

**Table S1. Strains and oligos used in this study**

Strain	Genotype	Parent	Reference
SC5314			(Gillum et al. 1984)
<i>czf1</i> Δ	<i>czf1</i> Δ:: <i>hisG</i> / <i>czf1</i> Δ:: <i>hisG</i>	CAI4	(Brown et al. 1999)
<i>crz1</i> Δ	<i>crz1</i> Δ:: <i>hisG</i> / <i>crz1</i> Δ:: <i>hisG</i> :: <i>URA3</i> :: <i>hisG</i>	CAF4-2	(Karababa et al. 2006)
<i>gpr1</i> Δ <i>gpa2</i> Δ	<i>gpa2</i> Δ:: <i>hisG</i> / <i>gpa2</i> Δ:: <i>hisG</i> <i>gpr1</i> Δ:: <i>hisG</i> / <i>gpr1</i> Δ:: <i>hisG-URA3-hisG</i>	CAI4	(Maidan et al. 2005)
<i>xog1</i> Δ/+	<i>XOG1</i> / <i>xog1</i> Δ:: <i>frt</i>	SC5314	This study
<i>xog1</i> Δ/Δ	<i>xog1</i> Δ:: <i>frt</i> / <i>xog1</i> Δ:: <i>frt</i>	<i>xog1</i> Δ/+	This study
<i>xog1</i> Δ/ <i>XOG1</i>	<i>xog1</i> Δ:: <i>frt</i> / <i>xog1</i> Δ:: <i>frt RPS1/RPS1::XOG1-NAT1</i>	<i>xog1</i> Δ/Δ	This study

  

Oligo	Sequence <sup>a</sup>	Description
DCO58	agtactgaaggtaccGAGTTCAACCAGCTTTTC	5' <i>XOG1</i> primer for 5' <i>XOG1</i> 'outer' flank with <i>KpnI</i> site for cloning into <i>SAT</i> flipper
DCO59	agtactgaactcgagGAAATTCAGAAATTCAGG	3' <i>XOG1</i> primer for 5' <i>XOG1</i> 'outer' flank with <i>XhoI</i> site for cloning into <i>SAT</i> flipper
DCO54	agtactgaaggtaccCCAAAAGTTTCATTATTCC	5' <i>XOG1</i> primer for 5' <i>XOG1</i> 'inner' flank with <i>KpnI</i> site for cloning into <i>SAT</i> flipper
DCO55	agtactgaactcgagAGCTGATTATGTATTAATC	3' <i>XOG1</i> primer for 5' <i>XOG1</i> 'inner' flank with <i>XhoI</i> site for cloning into <i>SAT</i> flipper
DCO56	agtactgaagcggccgcCGTCTTGATTCTACAAGAGC	5' <i>XOG1</i> primer for 3' <i>XOG1</i> flank with <i>NotI</i> site for cloning into <i>SAT</i> flipper
DCO57	agtactgaaccgcggGAAAAATACAACAAAGCG	3' <i>XOG1</i> primer for 3' <i>XOG1</i> flank with <i>SacII</i> site for cloning into <i>SAT</i> flipper
DCO53	agtactgaaccgcggCAAACCAGTAGATGACAGC	5' <i>XOG1</i> primer for cloning <i>XOG1</i> , 2 kb promoter, and 500 bp terminator into <i>Clp-NAT</i> with <i>SacII</i> site
DCO49	agtactgaagcggccgcGTATCTAAACTAACGTGG	3' <i>XOG1</i> primer for cloning <i>XOG1</i> , 2 kb promoter, and 500 bp terminator into <i>Clp-NAT</i> with <i>SacII</i> site
DCO39	GAAAGACCAAGTCGCTTGC	5' <i>XOG1</i> <i>SAT</i> flipper integration check
DCO64	CGACTACATCAATGAAATCC	3' <i>SAT</i> flipper integration check
DCO43	CTTTTGAATACACTGGAGGC	5' <i>XOG1</i> ORF check
DCO44	AGTGAATACTTTTTTGGC	3' <i>XOG1</i> ORF check

<sup>a</sup> Lowercase bases indicate flanking sequences within primers that contain restriction sites for cloning.