

***Saccharomyces cerevisiae* Deletion Strains**

Ordering information

The *S. cerevisiae* deletion strains used in this lesson were produced by the *Saccharomyces* Genome Deletion Project (SGDP). The SGDP used homologous recombination to systematically each of the predicted ORFs in the *S. cerevisiae* genome with a kanamycin resistance (*KAN^r*) gene. The SGDP produced haploid strains of both mating types as well as diploid strains, which were made available at low cost to the community through Open Biosystems. Because of mergers and acquisitions, the Open Biosystems products have been sold by a series of companies. As of July, 2014, the strains were available through GE Dharmacon as part of the Yeast Knockout Collection.

In our project, we have been using haploid strains based on BY4742 (*MAT α his3 Δ 1 leu2 Δ 0 lys2 Δ 0 ura3 Δ 0*) carrying deletion in various *MET* or *CYS* genes. Haploid knockout strains for a few *MET* loci were not produced in the first round of strain production, but were produced by sporulating diploid strains. These strains were deposited in the ATCC. Details about the SGDP are available through the [SDGP website](#).

Open Biosystems deletion strains - search by gene or locus name					
Parent					
BY4742	<i>MATα his3Δ1 leu2Δ0 lys2Δ0 ura3Δ0</i>			Catalog #	YSC-1049
Deletion strains					
Backgrnd	Type	Clone ID	Locus	Gene	
BY4742	Yeast: Knock Out	16808	YJR010W	<i>met3</i>	
BY4742	Yeast: Knock Out	14849	YKL001C	<i>met14</i>	
BY4742	Yeast: Knock Out	15582	YPR167C	<i>met16</i>	
BY4742	Yeast: Knock Out	17085	YFR030W	<i>met10</i>	
BY4742	Yeast: Knock Out	12615	YJR137C	<i>met5</i>	
BY4742	Yeast: Knock Out	15985	YKR069W	<i>met1</i>	
BY4742	Yeast: Knock Out	13353	YBR213W	<i>met8</i>	
BY4742	Yeast: Knock Out	15211	YLR303W	<i>met17</i>	
BY4742	Yeast: Knock Out	16396	YER091C	<i>met6</i>	
BY4742	Yeast: Knock Out	12497	YOR241W	<i>met7</i>	
BY4742	Yeast: Knock Out	12608	YJR130C	<i>str2</i>	
BY4742	Yeast: Knock Out	17556	YGL184C	<i>str3</i>	
ATCC supplies additional strains that were missing from the initial deletion collection					
Search by Locus number					
ATCC strain		ATCC number			
BY4742	Yeast: Knock Out	4011167	YNL277W	<i>met2</i>	
BY4742	Yeast: Knock Out	4016696	YGR155W	<i>cys4</i>	
BY4742	Yeast: Knock Out	4016865	YAL012W	<i>cys3</i>	