

Table S1. Numbers of sequence reads at each step of analysis. Raw reads include variable amounts of "adapter only" empty library. Library reads contain cloned RNA inserts. Contaminating rRNA reads made up 30% to 70% of the RPF library reads. As rRNA reads from RPF libraries map to both alleles, the fraction of allele-specific reads is reduced in RPF samples compared to mRNA samples.

mRNA Sample	Species / Allele	Raw	Library	Genome aligned	Allele-specific	ORF mapped	Normalized	Percent
Separate Parents Replicate A	<i>S. paradoxus</i>	26,819,693	14,160,104	13,668,788	9,623,380	7,195,448	7,096,639	49.96
	<i>S. cerevisiae</i>	15,288,245	13,937,492	13,644,258	10,085,330	7,472,137	7,109,313	50.04
Separate Parents Replicate B	<i>S. paradoxus</i>	15,222,810	13,364,839	13,087,419	9,434,828	7,281,735	7,190,496	49.96
	<i>S. cerevisiae</i>	15,250,639	13,978,236	13,670,183	10,084,366	7,440,143	7,201,063	50.04
Hybrid Replicate A	<i>S. paradoxus</i>	30,762,220	27,877,353	26,980,719	9,384,780	7,011,265	6,922,017	49.96
	<i>S. cerevisiae</i>				9,657,613	7,154,185	6,932,791	50.04
Hybrid Replicate B	<i>S. paradoxus</i>	27,700,697	25,067,868	24,382,810	8,741,552	6,560,924	6,454,933	49.99
	<i>S. cerevisiae</i>				8,798,257	6,599,162	6,456,613	50.01

RPF Sample	Species / Allele	Raw reads	Library Reads	Aligned reads	Allele-specific	ORF mapped	Normalized	Percent
Separate Parents Replicate A	<i>S. paradoxus</i>	43,461,865	27,640,261	26,897,784	12,661,113	11,291,673	8,904,431	49.98
	<i>S. cerevisiae</i>	41,214,129	22,555,743	22,227,255	10,526,878	9,092,017	8,910,405	50.02
Separate Parents Replicate B	<i>S. paradoxus</i>	76,161,853	36,517,084	35,509,272	7,247,861	6,199,193	6,116,133	49.95
	<i>S. cerevisiae</i>	38,244,257	27,960,534	27,568,540	10,495,172	8,827,413	6,127,161	50.05
Hybrid Replicate A	<i>S. paradoxus</i>	72,221,925	51,421,944	50,795,854	7,741,869	6,879,361	6,802,306	49.97
	<i>S. cerevisiae</i>				8,374,984	7,088,409	6,810,286	50.03
Hybrid Replicate B	<i>S. paradoxus</i>	97,125,729	62,984,843	62,255,282	8,724,669	7,700,918	7,615,853	49.97
	<i>S. cerevisiae</i>				9,313,643	7,894,827	7,624,928	50.03