9
Full length Ty1
3414 f at 57478.3
                      Ρ
Saccharomyces cerevisiae chromosome IV, complete chromosome sequence. Found reverse in
NC_001136 between 878651 and 882613 with 100% identity.
3415 i at
          120.9
Ty1 LTR
                       Ρ
3416_s_at 643.2
Ty1 LTR
```

-3248.0

Α

3438_f_at

```
15524.8
                      Ρ
3417_f_at
Ty3 LTR
3418 f at
           301.8
                      Α
tRNA-Ser
                      Ρ
3419 f at
           10523.0
Ty1 LTR
                      Ρ
3420_f_at
          76953.9
Saccharomyces cerevisiae chromosome IV, complete chromosome sequence. Found forward in
NC_001136 between 982747 and 986766 with 100% identity.
3421_f_at 68295.3
Full length Ty2
                      Ρ
3422 f at 20780.1
Ty1 LTR
3423_f_at 31591.6
                      Ρ
Ty1 LTR
3424 f at 67483.1
                      Ρ
Full length Ty1
3425_f_at 32752.9
                      Ρ
Full length Ty1
3426_f_at
          117940.0
Saccharomyces cerevisiae chromosome IV, complete chromosome sequence. Found reverse in
NC_001136 between 987525 and 991034 with 100% identity.
           28452.3
3379 f at
Ty1 LTR
3380_i_at
           79.2
                      Α
Ty3 LTR
3381 f at
           -213.3
                       Α
Ty3 LTR
3382_f_at
           -681.4
                      Α
tRNA-Gly
3383_f_at
           838.2
                      Ρ
tRNA-Glu
                       Ρ
3384 f at
           13140.9
Ty3 LTR
3385 s at 637.1
                      Ρ
tRNA-Val
3386_f_at 29517.2
                      Ρ
Ty1 LTR
                      Ρ
3387 f at 47282.6
Full length Ty1
3388 f at 29552.0
                      Ρ
Ty1 LTR
3389_f_at 5179.2
                      Ρ
Ty1 LTR
3390 at
           226.7
                      Α
Ty3 LTR
                      Ρ
3391 f at
           18963.0
Ty1 LTR
3392_f_at
           41881.4
                      Ρ
Ty1 LTR
3393_f_at
          112758.9
Saccharomyces cerevisiae chromosome IV, complete chromosome sequence. Found forward in
NC 001136 between 1208292 and 1212254 with 100% identity.
3394_f_at 77089.9
Full length Ty1
                      Ρ
3395_f_at 64221.4
```

```
Full length Ty1
                       Ρ
3396 f at 33074.6
Ty1 LTR
3397_f_at
           304.0
                       Α
tRNA-Gly
3398_f_at
           441.9
                       Α
tRNA-Ser
3399_f_at
           11430.0
                       Ρ
Ty1 LTR
                       Α
3400_i_at
           27.9
Ty1 LTR
3401_f_at
           -78.6
                       Α
Ty1 LTR
           206.9
3402_at
                       Α
Ty1 LTR
                       Ρ
3403_f_at
           881.2
strong similarity to subtelomeric encoded proteins
           306.0
3356_f_at
strong similarity to subtelomeric encoded proteins
3357_at
           41.4
strong similarity to subtelomeric encoded proteins
3358_f_at
           -232.1
tRNA-Gly
                       Ρ
3359 f at
           29926.5
Ty1 LTR
3360_at
           -125.2
                       Α
Ty1 LTR
3361_f_at
           -49.3
                       Α
tRNA-Ser
3362_at
           -340.5
                       Α
Ty1 LTR
3363_at
           -808.4
                       Α
Ty4 LTR
3364_f_at
           200.4
                       Α
tRNA-GIn
3365_f_at
           18314.2
                       Ρ
Ty1 LTR
           -1659.0
3366_at
                       Α
Ty1 LTR
                       Ρ
3367_f_at
           2755.4
Ty1 LTR
3368_f_at
           140.6
                       Α
tRNA-Arg
3369_i_at
           127.5
                       Α
Ty1 LTR
3370_f_at
           338.6
                       Α
Ty1 LTR
                       Ρ
3371_f_at
           1579.3
tRNA-Glu
3372_f_at
           189.0
                       Α
tRNA-His
3373_at
           214.2
                       Α
Ty1 LTR
3374_at
           215.0
                       Α
Ty1 LTR
                       Ρ
3375_f_at
           12926.6
```

Ty3 LTR		_
3376_f_at	309.0	Α
tRNA-GIn		
3377_at	-34.0	Α
Ty1 LTR		
3378_f_at	489.2	Α
	400.Z	/ \
tRNA-Ser	22.2	۸
3332_i_at	-33.3	Α
Ty1 LTR		
3333_f_at	11470.5	Р
Ty1 LTR		
3334_at	110.5	Α
Ty1 LTR		
3335_at	-19.3	Α
Ty1 LTR	10.0	, ·
191 L11X	204.2	۸
3336_f_at	294.2	Α
Ty4 LTR		_
3337_i_at	174.2	Α
Ty3 LTR		
3338_f_at	-124.3	Α
Ty3 LTR		
3340_f_at	16827.2	Р
Ty1 LTR	.0022	•
	10254.6	Р
3342_f_at	10234.0	Г
Ty3 LTR	400.0	Б
3343_i_at	483.0	Р
Ty1 LTR		
3344_f_at	415.2	Α
Ty1 LTR		
3345_f_at	7111.0	Р
Ty1 LTR		
3346_at	-425.9	Α
Ty4 LTR	4 2 0.0	/ \
	450.0	^
3347_s_at	458.3	Α
Ty1 LTR		
3348_f_at	19772.1	Р
Ty1 LTR		
3350_f_at	43451.5	Р
Full length T		
3352_s_at		Р
Ty1 LTR	144210.1	•
191 LIN	04700 4	Ъ
	94733.4	Р
Ty1 LTR		_
3355_s_at	47842.8	Р
Ty1 LTR		
3307_s_at	9847.4	Р
Ty1 LTR		
3308_s_at	5540.8	Р
Ty1 LTR	00 10.0	•
	4720.7	Р
3309_s_at	7120.1	I*
Ty1 LTR		_
3310_s_at	2838.2	Р
Ty1 LTR		
3311_f_at	14070.0	Р
Ty1 LTR		
3313_f_at	19571.5	Р
	-	

```
Ty1 LTR
3315 f at 52662.8
                       Ρ
Ty3 LTR
3316_f_at
           15669.9
                       Ρ
Ty3 LTR
3317_f_at
           46701.8
                       Ρ
Ty1 LTR
3319_f_at
           37202.6
                       Ρ
Ty1 LTR
3320_i_at
                       Ρ
           2321.4
Ty1 LTR
3321_f_at
           1391.8
                       Α
Ty1 LTR
3322_at
           -317.9
                       Α
Ty1 LTR
3323 i at
           -52.6
                       Α
Ty5 LTR
3324_at
           241.2
                       Α
Ty5 LTR
3325_f_at
           595.5
                       Α
strong similarity to subtelomeric encoded proteins
           174.2
3326_at
strong similarity to subtelomeric encoded proteins
3327 f at 8004.5
Protein with strong similarity to subtelomerically-encoded proteins such as Cos5p, Ybr302p, Cos3p,
Cos1p, Cos4p, Cos8p, Cos6p, Cos9p
           -101.3
3328 at
Ty1 LTR
3329_f_at
           2996.1
                       Ρ
Ty1 LTR
3330_f_at
           26999.9
                       Ρ
Ty2 LTR
3283 f at
          77274.0
Saccharomyces cerevisiae chromosome VI, complete chromosome sequence. Found forward in
NC 001138 between 139492 and 143511 with 100% identity.
3284_f_at 59947.2
Full length Ty2
3285_f_at
                       Ρ
           12077.6
Ty2 LTR
3286_f_at
           7641.4
                       Ρ
Ty1 LTR
3287_s_at 50.9
                       Α
Ty4 LTR
3288_at
           151.5
                       Α
Ty1 LTR
3289_i_at
           47.7
                       Α
Ty1 LTR
3290_f_at
           332.9
                       Α
Ty1 LTR
3291_f_at
           7347.2
                       Ρ
Ty1 LTR
3294_at
           86.7
                       Α
Ty1 LTR
3296_at
           -225.6
                       Α
Ty1 LTR
3297_i_at
           97.6
                       Α
```

TVE LTD		
Ty5 LTR 3298_f_at	-624.9	A
Ty5 LTR	-024.9	^
3299_f_at	-278.6	A
		omeric encoded proteins
3301 f at	399.8	A
Ty4 LTR	399.0	^
3302_f_at	21939.7	Р
Ty1 LTR	21939.1	r
3303_f_at	4068.2	A
Ty1 LTR	4000.2	A
3304_f_at	309.9	A
Ty1 LTR	000.0	71
3305_at	-217.6	A
Ty4 LTR	217.0	**
3306_i_at	272.4	A
Ty1 LTR		
3258_f_at	376.2	A
Ty1 LTR	0.0	
3259_at	2290.2	Р
Ty1 LTR		
3260_f_at	10761.2	Р
Ty3 LTR		
3262_at	122.6	A
Ty4 LTR		
3263_i_at	148.3	A
Ty1 LTR		
3264_f_at	267.5	A
Ty1 LTR		
3267_f_at	9795.9	P
Ty3 LTR		
3268_f_at	23706.2	P
Ty1 LTR		
3269_f_at	6382.5	Р
Ty1 LTR		_
3270_f_at	68326.7	Р
Ty1 LTR		
3271_i_at	-30.9	A
Ty3 LTR	47070.0	•
3272_f_at	17879.2	Р
Ty3 LTR	040.5	Δ.
3274_at	319.5	A
Ty1 LTR	000.0	Δ.
3276_i_at	-629.9	A
Ty1 LTR	55.0	Δ.
3277_f_at	55.2	A
Ty1 LTR	27166.0	D
3279_f_at	27166.9	Р
Full length T		Р
3235_f_at	25070.7	Г
Ty1 LTR	47524 O	D
3236_f_at		Р
Full length T 3237_f_at		Р
Full length 1		Г
3239_f_at		Р
0209_i_at	00121.0	•

```
Ty1 LTR
3240_f_at 17987.1
                     Ρ
Ty2 LTR
3241_f_at 91698.0
                     Ρ
Full length Ty2
3243_at
           -258.9
                     Α
tRNA-Leu
3244_i_at 32.3
Ty1 LTR
3245_f_at 170.5
                      Α
Ty1 LTR
3247_s_at 179.4
                     Α
```

TY3B protein Found forward in NC_001139 between 707604 and 708461 with 100% identity. 3248_s_at 239.2 A

Saccharomyces cerevisiae chromosome VII, complete chromosome sequence. Found forward in NC_001139 between 708460 and 712248 with 100% identity.

3249 s at 308.6 A

Saccharomyces cerevisiae chromosome VII, complete chromosome sequence. Found forward in NC_001139 between 708460 and 712248 with 100% identity.

3250_s_at 43.4 A

Saccharomyces cerevisiae chromosome VII, complete chromosome sequence. Found forward in NC_001139 between 708460 and 712248 with 100% identity.

3251_s_at		Α
Full length T	y3	
3252_s_at		Α
Full length T		
3253_f_at		Р
Full length T		
_	153.9	Α
Ty1 LTR		
3256_at	-53.1	Α
Ty1 LTR		
3257_f_at	16833.3	Р
Ty3 LTR		
3212_f_at	1451.3	Р
Ty1 LTR		_
3214_at	15.4	Α
Ty1 LTR		_
3215_f_at	262.7	Α
Ty1 LTR		
3216_at	-116.8	Α
Ty1 LTR	07.4	•
3218_at	-27.4	Α
Ty1 LTR	07745.7	_
3222_f_at		Р
Full length T		_
	25624.3	Р
Ty2 LTR	47054.0	_
3225_f_at		Р
Full length T	y1	_
3226_f_at	43583.4	Р
Ty1 LTR	000.0	^
3228_at	202.3	Α
Ty3 LTR	40000	Р
3230_f_at	10203.3	۲

Ty1 LTR

```
3232_f_at 225.4
                       Α
Ty4 LTR
                       Ρ
3233 f at
           31295.2
Ty1 LTR
3234 at
           2593.4
Protein with strong similarity to other subtelomerically-encoded proteins such as Cos5p, Ybr302p, Cos3p,
Cos1p, Cos4p, Cos8p, Cos6p, Cos9p
3187_s_at 905.1
strong similarity to subtelomeric encoded proteins
3188_at
           -210.0
Protein with similarity to subtelomerically-encoded proteins such as Cos5p, Ybr302p, Cos3p, Cos1p,
Cos4p, Cos8p, Cos6p, Cos9p
           -239.8
3189 i at
Protein with similarity to subtelomerically-encoded proteins such as Cos5p, Ybr302p, Cos3p, Cos1p,
Cos4p, Cos8p, Cos6p, Cos9p
3190 f at
           202.0
Protein with similarity to subtelomerically-encoded proteins such as Cos5p, Ybr302p, Cos3p, Cos1p,
Cos4p, Cos8p, Cos6p, Cos9p
3191_i_at 24.4
Ty5 LTR
3192_f_at -172.6
                       Α
Ty5 LTR
3193 at
           -174.5
                       Α
strong similarity to subtelomeric encoded proteins
3195_f_at 9223.3
Ty3 LTR
                       Ρ
3196 f at
           587.7
Ty4 LTR
3199_f_at
                       Ρ
           35930.5
Ty1 LTR
3200_i_at
           48.6
                       Α
Ty1 LTR
3201 r at
           -90.3
                       Α
Ty1 LTR
3202 f at
           -206.6
                       Α
Ty1 LTR
3203_f_at
           17687.9
                       Ρ
Ty1 LTR
3204_at
           37.1
                       Α
Ty1 LTR
3206 at
           -90.7
                       Α
Ty1 LTR
3207_i_at
           -45.3
                       Α
Ty1 LTR
3208 f at
           3.6
                       Α
Ty1 LTR
                       Ρ
3209 f at
           15288.1
Ty1 LTR
3161_f_at
           6407.6
                       Ρ
Ty3 LTR
3162_at
           304.0
                       Α
Ty4 LTR
3163 i at
           148.1
                       Α
Ty1 LTR
3164_f_at
           -124.7
                       Α
Ty1 LTR
```

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3165_at
           -220.9
                       Α
Ty4 LTR
3166 i at
           -29.1
                       Α
Ty1 LTR
3167 r at
           172.0
                       Α
Ty1 LTR
3168_f_at
           -90.5
                       Α
Ty1 LTR
3169_f_at 53398.4
                       Ρ
Ty2 LTR
3170_i_at
           119.4
                       Α
Ty1 LTR
3171_r_at
           171.0
                       Α
Ty1 LTR
3172_f_at 54.1
                       Α
Ty1 LTR
3173_i_at
           -307.8
                       Α
Ty1 LTR
3174_f_at
           -213.3
                       Α
Ty1 LTR
3175_i_at
           -399.3
                       Α
Ty1 LTR
3176 f at
           282.8
                       Α
Ty1 LTR
3177_f_at -156.1
                       Α
Ty3 LTR
3178 f at -165.0
                       Α
Ty1 LTR
3180_f_at 60238.9
                       Ρ
Full length Ty1
3181_f_at 22190.2
Ty1 LTR
3182 i at
          -579.1
strong similarity to subtelomeric encoded YDR544c
3183 f at 16755.2
strong similarity to subtelomeric encoded proteins
3184_s_at -310.5
strong similarity to subtelomeric encoded proteins
3185 s at 124.3
strong similarity to subtelomeric encoded proteins
3133 f at 9273.2
Ty1 LTR
3136_s_at 1544.5
Saccharomyces cerevisiae chromosome IX, complete chromosome sequence. Found forward in
NC 001141 between 206488 and 210129 with 100% identity.
3137_s_at 1854.9
Full length Ty3
3139_f_at 18255.8
                       Ρ
Ty2 LTR
3141 i at
           -72.4
                       Α
Ty1 LTR
3142_f_at
           6478.0
                       Ρ
Ty1 LTR
3143_f_at
           694.0
                       Α
Ty3 LTR
                       Ρ
3144_f_at
           556.5
```

Ty1 LTR		
3145_at	314.0	Α
Ty1 LTR		
3147_at	-276.0	Α
Ty1 LTR		
3148_s_at	3022.8	Р
mating horr	none a2	
3149 at	808.2	Α

Saccharomyces cerevisiae chromosome I, complete chromosome sequence. Found forward in NC_001133 between 13744 and 14743 with 100% identity.

3150 at 915.4 P

Saccharomyces cerevisiae chromosome I, complete chromosome sequence. Found forward in NC 001133 between 14744 and 15743 with 100% identity.

3151_g_at 1011.5 P

Saccharomyces cerevisiae chromosome I, complete chromosome sequence. Found forward in NC_001133 between 14744 and 15743 with 100% identity.

3152 at 1766.0 P

Saccharomyces cerevisiae chromosome I, complete chromosome sequence. Found forward in NC_001133 between 15744 and 16743 with 100% identity.

3153 at 933.8 F

Saccharomyces cerevisiae chromosome I, complete chromosome sequence. Found forward in NC_001133 between 16744 and 17743 with 100% identity.

3154 at 642.1 F

Saccharomyces cerevisiae chromosome I, complete chromosome sequence. Found forward in NC 001133 between 17744 and 18743 with 100% identity.

3155 at 930.6 F

Saccharomyces cerevisiae chromosome I, complete chromosome sequence. Found forward in NC 001133 between 18744 and 19729 with 100% identity.

3156 at 592.0 A

Saccharomyces cerevisiae chromosome I, complete chromosome sequence. Found forward in NC_001133 between 88357 and 89356 with 100% identity.

3157 at -430.5 A

Saccharomyces cerevisiae chromosome I, complete chromosome sequence. Found forward in NC_001133 between 89357 and 90356 with 100% identity.

3158 at 399.0 P

Saccharomyces cerevisiae chromosome I, complete chromosome sequence. Found forward in NC_001133 between 90357 and 91356 with 100% identity.

3159 at 554.8 P

Saccharomyces cerevisiae chromosome I, complete chromosome sequence. Found forward in NC_001133 between 91357 and 92356 with 100% identity.

3088 at 313.8 A

Saccharomyces cerevisiae chromosome I, complete chromosome sequence. Found forward in NC_001133 between 92357 and 93356 with 100% identity.

3089_g_at 728.6 P

Saccharomyces cerevisiae chromosome I, complete chromosome sequence. Found forward in NC_001133 between 92357 and 93356 with 100% identity.

3090 s at 1059.9 F

Saccharomyces cerevisiae chromosome I, complete chromosome sequence. Found forward in NC_001133 between 93357 and 93988 with 100% identity.

3091 at 416.5 F

Saccharomyces cerevisiae chromosome I, complete chromosome sequence. Found forward in NC_001133 between 159789 and 160788 with 100% identity.

3092 f at 2584.6 P

Saccharomyces cerevisiae chromosome I, complete chromosome sequence. Found forward in NC_001133 between 160789 and 161788 with 100% identity.

3093_f_at 5336.3 F

Saccharomyces cerevisiae chromosome I, complete chromosome sequence. Found forward in NC_001133 between 161789 and 162788 with 100% identity.

3096 f at 2212.2 F

Saccharomyces cerevisiae chromosome I, complete chromosome sequence. Found forward in NC_001133 between 164789 and 165788 with 100% identity.

3097 at 658.7

Saccharomyces cerevisiae chromosome I, complete chromosome sequence. Found forward in NC_001133 between 165789 and 166468 with 100% identity.

3098 at 963.4 P

Saccharomyces cerevisiae chromosome I, complete chromosome sequence. Found forward in NC 001133 between 208649 and 209648 with 100% identity.

3099 at 666.6 F

Saccharomyces cerevisiae chromosome I, complete chromosome sequence. Found forward in NC_001133 between 209649 and 210648 with 100% identity.

3100 s at 1134.6

Saccharomyces cerevisiae chromosome I, complete chromosome sequence. Found forward in NC 001133 between 210649 and 211648 with 100% identity.

3101_at 756.9 P

Saccharomyces cerevisiae chromosome I, complete chromosome sequence. Found forward in NC_001133 between 211649 and 212648 with 100% identity.

3102 s at 930.5 F

Saccharomyces cerevisiae chromosome I, complete chromosome sequence. Found forward in NC_001133 between 212649 and 213648 with 100% identity.

3103 at 675.0 P

Saccharomyces cerevisiae chromosome I, complete chromosome sequence. Found forward in NC 001133 between 213649 and 214648 with 100% identity.

3104 at 505.4 F

Saccharomyces cerevisiae chromosome I, complete chromosome sequence. Found forward in NC_001133 between 214649 and 215648 with 100% identity.

3105 g at 907.5 P

Saccharomyces cerevisiae chromosome I, complete chromosome sequence. Found forward in NC_001133 between 214649 and 215648 with 100% identity.

3106 s at 1004.1 P

Saccharomyces cerevisiae chromosome I, complete chromosome sequence. Found forward in NC_001133 between 215649 and 216648 with 100% identity.

3107 s at 4346.9 F

Saccharomyces cerevisiae chromosome I, complete chromosome sequence. Found forward in NC_001133 between 216649 and 217143 with 100% identity.

3108 at 612.6 P

Saccharomyces cerevisiae chromosome X, complete chromosome sequence. Found forward in NC_001142 between 9138 and 10137 with 100% identity.

3109_at 144.8 A

Saccharomyces cerevisiae chromosome X, complete chromosome sequence. Found forward in NC_001142 between 10138 and 11137 with 100% identity.

3110 s at 566.0 F

Saccharomyces cerevisiae chromosome X, complete chromosome sequence. Found forward in NC 001142 between 11138 and 12137 with 100% identity.

3111_s_at -540.0 F

Saccharomyces cerevisiae chromosome X, complete chromosome sequence. Found forward in NC_001142 between 12138 and 13137 with 100% identity.

3112 s at 357.0 A

Saccharomyces cerevisiae chromosome X, complete chromosome sequence. Found forward in NC 001142 between 13138 and 14137 with 100% identity.

3113 s at 977.5 F

Saccharomyces cerevisiae chromosome X, complete chromosome sequence. Found forward in NC_001142 between 14138 and 15137 with 100% identity.

3114_s_at 1291.3 P

Saccharomyces cerevisiae chromosome X, complete chromosome sequence. Found forward in NC_001142 between 15138 and 15624 with 100% identity.

3115_at 597.8 P

Saccharomyces cerevisiae chromosome X, complete chromosome sequence. Found forward in NC_001142 between 41889 and 42888 with 100% identity.

3116 at 1652.3 F

Saccharomyces cerevisiae chromosome X, complete chromosome sequence. Found forward in NC_001142 between 42889 and 43888 with 100% identity.

3117_at 808.6 F

Saccharomyces cerevisiae chromosome X, complete chromosome sequence. Found forward in NC_001142 between 43889 and 44888 with 100% identity.

3118_at -167.6 P

Saccharomyces cerevisiae chromosome X, complete chromosome sequence. Found forward in NC_001142 between 44889 and 45888 with 100% identity.

3119_at 726.3

Saccharomyces cerevisiae chromosome X, complete chromosome sequence. Found forward in NC_001142 between 45889 and 46888 with 100% identity.

3120 at 917.1 P

Saccharomyces cerevisiae chromosome X, complete chromosome sequence. Found forward in NC_001142 between 46889 and 47659 with 100% identity.

3121 at 1886.0 P

Saccharomyces cerevisiae chromosome X, complete chromosome sequence. Found forward in NC 001142 between 165921 and 166920 with 100% identity.

122 at 1125.7 F

Saccharomyces cerevisiae chromosome X, complete chromosome sequence. Found forward in NC 001142 between 166921 and 167920 with 100% identity.

3123 at 3463.4 P

Saccharomyces cerevisiae chromosome X, complete chromosome sequence. Found forward in NC_001142 between 167921 and 168920 with 100% identity.

3124 at 1582.6 P

Saccharomyces cerevisiae chromosome X, complete chromosome sequence. Found forward in NC 001142 between 168921 and 169920 with 100% identity.

3125 at 2137.8 F

Saccharomyces cerevisiae chromosome X, complete chromosome sequence. Found forward in NC 001142 between 169921 and 170920 with 100% identity.

3126_at 1205.8 P

Saccharomyces cerevisiae chromosome X, complete chromosome sequence. Found forward in NC 001142 between 170921 and 171920 with 100% identity.

3127 at 1746.4 P

Saccharomyces cerevisiae chromosome X, complete chromosome sequence. Found forward in NC_001142 between 171921 and 172694 with 100% identity.

3128 at 602.6 A

Saccharomyces cerevisiae chromosome X, complete chromosome sequence. Found forward in NC_001142 between 196825 and 197824 with 100% identity.

3129 at -109.5 A

Saccharomyces cerevisiae chromosome X, complete chromosome sequence. Found forward in NC_001142 between 203825 and 204824 with 100% identity.

3130_at -31.4 A

Saccharomyces cerevisiae chromosome X, complete chromosome sequence. Found forward in NC_001142 between 204825 and 205824 with 100% identity.

3131_g_at 3.3 A

Saccharomyces cerevisiae chromosome X, complete chromosome sequence. Found forward in NC_001142 between 204825 and 205824 with 100% identity.

3045 s at 331.2 A

Saccharomyces cerevisiae chromosome X, complete chromosome sequence. Found forward in

NC_001142 between 205825 and 206646 with 100% identity.

3046 at 82.0 A

Saccharomyces cerevisiae chromosome X, complete chromosome sequence. Found forward in NC_001142 between 212197 and 213196 with 100% identity.

3047 at 7358.6 A

Saccharomyces cerevisiae chromosome X, complete chromosome sequence. Found forward in NC_001142 between 213197 and 214196 with 100% identity.

3048 at -254.2 A

Saccharomyces cerevisiae chromosome X, complete chromosome sequence. Found forward in NC_001142 between 214197 and 215196 with 100% identity.

3049 at 247.1 A

Saccharomyces cerevisiae chromosome X, complete chromosome sequence. Found forward in NC_001142 between 215197 and 216196 with 100% identity.

3050_at -85.2 A

Saccharomyces cerevisiae chromosome X, complete chromosome sequence. Found forward in NC_001142 between 216197 and 217196 with 100% identity.

3051 at 83.8

Saccharomyces cerevisiae chromosome X, complete chromosome sequence. Found forward in NC_001142 between 217197 and 217402 with 100% identity.

3052 at 229.3 A

Saccharomyces cerevisiae chromosome X, complete chromosome sequence. Found forward in NC_001142 between 254933 and 255932 with 100% identity.

3053 at 147.4 A

Saccharomyces cerevisiae chromosome X, complete chromosome sequence. Found forward in NC 001142 between 255933 and 256932 with 100% identity.

3054 at -197.3 A

Saccharomyces cerevisiae chromosome X, complete chromosome sequence. Found forward in NC 001142 between 256933 and 257932 with 100% identity.

3055 g at 80.8 A

Saccharomyces cerevisiae chromosome X, complete chromosome sequence. Found forward in NC_001142 between 256933 and 257932 with 100% identity.

3056_s_at 285.6 A

Saccharomyces cerevisiae chromosome X, complete chromosome sequence. Found forward in NC_001142 between 257933 and 258932 with 100% identity.

3057 s at 928.8 A

Saccharomyces cerevisiae chromosome X, complete chromosome sequence. Found forward in NC_001142 between 258933 and 259932 with 100% identity.

3058 s at 77.5 A

Saccharomyces cerevisiae chromosome X, complete chromosome sequence. Found forward in NC_001142 between 259933 and 260143 with 100% identity.

3059 at 107.1 A

Saccharomyces cerevisiae chromosome X, complete chromosome sequence. Found forward in NC_001142 between 368944 and 369943 with 100% identity.

3060_at 66.4

Saccharomyces cerevisiae chromosome X, complete chromosome sequence. Found forward in NC_001142 between 369944 and 370943 with 100% identity.

3061 at -12.1 A

Saccharomyces cerevisiae chromosome X, complete chromosome sequence. Found forward in NC 001142 between 370944 and 371943 with 100% identity.

3062 at 204.8 A

Saccharomyces cerevisiae chromosome X, complete chromosome sequence. Found forward in NC_001142 between 371944 and 372943 with 100% identity.

3063 at 462.8 A

Saccharomyces cerevisiae chromosome X, complete chromosome sequence. Found forward in NC_001142 between 372944 and 373943 with 100% identity.

3064_at 669.0 A

Saccharomyces cerevisiae chromosome X, complete chromosome sequence. Found forward in NC_001142 between 373944 and 374811 with 100% identity.

3065_g_at -75.8 A

Saccharomyces cerevisiae chromosome X, complete chromosome sequence. Found forward in NC_001142 between 373944 and 374811 with 100% identity.

3066 at 33.0

Saccharomyces cerevisiae chromosome X, complete chromosome sequence. Found forward in NC_001142 between 424301 and 425300 with 100% identity.

3067 g at 121.2 A

Saccharomyces cerevisiae chromosome X, complete chromosome sequence. Found forward in NC 001142 between 424301 and 425300 with 100% identity.

3068 s at -67.9

Saccharomyces cerevisiae chromosome X, complete chromosome sequence. Found forward in NC_001142 between 425301 and 426300 with 100% identity.

3069 s at -258.3

Saccharomyces cerevisiae chromosome X, complete chromosome sequence. Found forward in NC 001142 between 426301 and 427300 with 100% identity.

3070 s at -1164.9 A

Α

Saccharomyces cerevisiae chromosome X, complete chromosome sequence. Found forward in NC_001142 between 427301 and 428300 with 100% identity.

3071 s at 285.7 A

Saccharomyces cerevisiae chromosome X, complete chromosome sequence. Found forward in NC_001142 between 428301 and 429300 with 100% identity.

3072_s_at 819.5 A

Saccharomyces cerevisiae chromosome X, complete chromosome sequence. Found forward in NC_001142 between 429301 and 430300 with 100% identity.

3073 s at -24.3 A

Saccharomyces cerevisiae chromosome X, complete chromosome sequence. Found forward in NC 001142 between 430301 and 430425 with 100% identity.

3074 at -266.2 A

Saccharomyces cerevisiae chromosome X, complete chromosome sequence. Found forward in NC_001142 between 510427 and 511426 with 100% identity.

3075 at -1000.8 A

Saccharomyces cerevisiae chromosome X, complete chromosome sequence. Found forward in NC_001142 between 511427 and 512426 with 100% identity.

3076 at 186.2

Saccharomyces cerevisiae chromosome X, complete chromosome sequence. Found forward in NC_001142 between 512427 and 513426 with 100% identity.

3077_at 169.5 A

Saccharomyces cerevisiae chromosome X, complete chromosome sequence. Found forward in NC_001142 between 513427 and 514426 with 100% identity.

3078_g_at 257.2 A

Saccharomyces cerevisiae chromosome X, complete chromosome sequence. Found forward in NC_001142 between 513427 and 514426 with 100% identity.

3079 s at 253.7

Saccharomyces cerevisiae chromosome X, complete chromosome sequence. Found forward in NC 001142 between 514427 and 515426 with 100% identity.

3080_f_at 581.1 F

Saccharomyces cerevisiae chromosome X, complete chromosome sequence. Found forward in NC 001142 between 515427 and 515477 with 100% identity.

3081 at 878.8 A

Saccharomyces cerevisiae chromosome X, complete chromosome sequence. Found forward in NC_001142 between 557997 and 558996 with 100% identity.

3082 at -1467.9 A

Saccharomyces cerevisiae chromosome X, complete chromosome sequence. Found forward in NC_001142 between 558997 and 559996 with 100% identity.

3083_g_at -11978.4 A

Saccharomyces cerevisiae chromosome X, complete chromosome sequence. Found forward in NC_001142 between 558997 and 559996 with 100% identity.

3084_s_at -52.1 A

Saccharomyces cerevisiae chromosome X, complete chromosome sequence. Found forward in NC_001142 between 559997 and 560996 with 100% identity.

3085 s at -244.6 A

Saccharomyces cerevisiae chromosome X, complete chromosome sequence. Found forward in NC_001142 between 560997 and 561996 with 100% identity.

3086_s_at -34.2 A

Saccharomyces cerevisiae chromosome X, complete chromosome sequence. Found forward in NC 001142 between 561997 and 562996 with 100% identity.

3087_s_at -206.9 A

Saccharomyces cerevisiae chromosome X, complete chromosome sequence. Found forward in NC_001142 between 562997 and 563996 with 100% identity.

3003_s_at 1080.5

Saccharomyces cerevisiae chromosome X, complete chromosome sequence. Found forward in NC_001142 between 563997 and 564996 with 100% identity.

3004 s at 495.4 A

Saccharomyces cerevisiae chromosome X, complete chromosome sequence. Found forward in NC_001142 between 564997 and 565996 with 100% identity.

3005 at -24.0 A

Saccharomyces cerevisiae chromosome X, complete chromosome sequence. Found forward in NC_001142 between 595249 and 596248 with 100% identity.

3006 at -245.1

Saccharomyces cerevisiae chromosome X, complete chromosome sequence. Found forward in NC 001142 between 596249 and 597248 with 100% identity.

3007 at 518.8 A

Saccharomyces cerevisiae chromosome X, complete chromosome sequence. Found forward in NC_001142 between 597249 and 598248 with 100% identity.

3008 at -7.6 A

Saccharomyces cerevisiae chromosome X, complete chromosome sequence. Found forward in NC 001142 between 598249 and 599248 with 100% identity.

3009_g_at 528.8 A

Saccharomyces cerevisiae chromosome X, complete chromosome sequence. Found forward in NC 001142 between 598249 and 599248 with 100% identity.

3010 s at 131.2 A

Saccharomyces cerevisiae chromosome X, complete chromosome sequence. Found forward in NC_001142 between 599249 and 600248 with 100% identity.

3011 s at -61.6 A

Saccharomyces cerevisiae chromosome X, complete chromosome sequence. Found forward in NC_001142 between 600249 and 601248 with 100% identity.

3012 s at 5255.0 A

Saccharomyces cerevisiae chromosome X, complete chromosome sequence. Found forward in NC_001142 between 601249 and 602248 with 100% identity.

3013 at 557.2 A

Saccharomyces cerevisiae chromosome X, complete chromosome sequence. Found forward in NC_001142 between 629774 and 630773 with 100% identity.

3014 at 128.4 A

Saccharomyces cerevisiae chromosome X, complete chromosome sequence. Found forward in NC_001142 between 630774 and 631773 with 100% identity.

3015 at -340.5 A

Saccharomyces cerevisiae chromosome X, complete chromosome sequence. Found forward in NC_001142 between 631774 and 632773 with 100% identity.

3016 at 133.7 A

Saccharomyces cerevisiae chromosome X, complete chromosome sequence. Found forward in

NC_001142 between 632774 and 633773 with 100% identity.

3017_g_at -179.2 A

Saccharomyces cerevisiae chromosome X, complete chromosome sequence. Found forward in NC_001142 between 632774 and 633773 with 100% identity.

3018_s_at 49.4 A

Saccharomyces cerevisiae chromosome X, complete chromosome sequence. Found forward in NC_001142 between 633774 and 634773 with 100% identity.

3019 at -36.1 A

Saccharomyces cerevisiae chromosome X, complete chromosome sequence. Found forward in NC_001142 between 690939 and 691938 with 100% identity.

3020 at -82.3 A

Saccharomyces cerevisiae chromosome X, complete chromosome sequence. Found forward in NC_001142 between 691939 and 692938 with 100% identity.

3021_at 76.6 A

Saccharomyces cerevisiae chromosome X, complete chromosome sequence. Found forward in NC_001142 between 692939 and 693938 with 100% identity.

3022 at -273.3

Saccharomyces cerevisiae chromosome X, complete chromosome sequence. Found forward in NC_001142 between 693939 and 694938 with 100% identity.

3023 at 150.1 A

Saccharomyces cerevisiae chromosome X, complete chromosome sequence. Found forward in NC_001142 between 694939 and 695938 with 100% identity.

3024_g_at 752.2 A

Saccharomyces cerevisiae chromosome X, complete chromosome sequence. Found forward in NC 001142 between 694939 and 695938 with 100% identity.

3025 s at 249.5 A

Saccharomyces cerevisiae chromosome X, complete chromosome sequence. Found forward in NC 001142 between 695939 and 696138 with 100% identity.

3026 at 1237.5 A

Saccharomyces cerevisiae chromosome X, complete chromosome sequence. Found forward in NC_001142 between 712444 and 713443 with 100% identity.

3027 at 281.0 A

Saccharomyces cerevisiae chromosome X, complete chromosome sequence. Found forward in NC_001142 between 713444 and 714443 with 100% identity.

3028 at -107.6 A

Saccharomyces cerevisiae chromosome X, complete chromosome sequence. Found forward in NC_001142 between 714444 and 715443 with 100% identity.

3029 at -7.1 A

Saccharomyces cerevisiae chromosome X, complete chromosome sequence. Found forward in NC_001142 between 715444 and 716443 with 100% identity.

3030 at 453.4 A

Saccharomyces cerevisiae chromosome X, complete chromosome sequence. Found forward in NC_001142 between 716444 and 717443 with 100% identity.

3031 at -177.8 A

Saccharomyces cerevisiae chromosome X, complete chromosome sequence. Found forward in NC_001142 between 717444 and 718443 with 100% identity.

3032 at 85.8 A

Saccharomyces cerevisiae chromosome X, complete chromosome sequence. Found forward in NC_001142 between 718444 and 719443 with 100% identity.

3033 s at 68.6 A

Saccharomyces cerevisiae chromosome X, complete chromosome sequence. Found forward in NC_001142 between 719444 and 720443 with 100% identity.

3034 at 750.3 A

Saccharomyces cerevisiae chromosome XI, complete chromosome sequence. Found forward in NC_001143 between 9592 and 10591 with 100% identity.

3035_at 340.5 A

Saccharomyces cerevisiae chromosome XI, complete chromosome sequence. Found forward in NC_001143 between 10592 and 11591 with 100% identity.

3036 at 681.1 A

Saccharomyces cerevisiae chromosome XI, complete chromosome sequence. Found forward in NC_001143 between 11592 and 12591 with 100% identity.

3037 at -156.5 A

Saccharomyces cerevisiae chromosome XI, complete chromosome sequence. Found forward in NC_001143 between 12592 and 13591 with 100% identity.

3038 at 194.3 A

Saccharomyces cerevisiae chromosome XI, complete chromosome sequence. Found forward in NC_001143 between 13592 and 14591 with 100% identity.

3039_s_at 634.0 F

Saccharomyces cerevisiae chromosome XI, complete chromosome sequence. Found forward in NC_001143 between 14592 and 15208 with 100% identity.

3040_at 611.0

Saccharomyces cerevisiae chromosome XI, complete chromosome sequence. Found forward in NC 001143 between 56435 and 57434 with 100% identity.

3041_at -1468.0 A

Saccharomyces cerevisiae chromosome XI, complete chromosome sequence. Found forward in NC_001143 between 57435 and 58434 with 100% identity.

3042_at 253.7 A

Saccharomyces cerevisiae chromosome XI, complete chromosome sequence. Found forward in NC_001143 between 58435 and 59434 with 100% identity.

3043_at -14.2 A

Α

Saccharomyces cerevisiae chromosome XI, complete chromosome sequence. Found forward in NC_001143 between 59435 and 60434 with 100% identity.

3044 at -84.8

Saccharomyces cerevisiae chromosome XI, complete chromosome sequence. Found forward in NC 001143 between 60435 and 61434 with 100% identity.

2960 at -150.7 A

Saccharomyces cerevisiae chromosome XI, complete chromosome sequence. Found forward in NC_001143 between 61435 and 62434 with 100% identity.

2961 at 414.4 P

Saccharomyces cerevisiae chromosome XI, complete chromosome sequence. Found forward in NC_001143 between 62435 and 63434 with 100% identity.

2962 at 212.2

Saccharomyces cerevisiae chromosome XI, complete chromosome sequence. Found forward in NC_001143 between 63435 and 63899 with 100% identity.

2963 at -261.4 A

Saccharomyces cerevisiae chromosome XI, complete chromosome sequence. Found forward in NC_001143 between 99643 and 100642 with 100% identity.

2964 at 180.8 A

Saccharomyces cerevisiae chromosome XI, complete chromosome sequence. Found forward in NC_001143 between 100643 and 101642 with 100% identity.

2965 g at -92.1

Saccharomyces cerevisiae chromosome XI, complete chromosome sequence. Found forward in NC_001143 between 100643 and 101642 with 100% identity.

2966_s_at -343.9 A

Saccharomyces cerevisiae chromosome XI, complete chromosome sequence. Found forward in NC_001143 between 101643 and 102642 with 100% identity.

2967 s at 4012.9 P

Saccharomyces cerevisiae chromosome XI, complete chromosome sequence. Found forward in NC 001143 between 102643 and 103642 with 100% identity.

2968 s at 1517.1 P

Saccharomyces cerevisiae chromosome XI, complete chromosome sequence. Found forward in NC_001143 between 103643 and 104642 with 100% identity.

2969_s_at 3451.2 P

Saccharomyces cerevisiae chromosome XI, complete chromosome sequence. Found forward in NC_001143 between 104643 and 105642 with 100% identity.

2970_s_at 17429.4 P

Saccharomyces cerevisiae chromosome XI, complete chromosome sequence. Found forward in NC 001143 between 105643 and 106328 with 100% identity.

2971 at -823.7 A

Saccharomyces cerevisiae chromosome XI, complete chromosome sequence. Found forward in NC_001143 between 411757 and 412756 with 100% identity.

2972_at -501.8 A

Saccharomyces cerevisiae chromosome XI, complete chromosome sequence. Found forward in NC_001143 between 412757 and 413756 with 100% identity.

2973 at -361.5 A

Saccharomyces cerevisiae chromosome XI, complete chromosome sequence. Found forward in NC_001143 between 413757 and 414756 with 100% identity.

2974_at -827.6

Saccharomyces cerevisiae chromosome XI, complete chromosome sequence. Found forward in NC_001143 between 414757 and 415756 with 100% identity.

2975_at -541.2 A

Saccharomyces cerevisiae chromosome XI, complete chromosome sequence. Found forward in NC_001143 between 415757 and 416756 with 100% identity.

2976 at -213.6 A

Saccharomyces cerevisiae chromosome XI, complete chromosome sequence. Found forward in NC 001143 between 416757 and 417146 with 100% identity.

977 at 4153.7

Saccharomyces cerevisiae chromosome XI, complete chromosome sequence. Found forward in NC 001143 between 535784 and 536783 with 100% identity.

2978 at -239.4 A

Saccharomyces cerevisiae chromosome XI, complete chromosome sequence. Found forward in NC_001143 between 536784 and 537783 with 100% identity.

2979_at 2883.9 P

Saccharomyces cerevisiae chromosome XI, complete chromosome sequence. Found forward in NC_001143 between 537784 and 538783 with 100% identity.

2980_at 400.7 A

Saccharomyces cerevisiae chromosome XI, complete chromosome sequence. Found forward in NC 001143 between 538784 and 539783 with 100% identity.

2981 at 56.0 A

Saccharomyces cerevisiae chromosome XI, complete chromosome sequence. Found forward in NC 001143 between 539784 and 540783 with 100% identity.

2982 at 407.9 A

Saccharomyces cerevisiae chromosome XI, complete chromosome sequence. Found forward in NC_001143 between 540784 and 541783 with 100% identity.

2983 at -197.7 A

Saccharomyces cerevisiae chromosome XI, complete chromosome sequence. Found forward in NC_001143 between 541784 and 542783 with 100% identity.

2984 at 44.4 A

Saccharomyces cerevisiae chromosome XI, complete chromosome sequence. Found forward in NC_001143 between 542784 and 543783 with 100% identity.

2985_at -40.3 A

Saccharomyces cerevisiae chromosome XI, complete chromosome sequence. Found forward in NC_001143 between 543784 and 544783 with 100% identity.

2986_at 296.8 A

Saccharomyces cerevisiae chromosome XI, complete chromosome sequence. Found forward in NC_001143 between 544784 and 545783 with 100% identity.

2987 at -38.4 A

Saccharomyces cerevisiae chromosome XI, complete chromosome sequence. Found forward in

NC_001143 between 545784 and 546783 with 100% identity.

2988_at -577.2 A

Saccharomyces cerevisiae chromosome XI, complete chromosome sequence. Found forward in NC_001143 between 546784 and 547783 with 100% identity.

2989_at -199.5 A

Saccharomyces cerevisiae chromosome XI, complete chromosome sequence. Found forward in NC_001143 between 547784 and 548228 with 100% identity.

2990 g at 476.4 P

Saccharomyces cerevisiae chromosome XI, complete chromosome sequence. Found forward in NC_001143 between 547784 and 548228 with 100% identity.

2991 at 52.7 A

Saccharomyces cerevisiae chromosome XI, complete chromosome sequence. Found forward in NC_001143 between 619375 and 620374 with 100% identity.

2992_g_at 45.2 A

Saccharomyces cerevisiae chromosome XI, complete chromosome sequence. Found forward in NC_001143 between 619375 and 620374 with 100% identity.

2993 s at 89.1 A

Saccharomyces cerevisiae chromosome XI, complete chromosome sequence. Found forward in NC_001143 between 620375 and 621374 with 100% identity.

2994_s_at -73.8 A

Saccharomyces cerevisiae chromosome XI, complete chromosome sequence. Found forward in NC_001143 between 621375 and 622374 with 100% identity.

2995 s at 680.6 A

Saccharomyces cerevisiae chromosome XI, complete chromosome sequence. Found forward in NC 001143 between 622375 and 623374 with 100% identity.

2996 s at 233.3 A

Saccharomyces cerevisiae chromosome XI, complete chromosome sequence. Found forward in NC 001143 between 623375 and 624374 with 100% identity.

2997 s at 744.2 P

Saccharomyces cerevisiae chromosome XI, complete chromosome sequence. Found forward in NC_001143 between 624375 and 624566 with 100% identity.

2998 at 404.2 A

Saccharomyces cerevisiae chromosome XI, complete chromosome sequence. Found forward in NC_001143 between 642133 and 643132 with 100% identity.

2999 at -191.1 A

Saccharomyces cerevisiae chromosome XI, complete chromosome sequence. Found forward in NC_001143 between 643133 and 644132 with 100% identity.

3000 at -67.4 A

Saccharomyces cerevisiae chromosome XI, complete chromosome sequence. Found forward in NC_001143 between 644133 and 645132 with 100% identity.

3001 at 23.6 A

Saccharomyces cerevisiae chromosome XI, complete chromosome sequence. Found forward in NC_001143 between 645133 and 646132 with 100% identity.

3002_g_at -28.8

Saccharomyces cerevisiae chromosome XI, complete chromosome sequence. Found forward in NC_001143 between 645133 and 646132 with 100% identity.

2917 s at 77.0 A

Α

Saccharomyces cerevisiae chromosome XI, complete chromosome sequence. Found forward in NC $_001143$ between 646133 and 647132 with 100% identity.

2918 s at -123.2 A

Saccharomyces cerevisiae chromosome XI, complete chromosome sequence. Found forward in NC_001143 between 647133 and 648132 with 100% identity.

2919_s_at 1753.5 A

Saccharomyces cerevisiae chromosome XI, complete chromosome sequence. Found forward in NC_001143 between 648133 and 648994 with 100% identity.

2920_at 109.2 A

Saccharomyces cerevisiae chromosome XI, complete chromosome sequence. Found forward in NC_001143 between 649494 and 650493 with 100% identity.

2921_at 99.7 A

Saccharomyces cerevisiae chromosome XI, complete chromosome sequence. Found forward in NC_001143 between 650494 and 651493 with 100% identity.

2922 at 336.8

Saccharomyces cerevisiae chromosome XI, complete chromosome sequence. Found forward in NC_001143 between 651494 and 652493 with 100% identity.

2923 at -298.9 A

Saccharomyces cerevisiae chromosome XI, complete chromosome sequence. Found forward in NC_001143 between 652494 and 653493 with 100% identity.

2924 g at -89.9 A

Saccharomyces cerevisiae chromosome XI, complete chromosome sequence. Found forward in NC_001143 between 652494 and 653493 with 100% identity.

2925 s at 552.8

Saccharomyces cerevisiae chromosome XI, complete chromosome sequence. Found forward in NC_001143 between 653494 and 654493 with 100% identity.

2926 s at -4.2 A

Saccharomyces cerevisiae chromosome XI, complete chromosome sequence. Found forward in NC_001143 between 654494 and 655493 with 100% identity.

2927 s at 443.0 F

Saccharomyces cerevisiae chromosome XI, complete chromosome sequence. Found forward in NC_001143 between 655494 and 655865 with 100% identity.

2928_at 269.2 A

Saccharomyces cerevisiae chromosome XI, complete chromosome sequence. Found forward in NC_001143 between 662918 and 663917 with 100% identity.

2929 at 14639.8 A

Saccharomyces cerevisiae chromosome XI, complete chromosome sequence. Found forward in NC 001143 between 663918 and 664917 with 100% identity.

2930 at 286.5 A

Saccharomyces cerevisiae chromosome XI, complete chromosome sequence. Found forward in NC_001143 between 664918 and 665917 with 100% identity.

2931 at -82.5 A

Saccharomyces cerevisiae chromosome XI, complete chromosome sequence. Found forward in NC_001143 between 665918 and 666445 with 100% identity.

2932 at -162.3 A

Saccharomyces cerevisiae chromosome XII, complete chromosome sequence. Found forward in NC_001144 between 54710 and 55709 with 100% identity.

2933 at 223.6 M

Saccharomyces cerevisiae chromosome XII, complete chromosome sequence. Found forward in NC_001144 between 55710 and 56709 with 100% identity.

2934_at -121.8 A

Saccharomyces cerevisiae chromosome XII, complete chromosome sequence. Found forward in NC_001144 between 56710 and 57709 with 100% identity.

2935 at 3900.5 F

Saccharomyces cerevisiae chromosome XII, complete chromosome sequence. Found forward in NC 001144 between 57710 and 58709 with 100% identity.

2936_at 15.5 A

Saccharomyces cerevisiae chromosome XII, complete chromosome sequence. Found forward in NC_001144 between 58710 and 59709 with 100% identity.

2937 at -1367.6 A

Saccharomyces cerevisiae chromosome XII, complete chromosome sequence. Found forward in NC 001144 between 59710 and 60709 with 100% identity.

2938 at -866.2 A

Saccharomyces cerevisiae chromosome XII, complete chromosome sequence. Found forward in NC_001144 between 60710 and 61709 with 100% identity.

2939 at -1227.1 A

Saccharomyces cerevisiae chromosome XII, complete chromosome sequence. Found forward in NC_001144 between 61710 and 62709 with 100% identity.

2940_at -1521.4 A

Saccharomyces cerevisiae chromosome XII, complete chromosome sequence. Found forward in NC_001144 between 62710 and 63709 with 100% identity.

2941 at -2683.0 A

Saccharomyces cerevisiae chromosome XII, complete chromosome sequence. Found forward in NC_001144 between 63710 and 64061 with 100% identity.

2942_at -949.7 A

Saccharomyces cerevisiae chromosome XII, complete chromosome sequence. Found forward in NC_001144 between 99543 and 100542 with 100% identity.

2943 at -1559.2 A

Saccharomyces cerevisiae chromosome XII, complete chromosome sequence. Found forward in NC_001144 between 100543 and 101542 with 100% identity.

2944 g at -1449.6 A

Saccharomyces cerevisiae chromosome XII, complete chromosome sequence. Found forward in NC_001144 between 100543 and 101542 with 100% identity.

2945 s at -1743.2 A

Saccharomyces cerevisiae chromosome XII, complete chromosome sequence. Found forward in NC_001144 between 101543 and 102542 with 100% identity.

2946_s_at -1689.5 A

Saccharomyces cerevisiae chromosome XII, complete chromosome sequence. Found forward in NC 001144 between 102543 and 103542 with 100% identity.

2947 s at -1241.2 A

Saccharomyces cerevisiae chromosome XII, complete chromosome sequence. Found forward in NC 001144 between 103543 and 104542 with 100% identity.

2948 s at -2279.3 A

Saccharomyces cerevisiae chromosome XII, complete chromosome sequence. Found forward in NC_001144 between 104543 and 104846 with 100% identity.

2949 at -755.7 A

Saccharomyces cerevisiae chromosome XII, complete chromosome sequence. Found forward in NC 001144 between 188164 and 189163 with 100% identity.

2950_at -1156.1 A

Saccharomyces cerevisiae chromosome XII, complete chromosome sequence. Found forward in NC 001144 between 189164 and 190163 with 100% identity.

2951 at -1929.2 A

Saccharomyces cerevisiae chromosome XII, complete chromosome sequence. Found forward in NC 001144 between 190164 and 191163 with 100% identity.

2952 at -3207.6 A

Saccharomyces cerevisiae chromosome XII, complete chromosome sequence. Found forward in NC_001144 between 191164 and 192163 with 100% identity.

2953 at -5594.1 A

Saccharomyces cerevisiae chromosome XII, complete chromosome sequence. Found forward in NC_001144 between 192164 and 193163 with 100% identity.

2954 at -2500.4 A

Saccharomyces cerevisiae chromosome XII, complete chromosome sequence. Found forward in NC_001144 between 193164 and 194163 with 100% identity.

2955 at -1804.2 A

Saccharomyces cerevisiae chromosome XII, complete chromosome sequence. Found forward in NC_001144 between 194164 and 194675 with 100% identity.

2956 g at -366.9 A

Saccharomyces cerevisiae chromosome XII, complete chromosome sequence. Found forward in NC 001144 between 194164 and 194675 with 100% identity.

2957 at -2050.3 A

Saccharomyces cerevisiae chromosome XII, complete chromosome sequence. Found forward in

NC_001144 between 307356 and 308355 with 100% identity.

2958 at -2763.0 A

Saccharomyces cerevisiae chromosome XII, complete chromosome sequence. Found forward in NC_001144 between 308356 and 309355 with 100% identity.

2959 at -609.3

Saccharomyces cerevisiae chromosome XII, complete chromosome sequence. Found forward in NC_001144 between 309356 and 310355 with 100% identity.

2875 at -482.7 A

Saccharomyces cerevisiae chromosome XII, complete chromosome sequence. Found forward in NC_001144 between 310356 and 311355 with 100% identity.

2876 at -1757.8 A

Saccharomyces cerevisiae chromosome XII, complete chromosome sequence. Found forward in NC 001144 between 311356 and 312355 with 100% identity.

2877_at -259.4 A

Saccharomyces cerevisiae chromosome XII, complete chromosome sequence. Found forward in NC_001144 between 312356 and 313355 with 100% identity.

2878 at -209.3 A

Saccharomyces cerevisiae chromosome XII, complete chromosome sequence. Found forward in NC_001144 between 313356 and 314355 with 100% identity.

2879 at -241.5 A

Saccharomyces cerevisiae chromosome XII, complete chromosome sequence. Found forward in NC_001144 between 314356 and 315355 with 100% identity.

2880 at 67.2 A

Saccharomyces cerevisiae chromosome XII, complete chromosome sequence. Found forward in NC 001144 between 315356 and 315877 with 100% identity.

2881 at 199.4 A

Saccharomyces cerevisiae chromosome XII, complete chromosome sequence. Found forward in NC_001144 between 330178 and 331177 with 100% identity.

2882 at 618.6 A

Saccharomyces cerevisiae chromosome XII, complete chromosome sequence. Found forward in NC_001144 between 331178 and 332177 with 100% identity.

2883 at -135.2 A

Saccharomyces cerevisiae chromosome XII, complete chromosome sequence. Found forward in NC_001144 between 332178 and 333177 with 100% identity.

2884 g at 2268.4 A

Saccharomyces cerevisiae chromosome XII, complete chromosome sequence. Found forward in NC_001144 between 332178 and 333177 with 100% identity.

2885 s at -140.7 A

Saccharomyces cerevisiae chromosome XII, complete chromosome sequence. Found forward in NC_001144 between 333178 and 334177 with 100% identity.

2886 s at 623.9 P

Saccharomyces cerevisiae chromosome XII, complete chromosome sequence. Found forward in NC_001144 between 334178 and 335177 with 100% identity.

2887_s_at 530.5 A

Saccharomyces cerevisiae chromosome XII, complete chromosome sequence. Found forward in NC_001144 between 335178 and 335534 with 100% identity.

2888 at 362.1 A

Saccharomyces cerevisiae chromosome XII, complete chromosome sequence. Found forward in NC_001144 between 349507 and 350506 with 100% identity.

2889 at 25.7 A

Saccharomyces cerevisiae chromosome XII, complete chromosome sequence. Found forward in NC_001144 between 350507 and 351506 with 100% identity.

2890 at -308.0 A

Saccharomyces cerevisiae chromosome XII, complete chromosome sequence. Found forward in NC_001144 between 351507 and 352506 with 100% identity.

2891_at -1407.3 A

Saccharomyces cerevisiae chromosome XII, complete chromosome sequence. Found forward in NC 001144 between 352507 and 353506 with 100% identity.

2892 at -216.0 A

Saccharomyces cerevisiae chromosome XII, complete chromosome sequence. Found forward in NC_001144 between 353507 and 354506 with 100% identity.

2893_at 113.2

Saccharomyces cerevisiae chromosome XII, complete chromosome sequence. Found forward in NC_001144 between 354507 and 355506 with 100% identity.

2894 at -782.2 A

Saccharomyces cerevisiae chromosome XII, complete chromosome sequence. Found forward in NC_001144 between 355507 and 356506 with 100% identity.

2895 at 1099.3 A

Saccharomyces cerevisiae chromosome XII, complete chromosome sequence. Found forward in NC_001144 between 356507 and 357506 with 100% identity.

2896_at 159.8

Saccharomyces cerevisiae chromosome XII, complete chromosome sequence. Found forward in NC_001144 between 357507 and 358506 with 100% identity.

2897 at 369.7 A

Α

Saccharomyces cerevisiae chromosome XII, complete chromosome sequence. Found forward in NC_001144 between 358507 and 359506 with 100% identity.

2898 at -566.3 A

Saccharomyces cerevisiae chromosome XII, complete chromosome sequence. Found forward in NC_001144 between 359507 and 360506 with 100% identity.

2899_at -436.6 A

Saccharomyces cerevisiae chromosome XII, complete chromosome sequence. Found forward in NC_001144 between 360507 and 361506 with 100% identity.

2900 at -3071.3 A

Saccharomyces cerevisiae chromosome XII, complete chromosome sequence. Found forward in NC 001144 between 361507 and 362506 with 100% identity.

2901 at 16.0 A

Saccharomyces cerevisiae chromosome XII, complete chromosome sequence. Found forward in NC_001144 between 362507 and 363506 with 100% identity.

2902 at -107.3 A

Saccharomyces cerevisiae chromosome XII, complete chromosome sequence. Found forward in NC_001144 between 363507 and 364506 with 100% identity.

2903 g at -155.8

Saccharomyces cerevisiae chromosome XII, complete chromosome sequence. Found forward in NC_001144 between 363507 and 364506 with 100% identity.

2904 s at -640.0 A

Saccharomyces cerevisiae chromosome XII, complete chromosome sequence. Found forward in NC_001144 between 364507 and 364831 with 100% identity.

2905 at 48.8 A

Saccharomyces cerevisiae chromosome XII, complete chromosome sequence. Found forward in NC_001144 between 629184 and 630183 with 100% identity.

2906 at -65.0 A

Saccharomyces cerevisiae chromosome XII, complete chromosome sequence. Found forward in NC 001144 between 630184 and 631183 with 100% identity.

2907_at -905.5 A

Saccharomyces cerevisiae chromosome XII, complete chromosome sequence. Found forward in NC 001144 between 631184 and 632183 with 100% identity.

2908 at -376.7 A

Saccharomyces cerevisiae chromosome XII, complete chromosome sequence. Found forward in NC 001144 between 632184 and 633183 with 100% identity.

2909 at 112.6 A

Saccharomyces cerevisiae chromosome XII, complete chromosome sequence. Found forward in NC_001144 between 633184 and 634183 with 100% identity.

2910 at -128.6 A

Saccharomyces cerevisiae chromosome XII, complete chromosome sequence. Found forward in NC_001144 between 634184 and 635183 with 100% identity.

2911_s_at 2357.2 P

Saccharomyces cerevisiae chromosome XII, complete chromosome sequence. Found forward in NC 001144 between 635184 and 635584 with 100% identity.

2912 at 225.7 A

Saccharomyces cerevisiae chromosome XII, complete chromosome sequence. Found forward in NC_001144 between 769817 and 770816 with 100% identity.

2913 at 1159.3 A

Saccharomyces cerevisiae chromosome XII, complete chromosome sequence. Found forward in NC_001144 between 770817 and 771816 with 100% identity.

2914 at 192.5 A

Saccharomyces cerevisiae chromosome XII, complete chromosome sequence. Found forward in NC_001144 between 771817 and 772816 with 100% identity.

2915_g_at 141.7 A

Saccharomyces cerevisiae chromosome XII, complete chromosome sequence. Found forward in NC_001144 between 771817 and 772816 with 100% identity.

2916 s at 146.0 A

Saccharomyces cerevisiae chromosome XII, complete chromosome sequence. Found forward in NC_001144 between 772817 and 773816 with 100% identity.

2832 s at 17.5 A

Saccharomyces cerevisiae chromosome XII, complete chromosome sequence. Found forward in NC 001144 between 773817 and 774816 with 100% identity.

2833 s at -97.3

Saccharomyces cerevisiae chromosome XII, complete chromosome sequence. Found forward in NC 001144 between 774817 and 775803 with 100% identity.

2834 at 174.0 A

Saccharomyces cerevisiae chromosome XII, complete chromosome sequence. Found forward in NC_001144 between 808817 and 809816 with 100% identity.

2835 at 1034.6 P

Saccharomyces cerevisiae chromosome XII, complete chromosome sequence. Found forward in NC 001144 between 809817 and 810816 with 100% identity.

2836 g at -574.4 P

Saccharomyces cerevisiae chromosome XII, complete chromosome sequence. Found forward in NC 001144 between 809817 and 810816 with 100% identity.

2837 s at 235.7 P

Saccharomyces cerevisiae chromosome XII, complete chromosome sequence. Found forward in NC_001144 between 810817 and 811816 with 100% identity.

2838 s at 354.3 A

Saccharomyces cerevisiae chromosome XII, complete chromosome sequence. Found forward in NC_001144 between 811817 and 812816 with 100% identity.

2839 s at 572.0 F

Saccharomyces cerevisiae chromosome XII, complete chromosome sequence. Found forward in NC_001144 between 812817 and 813816 with 100% identity.

2840 s at 5219.5 P

Saccharomyces cerevisiae chromosome XII, complete chromosome sequence. Found forward in NC_001144 between 813817 and 814816 with 100% identity.

2841 s at 13079.8 P

Saccharomyces cerevisiae chromosome XII, complete chromosome sequence. Found forward in NC_001144 between 814817 and 815126 with 100% identity.

2842 at 387.7 A

Saccharomyces cerevisiae chromosome XII, complete chromosome sequence. Found forward in NC 001144 between 934909 and 935908 with 100% identity.

2843 at 784.8 P

Saccharomyces cerevisiae chromosome XII, complete chromosome sequence. Found forward in

NC_001144 between 935909 and 936908 with 100% identity.

2844 at 143.4 A

Saccharomyces cerevisiae chromosome XII, complete chromosome sequence. Found forward in NC_001144 between 936909 and 937908 with 100% identity.

2845_g_at -81.5

Saccharomyces cerevisiae chromosome XII, complete chromosome sequence. Found forward in NC_001144 between 936909 and 937908 with 100% identity.

2846 s at 400.4 A

Saccharomyces cerevisiae chromosome XII, complete chromosome sequence. Found forward in NC_001144 between 937909 and 938908 with 100% identity.

2847 s at 779.2 P

Saccharomyces cerevisiae chromosome XII, complete chromosome sequence. Found forward in NC 001144 between 938909 and 939908 with 100% identity.

2848_s_at 1160.6 P

Saccharomyces cerevisiae chromosome XII, complete chromosome sequence. Found forward in NC 001144 between 939909 and 940476 with 100% identity.

2849 at 527.4 A

Saccharomyces cerevisiae chromosome XII, complete chromosome sequence. Found forward in NC_001144 between 965554 and 966553 with 100% identity.

2850_g_at 13008.3 A

Saccharomyces cerevisiae chromosome XII, complete chromosome sequence. Found forward in NC_001144 between 965554 and 966553 with 100% identity.

2851 s at 139.1 A

Saccharomyces cerevisiae chromosome XII, complete chromosome sequence. Found forward in NC 001144 between 966554 and 967553 with 100% identity.

2852 s at 4.2 A

Saccharomyces cerevisiae chromosome XII, complete chromosome sequence. Found forward in NC 001144 between 967554 and 968553 with 100% identity.

2853 s at 85.6 A

Saccharomyces cerevisiae chromosome XII, complete chromosome sequence. Found forward in NC_001144 between 968554 and 969553 with 100% identity.

2854_s_at 176.1 F

Saccharomyces cerevisiae chromosome XII, complete chromosome sequence. Found forward in NC_001144 between 969554 and 970553 with 100% identity.

2855 s at 587.7 P

Saccharomyces cerevisiae chromosome XII, complete chromosome sequence. Found forward in NC_001144 between 970554 and 971189 with 100% identity.

2856 at 246.6 M

Saccharomyces cerevisiae chromosome XII, complete chromosome sequence. Found forward in NC_001144 between 979430 and 980429 with 100% identity.

2857 at 991.7 P

Saccharomyces cerevisiae chromosome XII, complete chromosome sequence. Found forward in NC_001144 between 980430 and 981429 with 100% identity.

2858 at 500.0

Saccharomyces cerevisiae chromosome XII, complete chromosome sequence. Found forward in NC_001144 between 981430 and 982429 with 100% identity.

2859 at 890.9 A

Saccharomyces cerevisiae chromosome XII, complete chromosome sequence. Found forward in NC_001144 between 982430 and 983429 with 100% identity.

2860 g at -6777.0 A

Saccharomyces cerevisiae chromosome XII, complete chromosome sequence. Found forward in NC_001144 between 982430 and 983429 with 100% identity.

2861 s at 166.5 A

Saccharomyces cerevisiae chromosome XII, complete chromosome sequence. Found forward in NC_001144 between 983430 and 984429 with 100% identity.

2862_s_at 777.1 F

Saccharomyces cerevisiae chromosome XII, complete chromosome sequence. Found forward in NC 001144 between 984430 and 985429 with 100% identity.

2863 s at 734.9 F

Saccharomyces cerevisiae chromosome XII, complete chromosome sequence. Found forward in NC_001144 between 985430 and 986311 with 100% identity.

2864 at 767.3

Saccharomyces cerevisiae chromosome XII, complete chromosome sequence. Found forward in NC_001144 between 992726 and 993725 with 100% identity.

2865 g at 917.0 P

Saccharomyces cerevisiae chromosome XII, complete chromosome sequence. Found forward in NC_001144 between 992726 and 993725 with 100% identity.

2866 s at 787.7 F

Saccharomyces cerevisiae chromosome XII, complete chromosome sequence. Found forward in NC_001144 between 993726 and 994725 with 100% identity.

2867 s at 2881.1

Saccharomyces cerevisiae chromosome XII, complete chromosome sequence. Found forward in NC 001144 between 994726 and 995725 with 100% identity.

2868 s at -1112.3 P

Saccharomyces cerevisiae chromosome XII, complete chromosome sequence. Found forward in NC_001144 between 995726 and 996725 with 100% identity.

2869 s at 385.2 A

Saccharomyces cerevisiae chromosome XII, complete chromosome sequence. Found forward in NC_001144 between 996726 and 997725 with 100% identity.

2870_s_at 939.8 P

Saccharomyces cerevisiae chromosome XII, complete chromosome sequence. Found forward in NC_001144 between 997726 and 998725 with 100% identity.

2871 s at 2458.7 P

Saccharomyces cerevisiae chromosome XII, complete chromosome sequence. Found forward in NC_001144 between 998726 and 999623 with 100% identity.

2872 at 673.8 P

Saccharomyces cerevisiae chromosome XII, complete chromosome sequence. Found forward in NC_001144 between 1042294 and 1043293 with 100% identity.

2873 at 591.9 P

Saccharomyces cerevisiae chromosome XII, complete chromosome sequence. Found forward in NC_001144 between 1043294 and 1044293 with 100% identity.

2874 g at 178.0

Saccharomyces cerevisiae chromosome XII, complete chromosome sequence. Found forward in NC_001144 between 1043294 and 1044293 with 100% identity.

2789 s at 845.6 P

Saccharomyces cerevisiae chromosome XII, complete chromosome sequence. Found forward in NC_001144 between 1044294 and 1045293 with 100% identity.

2790_s_at 806.2 P

Saccharomyces cerevisiae chromosome XII, complete chromosome sequence. Found forward in NC_001144 between 1045294 and 1046293 with 100% identity.

2791 s at 95.4

Saccharomyces cerevisiae chromosome XII, complete chromosome sequence. Found forward in NC 001144 between 1046294 and 1047293 with 100% identity.

2792 s at 54.2 A

Saccharomyces cerevisiae chromosome XII, complete chromosome sequence. Found forward in NC 001144 between 1047294 and 1048293 with 100% identity.

2793 s at 29.7 A

Saccharomyces cerevisiae chromosome XII, complete chromosome sequence. Found forward in NC 001144 between 1048294 and 1049293 with 100% identity.

2794 s at 443.1

Saccharomyces cerevisiae chromosome XII, complete chromosome sequence. Found forward in NC_001144 between 1049294 and 1050293 with 100% identity.

2795_s_at 376.4 P

Saccharomyces cerevisiae chromosome XII, complete chromosome sequence. Found forward in NC_001144 between 1050294 and 1051293 with 100% identity.

2796_f_at 647.9 F

Saccharomyces cerevisiae chromosome XII, complete chromosome sequence. Found forward in NC_001144 between 1051294 and 1051379 with 100% identity.

2797 at 393.7 F

Saccharomyces cerevisiae chromosome XII, complete chromosome sequence. Found forward in NC_001144 between 1071425 and 1072424 with 100% identity.

2798_g_at -74.7 A

Saccharomyces cerevisiae chromosome XII, complete chromosome sequence. Found forward in NC_001144 between 1071425 and 1072424 with 100% identity.

2799_at -180.2 A

Saccharomyces cerevisiae chromosome XIII, complete chromosome sequence. Found forward in NC_001145 between 63082 and 64081 with 100% identity.

2800_at 437.0 F

Saccharomyces cerevisiae chromosome XIII, complete chromosome sequence. Found forward in NC_001145 between 64082 and 65081 with 100% identity.

2801 at 176.4 A

Saccharomyces cerevisiae chromosome XIII, complete chromosome sequence. Found forward in NC_001145 between 65082 and 66081 with 100% identity.

2802 at 342.1 A

Saccharomyces cerevisiae chromosome XIII, complete chromosome sequence. Found forward in NC_001145 between 66082 and 67081 with 100% identity.

2803 at -2671.6 A

Saccharomyces cerevisiae chromosome XIII, complete chromosome sequence. Found forward in NC 001145 between 67082 and 68081 with 100% identity.

2804 at -54.6 A

Saccharomyces cerevisiae chromosome XIII, complete chromosome sequence. Found forward in NC_001145 between 68082 and 69081 with 100% identity.

2805 g at 409.6 P

Saccharomyces cerevisiae chromosome XIII, complete chromosome sequence. Found forward in NC_001145 between 68082 and 69081 with 100% identity.

2806 s at 1268.3 F

Saccharomyces cerevisiae chromosome XIII, complete chromosome sequence. Found forward in NC 001145 between 69082 and 69200 with 100% identity.

2807 at 280.1 A

Saccharomyces cerevisiae chromosome XIII, complete chromosome sequence. Found forward in NC_001145 between 153719 and 154718 with 100% identity.

2808 at -326.0 A

Saccharomyces cerevisiae chromosome XIII, complete chromosome sequence. Found forward in NC_001145 between 154719 and 155718 with 100% identity.

2809 at -11.9 A

Saccharomyces cerevisiae chromosome XIII, complete chromosome sequence. Found forward in NC_001145 between 155719 and 156718 with 100% identity.

2810 at 22.0 A

Saccharomyces cerevisiae chromosome XIII, complete chromosome sequence. Found forward in NC_001145 between 156719 and 157718 with 100% identity.

2811_at -39.4 A

Saccharomyces cerevisiae chromosome XIII, complete chromosome sequence. Found forward in NC_001145 between 157719 and 158718 with 100% identity.

2812_at -1699.0 A

Saccharomyces cerevisiae chromosome XIII, complete chromosome sequence. Found forward in NC_001145 between 183363 and 184362 with 100% identity.

2813 at 95.8 A

Saccharomyces cerevisiae chromosome XIII, complete chromosome sequence. Found forward in

NC_001145 between 189363 and 190244 with 100% identity.

2814 at 81.7 A

Saccharomyces cerevisiae chromosome XIII, complete chromosome sequence. Found forward in NC_001145 between 195413 and 196412 with 100% identity.

2815_at 592.7 F

Saccharomyces cerevisiae chromosome XIII, complete chromosome sequence. Found forward in NC_001145 between 201413 and 202412 with 100% identity.

2816 at 3322.4 P

Saccharomyces cerevisiae chromosome XIII, complete chromosome sequence. Found forward in NC_001145 between 202413 and 202775 with 100% identity.

2817 at 1485.6 P

Saccharomyces cerevisiae chromosome XIII, complete chromosome sequence. Found forward in NC_001145 between 356810 and 357809 with 100% identity.

2818_at 9092.5 F

Saccharomyces cerevisiae chromosome XIII, complete chromosome sequence. Found forward in NC 001145 between 357810 and 358809 with 100% identity.

2819 s at 1372.5 F

Saccharomyces cerevisiae chromosome XIII, complete chromosome sequence. Found forward in NC_001145 between 358810 and 359809 with 100% identity.

2821 at -130.4 A

Saccharomyces cerevisiae chromosome XIII, complete chromosome sequence. Found forward in NC_001145 between 360810 and 361809 with 100% identity.

2822 at 631.0 A

Saccharomyces cerevisiae chromosome XIII, complete chromosome sequence. Found forward in NC 001145 between 361810 and 362701 with 100% identity.

2823 at 337.3 F

Saccharomyces cerevisiae chromosome XIII, complete chromosome sequence. Found forward in NC 001145 between 368593 and 369592 with 100% identity.

2824 at 898.1 A

Saccharomyces cerevisiae chromosome XIII, complete chromosome sequence. Found forward in NC_001145 between 369593 and 370592 with 100% identity.

2825 at 396.9 A

Saccharomyces cerevisiae chromosome XIII, complete chromosome sequence. Found forward in NC_001145 between 370593 and 371592 with 100% identity.

2826 at -150.2 A

Saccharomyces cerevisiae chromosome XIII, complete chromosome sequence. Found forward in NC_001145 between 371593 and 372592 with 100% identity.

2827 g at 17.3 A

Saccharomyces cerevisiae chromosome XIII, complete chromosome sequence. Found forward in NC_001145 between 371593 and 372592 with 100% identity.

2828 at 141.9 A

Saccharomyces cerevisiae chromosome XIII, complete chromosome sequence. Found forward in NC_001145 between 372593 and 373592 with 100% identity.

2829_f_at 31768.3 F

Saccharomyces cerevisiae chromosome XIII, complete chromosome sequence. Found forward in NC_001145 between 373593 and 374592 with 100% identity.

2748 at 119.6 A

Saccharomyces cerevisiae chromosome XIII, complete chromosome sequence. Found forward in NC_001145 between 378593 and 379592 with 100% identity.

2749 s at 469.2 F

Saccharomyces cerevisiae chromosome XIII, complete chromosome sequence. Found forward in NC_001145 between 379593 and 379699 with 100% identity.

2750 at -89.0 A

Saccharomyces cerevisiae chromosome XIII, complete chromosome sequence. Found forward in NC_001145 between 677692 and 678691 with 100% identity.

2751_at -14.5 A

Saccharomyces cerevisiae chromosome XIII, complete chromosome sequence. Found forward in NC_001145 between 678692 and 679691 with 100% identity.

2752 at 433.4 A

Saccharomyces cerevisiae chromosome XIII, complete chromosome sequence. Found forward in NC_001145 between 679692 and 680691 with 100% identity.

2753 at 92.7

Saccharomyces cerevisiae chromosome XIII, complete chromosome sequence. Found forward in NC_001145 between 680692 and 681691 with 100% identity.

2754 at -181.3 A

Saccharomyces cerevisiae chromosome XIII, complete chromosome sequence. Found forward in NC_001145 between 681692 and 682691 with 100% identity.

2755 at 97.8 A

Saccharomyces cerevisiae chromosome XIII, complete chromosome sequence. Found forward in NC_001145 between 682692 and 683691 with 100% identity.

2756_at -1189.5

Saccharomyces cerevisiae chromosome XIII, complete chromosome sequence. Found forward in NC 001145 between 683692 and 684691 with 100% identity.

2757_g_at 2524.4 P

Saccharomyces cerevisiae chromosome XIII, complete chromosome sequence. Found forward in NC_001145 between 683692 and 684691 with 100% identity.

2758 s at 2198.8 F

Saccharomyces cerevisiae chromosome XIII, complete chromosome sequence. Found forward in NC_001145 between 684692 and 685297 with 100% identity.

2759_at -290.6 A

Saccharomyces cerevisiae chromosome XIII, complete chromosome sequence. Found forward in NC_001145 between 704078 and 705077 with 100% identity.

2760 at 448.3 F

Saccharomyces cerevisiae chromosome XIII, complete chromosome sequence. Found forward in NC_001145 between 705078 and 706077 with 100% identity.

2761 at 375.6 A

Saccharomyces cerevisiae chromosome XIII, complete chromosome sequence. Found forward in NC_001145 between 706078 and 707077 with 100% identity.

2762 at 290.7 A

Saccharomyces cerevisiae chromosome XIII, complete chromosome sequence. Found forward in NC_001145 between 707078 and 708077 with 100% identity.

2763 s at -112.3

Saccharomyces cerevisiae chromosome XIII, complete chromosome sequence. Found forward in NC_001145 between 708078 and 709077 with 100% identity.

2764 s at 227.4 A

Saccharomyces cerevisiae chromosome XIII, complete chromosome sequence. Found forward in NC_001145 between 709078 and 710077 with 100% identity.

2765_s_at -212.5 A

Saccharomyces cerevisiae chromosome XIII, complete chromosome sequence. Found forward in NC_001145 between 710078 and 711077 with 100% identity.

2766 s at 864.8 F

Saccharomyces cerevisiae chromosome XIII, complete chromosome sequence. Found forward in NC 001145 between 711078 and 711608 with 100% identity.

2767_at 630.6 A

Saccharomyces cerevisiae chromosome XIII, complete chromosome sequence. Found forward in NC 001145 between 726433 and 727432 with 100% identity.

2768 at 182.0 P

Saccharomyces cerevisiae chromosome XIII, complete chromosome sequence. Found forward in NC 001145 between 727433 and 728432 with 100% identity.

2769 at 87.9 F

Saccharomyces cerevisiae chromosome XIII, complete chromosome sequence. Found forward in NC_001145 between 728433 and 729432 with 100% identity.

2770 at 289.8 A

Saccharomyces cerevisiae chromosome XIII, complete chromosome sequence. Found forward in NC_001145 between 729433 and 730432 with 100% identity.

2771_at 670.8 F

Saccharomyces cerevisiae chromosome XIII, complete chromosome sequence. Found forward in NC 001145 between 730433 and 731432 with 100% identity.

2772 at 329.3 A

Saccharomyces cerevisiae chromosome XIII, complete chromosome sequence. Found forward in NC_001145 between 731433 and 731964 with 100% identity.

2773_at 75.2 A

Saccharomyces cerevisiae chromosome XIII, complete chromosome sequence. Found forward in NC_001145 between 827528 and 828527 with 100% identity.

2774 at -88.6 A

Saccharomyces cerevisiae chromosome XIII, complete chromosome sequence. Found forward in NC_001145 between 828528 and 829527 with 100% identity.

2775_at -4034.8

Saccharomyces cerevisiae chromosome XIII, complete chromosome sequence. Found forward in NC_001145 between 829528 and 830527 with 100% identity.

2776_at -403.7 A

Saccharomyces cerevisiae chromosome XIII, complete chromosome sequence. Found forward in NC_001145 between 830528 and 831527 with 100% identity.

2777 at -89.0 A

Saccharomyces cerevisiae chromosome XIII, complete chromosome sequence. Found forward in NC_001145 between 831528 and 832527 with 100% identity.

2778 g at 583.4

Saccharomyces cerevisiae chromosome XIII, complete chromosome sequence. Found forward in NC 001145 between 831528 and 832527 with 100% identity.

2779 s at 67.1 A

Saccharomyces cerevisiae chromosome XIII, complete chromosome sequence. Found forward in NC_001145 between 832528 and 832753 with 100% identity.

2780 at 244.1 A

Saccharomyces cerevisiae chromosome XIII, complete chromosome sequence. Found forward in NC_001145 between 842936 and 843935 with 100% identity.

2781 at 85.6 A

Saccharomyces cerevisiae chromosome XIII, complete chromosome sequence. Found forward in NC 001145 between 843936 and 844935 with 100% identity.

2782 at 384.4 A

Saccharomyces cerevisiae chromosome XIII, complete chromosome sequence. Found forward in NC 001145 between 844936 and 845935 with 100% identity.

2783 g at 171.4 A

Saccharomyces cerevisiae chromosome XIII, complete chromosome sequence. Found forward in NC_001145 between 844936 and 845935 with 100% identity.

2784_s_at 638.5 A

Saccharomyces cerevisiae chromosome XIII, complete chromosome sequence. Found forward in NC_001145 between 845936 and 846935 with 100% identity.

2785 s at 517.1 A

Saccharomyces cerevisiae chromosome XIII, complete chromosome sequence. Found forward in NC_001145 between 846936 and 847935 with 100% identity.

2786 s at 849.1 P

Saccharomyces cerevisiae chromosome XIII, complete chromosome sequence. Found forward in NC_001145 between 847936 and 847986 with 100% identity.

2787_at 318.6 A

Saccharomyces cerevisiae chromosome XIII, complete chromosome sequence. Found forward in NC 001145 between 879563 and 880562 with 100% identity.

2788 at 158.5 A

Saccharomyces cerevisiae chromosome XIII, complete chromosome sequence. Found forward in

NC_001145 between 880563 and 881562 with 100% identity.

2703_g_at -230.0

Saccharomyces cerevisiae chromosome XIII, complete chromosome sequence. Found forward in NC_001145 between 880563 and 881562 with 100% identity.

2704_s_at 581.5 A

Saccharomyces cerevisiae chromosome XIII, complete chromosome sequence. Found forward in NC_001145 between 881563 and 882562 with 100% identity.

2705_s_at -3.4 A

Saccharomyces cerevisiae chromosome XIII, complete chromosome sequence. Found forward in NC_001145 between 882563 and 883562 with 100% identity.

2706 s at 14305.2 A

Saccharomyces cerevisiae chromosome XIII, complete chromosome sequence. Found forward in NC 001145 between 883563 and 884562 with 100% identity.

2707_s_at -947.8 A

Saccharomyces cerevisiae chromosome XIII, complete chromosome sequence. Found forward in NC_001145 between 884563 and 885562 with 100% identity.

2708 s at 196.8

Saccharomyces cerevisiae chromosome XIII, complete chromosome sequence. Found forward in NC_001145 between 885563 and 886016 with 100% identity.

2709_s_at 288.0 P

Saccharomyces cerevisiae chromosome XIV, complete chromosome sequence. Found forward in NC_001146 between 871 and 1870 with 100% identity.

2710 s at 520.4 F

Saccharomyces cerevisiae chromosome XIV, complete chromosome sequence. Found forward in NC 001146 between 1871 and 2870 with 100% identity.

2711 s at 487.4 P

Saccharomyces cerevisiae chromosome XIV, complete chromosome sequence. Found forward in NC 001146 between 2871 and 3870 with 100% identity.

2712 s at -590.1 A

Saccharomyces cerevisiae chromosome XIV, complete chromosome sequence. Found forward in NC_001146 between 3871 and 4870 with 100% identity.

2713_s_at 230.5 A

Saccharomyces cerevisiae chromosome XIV, complete chromosome sequence. Found forward in NC_001146 between 4871 and 5870 with 100% identity.

2714 s at 1660.2 P

Saccharomyces cerevisiae chromosome XIV, complete chromosome sequence. Found forward in NC_001146 between 5871 and 6080 with 100% identity.

2715 at 132.5 A

Saccharomyces cerevisiae chromosome XIV, complete chromosome sequence. Found forward in NC_001146 between 130021 and 131020 with 100% identity.

2716 at 1482.3 M

Saccharomyces cerevisiae chromosome XIV, complete chromosome sequence. Found forward in NC_001146 between 131021 and 132020 with 100% identity.

2717_at -96.0 A

Saccharomyces cerevisiae chromosome XIV, complete chromosome sequence. Found forward in NC_001146 between 132021 and 133020 with 100% identity.

2718 at 607.4 A

Saccharomyces cerevisiae chromosome XIV, complete chromosome sequence. Found forward in NC_001146 between 133021 and 134020 with 100% identity.

2719 at -2123.8 A

Saccharomyces cerevisiae chromosome XIV, complete chromosome sequence. Found forward in NC_001146 between 134021 and 135020 with 100% identity.

2720 at -164.3 A

Saccharomyces cerevisiae chromosome XIV, complete chromosome sequence. Found forward in NC_001146 between 135021 and 135939 with 100% identity.

2721_at -97.0 A

Saccharomyces cerevisiae chromosome XIV, complete chromosome sequence. Found forward in NC_001146 between 147395 and 148394 with 100% identity.

2722_g_at 281.8 A

Saccharomyces cerevisiae chromosome XIV, complete chromosome sequence. Found forward in NC_001146 between 147395 and 148394 with 100% identity.

2723_s_at -410.4

Saccharomyces cerevisiae chromosome XIV, complete chromosome sequence. Found forward in NC_001146 between 148395 and 149394 with 100% identity.

2724 s at -103.1 A

Saccharomyces cerevisiae chromosome XIV, complete chromosome sequence. Found forward in NC_001146 between 149395 and 150394 with 100% identity.

2725 s at 2.2 A

Saccharomyces cerevisiae chromosome XIV, complete chromosome sequence. Found forward in NC_001146 between 150395 and 151394 with 100% identity.

2726_s_at -89.8

Saccharomyces cerevisiae chromosome XIV, complete chromosome sequence. Found forward in NC_001146 between 151395 and 152394 with 100% identity.

2727 s at -23.4 A

Α

Saccharomyces cerevisiae chromosome XIV, complete chromosome sequence. Found forward in NC_001146 between 152395 and 153394 with 100% identity.

2728 s at 615.2 P

Saccharomyces cerevisiae chromosome XIV, complete chromosome sequence. Found forward in NC_001146 between 153395 and 154379 with 100% identity.

2729_at 187.8 A

Saccharomyces cerevisiae chromosome XIV, complete chromosome sequence. Found forward in NC_001146 between 161130 and 162129 with 100% identity.

2730 at -67.6 A

Saccharomyces cerevisiae chromosome XIV, complete chromosome sequence. Found forward in NC 001146 between 162130 and 163129 with 100% identity.

2731_at 595.2 A

Saccharomyces cerevisiae chromosome XIV, complete chromosome sequence. Found forward in NC_001146 between 163130 and 164129 with 100% identity.

2732 at -62.1 A

Saccharomyces cerevisiae chromosome XIV, complete chromosome sequence. Found forward in NC_001146 between 164130 and 165129 with 100% identity.

2733 g at 140.1 M

Saccharomyces cerevisiae chromosome XIV, complete chromosome sequence. Found forward in NC_001146 between 164130 and 165129 with 100% identity.

2734 s at -192.0 A

Saccharomyces cerevisiae chromosome XIV, complete chromosome sequence. Found forward in NC_001146 between 165130 and 166129 with 100% identity.

2735_s_at 461.6 A

Saccharomyces cerevisiae chromosome XIV, complete chromosome sequence. Found forward in NC_001146 between 166130 and 166596 with 100% identity.

2736 at 230.1

Saccharomyces cerevisiae chromosome XIV, complete chromosome sequence. Found forward in NC_001146 between 173087 and 174086 with 100% identity.

2737_at 280.1 A

Saccharomyces cerevisiae chromosome XIV, complete chromosome sequence. Found forward in NC_001146 between 174087 and 175086 with 100% identity.

2738 at -16.8 A

Saccharomyces cerevisiae chromosome XIV, complete chromosome sequence. Found forward in NC_001146 between 175087 and 176086 with 100% identity.

2739_g_at -14.2 A

Saccharomyces cerevisiae chromosome XIV, complete chromosome sequence. Found forward in NC_001146 between 175087 and 176086 with 100% identity.

2740_s_at 205.2

Saccharomyces cerevisiae chromosome XIV, complete chromosome sequence. Found forward in NC_001146 between 176087 and 177086 with 100% identity.

2741_s_at 84.4 A

Saccharomyces cerevisiae chromosome XIV, complete chromosome sequence. Found forward in NC 001146 between 177087 and 178086 with 100% identity.

2742 s at 739.1

Saccharomyces cerevisiae chromosome XIV, complete chromosome sequence. Found forward in NC_001146 between 178087 and 178847 with 100% identity.

2743_at 145.9 A

Saccharomyces cerevisiae chromosome XIV, complete chromosome sequence. Found forward in NC_001146 between 309454 and 310453 with 100% identity.

2744 at 79.9 A

Saccharomyces cerevisiae chromosome XIV, complete chromosome sequence. Found forward in NC_001146 between 310454 and 311453 with 100% identity.

2745_g_at 546.1 F

Saccharomyces cerevisiae chromosome XIV, complete chromosome sequence. Found forward in NC_001146 between 310454 and 311453 with 100% identity.

2660 s at -266.6 A

Saccharomyces cerevisiae chromosome XIV, complete chromosome sequence. Found forward in NC_001146 between 311454 and 312453 with 100% identity.

2661 s at 117.0 A

Saccharomyces cerevisiae chromosome XIV, complete chromosome sequence. Found forward in NC_001146 between 312454 and 313453 with 100% identity.

2662 s at 75.6

Saccharomyces cerevisiae chromosome XIV, complete chromosome sequence. Found forward in NC 001146 between 313454 and 314453 with 100% identity.

2663 s at 123.4 A

Saccharomyces cerevisiae chromosome XIV, complete chromosome sequence. Found forward in NC_001146 between 314454 and 315379 with 100% identity.

2664 at 522.1 A

Saccharomyces cerevisiae chromosome XIV, complete chromosome sequence. Found forward in NC 001146 between 524084 and 525083 with 100% identity.

2665 at 382.6 F

Saccharomyces cerevisiae chromosome XIV, complete chromosome sequence. Found forward in NC 001146 between 525084 and 526083 with 100% identity.

2666 s at -12191.5 A

Saccharomyces cerevisiae chromosome XIV, complete chromosome sequence. Found forward in NC_001146 between 526084 and 527083 with 100% identity.

2667 s at 286.4 A

Saccharomyces cerevisiae chromosome XIV, complete chromosome sequence. Found forward in NC_001146 between 527084 and 528083 with 100% identity.

2668 s at 488.4 P

Saccharomyces cerevisiae chromosome XIV, complete chromosome sequence. Found forward in NC_001146 between 528084 and 529079 with 100% identity.

2669 at 3411.4 P

Saccharomyces cerevisiae chromosome XIV, complete chromosome sequence. Found forward in NC_001146 between 655170 and 656169 with 100% identity.

2670 at 539.2 P

Saccharomyces cerevisiae chromosome XIV, complete chromosome sequence. Found forward in NC_001146 between 656170 and 657169 with 100% identity.

2671 at -55.0 A

Saccharomyces cerevisiae chromosome XIV, complete chromosome sequence. Found forward in NC 001146 between 657170 and 658169 with 100% identity.

2672 at 148.5 A

Saccharomyces cerevisiae chromosome XIV, complete chromosome sequence. Found forward in

NC_001146 between 658170 and 659169 with 100% identity.

2673 at -435.8 A

Saccharomyces cerevisiae chromosome XIV, complete chromosome sequence. Found forward in NC_001146 between 659170 and 660169 with 100% identity.

2674_at -1405.1 A

Saccharomyces cerevisiae chromosome XIV, complete chromosome sequence. Found forward in NC_001146 between 660170 and 661169 with 100% identity.

2675 at 200.1 A

Saccharomyces cerevisiae chromosome XIV, complete chromosome sequence. Found forward in NC_001146 between 661170 and 661997 with 100% identity.

2676 at 433.4 A

Saccharomyces cerevisiae chromosome XIV, complete chromosome sequence. Found forward in NC_001146 between 681191 and 682190 with 100% identity.

2677_at 52.1 A

Saccharomyces cerevisiae chromosome XIV, complete chromosome sequence. Found forward in NC 001146 between 682191 and 683190 with 100% identity.

2678 at -493.0 A

Saccharomyces cerevisiae chromosome XIV, complete chromosome sequence. Found forward in NC_001146 between 683191 and 684190 with 100% identity.

2679 at 351.6 A

Saccharomyces cerevisiae chromosome XIV, complete chromosome sequence. Found forward in NC_001146 between 684191 and 685190 with 100% identity.

2680 at -102.5 A

Saccharomyces cerevisiae chromosome XIV, complete chromosome sequence. Found forward in NC 001146 between 685191 and 686190 with 100% identity.

2681_g_at 238.4 A

Saccharomyces cerevisiae chromosome XIV, complete chromosome sequence. Found forward in NC_001146 between 685191 and 686190 with 100% identity.

2682 s at 12.3 A

Saccharomyces cerevisiae chromosome XIV, complete chromosome sequence. Found forward in NC_001146 between 686191 and 686613 with 100% identity.

2683 at -154.2 A

Saccharomyces cerevisiae chromosome XIV, complete chromosome sequence. Found forward in NC_001146 between 761618 and 762617 with 100% identity.

2684 at -238.1 A

Saccharomyces cerevisiae chromosome XIV, complete chromosome sequence. Found forward in NC_001146 between 762618 and 763617 with 100% identity.

2685 at 1434.8 P

Saccharomyces cerevisiae chromosome XIV, complete chromosome sequence. Found forward in NC_001146 between 763618 and 764617 with 100% identity.

2686 at 382.2 A

Saccharomyces cerevisiae chromosome XIV, complete chromosome sequence. Found forward in NC_001146 between 764618 and 765617 with 100% identity.

2687_g_at -495.7 A

Saccharomyces cerevisiae chromosome XIV, complete chromosome sequence. Found forward in NC_001146 between 764618 and 765617 with 100% identity.

2688 s at 235.3 A

Saccharomyces cerevisiae chromosome XIV, complete chromosome sequence. Found forward in NC_001146 between 765618 and 766617 with 100% identity.

2689 s at -248.1 A

Saccharomyces cerevisiae chromosome XIV, complete chromosome sequence. Found forward in NC_001146 between 766618 and 767617 with 100% identity.

2690 s at 40.1 A

Saccharomyces cerevisiae chromosome XIV, complete chromosome sequence. Found forward in NC_001146 between 767618 and 768617 with 100% identity.

2691_s_at -368.4 A

Saccharomyces cerevisiae chromosome XIV, complete chromosome sequence. Found forward in NC_001146 between 768618 and 768871 with 100% identity.

2692_at -19.4 A

Saccharomyces cerevisiae chromosome XV, complete chromosome sequence. Found forward in NC_001147 between 2078 and 3077 with 100% identity.

2693 at -163.2

Saccharomyces cerevisiae chromosome XV, complete chromosome sequence. Found forward in NC_001147 between 3078 and 4077 with 100% identity.

2694 at -5879.5 A

Saccharomyces cerevisiae chromosome XV, complete chromosome sequence. Found forward in NC_001147 between 4078 and 5077 with 100% identity.

2695 at -254.4 A

Saccharomyces cerevisiae chromosome XV, complete chromosome sequence. Found forward in NC_001147 between 5078 and 6077 with 100% identity.

2696 at 309.7

Saccharomyces cerevisiae chromosome XV, complete chromosome sequence. Found forward in NC 001147 between 6078 and 7077 with 100% identity.

2697 g at 158.4 A

Α

Saccharomyces cerevisiae chromosome XV, complete chromosome sequence. Found forward in NC_001147 between 6078 and 7077 with 100% identity.

2698 s at -86.2 A

Saccharomyces cerevisiae chromosome XV, complete chromosome sequence. Found forward in NC_001147 between 7078 and 7615 with 100% identity.

2699 at 316.2 A

Saccharomyces cerevisiae chromosome XV, complete chromosome sequence. Found forward in NC_001147 between 169973 and 170972 with 100% identity.

2700 at 2.3 A

Saccharomyces cerevisiae chromosome XV, complete chromosome sequence. Found forward in NC_001147 between 170973 and 171972 with 100% identity.

2701_g_at 192.3 A

Saccharomyces cerevisiae chromosome XV, complete chromosome sequence. Found forward in NC_001147 between 170973 and 171972 with 100% identity.

2702 s at -1804.6 A

Saccharomyces cerevisiae chromosome XV, complete chromosome sequence. Found forward in NC_001147 between 171973 and 172972 with 100% identity.

2618 s at 15.6

Saccharomyces cerevisiae chromosome XV, complete chromosome sequence. Found forward in NC_001147 between 172973 and 173972 with 100% identity.

2619 s at -496.9 A

Saccharomyces cerevisiae chromosome XV, complete chromosome sequence. Found forward in NC_001147 between 173973 and 174972 with 100% identity.

2620_s_at -102.7 A

Saccharomyces cerevisiae chromosome XV, complete chromosome sequence. Found forward in NC_001147 between 174973 and 175972 with 100% identity.

2621 s at -126.7 A

Saccharomyces cerevisiae chromosome XV, complete chromosome sequence. Found forward in NC 001147 between 175973 and 176972 with 100% identity.

2622_s_at 554.3 A

Saccharomyces cerevisiae chromosome XV, complete chromosome sequence. Found forward in NC_001147 between 176973 and 177972 with 100% identity.

2623 s at -420.6 A

Saccharomyces cerevisiae chromosome XV, complete chromosome sequence. Found forward in NC_001147 between 177973 and 178972 with 100% identity.

2624 s at 240.8

Saccharomyces cerevisiae chromosome XV, complete chromosome sequence. Found forward in NC_001147 between 178973 and 179808 with 100% identity.

2625 at 128.8 A

Saccharomyces cerevisiae chromosome XV, complete chromosome sequence. Found forward in NC_001147 between 346694 and 347693 with 100% identity.

2626_at 1618.7 A

Saccharomyces cerevisiae chromosome XV, complete chromosome sequence. Found forward in NC 001147 between 347694 and 348693 with 100% identity.

2627 at 228.0 A

Saccharomyces cerevisiae chromosome XV, complete chromosome sequence. Found forward in NC_001147 between 348694 and 349693 with 100% identity.

2628_s_at 143.8 A

Saccharomyces cerevisiae chromosome XV, complete chromosome sequence. Found forward in NC 001147 between 349694 and 350693 with 100% identity.

2629_s_at 2748.6 P

Saccharomyces cerevisiae chromosome XV, complete chromosome sequence. Found forward in NC_001147 between 350694 and 351693 with 100% identity.

2630_s_at 436.1 F

Saccharomyces cerevisiae chromosome XV, complete chromosome sequence. Found forward in NC_001147 between 351694 and 352693 with 100% identity.

2631 s at 624.6 P

Saccharomyces cerevisiae chromosome XV, complete chromosome sequence. Found forward in NC 001147 between 352694 and 353362 with 100% identity.

2632 at 332.0 A

Saccharomyces cerevisiae chromosome XV, complete chromosome sequence. Found forward in NC 001147 between 540261 and 541260 with 100% identity.

2633 at 100.8

Saccharomyces cerevisiae chromosome XV, complete chromosome sequence. Found forward in NC 001147 between 541261 and 542260 with 100% identity.

2634 at 5711.8 P

Saccharomyces cerevisiae chromosome XV, complete chromosome sequence. Found forward in NC_001147 between 542261 and 543260 with 100% identity.

2635 at 502.1 A

Saccharomyces cerevisiae chromosome XV, complete chromosome sequence. Found forward in NC 001147 between 543261 and 544260 with 100% identity.

2636 at -72.9

Saccharomyces cerevisiae chromosome XV, complete chromosome sequence. Found forward in NC 001147 between 544261 and 545260 with 100% identity.

2637 g at 971.1 P

Saccharomyces cerevisiae chromosome XV, complete chromosome sequence. Found forward in NC_001147 between 544261 and 545260 with 100% identity.

2638 s at 1933.2 P

Saccharomyces cerevisiae chromosome XV, complete chromosome sequence. Found forward in NC_001147 between 545261 and 545831 with 100% identity.

2639 at 308.2 A

Saccharomyces cerevisiae chromosome XV, complete chromosome sequence. Found forward in NC_001147 between 618016 and 619015 with 100% identity.

2640 at 221.7 A

Saccharomyces cerevisiae chromosome XV, complete chromosome sequence. Found forward in NC_001147 between 619016 and 620015 with 100% identity.

2641 g at 1352.1 M

Saccharomyces cerevisiae chromosome XV, complete chromosome sequence. Found forward in NC_001147 between 619016 and 620015 with 100% identity.

2642_s_at 1423.8 P

Saccharomyces cerevisiae chromosome XV, complete chromosome sequence. Found forward in NC_001147 between 620016 and 621015 with 100% identity.

2643 s at 4508.9 P

Saccharomyces cerevisiae chromosome XV, complete chromosome sequence. Found forward in

NC_001147 between 621016 and 622015 with 100% identity.

2644 s at 6419.0 P

Saccharomyces cerevisiae chromosome XV, complete chromosome sequence. Found forward in NC_001147 between 622016 and 623015 with 100% identity.

2645 s at 50753.5 F

Saccharomyces cerevisiae chromosome XV, complete chromosome sequence. Found forward in NC_001147 between 623016 and 623873 with 100% identity.

2646 at 2479.7 A

Saccharomyces cerevisiae chromosome XV, complete chromosome sequence. Found forward in NC_001147 between 730506 and 731505 with 100% identity.

2647 at 30.1 A

Saccharomyces cerevisiae chromosome XV, complete chromosome sequence. Found forward in NC_001147 between 731506 and 732505 with 100% identity.

2648_at 1099.1 A

Saccharomyces cerevisiae chromosome XV, complete chromosome sequence. Found forward in NC_001147 between 732506 and 733505 with 100% identity.

2649 at -1868.6 A

Saccharomyces cerevisiae chromosome XV, complete chromosome sequence. Found forward in NC_001147 between 733506 and 734505 with 100% identity.

2650_g_at 130.5 A

Saccharomyces cerevisiae chromosome XV, complete chromosome sequence. Found forward in NC_001147 between 733506 and 734505 with 100% identity.

2651 s at 375.0 P

Saccharomyces cerevisiae chromosome XV, complete chromosome sequence. Found forward in NC 001147 between 734506 and 735505 with 100% identity.

2652 s at 698.1 F

Saccharomyces cerevisiae chromosome XV, complete chromosome sequence. Found forward in NC_001147 between 735506 and 735675 with 100% identity.

2653 at 652.6 A

Saccharomyces cerevisiae chromosome XV, complete chromosome sequence. Found forward in NC_001147 between 855642 and 856641 with 100% identity.

2654 at 118.5 A

Saccharomyces cerevisiae chromosome XV, complete chromosome sequence. Found forward in NC_001147 between 856642 and 857641 with 100% identity.

2655 at 7879.6 P

Saccharomyces cerevisiae chromosome XV, complete chromosome sequence. Found forward in NC_001147 between 857642 and 858641 with 100% identity.

2656 at -390.5 A

Saccharomyces cerevisiae chromosome XV, complete chromosome sequence. Found forward in NC_001147 between 858642 and 859641 with 100% identity.

2657 at -76.1 A

Saccharomyces cerevisiae chromosome XV, complete chromosome sequence. Found forward in NC_001147 between 859642 and 860641 with 100% identity.

2658 at -29.2 A

Saccharomyces cerevisiae chromosome XV, complete chromosome sequence. Found forward in NC_001147 between 860642 and 861641 with 100% identity.

2659 g at 9.7

Saccharomyces cerevisiae chromosome XV, complete chromosome sequence. Found forward in NC_001147 between 860642 and 861641 with 100% identity.

2575 s at 357.5 A

Saccharomyces cerevisiae chromosome XV, complete chromosome sequence. Found forward in NC_001147 between 861642 and 862641 with 100% identity.

2576 s at 235.8 A

Saccharomyces cerevisiae chromosome XV, complete chromosome sequence. Found forward in NC_001147 between 862642 and 863641 with 100% identity.

2577_s_at -15.6 A

Saccharomyces cerevisiae chromosome XV, complete chromosome sequence. Found forward in NC_001147 between 863642 and 864641 with 100% identity.

2578 s at 336.3

Saccharomyces cerevisiae chromosome XV, complete chromosome sequence. Found forward in NC_001147 between 864642 and 865088 with 100% identity.

2579 at 921.3

Saccharomyces cerevisiae chromosome XV, complete chromosome sequence. Found forward in NC_001147 between 946724 and 947723 with 100% identity.

2580 at 9050.3 P

Saccharomyces cerevisiae chromosome XV, complete chromosome sequence. Found forward in NC_001147 between 947724 and 948723 with 100% identity.

2581 at 303.3 A

Saccharomyces cerevisiae chromosome XV, complete chromosome sequence. Found forward in NC_001147 between 948724 and 949723 with 100% identity.

2582 at -454.4

Saccharomyces cerevisiae chromosome XV, complete chromosome sequence. Found forward in NC 001147 between 949724 and 950723 with 100% identity.

2583 g at -154.8 A

Α

Saccharomyces cerevisiae chromosome XV, complete chromosome sequence. Found forward in NC_001147 between 949724 and 950723 with 100% identity.

2584 s at 134.5 A

Saccharomyces cerevisiae chromosome XV, complete chromosome sequence. Found forward in NC 001147 between 950724 and 951723 with 100% identity.

2585 s at 529.8 P

Saccharomyces cerevisiae chromosome XV, complete chromosome sequence. Found forward in NC_001147 between 951724 and 952723 with 100% identity.

2586 s at 344.2 A

Saccharomyces cerevisiae chromosome XV, complete chromosome sequence. Found forward in NC 001147 between 952724 and 953361 with 100% identity.

2587 at 333.7 A

Saccharomyces cerevisiae chromosome XV, complete chromosome sequence. Found forward in NC_001147 between 959693 and 960692 with 100% identity.

2588 at 98.7 A

Saccharomyces cerevisiae chromosome XV, complete chromosome sequence. Found forward in NC_001147 between 960693 and 961692 with 100% identity.

2589 g at 195.8

Saccharomyces cerevisiae chromosome XV, complete chromosome sequence. Found forward in NC_001147 between 960693 and 961692 with 100% identity.

2590 s at 957.3 P

Saccharomyces cerevisiae chromosome XV, complete chromosome sequence. Found forward in NC_001147 between 961693 and 962692 with 100% identity.

2591 s at 662.8 A

Saccharomyces cerevisiae chromosome XV, complete chromosome sequence. Found forward in NC_001147 between 962693 and 963692 with 100% identity.

2592 s at 256.5 F

Saccharomyces cerevisiae chromosome XV, complete chromosome sequence. Found forward in NC 001147 between 963693 and 964692 with 100% identity.

2593_s_at 3557.0 F

Saccharomyces cerevisiae chromosome XV, complete chromosome sequence. Found forward in NC 001147 between 964693 and 965472 with 100% identity.

2594 at 145.7 A

Saccharomyces cerevisiae chromosome XVI, complete chromosome sequence. Found forward in NC 001148 between 19079 and 20078 with 100% identity.

2595 at -30.1 *A*

Saccharomyces cerevisiae chromosome XVI, complete chromosome sequence. Found forward in NC_001148 between 20079 and 21078 with 100% identity.

2596 at -1217.7 A

Saccharomyces cerevisiae chromosome XVI, complete chromosome sequence. Found forward in NC_001148 between 21079 and 22078 with 100% identity.

2597_at -377.3 A

Saccharomyces cerevisiae chromosome XVI, complete chromosome sequence. Found forward in NC 001148 between 22079 and 23078 with 100% identity.

2598_g_at -3.8

Saccharomyces cerevisiae chromosome XVI, complete chromosome sequence. Found forward in NC_001148 between 22079 and 23078 with 100% identity.

2599 s at 491.8 F

Saccharomyces cerevisiae chromosome XVI, complete chromosome sequence. Found forward in NC 001148 between 23079 and 24078 with 100% identity.

2600_s_at -15.7 A

Saccharomyces cerevisiae chromosome XVI, complete chromosome sequence. Found forward in NC_001148 between 24079 and 24201 with 100% identity.

2601_at -429.9

Saccharomyces cerevisiae chromosome XVI, complete chromosome sequence. Found forward in NC_001148 between 108147 and 109146 with 100% identity.

2602 g at -1676.9 A

Saccharomyces cerevisiae chromosome XVI, complete chromosome sequence. Found forward in NC_001148 between 108147 and 109146 with 100% identity.

2603 s at 195.9 A

Saccharomyces cerevisiae chromosome XVI, complete chromosome sequence. Found forward in NC 001148 between 109147 and 110146 with 100% identity.

2604 s at 1373.1

Saccharomyces cerevisiae chromosome XVI, complete chromosome sequence. Found forward in NC 001148 between 110147 and 111146 with 100% identity.

2605_s_at 1296.6 P

Saccharomyces cerevisiae chromosome XVI, complete chromosome sequence. Found forward in NC_001148 between 111147 and 112146 with 100% identity.

2606 s at 5009.0 P

Saccharomyces cerevisiae chromosome XVI, complete chromosome sequence. Found forward in NC 001148 between 112147 and 113146 with 100% identity.

2607_s_at 22618.5 P

Saccharomyces cerevisiae chromosome XVI, complete chromosome sequence. Found forward in NC 001148 between 113147 and 113815 with 100% identity.

2608_at 609.2 A

Saccharomyces cerevisiae chromosome XVI, complete chromosome sequence. Found forward in NC_001148 between 140119 and 141118 with 100% identity.

2609 at 1712.8 A

Saccharomyces cerevisiae chromosome XVI, complete chromosome sequence. Found forward in NC_001148 between 141119 and 142118 with 100% identity.

2610 at 512.2 A

Saccharomyces cerevisiae chromosome XVI, complete chromosome sequence. Found forward in NC_001148 between 142119 and 143118 with 100% identity.

2611 at -2165.7 A

Saccharomyces cerevisiae chromosome XVI, complete chromosome sequence. Found forward in NC_001148 between 143119 and 144118 with 100% identity.

2612 g at 250.3 A

Saccharomyces cerevisiae chromosome XVI, complete chromosome sequence. Found forward in NC_001148 between 143119 and 144118 with 100% identity.

2613 s at 143.4 A

Saccharomyces cerevisiae chromosome XVI, complete chromosome sequence. Found forward in NC_001148 between 144119 and 145118 with 100% identity.

2614 s at 187.3 A

Saccharomyces cerevisiae chromosome XVI, complete chromosome sequence. Found forward in

NC_001148 between 145119 and 146118 with 100% identity.

2615 s at 372.9

Saccharomyces cerevisiae chromosome XVI, complete chromosome sequence. Found forward in NC_001148 between 146119 and 146628 with 100% identity.

2616 at *-*73.7

Saccharomyces cerevisiae chromosome XVI, complete chromosome sequence. Found forward in NC_001148 between 385268 and 386267 with 100% identity.

2617 at -446.9 A

Saccharomyces cerevisiae chromosome XVI, complete chromosome sequence. Found forward in NC_001148 between 386268 and 387267 with 100% identity.

2532 g at -141.7 A

Saccharomyces cerevisiae chromosome XVI, complete chromosome sequence. Found forward in NC_001148 between 386268 and 387267 with 100% identity.

2533_s_at 7.9 A

Saccharomyces cerevisiae chromosome XVI, complete chromosome sequence. Found forward in NC 001148 between 387268 and 388267 with 100% identity.

2534 s at -74.4 A

Saccharomyces cerevisiae chromosome XVI, complete chromosome sequence. Found forward in NC_001148 between 388268 and 389267 with 100% identity.

2535_s_at 106.0 A

Saccharomyces cerevisiae chromosome XVI, complete chromosome sequence. Found forward in NC_001148 between 389268 and 390267 with 100% identity.

2536_s_at 234.0 A

Saccharomyces cerevisiae chromosome XVI, complete chromosome sequence. Found forward in NC 001148 between 390268 and 391267 with 100% identity.

2537 s at 80.4 A

Saccharomyces cerevisiae chromosome XVI, complete chromosome sequence. Found forward in NC_001148 between 391268 and 392267 with 100% identity.

2538 s at 695.4 P

Saccharomyces cerevisiae chromosome XVI, complete chromosome sequence. Found forward in NC_001148 between 392268 and 393149 with 100% identity.

2539 at 296.3 A

Saccharomyces cerevisiae chromosome XVI, complete chromosome sequence. Found forward in NC_001148 between 398975 and 399974 with 100% identity.

2540 at 505.7 P

Saccharomyces cerevisiae chromosome XVI, complete chromosome sequence. Found forward in NC_001148 between 399975 and 400974 with 100% identity.

2541 at -533.5 A

Saccharomyces cerevisiae chromosome XVI, complete chromosome sequence. Found forward in NC_001148 between 400975 and 401974 with 100% identity.

2542 at 37.7

Saccharomyces cerevisiae chromosome XVI, complete chromosome sequence. Found forward in NC_001148 between 401975 and 402974 with 100% identity.

2543 at -1095.6 A

Saccharomyces cerevisiae chromosome XVI, complete chromosome sequence. Found forward in NC_001148 between 402975 and 403974 with 100% identity.

2544 at -119.0 A

Saccharomyces cerevisiae chromosome XVI, complete chromosome sequence. Found forward in NC_001148 between 403975 and 404451 with 100% identity.

2545 at -32.5 A

Saccharomyces cerevisiae chromosome XVI, complete chromosome sequence. Found forward in NC_001148 between 435759 and 436758 with 100% identity.

2546 at 190.1 A

Saccharomyces cerevisiae chromosome XVI, complete chromosome sequence. Found forward in NC_001148 between 436759 and 437758 with 100% identity.

2547_at -39.0 A

Saccharomyces cerevisiae chromosome XVI, complete chromosome sequence. Found forward in NC_001148 between 437759 and 438758 with 100% identity.

2548_at -40.3

Saccharomyces cerevisiae chromosome XVI, complete chromosome sequence. Found forward in NC_001148 between 438759 and 439758 with 100% identity.

2549 at -142.0

Saccharomyces cerevisiae chromosome XVI, complete chromosome sequence. Found forward in NC_001148 between 439759 and 440758 with 100% identity.

2550 at -251.2 A

Saccharomyces cerevisiae chromosome XVI, complete chromosome sequence. Found forward in NC_001148 between 440759 and 441758 with 100% identity.

2551 at 1009.6 F

Saccharomyces cerevisiae chromosome XVI, complete chromosome sequence. Found forward in NC_001148 between 441759 and 442758 with 100% identity.

2552 at -234.8

Saccharomyces cerevisiae chromosome XVI, complete chromosome sequence. Found forward in NC_001148 between 442759 and 443758 with 100% identity.

2553_at -82.5 A

Α

Saccharomyces cerevisiae chromosome XVI, complete chromosome sequence. Found forward in NC_001148 between 443759 and 444574 with 100% identity.

2554 at 478.8 A

Saccharomyces cerevisiae chromosome XVI, complete chromosome sequence. Found forward in NC 001148 between 446337 and 447336 with 100% identity.

2555 at 2168.3 A

Saccharomyces cerevisiae chromosome XVI, complete chromosome sequence. Found forward in NC_001148 between 447337 and 448336 with 100% identity.

2556 at -107.4 A

Saccharomyces cerevisiae chromosome XVI, complete chromosome sequence. Found forward in NC 001148 between 448337 and 449336 with 100% identity.

2557 at 113.2 A

Saccharomyces cerevisiae chromosome XVI, complete chromosome sequence. Found forward in NC_001148 between 449337 and 450336 with 100% identity.

2558 at 200.6 A

Saccharomyces cerevisiae chromosome XVI, complete chromosome sequence. Found forward in NC_001148 between 450337 and 451336 with 100% identity.

2559 at 285.9

Saccharomyces cerevisiae chromosome XVI, complete chromosome sequence. Found forward in NC_001148 between 451337 and 451904 with 100% identity.

2560 at -1623.4 A

Saccharomyces cerevisiae chromosome XVI, complete chromosome sequence. Found forward in NC_001148 between 519230 and 520229 with 100% identity.

2561_at 237.1 A

Saccharomyces cerevisiae chromosome XVI, complete chromosome sequence. Found forward in NC_001148 between 520230 and 521229 with 100% identity.

2562 g at -306.7 A

Saccharomyces cerevisiae chromosome XVI, complete chromosome sequence. Found forward in NC 001148 between 520230 and 521229 with 100% identity.

2563_s_at 1166.6 A

Saccharomyces cerevisiae chromosome XVI, complete chromosome sequence. Found forward in NC 001148 between 521230 and 522229 with 100% identity.

2564 s at 3436.1 A

Saccharomyces cerevisiae chromosome XVI, complete chromosome sequence. Found forward in NC 001148 between 522230 and 523229 with 100% identity.

2565 s at 946.4 A

Saccharomyces cerevisiae chromosome XVI, complete chromosome sequence. Found forward in NC_001148 between 523230 and 524229 with 100% identity.

2566_s_at -264.8 A

Saccharomyces cerevisiae chromosome XVI, complete chromosome sequence. Found forward in NC_001148 between 524230 and 524453 with 100% identity.

2567_at 438.8 A

Saccharomyces cerevisiae chromosome XVI, complete chromosome sequence. Found forward in NC 001148 between 536315 and 537314 with 100% identity.

2568 at 218.4

Saccharomyces cerevisiae chromosome XVI, complete chromosome sequence. Found forward in NC_001148 between 537315 and 538314 with 100% identity.

2569_at -82.7 A

Saccharomyces cerevisiae chromosome XVI, complete chromosome sequence. Found forward in NC_001148 between 538315 and 539314 with 100% identity.

2570 at 62.4 A

Saccharomyces cerevisiae chromosome XVI, complete chromosome sequence. Found forward in NC_001148 between 539315 and 540314 with 100% identity.

2571_s_at -82.2

Saccharomyces cerevisiae chromosome XVI, complete chromosome sequence. Found forward in NC_001148 between 540315 and 541314 with 100% identity.

2572 s at 272.9 A

Saccharomyces cerevisiae chromosome XVI, complete chromosome sequence. Found forward in NC 001148 between 541315 and 541465 with 100% identity.

2573 at 239.6 A

Saccharomyces cerevisiae chromosome XVI, complete chromosome sequence. Found forward in NC 001148 between 542577 and 543576 with 100% identity.

2574 at 241.3

Saccharomyces cerevisiae chromosome XVI, complete chromosome sequence. Found forward in NC 001148 between 543577 and 544576 with 100% identity.

2489 at -126.2 A

Saccharomyces cerevisiae chromosome XVI, complete chromosome sequence. Found forward in NC_001148 between 544577 and 545576 with 100% identity.

2490 s at -401.8 A

Saccharomyces cerevisiae chromosome XVI, complete chromosome sequence. Found forward in NC_001148 between 545577 and 546576 with 100% identity.

2491 s at 531.6 A

Saccharomyces cerevisiae chromosome XVI, complete chromosome sequence. Found forward in NC 001148 between 546577 and 547576 with 100% identity.

2492 f at 418.8 P

Saccharomyces cerevisiae chromosome XVI, complete chromosome sequence. Found forward in NC_001148 between 547577 and 547638 with 100% identity.

2493 at -638.8 A

Saccharomyces cerevisiae chromosome XVI, complete chromosome sequence. Found forward in NC_001148 between 624964 and 625963 with 100% identity.

2494 at 367.5 A

Saccharomyces cerevisiae chromosome XVI, complete chromosome sequence. Found forward in NC_001148 between 625964 and 626963 with 100% identity.

2495 at -187.6 A

Saccharomyces cerevisiae chromosome XVI, complete chromosome sequence. Found forward in NC_001148 between 626964 and 627963 with 100% identity.

2496 g at -539.0 A

Saccharomyces cerevisiae chromosome XVI, complete chromosome sequence. Found forward in NC_001148 between 626964 and 627963 with 100% identity.

2497 s at 440.4 A

Saccharomyces cerevisiae chromosome XVI, complete chromosome sequence. Found forward in NC_001148 between 627964 and 628963 with 100% identity.

2498 s at 315.5 A

Saccharomyces cerevisiae chromosome XVI, complete chromosome sequence. Found forward in

NC_001148 between 628964 and 629963 with 100% identity.

Α

2499 s at -73.9

Α Saccharomyces cerevisiae chromosome XVI, complete chromosome sequence. Found forward in NC 001148 between 629964 and 630740 with 100% identity.

649.6

Saccharomyces cerevisiae chromosome XVI, complete chromosome sequence. Found forward in NC_001148 between 759478 and 760477 with 100% identity.

2501 g at 393.4

Saccharomyces cerevisiae chromosome XVI, complete chromosome sequence. Found forward in NC_001148 between 759478 and 760477 with 100% identity.

2502 s at -69.0

Saccharomyces cerevisiae chromosome XVI, complete chromosome sequence. Found forward in NC 001148 between 760478 and 761477 with 100% identity.

2503 s at -23.1

Saccharomyces cerevisiae chromosome XVI, complete chromosome sequence. Found forward in NC 001148 between 761478 and 762477 with 100% identity.

2504 s at -243.8

Saccharomyces cerevisiae chromosome XVI, complete chromosome sequence. Found forward in NC_001148 between 762478 and 763477 with 100% identity.

2505_s_at 107.2

Saccharomyces cerevisiae chromosome XVI, complete chromosome sequence. Found forward in NC_001148 between 763478 and 764477 with 100% identity.

2506 s at 691.9

Saccharomyces cerevisiae chromosome XVI, complete chromosome sequence. Found forward in NC 001148 between 764478 and 765477 with 100% identity.

2507 s at -229.7 Α

Saccharomyces cerevisiae chromosome XVI, complete chromosome sequence. Found forward in NC 001148 between 765478 and 766477 with 100% identity.

2508 s at 779.0

Saccharomyces cerevisiae chromosome XVI, complete chromosome sequence. Found forward in NC_001148 between 766478 and 766991 with 100% identity.

1908.2 2509 at

Saccharomyces cerevisiae chromosome XVI, complete chromosome sequence. Found forward in NC_001148 between 869140 and 870139 with 100% identity.

2510 at -14.4 Α

Saccharomyces cerevisiae chromosome XVI, complete chromosome sequence. Found forward in NC_001148 between 870140 and 871139 with 100% identity.

2511 g at 185.0 Α

Saccharomyces cerevisiae chromosome XVI, complete chromosome sequence. Found forward in NC_001148 between 870140 and 871139 with 100% identity.

2512 s at 44.8

Saccharomyces cerevisiae chromosome XVI, complete chromosome sequence. Found forward in NC_001148 between 871140 and 872139 with 100% identity.

2513_s_at 21.8 Α

Saccharomyces cerevisiae chromosome XVI, complete chromosome sequence. Found forward in NC_001148 between 872140 and 873139 with 100% identity.

2514 s at -40.4

Saccharomyces cerevisiae chromosome XVI, complete chromosome sequence. Found forward in NC_001148 between 873140 and 874139 with 100% identity.

2515 s at 5903.5

Saccharomyces cerevisiae chromosome XVI, complete chromosome sequence. Found forward in NC_001148 between 874140 and 874421 with 100% identity.

2516 at -58.0

Saccharomyces cerevisiae chromosome II, complete chromosome sequence. Found forward in NC_001134 between 25441 and 26440 with 100% identity.

2517_at 306.1 Saccharomyces cerevisiae chromosome II, complete chromosome sequence. Found forward in NC_001134 between 26441 and 27440 with 100% identity.

2518 at 364.3 A

Saccharomyces cerevisiae chromosome II, complete chromosome sequence. Found forward in NC_001134 between 27441 and 28440 with 100% identity.

2519 at -423.4

Saccharomyces cerevisiae chromosome II, complete chromosome sequence. Found forward in NC_001134 between 28441 and 29440 with 100% identity.

2520 at -221.6 A

Saccharomyces cerevisiae chromosome II, complete chromosome sequence. Found forward in NC_001134 between 29441 and 30440 with 100% identity.

2521 f at -683.7 A

Saccharomyces cerevisiae chromosome II, complete chromosome sequence. Found forward in NC_001134 between 35441 and 35606 with 100% identity.

2522 at -62.9

Saccharomyces cerevisiae chromosome II, complete chromosome sequence. Found forward in NC 001134 between 51513 and 52512 with 100% identity.

2523 at -24.8 A

Α

Saccharomyces cerevisiae chromosome II, complete chromosome sequence. Found forward in NC_001134 between 52513 and 53512 with 100% identity.

2524 at 174.0 A

Saccharomyces cerevisiae chromosome II, complete chromosome sequence. Found forward in NC 001134 between 53513 and 54512 with 100% identity.

2525 at 994.1 A

Saccharomyces cerevisiae chromosome II, complete chromosome sequence. Found forward in NC_001134 between 54513 and 55512 with 100% identity.

2526 at 54.4 A

Saccharomyces cerevisiae chromosome II, complete chromosome sequence. Found forward in NC 001134 between 55513 and 56512 with 100% identity.

2527 at -266.8 A

Saccharomyces cerevisiae chromosome II, complete chromosome sequence. Found forward in NC_001134 between 56513 and 57512 with 100% identity.

2528 at -447.7 A

Saccharomyces cerevisiae chromosome II, complete chromosome sequence. Found forward in NC_001134 between 57513 and 58512 with 100% identity.

2529 at -740.1 A

Saccharomyces cerevisiae chromosome II, complete chromosome sequence. Found forward in NC_001134 between 58513 and 59512 with 100% identity.

2530 at -1254.8 A

Saccharomyces cerevisiae chromosome II, complete chromosome sequence. Found forward in NC_001134 between 59513 and 59815 with 100% identity.

2531_at -11.3 A

Saccharomyces cerevisiae chromosome II, complete chromosome sequence. Found forward in NC_001134 between 73564 and 74563 with 100% identity.

2446 at 728 7

Saccharomyces cerevisiae chromosome II, complete chromosome sequence. Found forward in NC 001134 between 74564 and 75563 with 100% identity.

2447_g_at -661.0 A

Saccharomyces cerevisiae chromosome II, complete chromosome sequence. Found forward in NC 001134 between 74564 and 75563 with 100% identity.

2448 s at 177.8 A

Saccharomyces cerevisiae chromosome II, complete chromosome sequence. Found forward in NC 001134 between 75564 and 76563 with 100% identity.

2449 s at 358.0 A

Saccharomyces cerevisiae chromosome II, complete chromosome sequence. Found forward in NC $_001134$ between 76564 and 77563 with 100% identity.

2450_s_at 31.2 A

Saccharomyces cerevisiae chromosome II, complete chromosome sequence. Found forward in NC_001134 between 77564 and 78563 with 100% identity.

2451_s_at 879.0 F

Saccharomyces cerevisiae chromosome II, complete chromosome sequence. Found forward in NC_001134 between 78564 and 79261 with 100% identity.

2452 at -240.7 A

Saccharomyces cerevisiae chromosome II, complete chromosome sequence. Found forward in NC_001134 between 187307 and 188306 with 100% identity.

2453_at -143.8 A

Saccharomyces cerevisiae chromosome II, complete chromosome sequence. Found forward in NC_001134 between 188307 and 189306 with 100% identity.

2454_at 46.5 A

Saccharomyces cerevisiae chromosome II, complete chromosome sequence. Found forward in NC_001134 between 189307 and 190306 with 100% identity.

2455_at 120.0

Saccharomyces cerevisiae chromosome II, complete chromosome sequence. Found forward in NC_001134 between 190307 and 191306 with 100% identity.

2456_at 232.4 A

Saccharomyces cerevisiae chromosome II, complete chromosome sequence. Found forward in NC_001134 between 191307 and 192306 with 100% identity.

2457 at 5.3 A

Saccharomyces cerevisiae chromosome II, complete chromosome sequence. Found forward in NC_001134 between 192307 and 192975 with 100% identity.

2458 g at 1572.9 F

Saccharomyces cerevisiae chromosome II, complete chromosome sequence. Found forward in NC 001134 between 192307 and 192975 with 100% identity.

2459 at 789.9 F

Saccharomyces cerevisiae chromosome II, complete chromosome sequence. Found forward in NC_001134 between 220363 and 221362 with 100% identity.

2460 at -182.0 A

Saccharomyces cerevisiae chromosome II, complete chromosome sequence. Found forward in NC_001134 between 226363 and 227362 with 100% identity.

2461 at 169.5 A

Saccharomyces cerevisiae chromosome II, complete chromosome sequence. Found forward in NC 001134 between 227363 and 228362 with 100% identity.

2462_g_at 56.3 A

Saccharomyces cerevisiae chromosome II, complete chromosome sequence. Found forward in NC_001134 between 227363 and 228362 with 100% identity.

2463 s at 190.6 A

Saccharomyces cerevisiae chromosome II, complete chromosome sequence. Found forward in NC_001134 between 228363 and 229362 with 100% identity.

2464_s_at 528.8 A

Saccharomyces cerevisiae chromosome II, complete chromosome sequence. Found forward in NC_001134 between 229363 and 230362 with 100% identity.

2465 s at 144.8 A

Saccharomyces cerevisiae chromosome II, complete chromosome sequence. Found forward in NC_001134 between 230363 and 231362 with 100% identity.

2466_s_at 45.5 A

Saccharomyces cerevisiae chromosome II, complete chromosome sequence. Found forward in NC_001134 between 231363 and 232362 with 100% identity.

2467_s_at -150.6 A

Saccharomyces cerevisiae chromosome II, complete chromosome sequence. Found forward in NC_001134 between 232363 and 233362 with 100% identity.

2468 s at 177.7 A

Saccharomyces cerevisiae chromosome II, complete chromosome sequence. Found forward in

NC_001134 between 233363 and 234362 with 100% identity.

2469 s at 902.2 P

Saccharomyces cerevisiae chromosome II, complete chromosome sequence. Found forward in NC_001134 between 234363 and 234580 with 100% identity.

2470 at 360.7 A

Saccharomyces cerevisiae chromosome II, complete chromosome sequence. Found forward in NC_001134 between 505265 and 506264 with 100% identity.

2471 g at -320.7 A

Saccharomyces cerevisiae chromosome II, complete chromosome sequence. Found forward in NC_001134 between 505265 and 506264 with 100% identity.

2472 s at -2.0 A

Saccharomyces cerevisiae chromosome II, complete chromosome sequence. Found forward in NC_001134 between 506265 and 507264 with 100% identity.

2473_s_at -128.1 A

Saccharomyces cerevisiae chromosome II, complete chromosome sequence. Found forward in NC_001134 between 507265 and 508264 with 100% identity.

2474 s at 9.9 A

Saccharomyces cerevisiae chromosome II, complete chromosome sequence. Found forward in NC_001134 between 508265 and 509264 with 100% identity.

2475 s at 74.8 A

Saccharomyces cerevisiae chromosome II, complete chromosome sequence. Found forward in NC_001134 between 509265 and 510264 with 100% identity.

2476 s at 46.9 A

Saccharomyces cerevisiae chromosome II, complete chromosome sequence. Found forward in NC 001134 between 510265 and 511264 with 100% identity.

2477 s at -4308.8 A

Saccharomyces cerevisiae chromosome II, complete chromosome sequence. Found forward in NC_001134 between 511265 and 512233 with 100% identity.

2478 at 221.1 A

Saccharomyces cerevisiae chromosome II, complete chromosome sequence. Found forward in NC_001134 between 517809 and 518808 with 100% identity.

2479 at 261.5 A

Saccharomyces cerevisiae chromosome II, complete chromosome sequence. Found forward in NC_001134 between 518809 and 519808 with 100% identity.

2480 at 170.9 A

Saccharomyces cerevisiae chromosome II, complete chromosome sequence. Found forward in NC_001134 between 519809 and 520808 with 100% identity.

2481 at 172.7 A

Saccharomyces cerevisiae chromosome II, complete chromosome sequence. Found forward in NC_001134 between 520809 and 521808 with 100% identity.

2482_at -265.8 A

Saccharomyces cerevisiae chromosome II, complete chromosome sequence. Found forward in NC_001134 between 521809 and 522808 with 100% identity.

2483 at 1627.2 A

Saccharomyces cerevisiae chromosome II, complete chromosome sequence. Found forward in NC_001134 between 522809 and 523808 with 100% identity.

2484 at -360.8 A

Saccharomyces cerevisiae chromosome II, complete chromosome sequence. Found forward in NC_001134 between 523809 and 524808 with 100% identity.

2485 at -515.5 A

Saccharomyces cerevisiae chromosome II, complete chromosome sequence. Found forward in NC_001134 between 524809 and 525808 with 100% identity.

2486 at 114.4 A

Saccharomyces cerevisiae chromosome II, complete chromosome sequence. Found forward in NC_001134 between 525809 and 526808 with 100% identity.

2487_at 279.4 A

Saccharomyces cerevisiae chromosome II, complete chromosome sequence. Found forward in NC 001134 between 526809 and 526984 with 100% identity.

2488 at 304.9 A

Saccharomyces cerevisiae chromosome II, complete chromosome sequence. Found forward in NC_001134 between 637162 and 638161 with 100% identity.

2421_at 230.1 A

Saccharomyces cerevisiae chromosome II, complete chromosome sequence. Found forward in NC_001134 between 638162 and 639161 with 100% identity.

2422 at 133.0 A

Saccharomyces cerevisiae chromosome II, complete chromosome sequence. Found forward in NC_001134 between 639162 and 640161 with 100% identity.

2423 at -24.8 A

Saccharomyces cerevisiae chromosome II, complete chromosome sequence. Found forward in NC_001134 between 640162 and 641161 with 100% identity.

2424 at 149.9

Saccharomyces cerevisiae chromosome II, complete chromosome sequence. Found forward in NC_001134 between 641162 and 642161 with 100% identity.

2425 at -38.2 A

Α

Saccharomyces cerevisiae chromosome II, complete chromosome sequence. Found forward in NC_001134 between 642162 and 642542 with 100% identity.

2426 at 138.4 A

Saccharomyces cerevisiae chromosome II, complete chromosome sequence. Found forward in NC_001134 between 751813 and 752812 with 100% identity.

2427 at -2242.6 A

Saccharomyces cerevisiae chromosome II, complete chromosome sequence. Found forward in NC 001134 between 752813 and 753812 with 100% identity.

2428 at -192.0

Saccharomyces cerevisiae chromosome II, complete chromosome sequence. Found forward in NC 001134 between 753813 and 754812 with 100% identity.

2429_at -202.0 A

Saccharomyces cerevisiae chromosome II, complete chromosome sequence. Found forward in NC_001134 between 754813 and 755812 with 100% identity.

2430 at 13.6 A

Saccharomyces cerevisiae chromosome II, complete chromosome sequence. Found forward in NC_001134 between 755813 and 756812 with 100% identity.

2431 at -278.4 *P*

Saccharomyces cerevisiae chromosome II, complete chromosome sequence. Found forward in NC_001134 between 756813 and 757578 with 100% identity.

2432 at 791.9 P

Saccharomyces cerevisiae chromosome III, complete chromosome sequence. Found forward in NC_001135 between 82220 and 83219 with 100% identity.

2433_at 1187.8 P

Saccharomyces cerevisiae chromosome III, complete chromosome sequence. Found forward in NC_001135 between 83220 and 84219 with 100% identity.

2434 at 1240 1 A

Saccharomyces cerevisiae chromosome III, complete chromosome sequence. Found forward in NC 001135 between 84220 and 85219 with 100% identity.

2435_at -245.0 A

Saccharomyces cerevisiae chromosome III, complete chromosome sequence. Found forward in NC_001135 between 90220 and 91219 with 100% identity.

2436 g at 205.0 A

Saccharomyces cerevisiae chromosome III, complete chromosome sequence. Found forward in NC 001135 between 90220 and 91219 with 100% identity.

2437 s at 744.7 F

Saccharomyces cerevisiae chromosome III, complete chromosome sequence. Found forward in NC_001135 between 91220 and 91533 with 100% identity.

2438 at 201.4 A

Saccharomyces cerevisiae chromosome III, complete chromosome sequence. Found forward in NC_001135 between 177526 and 178525 with 100% identity.

2439_g_at -113.2 A

Saccharomyces cerevisiae chromosome III, complete chromosome sequence. Found forward in NC_001135 between 177526 and 178525 with 100% identity.

2440_s_at 57.7

Saccharomyces cerevisiae chromosome III, complete chromosome sequence. Found forward in NC 001135 between 178526 and 179525 with 100% identity.

2441_s_at 174.4 A

Saccharomyces cerevisiae chromosome III, complete chromosome sequence. Found forward in NC_001135 between 179526 and 180525 with 100% identity.

2442 s at 529.4 P

Saccharomyces cerevisiae chromosome III, complete chromosome sequence. Found forward in NC_001135 between 180526 and 181525 with 100% identity.

2443_s_at 126.4

Saccharomyces cerevisiae chromosome III, complete chromosome sequence. Found forward in NC_001135 between 181526 and 182525 with 100% identity.

2444_s_at -74.7 A

Saccharomyces cerevisiae chromosome III, complete chromosome sequence. Found forward in NC 001135 between 182526 and 183525 with 100% identity.

2445 s at 254.7 A

Saccharomyces cerevisiae chromosome III, complete chromosome sequence. Found forward in NC_001135 between 183526 and 184252 with 100% identity.

2395 at -193.2

Saccharomyces cerevisiae chromosome III, complete chromosome sequence. Found forward in NC 001135 between 275986 and 276985 with 100% identity.

2396 at 151.1 A

Saccharomyces cerevisiae chromosome III, complete chromosome sequence. Found forward in NC_001135 between 276986 and 277985 with 100% identity.

2397 at -347.1 A

Saccharomyces cerevisiae chromosome III, complete chromosome sequence. Found forward in NC_001135 between 277986 and 278985 with 100% identity.

2398 g at 700.9 F

Saccharomyces cerevisiae chromosome III, complete chromosome sequence. Found forward in NC 001135 between 277986 and 278985 with 100% identity.

2399_s_at 172.2 A

Saccharomyces cerevisiae chromosome III, complete chromosome sequence. Found forward in NC_001135 between 278986 and 279985 with 100% identity.

2400 s at -186.4 A

Saccharomyces cerevisiae chromosome III, complete chromosome sequence. Found forward in NC_001135 between 279986 and 280985 with 100% identity.

2401 s at -66.9 A

Saccharomyces cerevisiae chromosome III, complete chromosome sequence. Found forward in NC_001135 between 280986 and 281985 with 100% identity.

2402 s at -167.4 A

Saccharomyces cerevisiae chromosome III, complete chromosome sequence. Found forward in NC_001135 between 281986 and 282985 with 100% identity.

2403 s at 654.1 P

Saccharomyces cerevisiae chromosome III, complete chromosome sequence. Found forward in NC_001135 between 282986 and 283985 with 100% identity.

2404_s_at 307.7 A

Saccharomyces cerevisiae chromosome III, complete chromosome sequence. Found forward in NC_001135 between 283986 and 284665 with 100% identity.

2405 at 236.3 A

Saccharomyces cerevisiae chromosome IV, complete chromosome sequence. Found forward in

NC_001136 between 79795 and 80794 with 100% identity.

2406 at -230.5 A

Saccharomyces cerevisiae chromosome IV, complete chromosome sequence. Found forward in NC_001136 between 80795 and 81794 with 100% identity.

2407 at 217.0

Saccharomyces cerevisiae chromosome IV, complete chromosome sequence. Found forward in NC_001136 between 81795 and 82794 with 100% identity.

2408 at 29.0 A

Saccharomyces cerevisiae chromosome IV, complete chromosome sequence. Found forward in NC_001136 between 82795 and 83794 with 100% identity.

2409 at 680.9 A

Saccharomyces cerevisiae chromosome IV, complete chromosome sequence. Found forward in NC 001136 between 83795 and 84794 with 100% identity.

2410_g_at 85.1 A

Saccharomyces cerevisiae chromosome IV, complete chromosome sequence. Found forward in NC 001136 between 83795 and 84794 with 100% identity.

2411 s at 416.3 A

Saccharomyces cerevisiae chromosome IV, complete chromosome sequence. Found forward in NC_001136 between 84795 and 85486 with 100% identity.

2412 at -1664.9 A

Saccharomyces cerevisiae chromosome IV, complete chromosome sequence. Found forward in NC_001136 between 149704 and 150703 with 100% identity.

2413 at -85.3 A

Saccharomyces cerevisiae chromosome IV, complete chromosome sequence. Found forward in NC 001136 between 150704 and 151703 with 100% identity.

2414 at 659.6 A

Saccharomyces cerevisiae chromosome IV, complete chromosome sequence. Found forward in NC 001136 between 151704 and 152703 with 100% identity.

2415 at -24.8 A

Saccharomyces cerevisiae chromosome IV, complete chromosome sequence. Found forward in NC_001136 between 152704 and 153703 with 100% identity.

2416 at -356.5 A

Saccharomyces cerevisiae chromosome IV, complete chromosome sequence. Found forward in NC_001136 between 153704 and 154703 with 100% identity.

2417 at 650.5 A

Saccharomyces cerevisiae chromosome IV, complete chromosome sequence. Found forward in NC_001136 between 154704 and 155703 with 100% identity.

2418 at -52.6 A

Saccharomyces cerevisiae chromosome IV, complete chromosome sequence. Found forward in NC_001136 between 155704 and 156703 with 100% identity.

2419 g at 331.6 A

Saccharomyces cerevisiae chromosome IV, complete chromosome sequence. Found forward in NC_001136 between 155704 and 156703 with 100% identity.

2420_s_at 77.3 A

Saccharomyces cerevisiae chromosome IV, complete chromosome sequence. Found forward in NC_001136 between 156704 and 157405 with 100% identity.

2352 at -1270.9 A

Saccharomyces cerevisiae chromosome IV, complete chromosome sequence. Found forward in NC 001136 between 205861 and 206860 with 100% identity.

2353 at 691.0 F

Saccharomyces cerevisiae chromosome IV, complete chromosome sequence. Found forward in NC_001136 between 206861 and 207860 with 100% identity.

2354 at 320.1 A

Saccharomyces cerevisiae chromosome IV, complete chromosome sequence. Found forward in NC_001136 between 207861 and 208860 with 100% identity.

2355_at -442.7 A

Saccharomyces cerevisiae chromosome IV, complete chromosome sequence. Found forward in NC 001136 between 208861 and 209860 with 100% identity.

2356_at -278.9 A

Saccharomyces cerevisiae chromosome IV, complete chromosome sequence. Found forward in NC_001136 between 209861 and 210860 with 100% identity.

2357 at 428.7

Saccharomyces cerevisiae chromosome IV, complete chromosome sequence. Found forward in NC_001136 between 210861 and 211376 with 100% identity.

2358 at 12.1 A

Saccharomyces cerevisiae chromosome IV, complete chromosome sequence. Found forward in NC_001136 between 257132 and 258131 with 100% identity.

2359 at 208.5 F

Saccharomyces cerevisiae chromosome IV, complete chromosome sequence. Found forward in NC_001136 between 258132 and 259131 with 100% identity.

2360_g_at 153.0

Saccharomyces cerevisiae chromosome IV, complete chromosome sequence. Found forward in NC 001136 between 258132 and 259131 with 100% identity.

2361 s at 735.9 A

Α

Saccharomyces cerevisiae chromosome IV, complete chromosome sequence. Found forward in NC_001136 between 259132 and 260131 with 100% identity.

2362 s at 374.0 A

Saccharomyces cerevisiae chromosome IV, complete chromosome sequence. Found forward in NC_001136 between 260132 and 261131 with 100% identity.

2363_s_at 79.0 A

Saccharomyces cerevisiae chromosome IV, complete chromosome sequence. Found forward in NC_001136 between 261132 and 262131 with 100% identity.

2364 s at 16.4 A

Saccharomyces cerevisiae chromosome IV, complete chromosome sequence. Found forward in NC 001136 between 262132 and 262724 with 100% identity.

2365 at -200.6 A

Saccharomyces cerevisiae chromosome IV, complete chromosome sequence. Found forward in NC_001136 between 344736 and 345735 with 100% identity.

2366 s at -245.1 A

Saccharomyces cerevisiae chromosome IV, complete chromosome sequence. Found forward in NC $_001136$ between 345736 and 346735 with 100% identity.

2367 s at 837.0 F

Saccharomyces cerevisiae chromosome IV, complete chromosome sequence. Found forward in NC_001136 between 346736 and 347735 with 100% identity.

2368 s at -253.1 A

Saccharomyces cerevisiae chromosome IV, complete chromosome sequence. Found forward in NC_001136 between 347736 and 348735 with 100% identity.

2369_s_at 98.8 A

Saccharomyces cerevisiae chromosome IV, complete chromosome sequence. Found forward in NC_001136 between 348736 and 349735 with 100% identity.

2370 s at 1168.7 A

Saccharomyces cerevisiae chromosome IV, complete chromosome sequence. Found forward in NC_001136 between 349736 and 350536 with 100% identity.

2371 at -1865.8 A

Saccharomyces cerevisiae chromosome IV, complete chromosome sequence. Found forward in NC_001136 between 618990 and 619989 with 100% identity.

2372_at 159.1 A

Saccharomyces cerevisiae chromosome IV, complete chromosome sequence. Found forward in NC 001136 between 619990 and 620989 with 100% identity.

2373 at -177.2 A

Saccharomyces cerevisiae chromosome IV, complete chromosome sequence. Found forward in

NC_001136 between 620990 and 621989 with 100% identity.

2374 at 292.8 A

Saccharomyces cerevisiae chromosome IV, complete chromosome sequence. Found forward in NC_001136 between 621990 and 622989 with 100% identity.

2375_s_at 1057.9 A

Saccharomyces cerevisiae chromosome IV, complete chromosome sequence. Found forward in NC_001136 between 622990 and 623989 with 100% identity.

2376 s at 500.2 P

Saccharomyces cerevisiae chromosome IV, complete chromosome sequence. Found forward in NC_001136 between 623990 and 624214 with 100% identity.

2377 at 2389.1 A

Saccharomyces cerevisiae chromosome IV, complete chromosome sequence. Found forward in NC 001136 between 630598 and 631597 with 100% identity.

2378_g_at 691.6 P

Saccharomyces cerevisiae chromosome IV, complete chromosome sequence. Found forward in NC 001136 between 630598 and 631597 with 100% identity.

2379 s at 1623.5 F

Saccharomyces cerevisiae chromosome IV, complete chromosome sequence. Found forward in NC_001136 between 631598 and 632597 with 100% identity.

2380 s at 436.5 P

Saccharomyces cerevisiae chromosome IV, complete chromosome sequence. Found forward in NC_001136 between 632598 and 633597 with 100% identity.

2381 s at 377.6 A

Saccharomyces cerevisiae chromosome IV, complete chromosome sequence. Found forward in NC 001136 between 633598 and 634597 with 100% identity.

2382 s at 412.2 F

Saccharomyces cerevisiae chromosome IV, complete chromosome sequence. Found forward in NC 001136 between 634598 and 635597 with 100% identity.

2383 at -8.9 A

Saccharomyces cerevisiae chromosome IV, complete chromosome sequence. Found forward in NC_001136 between 735394 and 736393 with 100% identity.

2384 at 340.6 A

Saccharomyces cerevisiae chromosome IV, complete chromosome sequence. Found forward in NC_001136 between 736394 and 737393 with 100% identity.

2385 at -220.3 A

Saccharomyces cerevisiae chromosome IV, complete chromosome sequence. Found forward in NC_001136 between 737394 and 738393 with 100% identity.

2386 at 161.5 A

Saccharomyces cerevisiae chromosome IV, complete chromosome sequence. Found forward in NC_001136 between 738394 and 739393 with 100% identity.

2387 at -78.6 A

Saccharomyces cerevisiae chromosome IV, complete chromosome sequence. Found forward in NC_001136 between 739394 and 740393 with 100% identity.

2388_s_at 292.0 A

Saccharomyces cerevisiae chromosome IV, complete chromosome sequence. Found forward in NC 001136 between 756048 and 757047 with 100% identity.

2389 s at 148.8 A

Saccharomyces cerevisiae chromosome IV, complete chromosome sequence. Found forward in NC_001136 between 757048 and 758047 with 100% identity.

2390 s at 12.2 A

Saccharomyces cerevisiae chromosome IV, complete chromosome sequence. Found forward in NC_001136 between 759048 and 760047 with 100% identity.

2391_s_at -16.6 A

Saccharomyces cerevisiae chromosome IV, complete chromosome sequence. Found forward in NC_001136 between 760048 and 761047 with 100% identity.

2392_s_at -82.5 A

Saccharomyces cerevisiae chromosome IV, complete chromosome sequence. Found forward in NC_001136 between 761048 and 762047 with 100% identity.

2393 s at 189.7 A

Saccharomyces cerevisiae chromosome IV, complete chromosome sequence. Found forward in NC_001136 between 762048 and 763047 with 100% identity.

2394 s at 982.8

Saccharomyces cerevisiae chromosome IV, complete chromosome sequence. Found forward in NC_001136 between 763048 and 763367 with 100% identity.

2309 at 308.6 A

Saccharomyces cerevisiae chromosome IV, complete chromosome sequence. Found forward in NC_001136 between 796686 and 797685 with 100% identity.

2310 at -39.2 A

Saccharomyces cerevisiae chromosome IV, complete chromosome sequence. Found forward in NC_001136 between 797686 and 798685 with 100% identity.

2311 at 153.0

Α

Saccharomyces cerevisiae chromosome IV, complete chromosome sequence. Found forward in NC 001136 between 798686 and 799685 with 100% identity.

2312 at 1691.4 A

Saccharomyces cerevisiae chromosome IV, complete chromosome sequence. Found forward in NC_001136 between 799686 and 800685 with 100% identity.

2313 at 4530.9 F

Saccharomyces cerevisiae chromosome IV, complete chromosome sequence. Found forward in NC_001136 between 800686 and 801685 with 100% identity.

2314 at 550.1 A

Saccharomyces cerevisiae chromosome IV, complete chromosome sequence. Found forward in NC 001136 between 801686 and 802685 with 100% identity.

2315 at 8.3 A

Saccharomyces cerevisiae chromosome IV, complete chromosome sequence. Found forward in NC 001136 between 802686 and 803685 with 100% identity.

2316 at -9.9 A

Saccharomyces cerevisiae chromosome IV, complete chromosome sequence. Found forward in NC_001136 between 877250 and 878249 with 100% identity.

2317 at 3385.3 P

Saccharomyces cerevisiae chromosome IV, complete chromosome sequence. Found forward in NC_001136 between 878250 and 879249 with 100% identity.

2319 f at 6640.5 F

Saccharomyces cerevisiae chromosome IV, complete chromosome sequence. Found forward in NC_001136 between 647450 and 647656 with 100% identity.

2320 at -96.8 A

Saccharomyces cerevisiae chromosome IV, complete chromosome sequence. Found forward in NC_001136 between 1133751 and 1134750 with 100% identity.

2321 at -134.7 A

Saccharomyces cerevisiae chromosome IV, complete chromosome sequence. Found forward in NC_001136 between 1134751 and 1135750 with 100% identity.

2322 at 17.4 A

Saccharomyces cerevisiae chromosome IV, complete chromosome sequence. Found forward in NC 001136 between 1135751 and 1136750 with 100% identity.

2323_g_at -16.8 A

Saccharomyces cerevisiae chromosome IV, complete chromosome sequence. Found forward in NC 001136 between 1135751 and 1136750 with 100% identity.

2324 s at -125.5 A

Saccharomyces cerevisiae chromosome IV, complete chromosome sequence. Found forward in NC 001136 between 1136751 and 1137750 with 100% identity.

2325 s at 208.1 A

Saccharomyces cerevisiae chromosome IV, complete chromosome sequence. Found forward in NC_001136 between 1137751 and 1138750 with 100% identity.

2326_s_at 156.3 A

Saccharomyces cerevisiae chromosome IV, complete chromosome sequence. Found forward in NC_001136 between 1138751 and 1139750 with 100% identity.

2327_s_at 37.7 A

Saccharomyces cerevisiae chromosome IV, complete chromosome sequence. Found forward in NC_001136 between 1139751 and 1139967 with 100% identity.

2328 at 108.5 A

Saccharomyces cerevisiae chromosome IV, complete chromosome sequence. Found forward in NC_001136 between 1305061 and 1306060 with 100% identity.

2329_at 167.4 A

Saccharomyces cerevisiae chromosome IV, complete chromosome sequence. Found forward in NC_001136 between 1306061 and 1307060 with 100% identity.

2330_g_at 593.6 P

Saccharomyces cerevisiae chromosome IV, complete chromosome sequence. Found forward in NC_001136 between 1306061 and 1307060 with 100% identity.

2331_s_at 64.5

Saccharomyces cerevisiae chromosome IV, complete chromosome sequence. Found forward in NC_001136 between 1307061 and 1308060 with 100% identity.

2332_s_at 337.2 A

Saccharomyces cerevisiae chromosome IV, complete chromosome sequence. Found forward in NC_001136 between 1308061 and 1309060 with 100% identity.

2333 s at 310.0 A

Saccharomyces cerevisiae chromosome IV, complete chromosome sequence. Found forward in NC_001136 between 1309061 and 1310060 with 100% identity.

2334 s at 187.6

Saccharomyces cerevisiae chromosome IV, complete chromosome sequence. Found forward in NC 001136 between 1310061 and 1311060 with 100% identity.

2335_s_at 925.4 P

Saccharomyces cerevisiae chromosome IV, complete chromosome sequence. Found forward in NC_001136 between 1311061 and 1311164 with 100% identity.

2336 at 1170.1 A

Saccharomyces cerevisiae chromosome IV, complete chromosome sequence. Found forward in NC_001136 between 1346165 and 1347164 with 100% identity.

2337 at 305.4 A

Saccharomyces cerevisiae chromosome IV, complete chromosome sequence. Found forward in NC_001136 between 1347165 and 1348164 with 100% identity.

2338_at 305.4 A

Saccharomyces cerevisiae chromosome IV, complete chromosome sequence. Found forward in NC 001136 between 1348165 and 1349164 with 100% identity.

2339 at 520.5 P

Saccharomyces cerevisiae chromosome IV, complete chromosome sequence. Found forward in NC_001136 between 1349165 and 1350164 with 100% identity.

2340 at -775.7 A

Saccharomyces cerevisiae chromosome IV, complete chromosome sequence. Found forward in NC_001136 between 1350165 and 1351164 with 100% identity.

2341 g at -58.2 A

Saccharomyces cerevisiae chromosome IV, complete chromosome sequence. Found forward in NC_001136 between 1350165 and 1351164 with 100% identity.

2342_s_at -139.6 A

Saccharomyces cerevisiae chromosome IV, complete chromosome sequence. Found forward in NC_001136 between 1351165 and 1351842 with 100% identity.

2343_at 1126.9 A

Saccharomyces cerevisiae chromosome IV, complete chromosome sequence. Found forward in NC_001136 between 1369375 and 1370374 with 100% identity.

2344_g_at 2366.0 A

Saccharomyces cerevisiae chromosome IV, complete chromosome sequence. Found forward in

NC_001136 between 1369375 and 1370374 with 100% identity.

2345 s at -60.1 A

Saccharomyces cerevisiae chromosome IV, complete chromosome sequence. Found forward in NC_001136 between 1370375 and 1371374 with 100% identity.

2346_s_at -111.1 A

Saccharomyces cerevisiae chromosome IV, complete chromosome sequence. Found forward in NC_001136 between 1371375 and 1372374 with 100% identity.

2347 s at -227.3 A

Saccharomyces cerevisiae chromosome IV, complete chromosome sequence. Found forward in NC_001136 between 1372375 and 1373374 with 100% identity.

2348 s at 86.0 A

Saccharomyces cerevisiae chromosome IV, complete chromosome sequence. Found forward in NC 001136 between 1373375 and 1374374 with 100% identity.

2349_s_at -65.0 A

Saccharomyces cerevisiae chromosome IV, complete chromosome sequence. Found forward in NC_001136 between 1374375 and 1375374 with 100% identity.

2350 s at 1118.0 P

Saccharomyces cerevisiae chromosome IV, complete chromosome sequence. Found forward in NC_001136 between 1375375 and 1376374 with 100% identity.

2351_s_at 361.0 A

Saccharomyces cerevisiae chromosome IV, complete chromosome sequence. Found forward in NC_001136 between 1376375 and 1377374 with 100% identity.

2266_s_at 325.6 A

Saccharomyces cerevisiae chromosome IV, complete chromosome sequence. Found forward in NC 001136 between 1377375 and 1378374 with 100% identity.

2267 s at 185.7 A

Saccharomyces cerevisiae chromosome IV, complete chromosome sequence. Found forward in NC 001136 between 1378375 and 1379085 with 100% identity.

2268 at -48.3 A

Saccharomyces cerevisiae chromosome V, complete chromosome sequence. Found forward in NC_001137 between 7553 and 8552 with 100% identity.

2269 at 159.9 A

Saccharomyces cerevisiae chromosome V, complete chromosome sequence. Found forward in NC_001137 between 8553 and 9552 with 100% identity.

2270 at 102.2 A

Saccharomyces cerevisiae chromosome V, complete chromosome sequence. Found forward in NC_001137 between 9553 and 10552 with 100% identity.

2271 at -143.2 A

Saccharomyces cerevisiae chromosome V, complete chromosome sequence. Found forward in NC_001137 between 10553 and 11552 with 100% identity.

2272 at 413.5 P

Saccharomyces cerevisiae chromosome V, complete chromosome sequence. Found forward in NC_001137 between 11553 and 12552 with 100% identity.

2273_at -9050.2 A

Saccharomyces cerevisiae chromosome V, complete chromosome sequence. Found forward in NC_001137 between 12553 and 13552 with 100% identity.

2274 at -7.6 A

Saccharomyces cerevisiae chromosome V, complete chromosome sequence. Found forward in NC_001137 between 13553 and 13915 with 100% identity.

2275 g at -1724.6 A

Saccharomyces cerevisiae chromosome V, complete chromosome sequence. Found forward in NC_001137 between 13553 and 13915 with 100% identity.

2276 at -507.3 A

Saccharomyces cerevisiae chromosome V, complete chromosome sequence. Found forward in NC_001137 between 109004 and 110003 with 100% identity.

2277_at 52.2 A

Saccharomyces cerevisiae chromosome V, complete chromosome sequence. Found forward in NC 001137 between 110004 and 111003 with 100% identity.

2278 at -11.3 A

Saccharomyces cerevisiae chromosome V, complete chromosome sequence. Found forward in NC_001137 between 111004 and 112003 with 100% identity.

2279 g at 405.7

Saccharomyces cerevisiae chromosome V, complete chromosome sequence. Found forward in NC_001137 between 111004 and 112003 with 100% identity.

2280 s at -252.0 A

Saccharomyces cerevisiae chromosome V, complete chromosome sequence. Found forward in NC_001137 between 112004 and 113003 with 100% identity.

2281 s at -95.4 A

Saccharomyces cerevisiae chromosome V, complete chromosome sequence. Found forward in NC_001137 between 113004 and 114003 with 100% identity.

2282 s at 205.9

Saccharomyces cerevisiae chromosome V, complete chromosome sequence. Found forward in NC 001137 between 114004 and 115003 with 100% identity.

2283_s_at 1210.2 P

Α

Α

Saccharomyces cerevisiae chromosome V, complete chromosome sequence. Found forward in NC_001137 between 115004 and 115300 with 100% identity.

2284 at -40.0 A

Saccharomyces cerevisiae chromosome V, complete chromosome sequence. Found forward in NC_001137 between 425685 and 426684 with 100% identity.

2285_at 107.1 A

Saccharomyces cerevisiae chromosome V, complete chromosome sequence. Found forward in NC_001137 between 426685 and 427684 with 100% identity.

2286 at 720.8

Saccharomyces cerevisiae chromosome V, complete chromosome sequence. Found forward in NC 001137 between 427685 and 428684 with 100% identity.

2287 at 47.5 A

Saccharomyces cerevisiae chromosome V, complete chromosome sequence. Found forward in NC_001137 between 428685 and 429684 with 100% identity.

2288 at 931.6 A

Saccharomyces cerevisiae chromosome V, complete chromosome sequence. Found forward in NC_001137 between 429685 and 430684 with 100% identity.

289_at -494.5 *F*

Saccharomyces cerevisiae chromosome V, complete chromosome sequence. Found forward in NC_001137 between 430685 and 431126 with 100% identity.

2290 at -803.0 A

Saccharomyces cerevisiae chromosome V, complete chromosome sequence. Found forward in NC_001137 between 442412 and 443411 with 100% identity.

2291_g_at 3259.5 A

Saccharomyces cerevisiae chromosome V, complete chromosome sequence. Found forward in NC_001137 between 442412 and 443411 with 100% identity.

2294 f at 18970.9 F

Saccharomyces cerevisiae chromosome V, complete chromosome sequence. Found forward in NC 001137 between 446412 and 447411 with 100% identity.

2295_at 212.6 A

Saccharomyces cerevisiae chromosome V, complete chromosome sequence. Found forward in NC 001137 between 476841 and 477840 with 100% identity.

2296 at 317.6 A

Saccharomyces cerevisiae chromosome V, complete chromosome sequence. Found forward in NC 001137 between 477841 and 478840 with 100% identity.

2297 at 67.3 A

Saccharomyces cerevisiae chromosome V, complete chromosome sequence. Found forward in NC_001137 between 478841 and 479840 with 100% identity.

2298 at -426.2 A

Saccharomyces cerevisiae chromosome V, complete chromosome sequence. Found forward in NC_001137 between 479841 and 480840 with 100% identity.

2299_at 175.8 A

Saccharomyces cerevisiae chromosome V, complete chromosome sequence. Found forward in NC 001137 between 480841 and 481840 with 100% identity.

2300 at 670.0

Saccharomyces cerevisiae chromosome V, complete chromosome sequence. Found forward in NC_001137 between 481841 and 482840 with 100% identity.

2301_at 52.3 A

Saccharomyces cerevisiae chromosome V, complete chromosome sequence. Found forward in NC_001137 between 482841 and 483321 with 100% identity.

2302_at 306.9 P

Saccharomyces cerevisiae chromosome V, complete chromosome sequence. Found forward in NC_001137 between 491954 and 492953 with 100% identity.

2303_f_at 18010.4 F

Saccharomyces cerevisiae chromosome V, complete chromosome sequence. Found forward in NC_001137 between 492954 and 493953 with 100% identity.

2306_at 295.4 A

Saccharomyces cerevisiae chromosome V, complete chromosome sequence. Found forward in NC_001137 between 497954 and 498953 with 100% identity.

2307 at 280.7 M

Saccharomyces cerevisiae chromosome V, complete chromosome sequence. Found forward in NC_001137 between 498954 and 499172 with 100% identity.

2308 at -1613.4

Saccharomyces cerevisiae chromosome V, complete chromosome sequence. Found forward in NC 001137 between 530026 and 531025 with 100% identity.

2223 at 133.5 A

Saccharomyces cerevisiae chromosome V, complete chromosome sequence. Found forward in NC_001137 between 531026 and 532025 with 100% identity.

2224 at 9.0 A

Saccharomyces cerevisiae chromosome V, complete chromosome sequence. Found forward in NC 001137 between 532026 and 533025 with 100% identity.

Saccharomyces cerevisiae chromosome V, complete chromosome sequence. Found forward in NC 001137 between 533026 and 534025 with 100% identity.

2226_at 407.9 M

Saccharomyces cerevisiae chromosome V, complete chromosome sequence. Found forward in NC 001137 between 534026 and 535025 with 100% identity.

2227 at -301.5 A

Saccharomyces cerevisiae chromosome V, complete chromosome sequence. Found forward in NC_001137 between 535026 and 536025 with 100% identity.

2228 at 71.5 A

Saccharomyces cerevisiae chromosome V, complete chromosome sequence. Found forward in NC $_001137$ between 536026 and 536271 with 100% identity.

2229 at 281.3 A

Saccharomyces cerevisiae chromosome VI, complete chromosome sequence. Found forward in NC_001138 between 69614 and 70613 with 100% identity.

2230 at 551.3 A

Saccharomyces cerevisiae chromosome VI, complete chromosome sequence. Found forward in NC_001138 between 70614 and 71613 with 100% identity.

2231_at -417.0 A

Saccharomyces cerevisiae chromosome VI, complete chromosome sequence. Found forward in NC_001138 between 71614 and 72613 with 100% identity.

2232 at 18.8 A

Saccharomyces cerevisiae chromosome VI, complete chromosome sequence. Found forward in

NC_001138 between 72614 and 73613 with 100% identity.

2233 at -3587.8 A

Saccharomyces cerevisiae chromosome VI, complete chromosome sequence. Found forward in NC_001138 between 73614 and 74613 with 100% identity.

2234 at -3.2

Saccharomyces cerevisiae chromosome VI, complete chromosome sequence. Found forward in NC_001138 between 74614 and 74871 with 100% identity.

2235 at 413.2 A

Saccharomyces cerevisiae chromosome VI, complete chromosome sequence. Found forward in NC_001138 between 136029 and 137028 with 100% identity.

2236 at -185.4 A

Saccharomyces cerevisiae chromosome VI, complete chromosome sequence. Found forward in NC 001138 between 137029 and 138028 with 100% identity.

2237_at -125.1 A

Saccharomyces cerevisiae chromosome VI, complete chromosome sequence. Found forward in NC_001138 between 143029 and 144028 with 100% identity.

2238 at -1302.6 A

Saccharomyces cerevisiae chromosome VI, complete chromosome sequence. Found forward in NC_001138 between 144029 and 145028 with 100% identity.

2239 at 942.2 A

Saccharomyces cerevisiae chromosome VI, complete chromosome sequence. Found forward in NC_001138 between 145029 and 145108 with 100% identity.

2240 at -288.9 A

Saccharomyces cerevisiae chromosome VI, complete chromosome sequence. Found forward in NC 001138 between 184470 and 185469 with 100% identity.

2241 s at 38.5 A

Saccharomyces cerevisiae chromosome VI, complete chromosome sequence. Found forward in NC 001138 between 185470 and 186469 with 100% identity.

2242 s at 158.4 A

Saccharomyces cerevisiae chromosome VI, complete chromosome sequence. Found forward in NC_001138 between 186470 and 187469 with 100% identity.

2243 s at -31.7 A

Saccharomyces cerevisiae chromosome VI, complete chromosome sequence. Found forward in NC_001138 between 187470 and 188469 with 100% identity.

2244 s at 506.1 P

Saccharomyces cerevisiae chromosome VI, complete chromosome sequence. Found forward in NC_001138 between 188470 and 189469 with 100% identity.

2245 s at 922.4 A

Saccharomyces cerevisiae chromosome VI, complete chromosome sequence. Found forward in NC_001138 between 189470 and 190469 with 100% identity.

2246 s at 567.3 A

Saccharomyces cerevisiae chromosome VI, complete chromosome sequence. Found forward in NC_001138 between 190470 and 190825 with 100% identity.

2247_at 338.4 P

Saccharomyces cerevisiae chromosome VII, complete chromosome sequence. Found forward in NC_001139 between 16307 and 17306 with 100% identity.

2248 at 157.7 A

Saccharomyces cerevisiae chromosome VII, complete chromosome sequence. Found forward in NC_001139 between 17307 and 18306 with 100% identity.

2249 at -180.8 A

Saccharomyces cerevisiae chromosome VII, complete chromosome sequence. Found forward in NC_001139 between 18307 and 19306 with 100% identity.

2250 at 2950.4 P

Saccharomyces cerevisiae chromosome VII, complete chromosome sequence. Found forward in NC_001139 between 19307 and 20306 with 100% identity.

2251_at 34.5 A

Saccharomyces cerevisiae chromosome VII, complete chromosome sequence. Found forward in NC_001139 between 20307 and 21306 with 100% identity.

2252_g_at 148.6 A

Saccharomyces cerevisiae chromosome VII, complete chromosome sequence. Found forward in NC_001139 between 20307 and 21306 with 100% identity.

2253 s at -641.7 A

Saccharomyces cerevisiae chromosome VII, complete chromosome sequence. Found forward in NC_001139 between 21307 and 21608 with 100% identity.

2254 at 204.7 A

Saccharomyces cerevisiae chromosome VII, complete chromosome sequence. Found forward in NC_001139 between 103045 and 104044 with 100% identity.

2255 at 16.0 A

Saccharomyces cerevisiae chromosome VII, complete chromosome sequence. Found forward in NC_001139 between 104045 and 105044 with 100% identity.

2256 at -217.7

Saccharomyces cerevisiae chromosome VII, complete chromosome sequence. Found forward in NC 001139 between 105045 and 106044 with 100% identity.

2257 at 1587.2 A

Saccharomyces cerevisiae chromosome VII, complete chromosome sequence. Found forward in NC_001139 between 106045 and 107044 with 100% identity.

2258 at -82.5 A

Saccharomyces cerevisiae chromosome VII, complete chromosome sequence. Found forward in NC_001139 between 107045 and 108044 with 100% identity.

2259_at 671.9 P

Saccharomyces cerevisiae chromosome VII, complete chromosome sequence. Found forward in NC_001139 between 108045 and 109044 with 100% identity.

2260_g_at 217.5 A

Saccharomyces cerevisiae chromosome VII, complete chromosome sequence. Found forward in NC 001139 between 108045 and 109044 with 100% identity.

2261 s at 517.8 P

Saccharomyces cerevisiae chromosome VII, complete chromosome sequence. Found forward in NC_001139 between 109045 and 109906 with 100% identity.

2262 at 1903.1 P

Saccharomyces cerevisiae chromosome VII, complete chromosome sequence. Found forward in NC_001139 between 131050 and 132049 with 100% identity.

2263 g at 231.4

Saccharomyces cerevisiae chromosome VII, complete chromosome sequence. Found forward in NC_001139 between 131050 and 132049 with 100% identity.

2264 s at -647.0 A

Saccharomyces cerevisiae chromosome VII, complete chromosome sequence. Found forward in NC_001139 between 132050 and 133049 with 100% identity.

2265_s_at -99.2 A

Saccharomyces cerevisiae chromosome VII, complete chromosome sequence. Found forward in NC_001139 between 133050 and 134049 with 100% identity.

2180 s at 185.5

Saccharomyces cerevisiae chromosome VII, complete chromosome sequence. Found forward in NC 001139 between 134050 and 135049 with 100% identity.

2181_s_at 393.3 F

Saccharomyces cerevisiae chromosome VII, complete chromosome sequence. Found forward in NC 001139 between 135050 and 136049 with 100% identity.

2182 s at 786.6 A

Saccharomyces cerevisiae chromosome VII, complete chromosome sequence. Found forward in NC_001139 between 136050 and 137049 with 100% identity.

2183 s at 330.7

Saccharomyces cerevisiae chromosome VII, complete chromosome sequence. Found forward in NC_001139 between 137050 and 138049 with 100% identity.

2184_s_at 1415.6 P

Saccharomyces cerevisiae chromosome VII, complete chromosome sequence. Found forward in NC_001139 between 138050 and 139047 with 100% identity.

2185_at 488.5 A

Saccharomyces cerevisiae chromosome VII, complete chromosome sequence. Found forward in NC 001139 between 176031 and 177030 with 100% identity.

2186 at 647.3 P

Saccharomyces cerevisiae chromosome VII, complete chromosome sequence. Found forward in NC_001139 between 177031 and 178030 with 100% identity.

2187 at 380.7 F

Saccharomyces cerevisiae chromosome VII, complete chromosome sequence. Found forward in NC 001139 between 178031 and 179030 with 100% identity.

2188 at -131.4 A

Saccharomyces cerevisiae chromosome VII, complete chromosome sequence. Found forward in NC_001139 between 179031 and 180030 with 100% identity.

2189 at -53.0

Saccharomyces cerevisiae chromosome VII, complete chromosome sequence. Found forward in NC_001139 between 180031 and 181030 with 100% identity.

2190_g_at 2412.1 P

Saccharomyces cerevisiae chromosome VII, complete chromosome sequence. Found forward in NC_001139 between 180031 and 181030 with 100% identity.

2191 s at 848.2 P

Saccharomyces cerevisiae chromosome VII, complete chromosome sequence. Found forward in NC_001139 between 181031 and 181622 with 100% identity.

2192 at 97.9

Saccharomyces cerevisiae chromosome VII, complete chromosome sequence. Found forward in NC 001139 between 241856 and 242855 with 100% identity.

2193 at 419.6 P

Saccharomyces cerevisiae chromosome VII, complete chromosome sequence. Found forward in NC_001139 between 242856 and 243855 with 100% identity.

2194 at 1373.3 A

Saccharomyces cerevisiae chromosome VII, complete chromosome sequence. Found forward in NC 001139 between 243856 and 244855 with 100% identity.

2195 at 61.1 A

Saccharomyces cerevisiae chromosome VII, complete chromosome sequence. Found forward in NC 001139 between 244856 and 245855 with 100% identity.

2196 s at 350.4 A

Saccharomyces cerevisiae chromosome VII, complete chromosome sequence. Found forward in NC 001139 between 245856 and 246855 with 100% identity.

2197 s at 656.0 P

Saccharomyces cerevisiae chromosome VII, complete chromosome sequence. Found forward in NC_001139 between 246856 and 247627 with 100% identity.

2198 at 470.6 F

Saccharomyces cerevisiae chromosome VII, complete chromosome sequence. Found forward in NC_001139 between 331616 and 332615 with 100% identity.

2199 at 522.6 A

Saccharomyces cerevisiae chromosome VII, complete chromosome sequence. Found forward in NC_001139 between 332616 and 333615 with 100% identity.

2200 at -33.5 A

Saccharomyces cerevisiae chromosome VII, complete chromosome sequence. Found forward in NC_001139 between 333616 and 334615 with 100% identity.

2201_at -2402.6 A

Saccharomyces cerevisiae chromosome VII, complete chromosome sequence. Found forward in NC_001139 between 334616 and 335615 with 100% identity.

2202_g_at -9.8 A

Saccharomyces cerevisiae chromosome VII, complete chromosome sequence. Found forward in

NC_001139 between 334616 and 335615 with 100% identity.

2203 s at 191.3 A

Saccharomyces cerevisiae chromosome VII, complete chromosome sequence. Found forward in NC_001139 between 335616 and 336615 with 100% identity.

2204_s_at 599.8

Saccharomyces cerevisiae chromosome VII, complete chromosome sequence. Found forward in NC_001139 between 336616 and 337137 with 100% identity.

2205 at 425.8 A

Saccharomyces cerevisiae chromosome VII, complete chromosome sequence. Found forward in NC_001139 between 547463 and 548462 with 100% identity.

2206 g at -58.9 A

Saccharomyces cerevisiae chromosome VII, complete chromosome sequence. Found forward in NC_001139 between 547463 and 548462 with 100% identity.

2207_s_at 289.7 A

Saccharomyces cerevisiae chromosome VII, complete chromosome sequence. Found forward in NC_001139 between 548463 and 549462 with 100% identity.

2208 s at 456.4 F

Saccharomyces cerevisiae chromosome VII, complete chromosome sequence. Found forward in NC_001139 between 549463 and 550462 with 100% identity.

2209_s_at 227.7 A

Saccharomyces cerevisiae chromosome VII, complete chromosome sequence. Found forward in NC_001139 between 550463 and 551462 with 100% identity.

2210 s at 509.1 A

Saccharomyces cerevisiae chromosome VII, complete chromosome sequence. Found forward in NC 001139 between 551463 and 552462 with 100% identity.

2211 s at 945.5 P

Saccharomyces cerevisiae chromosome VII, complete chromosome sequence. Found forward in NC_001139 between 552463 and 553445 with 100% identity.

2212 at 355.1 P

Saccharomyces cerevisiae chromosome VII, complete chromosome sequence. Found forward in NC_001139 between 659764 and 660763 with 100% identity.

2213 at -1160.1 A

Saccharomyces cerevisiae chromosome VII, complete chromosome sequence. Found forward in NC_001139 between 660764 and 661763 with 100% identity.

2214 at -2100.0 A

Saccharomyces cerevisiae chromosome VII, complete chromosome sequence. Found forward in NC_001139 between 661764 and 662763 with 100% identity.

2215 g at 1103.4 P

Saccharomyces cerevisiae chromosome VII, complete chromosome sequence. Found forward in NC_001139 between 661764 and 662763 with 100% identity.

2216 s at 327.3 A

Saccharomyces cerevisiae chromosome VII, complete chromosome sequence. Found forward in NC_001139 between 662764 and 663763 with 100% identity.

2217_s_at 455.5 M

Saccharomyces cerevisiae chromosome VII, complete chromosome sequence. Found forward in NC_001139 between 663764 and 664763 with 100% identity.

2218 s at 4402.2 P

Saccharomyces cerevisiae chromosome VII, complete chromosome sequence. Found forward in NC_001139 between 664764 and 665565 with 100% identity.

2219 at -477.1 A

Saccharomyces cerevisiae chromosome VII, complete chromosome sequence. Found forward in NC_001139 between 683060 and 684059 with 100% identity.

2220 at -212.7 A

Saccharomyces cerevisiae chromosome VII, complete chromosome sequence. Found forward in NC_001139 between 684060 and 685059 with 100% identity.

2221_at -253.7 A

Saccharomyces cerevisiae chromosome VII, complete chromosome sequence. Found forward in NC_001139 between 685060 and 686059 with 100% identity.

2222 at 23.7 A

Saccharomyces cerevisiae chromosome VII, complete chromosome sequence. Found forward in NC_001139 between 686060 and 687059 with 100% identity.

2138 at 13.1 A

Saccharomyces cerevisiae chromosome VII, complete chromosome sequence. Found forward in NC_001139 between 687060 and 688059 with 100% identity.

2139 g at 190.6 A

Saccharomyces cerevisiae chromosome VII, complete chromosome sequence. Found forward in NC_001139 between 687060 and 688059 with 100% identity.

2140 s at 378.2 A

Saccharomyces cerevisiae chromosome VII, complete chromosome sequence. Found forward in NC_001139 between 688060 and 689059 with 100% identity.

2141 s at 285.6

Α

Saccharomyces cerevisiae chromosome VII, complete chromosome sequence. Found forward in NC 001139 between 689060 and 689459 with 100% identity.

2142 at 690.1 P

Saccharomyces cerevisiae chromosome VII, complete chromosome sequence. Found forward in NC_001139 between 860395 and 861394 with 100% identity.

2143 at -405.5 A

Saccharomyces cerevisiae chromosome VII, complete chromosome sequence. Found forward in NC_001139 between 861395 and 862394 with 100% identity.

2144_at 104.0 A

Saccharomyces cerevisiae chromosome VII, complete chromosome sequence. Found forward in NC_001139 between 862395 and 863394 with 100% identity.

2145_at -12.1 A

Saccharomyces cerevisiae chromosome VII, complete chromosome sequence. Found forward in NC 001139 between 863395 and 864394 with 100% identity.

2146 at -824.9 A

Saccharomyces cerevisiae chromosome VII, complete chromosome sequence. Found forward in NC_001139 between 864395 and 865394 with 100% identity.

2147 at 453.5 A

Saccharomyces cerevisiae chromosome VII, complete chromosome sequence. Found forward in NC_001139 between 865395 and 866330 with 100% identity.

2148 at -146.8

Saccharomyces cerevisiae chromosome VII, complete chromosome sequence. Found forward in NC_001139 between 923127 and 924126 with 100% identity.

2149 at -149.7 A

Saccharomyces cerevisiae chromosome VII, complete chromosome sequence. Found forward in NC_001139 between 924127 and 925126 with 100% identity.

2150 g at 99.4 A

Saccharomyces cerevisiae chromosome VII, complete chromosome sequence. Found forward in NC_001139 between 924127 and 925126 with 100% identity.

2151 s at -15.7 A

Saccharomyces cerevisiae chromosome VII, complete chromosome sequence. Found forward in NC_001139 between 925127 and 926126 with 100% identity.

2152 s at -331.1 A

Saccharomyces cerevisiae chromosome VII, complete chromosome sequence. Found forward in NC 001139 between 926127 and 927126 with 100% identity.

2153 s at 236.3 A

Saccharomyces cerevisiae chromosome VII, complete chromosome sequence. Found forward in NC_001139 between 927127 and 928126 with 100% identity.

2154 s at 32.8

Saccharomyces cerevisiae chromosome VII, complete chromosome sequence. Found forward in NC_001139 between 928127 and 929126 with 100% identity.

2155_s_at 412.6 A

Saccharomyces cerevisiae chromosome VII, complete chromosome sequence. Found forward in NC_001139 between 929127 and 930126 with 100% identity.

2156_s_at -263.9 A

Saccharomyces cerevisiae chromosome VII, complete chromosome sequence. Found forward in NC_001139 between 930127 and 930307 with 100% identity.

2157 at 186.8 A

Saccharomyces cerevisiae chromosome VII, complete chromosome sequence. Found forward in NC_001139 between 955166 and 956165 with 100% identity.

2158_at 480.5 A

Saccharomyces cerevisiae chromosome VII, complete chromosome sequence. Found forward in NC_001139 between 956166 and 957165 with 100% identity.

2159_at -504.2 A

Saccharomyces cerevisiae chromosome VII, complete chromosome sequence. Found forward in NC_001139 between 957166 and 958165 with 100% identity.

2160 at 513.4

Saccharomyces cerevisiae chromosome VII, complete chromosome sequence. Found forward in NC_001139 between 958166 and 959165 with 100% identity.

2161 at 186.6 A

Saccharomyces cerevisiae chromosome VII, complete chromosome sequence. Found forward in NC_001139 between 959166 and 960165 with 100% identity.

2162 g at 7856.3 P

Saccharomyces cerevisiae chromosome VII, complete chromosome sequence. Found forward in NC_001139 between 959166 and 960165 with 100% identity.

2163 s at 17283.4 P

Saccharomyces cerevisiae chromosome VII, complete chromosome sequence. Found forward in NC 001139 between 960166 and 960596 with 100% identity.

2164 at -8.0 A

Saccharomyces cerevisiae chromosome VII, complete chromosome sequence. Found forward in NC_001139 between 1031505 and 1032504 with 100% identity.

2165 g at -38.1 A

Saccharomyces cerevisiae chromosome VII, complete chromosome sequence. Found forward in NC 001139 between 1031505 and 1032504 with 100% identity.

2166 s at 92.7 A

Saccharomyces cerevisiae chromosome VII, complete chromosome sequence. Found forward in NC 001139 between 1032505 and 1033504 with 100% identity.

2167 s at 233.2 P

Saccharomyces cerevisiae chromosome VII, complete chromosome sequence. Found forward in NC_001139 between 1033505 and 1034504 with 100% identity.

2168 s at 536.7 A

Saccharomyces cerevisiae chromosome VII, complete chromosome sequence. Found forward in NC 001139 between 1034505 and 1035504 with 100% identity.

2169_s_at 277.4 A

Saccharomyces cerevisiae chromosome VII, complete chromosome sequence. Found forward in NC_001139 between 1035505 and 1036504 with 100% identity.

2170 s at 302.1 P

Saccharomyces cerevisiae chromosome VII, complete chromosome sequence. Found forward in NC_001139 between 1036505 and 1037190 with 100% identity.

2171 at -28.6 A

Saccharomyces cerevisiae chromosome VII, complete chromosome sequence. Found forward in NC_001139 between 1051406 and 1052405 with 100% identity.

2172_at 431.5 A

Saccharomyces cerevisiae chromosome VII, complete chromosome sequence. Found forward in NC_001139 between 1052406 and 1053405 with 100% identity.

2173_g_at 407.3 A

Saccharomyces cerevisiae chromosome VII, complete chromosome sequence. Found forward in

NC_001139 between 1052406 and 1053405 with 100% identity.

2174 s at 913.0 P

Saccharomyces cerevisiae chromosome VII, complete chromosome sequence. Found forward in NC_001139 between 1053406 and 1054405 with 100% identity.

2175 s at 799.8 P

Saccharomyces cerevisiae chromosome VII, complete chromosome sequence. Found forward in NC_001139 between 1054406 and 1055405 with 100% identity.

2176 s at 2442.7 P

Saccharomyces cerevisiae chromosome VII, complete chromosome sequence. Found forward in NC_001139 between 1055406 and 1056405 with 100% identity.

2177 s at 13681.4 P

Saccharomyces cerevisiae chromosome VII, complete chromosome sequence. Found forward in NC_001139 between 1056406 and 1056753 with 100% identity.

2178_at 214.5 A

Saccharomyces cerevisiae chromosome VII, complete chromosome sequence. Found forward in NC_001139 between 1084878 and 1085877 with 100% identity.

2179 at 299.1 A

Saccharomyces cerevisiae chromosome VIII, complete chromosome sequence. Found forward in NC_001140 between 39533 and 40532 with 100% identity.

2100_g_at 524.2 A

Saccharomyces cerevisiae chromosome VIII, complete chromosome sequence. Found forward in NC_001140 between 39533 and 40532 with 100% identity.

2101 s at -508.1 A

Saccharomyces cerevisiae chromosome VIII, complete chromosome sequence. Found forward in NC 001140 between 40533 and 41532 with 100% identity.

2102 s at -43.3 A

Saccharomyces cerevisiae chromosome VIII, complete chromosome sequence. Found forward in NC_001140 between 41533 and 42532 with 100% identity.

2103 s at 79.9 A

Saccharomyces cerevisiae chromosome VIII, complete chromosome sequence. Found forward in NC_001140 between 42533 and 43532 with 100% identity.

2104_s_at 2365.3 F

Saccharomyces cerevisiae chromosome VIII, complete chromosome sequence. Found forward in NC_001140 between 43533 and 44532 with 100% identity.

2105 s at 679.0 A

Saccharomyces cerevisiae chromosome VIII, complete chromosome sequence. Found forward in NC_001140 between 44533 and 45188 with 100% identity.

2106 at 349.0 A

Saccharomyces cerevisiae chromosome VIII, complete chromosome sequence. Found forward in NC_001140 between 84563 and 85562 with 100% identity.

2107 at -205.0 A

Saccharomyces cerevisiae chromosome VIII, complete chromosome sequence. Found forward in NC_001140 between 150066 and 151065 with 100% identity.

2108_at 40.3

Saccharomyces cerevisiae chromosome VIII, complete chromosome sequence. Found forward in NC_001140 between 151066 and 152065 with 100% identity.

2109 g at 27.2 A

Α

Saccharomyces cerevisiae chromosome VIII, complete chromosome sequence. Found forward in NC_001140 between 151066 and 152065 with 100% identity.

2110 s at -60.3 A

Saccharomyces cerevisiae chromosome VIII, complete chromosome sequence. Found forward in NC_001140 between 152066 and 153065 with 100% identity.

2111 s at 72.4 A

Saccharomyces cerevisiae chromosome VIII, complete chromosome sequence. Found forward in NC_001140 between 153066 and 154065 with 100% identity.

2112_s_at 272.3 A

Saccharomyces cerevisiae chromosome VIII, complete chromosome sequence. Found forward in NC_001140 between 154066 and 155065 with 100% identity.

2113 s at -192.6 A

Saccharomyces cerevisiae chromosome VIII, complete chromosome sequence. Found forward in NC_001140 between 155066 and 156065 with 100% identity.

2114 s at 543.9

Saccharomyces cerevisiae chromosome VIII, complete chromosome sequence. Found forward in NC_001140 between 156066 and 156943 with 100% identity.

2115 at 16.0 A

Saccharomyces cerevisiae chromosome VIII, complete chromosome sequence. Found forward in NC_001140 between 299647 and 300646 with 100% identity.

2116 at 195.1 F

Saccharomyces cerevisiae chromosome VIII, complete chromosome sequence. Found forward in NC_001140 between 300647 and 301646 with 100% identity.

2117 at -1331.4 A

Saccharomyces cerevisiae chromosome VIII, complete chromosome sequence. Found forward in NC_001140 between 301647 and 302646 with 100% identity.

2118 at -287.6 A

Saccharomyces cerevisiae chromosome VIII, complete chromosome sequence. Found forward in NC_001140 between 302647 and 303646 with 100% identity.

2119 g at -1809.8 A

Saccharomyces cerevisiae chromosome VIII, complete chromosome sequence. Found forward in NC 001140 between 302647 and 303646 with 100% identity.

2120 s at 478.9 A

Saccharomyces cerevisiae chromosome VIII, complete chromosome sequence. Found forward in NC_001140 between 303647 and 304646 with 100% identity.

2121 s at -669.5 A

Saccharomyces cerevisiae chromosome VIII, complete chromosome sequence. Found forward in NC 001140 between 304647 and 305646 with 100% identity.

2122_s_at 110.1 A

Saccharomyces cerevisiae chromosome VIII, complete chromosome sequence. Found forward in NC_001140 between 305647 and 306646 with 100% identity.

2123 s at -289.8 A

Saccharomyces cerevisiae chromosome VIII, complete chromosome sequence. Found forward in NC_001140 between 306647 and 307646 with 100% identity.

2124 s at 217.9 F

Saccharomyces cerevisiae chromosome VIII, complete chromosome sequence. Found forward in NC_001140 between 307647 and 308646 with 100% identity.

2125 s at 190.9 A

Saccharomyces cerevisiae chromosome VIII, complete chromosome sequence. Found forward in NC_001140 between 308647 and 309646 with 100% identity.

2126_s_at 137.4 A

Saccharomyces cerevisiae chromosome VIII, complete chromosome sequence. Found forward in NC_001140 between 309647 and 310646 with 100% identity.

2127 s at -32.1

Saccharomyces cerevisiae chromosome VIII, complete chromosome sequence. Found forward in NC_001140 between 310647 and 311646 with 100% identity.

2128_s_at 90.9 A

Saccharomyces cerevisiae chromosome VIII, complete chromosome sequence. Found forward in NC_001140 between 311647 and 312646 with 100% identity.

2129 s at 661.4 P

Saccharomyces cerevisiae chromosome VIII, complete chromosome sequence. Found forward in NC 001140 between 312647 and 313497 with 100% identity.

2130 at -95.1

Saccharomyces cerevisiae chromosome VIII, complete chromosome sequence. Found forward in NC_001140 between 430206 and 431205 with 100% identity.

2131 at -184.1 A

Saccharomyces cerevisiae chromosome VIII, complete chromosome sequence. Found forward in NC_001140 between 431206 and 432205 with 100% identity.

2132_at -212.1 A

Saccharomyces cerevisiae chromosome VIII, complete chromosome sequence. Found forward in NC_001140 between 432206 and 433205 with 100% identity.

2133 at -160.4

Saccharomyces cerevisiae chromosome VIII, complete chromosome sequence. Found forward in NC_001140 between 433206 and 434205 with 100% identity.

2134_at -2.0 A

Saccharomyces cerevisiae chromosome VIII, complete chromosome sequence. Found forward in NC_001140 between 434206 and 435205 with 100% identity.

2135_at 541.9 A

Saccharomyces cerevisiae chromosome VIII, complete chromosome sequence. Found forward in NC_001140 between 435206 and 436205 with 100% identity.

2136_at 624.3

Saccharomyces cerevisiae chromosome VIII, complete chromosome sequence. Found forward in NC_001140 between 436206 and 437169 with 100% identity.

2137_at -189.9 A

Saccharomyces cerevisiae chromosome VIII, complete chromosome sequence. Found forward in NC 001140 between 522872 and 523871 with 100% identity.

11394 at 469.6 A

Saccharomyces cerevisiae chromosome VIII, complete chromosome sequence. Found forward in NC_001140 between 523872 and 524871 with 100% identity.

1395 at 175.5

Saccharomyces cerevisiae chromosome VIII, complete chromosome sequence. Found forward in NC 001140 between 524872 and 525871 with 100% identity.

11396 g at 25.9 A

Saccharomyces cerevisiae chromosome VIII, complete chromosome sequence. Found forward in NC_001140 between 524872 and 525871 with 100% identity.

11397 f at 51.7 A

Saccharomyces cerevisiae chromosome VIII, complete chromosome sequence. Found forward in NC_001140 between 525872 and 526871 with 100% identity.

11398 s at -345.4 A

Saccharomyces cerevisiae chromosome VIII, complete chromosome sequence. Found forward in NC 001140 between 526872 and 527871 with 100% identity.

11399 s at 797.6 A

Saccharomyces cerevisiae chromosome VIII, complete chromosome sequence. Found forward in NC_001140 between 527872 and 528114 with 100% identity.

11400 s at -27.8 A

Saccharomyces cerevisiae chromosome VIII, complete chromosome sequence. Found forward in NC_001140 between 532177 and 533176 with 100% identity.

11401 at -439.6 A

Saccharomyces cerevisiae chromosome VIII, complete chromosome sequence. Found forward in NC_001140 between 533177 and 534176 with 100% identity.

11402 at 138.3 A

Saccharomyces cerevisiae chromosome VIII, complete chromosome sequence. Found forward in NC_001140 between 534177 and 535176 with 100% identity.

11403_at 457.4 A

Saccharomyces cerevisiae chromosome VIII, complete chromosome sequence. Found forward in NC_001140 between 535177 and 536176 with 100% identity.

11404_at 140.3 A

Saccharomyces cerevisiae chromosome VIII, complete chromosome sequence. Found forward in NC 001140 between 537177 and 537754 with 100% identity.

11405 at 5938.8 P

Saccharomyces cerevisiae chromosome VIII, complete chromosome sequence. Found forward in

NC_001140 between 543488 and 544487 with 100% identity.

11406 f at 1033.7 M

Saccharomyces cerevisiae chromosome VIII, complete chromosome sequence. Found forward in NC_001140 between 544488 and 545487 with 100% identity.

11407_f_at 1320.9 F

Saccharomyces cerevisiae chromosome VIII, complete chromosome sequence. Found forward in NC_001140 between 546488 and 547487 with 100% identity.

11408 f at 21988.0 P

Saccharomyces cerevisiae chromosome VIII, complete chromosome sequence. Found forward in NC_001140 between 547488 and 548487 with 100% identity.

11409_f_at 435.8 P

Saccharomyces cerevisiae chromosome VIII, complete chromosome sequence. Found forward in NC_001140 between 548488 and 549487 with 100% identity.

11410_at -5.5 A

Saccharomyces cerevisiae chromosome VIII, complete chromosome sequence. Found forward in NC_001140 between 549488 and 549898 with 100% identity.

11411 at 4.3 A

Saccharomyces cerevisiae chromosome IX, complete chromosome sequence. Found forward in NC_001141 between 9696 and 10695 with 100% identity.

11412 at -52.2 A

Saccharomyces cerevisiae chromosome IX, complete chromosome sequence. Found forward in NC_001141 between 10696 and 11695 with 100% identity.

11413_s_at 1.6 A

Saccharomyces cerevisiae chromosome IX, complete chromosome sequence. Found forward in NC 001141 between 11696 and 12695 with 100% identity.

11414 s at -104.3 A

Saccharomyces cerevisiae chromosome IX, complete chromosome sequence. Found forward in NC 001141 between 12696 and 13695 with 100% identity.

11415 f at -84.3 A

Saccharomyces cerevisiae chromosome IX, complete chromosome sequence. Found forward in NC_001141 between 13696 and 14695 with 100% identity.

11416_at 231.1 A

Saccharomyces cerevisiae chromosome IX, complete chromosome sequence. Found forward in NC_001141 between 106607 and 107606 with 100% identity.

11417 at 236.1 P

Saccharomyces cerevisiae chromosome IX, complete chromosome sequence. Found forward in NC_001141 between 107607 and 108606 with 100% identity.

11418 at -744.3 A

Saccharomyces cerevisiae chromosome IX, complete chromosome sequence. Found forward in NC_001141 between 108607 and 109606 with 100% identity.

11419 at 191.1 A

Saccharomyces cerevisiae chromosome IX, complete chromosome sequence. Found forward in NC_001141 between 109607 and 110606 with 100% identity.

11420_at -545.9

Saccharomyces cerevisiae chromosome IX, complete chromosome sequence. Found forward in NC_001141 between 110607 and 111606 with 100% identity.

11421 at 134.6 A

Saccharomyces cerevisiae chromosome IX, complete chromosome sequence. Found forward in NC_001141 between 111607 and 112606 with 100% identity.

11422 at 242.0 A

Saccharomyces cerevisiae chromosome IX, complete chromosome sequence. Found forward in NC_001141 between 112607 and 113606 with 100% identity.

11423 at -45.3 A

Saccharomyces cerevisiae chromosome IX, complete chromosome sequence. Found forward in NC_001141 between 113607 and 114606 with 100% identity.

11424_g_at 621.5

Saccharomyces cerevisiae chromosome IX, complete chromosome sequence. Found forward in NC_001141 between 113607 and 114606 with 100% identity.

11425_s_at 2789.2 A

Saccharomyces cerevisiae chromosome IX, complete chromosome sequence. Found forward in NC_001141 between 114607 and 115606 with 100% identity.

11426 s at 298.3

Saccharomyces cerevisiae chromosome IX, complete chromosome sequence. Found forward in NC_001141 between 115607 and 116404 with 100% identity.

11427_at -768.3 A

Saccharomyces cerevisiae chromosome IX, complete chromosome sequence. Found forward in NC 001141 between 204053 and 205052 with 100% identity.

11428 at 78.1 A

Saccharomyces cerevisiae chromosome IX, complete chromosome sequence. Found forward in NC_001141 between 205053 and 206052 with 100% identity.

11429 at 494.3

Saccharomyces cerevisiae chromosome IX, complete chromosome sequence. Found forward in NC_001141 between 365963 and 366962 with 100% identity.

11430_at -304.0 A

Α

Saccharomyces cerevisiae chromosome IX, complete chromosome sequence. Found forward in NC_001141 between 366963 and 367962 with 100% identity.

11431 at -427.8 A

Saccharomyces cerevisiae chromosome IX, complete chromosome sequence. Found forward in NC_001141 between 367963 and 368962 with 100% identity.

11432_at 3176.2 A

Saccharomyces cerevisiae chromosome IX, complete chromosome sequence. Found forward in NC 001141 between 368963 and 369962 with 100% identity.

11433 at -838.8 A

Saccharomyces cerevisiae chromosome IX, complete chromosome sequence. Found forward in NC 001141 between 369963 and 370962 with 100% identity.

11434 g at -51.7 A

Saccharomyces cerevisiae chromosome IX, complete chromosome sequence. Found forward in NC_001141 between 369963 and 370962 with 100% identity.

11435 s at 218.6 A

Saccharomyces cerevisiae chromosome IX, complete chromosome sequence. Found forward in NC_001141 between 370963 and 371962 with 100% identity.

11436 s at -79.4 A

Saccharomyces cerevisiae chromosome IX, complete chromosome sequence. Found forward in NC_001141 between 371963 and 372495 with 100% identity.