

**S5 Table.** Oligonucleotides used for strain construction.

#	Name	Sequence (5' → 3')
5	pJBo9 guide rev	atagcactcactatagggcg
51	YNL011C fwd	GGGTCCACAAGTGAAATTCTACGAATAGTTGGTGGCCAGcgtttcggtgatgacggtgaaaa
52	YNL011C rev	CAATAGATGCGTCTAGAGAACCTAAAAACAATCTAGCACCCaggtgggacaatgattgcaaagg
55	YNL018C/34W guide fwd	gcagtgaaagataggtgaccAGGTTGGGCTAGACTTTCAAgttttagaagcgaaagctt
60	YNL019C/33W guide fwd	gcagtgaaagataggtgaccTGCTTTACTCCAGAGAATCAgttttagaagcgaaagctt
94	YNL018C/34W del rTOP	GTTGAAAAAATTTGCTAAAGCGTTGGTCTAATTTTATTTTGGCCACATAACCGTCAGAA
95	YNL018C/34W del rBOT	GGTTTGTTGAGCCGTGCCAACAGTTCGAACTATCAGAACTTCTGACGGTTATGTGGCA
96	YNL019C/33W del rTOP	AAACACAAGTTGATACAACGAGGCTGCAATAGCAAGAGCGTGCGCGAGAATGGAGCTGC
97	YNL019C/33W del rBOT	CATGTAGGGGTAAGTTGGTGTATGGTGTGTACAGCCAGGAGCAGCTCCATTCTCGCGCAC
99	YNL018 com guide fwd	gcagtgaaagataggtgaccAGCATAAGGTTTACGCGTTGgttttagaagcgaaagctt
113	leu2::kanmx fwd	GCTATTTGGATATTTTATATTGACTTTCGTGTACATTGATaattaaggcgccagatc
114	leu2::kanmx rev	CGTCTACCCTATGAACATATTCATTTTGTAAATTCGTGTatcgatgaattcgagctcg
120	18_19 IR rTOP	aagcctcttcggtcacctccctgtaacggcagtggaagggtaagcaaaatcgcactt
121	18_19 IR rBOT	gcttttttagacattaattttcccttatgtagctggcaagtcgatatttgcctacc
128	34_33 IR rTOP	gcactgtagtccatctaactttttacaatctggactaagaaaacttttttcaaatg
129	34_33 IR rBOT	tcgtgttctctctcaagttaactatggagacctggccattgaaaaaagttttc
167	18_19 comp RT fwd	cgtaggataaataatctcagacggttagtaagaacattgtgcttacaattgttatctgtttccacctccctcc
169	18 comp RT rev2	gcttttttagacattaattttcccttatgtagctggcaagtcgatatagctcgcgcacgctcttgctattg
171	18_19 comp RT rev2	gcttttttagacattaattttcccttatgtagctggc
172	HO comp guide fwd	gcagtgaaagataggtgaccTGCTTGATGCTTGGTCTGgttttagaagcgaaagctt
174	18_19 HO comp RT fwd	TGTTTTATCTAAATTTCTCACTGGACGTAGTGACCTTGTAACTCTGCTGattgttatctgtttccacctccctcc
175	18 HO comp RT rev	GGATCCAAGCTATCTACTGAGATTTCTGGCTCTTTTGTGTACCGTCACCagctcgcgcacgctcttgctattg
176	18_19 HO comp RT rev	GGATCCAAGCTATCTACTGAGATTTCTGGCTCTTTTGTGTACCGTCACCcagaagagagtagataaaaagccg
181	Spx 18_19 locus F	cgttaggataaataatctcagacggttagtaagaacattgtgcttacaaggtttctgttttccactccacttcac
182	Spx 18 locus R	gcttttttagacattaattttcccttatgtagctggcaagtcgatatttctcgcgatgctcttgctattg
183	Spx 18_19 locus R	gcttttttagacattaattttcccttatgtagctggcaagtcgatatttcaactcaattatattgtgaccttgc
184	Spx 18_19 HO F	TGTTTTATCTAAATTTCTCACTGGACGTAGTGACCTTGTAACTCTGCTGaaggtttctgttttccactccacttcac
186	Spx 18_19 HO R	GGATCCAAGCTATCTACTGAGATTTCTGGCTCTTTTGTGTACCGTCACCcctttcaactcaattatattgtgaccttgc