



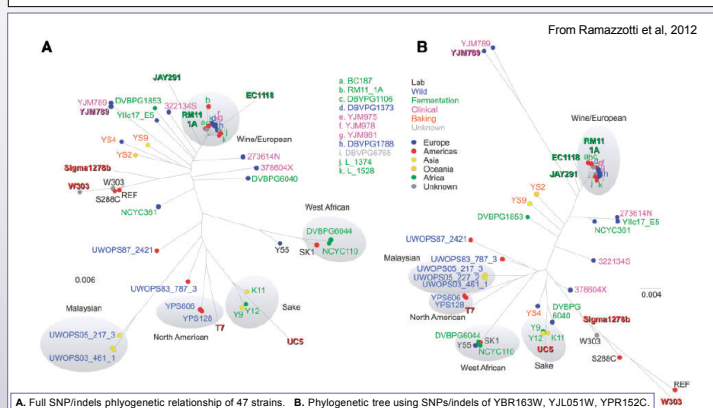
Sequencing and annotating multiple *Saccharomyces cerevisiae* strains at the *Saccharomyces* Genome Database



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With the recent release of the first major update to the S288C reference sequence, the *Saccharomyces* Genome Database (SGD; <http://www.yeastgenome.org>) continues to be the authoritative source for the *Saccharomyces cerevisiae* reference genome sequence and annotation. The systematic sequencing of a genome from a single yeast colony serves as the reference point to determine representative allelic variation among additional S288C-derived genomic sequences, as well as to expand upon SGD's annotation of additional *S. cerevisiae* strains. In collaboration with several groups, the complete genome sequences of a number of laboratory, industrial, and wild strains are being sequenced. In addition to making these genomes available as FASTQ and consensus sequences for researchers, SGD will annotate and provide comparative analyses of these sequences, correlating sequence changes with variations in strain phenotypes and protein function.

More strains now available at SGD

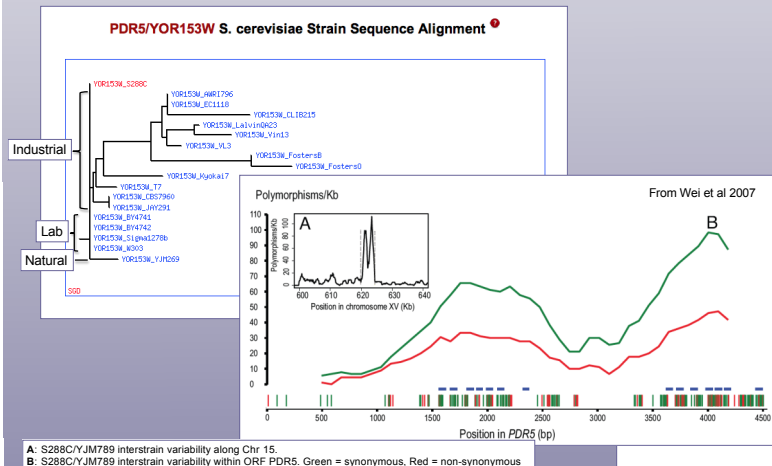


Phenotypic differences between strains

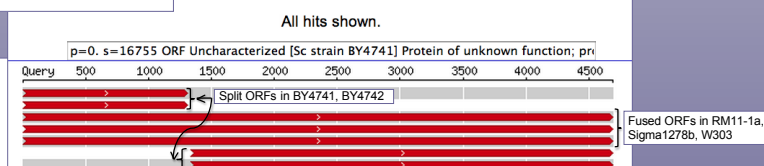
ALK2/YBL009W Phenotypes						
Summary	Locus History	Literature	Gene Ontology	Phenotype	Interactions	Expression
This page lists all curated single mutant phenotypes associated with ALK2. Click on a term in the phenotype column to see other genes associated with that term. @view phenotype terms						
Jump to: External Links						
Download Data						
12 Single Mutant Phenotype(s) for ALK2/YBL009W						
Experiment type	Mutant information	Strain background	Phenotype	Chemical	Details	References
classical genetics	Description: overexpression	S288C	cell cycle progression in G2 phase: abnormal		Details: see Table S8 for more details. Details: shift towards 2C DNA content	Sopko R. et al. (2006) Mapping pathways and phenotypes by systematic gene overexpression. Mol Cell 21(3):319-30
classical genetics	Description: overexpression	W303	cell cycle progression in M phase: arrested		Details: cells accumulate with 2C DNA content, and short thick spindles	Nespoli A. et al. (2006) Alk1 and Alk2 are two new cell cycle-regulated haspin-like proteins in budding yeast. Cell Cycle 5(13):1464-71

Strain	No. of curated phenotypes
CEN.PK	151
D273-10B	270
FL100	57
JK9-3d	104
RM11-1a	2
S288C	55851
SEY6210	350
SK1	793
Sigma1278b	1237
W303	2725
X2180-1A	285
Y55	18

Multiple strain alignments



Saccharomyces WU-BLAST2 Search



SGD tools providing access to strain genomes

Download strain sequences: <http://www.yeastgenome.org/download-data/sequence>
Discover patterns: <http://www.yeastgenome.org/cgi-bin/PATMATCH/nph-patmatch>
BLAST multiple strains: <http://www.yeastgenome.org/cgi-bin/blast-sgd.pl>
Align multiple strains: <http://www.yeastgenome.org/cgi-bin/FUNGI/alignment.pl>

Additional strains to come....

D273-10B, SEY6210, Cen.PK2-1Ca, JK9-3d alpha, SK1 (aka g833-1b), YSC1058 (aka W303), Sigma 1278B--10560-6B, Y5, FY1679

Questions? Genomes to share? Contact us!

sgd-helpdesk@lists.stanford.edu

[@yeastgenome](https://twitter.com/yeastgenome)