S1 Table. Yeast strains for ramp mutants. Yeast strains for ramp mutants. Strains used in this study were generated as described in Methods. The table includes the name, strain ID, colony number, and genotype for each yeast strain used in this study. The first thirty nucleotides of the candidate gene sequence is included for each strain, with deviations from wildtype sequence highlighted in red lettering.

Strain ID	Colony Number	Mutant	Genotype	Sequence
YMW001	1	*SKN7-TAP-URA3*	**MATa** *his3*Δ1 *leu2*Δ0 *met15*Δ0 *SKN7-TAP-URA3*	ATGAGCTTTTCCACCA TAAATAGCAACGTC
YMW002	2	*SKN7-TAP-URA3*	**MATa** *his3*Δ1 *leu2*Δ0 *met15*Δ0 *SKN7-TAP-URA3*	ATGAGCTTTTCCACCA TAAATAGCAACGTC
YMW003	1	*HMT1-TAP-URA3*	**MATa** *his3*Δ1 *leu2*Δ0 *met15*Δ0 *SKN7-TAP-URA3*	ATGAGCAAGACAGCC GTGAAAGATTCTGCT
YMW004	2	*HMT1-TAP-URA3*	**MATa** *his3*Δ1 *leu2*Δ0 *met15*Δ0 *HMT1-TAP-URA3*	ATGAGCAAGACAGCC GTGAAAGATTCTGCT
YMW005	1	*skn7::kanMX6*	**MATa** *his3*Δ1 *leu2*Δ0 *met15*Δ0 *skn7::kanMX6-TAP-URA3*	ATGAGCTTTTCCACCA TAAATAGCAACGTC
YMW006	2	*skn7::kanMX6*	**MATa** *his3*Δ1 *leu2*Δ0 *met15*Δ0 *skn7::kanMX6-TAP-URA3*	ATGAGCTTTTCCACCA TAAATAGCAACGTC
YMW007	1	*skn7::hphMX4*	**MATa** *his3*Δ1 *leu2*Δ0 *met15*Δ0 *skn7::hphMX4-TAP-URA3*	ATGAGCTTTTCCACCA TAAATAGCAACGTC
YMW008	2	*skn7::hphMX4*	**MATa** *his3*Δ1 *leu2*Δ0 *met15*Δ0 *skn7::hphMX4-TAP-URA3*	ATGAGCTTTTCCACCA TAAATAGCAACGTC
YMW009	1	*hmt1::kanMX6*	**MATa** *his3*Δ1 *leu2*Δ0 *met15*Δ0 *hmt1::kanMX6-TAP-URA3*	ATGAGCAAGACAGCC GTGAAAGATTCTGCT
YMW010	2	*hmt1::kanMX6*	**MATa** *his3*Δ1 *leu2*Δ0 *met15*Δ0 *hmt1::kanMX6-TAP-URA3*	ATGAGCAAGACAGCC GTGAAAGATTCTGCT

YMW011	1	*hmt1::hphMX4*	**MATa** *his3*Δ1 *leu2*Δ0 *met15*Δ0 *hmt1::hphMX4-TAP-URA3*	ATGAGCAAGACAGCC GTGAAAGATTCTGCT
YMW012	2	*hmt1::hphMX4*	**MATa** *his3*Δ1 *leu2*Δ0 *met15*Δ0 *hmt1::hphMX4-TAP-URA3*	ATGAGCAAGACAGCC GTGAAAGATTCTGCT
YMW013	H1	*SKN7::G2*	**MATa** *his3*Δ1 *leu2*Δ0 *met15*Δ0 *skn7::G2-TAP-URA3*	ATGAGCTTTTGCAGCA GAAGTAGCAACGTC
YMW014	H3	*SKN7::G2*	**MATa** *his3*Δ1 *leu2*Δ0 *met15*Δ0 *skn7::G2-TAP-URA3*	ATGAGCTTTTGCAGCA GAAGTAGCAACGTC
YMW015	A1	*SKN7::G2*	**MATa** *his3*Δ1 *leu2*Δ0 *met15*Δ0 *skn7::G2-TAP-URA3*	ATGAGCTTTTGCAGCA GAAGTAGCAACGTC
YMW016	A2	*SKN7::G2*	**MATa** *his3*Δ1 *leu2*Δ0 *met15*Δ0 *skn7::G2-TAP-URA3*	ATGAGCTTTTGCAGCA GAAGTAGCAACGTC
YMW017	2	*SKN7::GCNi*	**MATa** *his3*Δ1 *leu2*Δ0 *met15*Δ0 *skn7::GCNi-TAP-URA3*	ATGAGCTTAGCAGCAG CCTTTTCCACCATA
YMW018	3A	*SKN7::GCNi*	**MATa** *his3*Δ1 *leu2*Δ0 *met15*Δ0 *skn7::GCNi-TAP-URA3*	ATGAGCTTAGCAGCAG CCTTTTCCACCATA
YMW019	6	*SKN7::GCNi*	**MATa** *his3*Δ1 *leu2*Δ0 *met15*Δ0 *skn7::GCNi-TAP-URA3*	ATGAGCTTAGCAGCAG CCTTTTCCACCATA
YMW020	7	*SKN7::GCNi*	**MATa** *his3*Δ1 *leu2*Δ0 *met15*Δ0 *skn7::GCNi-TAP-URA3*	ATGAGCTTAGCAGCAG CCTTTTCCACCATA
YMW021	5A	*SKN7::GCNpm*	**MATa** *his3*Δ1 *leu2*Δ0 *met15*Δ0 *skn7::GCNpm-TAP-URA3*	ATGAGCGCCTCCACCA TAGCAGCCAACGTC
YMW022	8	*SKN7::GCNpm*	**MATa** *his3*Δ1 *leu2*Δ0 *met15*Δ0 *skn7::GCNpm-TAP-URA3*	ATGAGCGCCTCCACCA TAGCAGCCAACGTC
YMW023	A	*SKN7::GCNpm*	**MATa** *his3*Δ1 *leu2*Δ0 *met15*Δ0	ATGAGCGCCTCCACCA TAGCAGCCAACGTC

			skn7::GCNpm-TAP-URA3	
YMW024	F	*SKN7::GCNpm*	**MATa** *his3*Δ1 *leu2*Δ0 *met15*Δ0 *skn7::GCNpm-TAP-URA3*	ATGAGCGCCTCCACCA TAGCAGCCAACGTC
YMW025	5A	*SKN7::A-rich*	**MATa** *his3*Δ1 *leu2*Δ0 *met15*Δ0 *skn7::A-rich-TAP-URA3*	ATGAGCAAAAAAAGCA AAAATAGCAACGTC
YMW026	5B	*SKN7::A-rich*	**MATa** *his3*Δ1 *leu2*Δ0 *met15*Δ0 *skn7::A-rich-TAP-URA3*	ATGAGCAAAAAAAGCA AAAATAGCAACGTC
YMW027	6A	*SKN7::A-rich*	**MATa** *his3*Δ1 *leu2*Δ0 *met15*Δ0 *skn7::A-rich-TAP-URA3*	ATGAGCAAAAAAAGCA AAAATAGCAACGTC
YMW028	8	*SKN7::A-rich*	**MATa** *his3*Δ1 *leu2*Δ0 *met15*Δ0 *skn7::A-rich-TAP-URA3*	ATGAGCAAAAAAAGCA AAAATAGCAACGTC
YMW029	1	*HMT1::G2*	**MATa** *his3*Δ1 *leu2*Δ0 *met15*Δ0 *hmt1::G2-TAP-URA3*	ATGAGCAAGCGAGGC GGCAGAGATTCTGCT
YMW030	2	*HMT1::G2*	**MATa** *his3*Δ1 *leu2*Δ0 *met15*Δ0 *hmt1::G2-TAP-URA3*	ATGAGCAAGCGAGGC GGCAGAGATTCTGCT
YMW031	3	*HMT1::G2*	**MATa** *his3*Δ1 *leu2*Δ0 *met15*Δ0 *hmt1::G2-TAP-URA3*	ATGAGCAAGCGAGGC GGCAGAGATTCTGCT
YMW032	5	*HMT1::G2*	**MATa** *his3*Δ1 *leu2*Δ0 *met15*Δ0 *hmt1::G2-TAP-URA3*	ATGAGCAAGCGAGGC GGCAGAGATTCTGCT
YMW033	1	*HMT1::GCNpm*	**MATa** *his3*Δ1 *leu2*Δ0 *met15*Δ0 *hmt1::GCNpm-TAP-URA3*	ATGAGCACGGCAGCA GTAGCAGATTCTGCT
YMW034	2	*HMT1::GCNpm*	**MATa** *his3*Δ1 *leu2*Δ0 *met15*Δ0 *hmt1::GCNpm-TAP-URA3*	ATGAGCACGGCAGCA GTAGCAGATTCTGCT
YMW035	3	*HMT1::GCNpm*	**MATa** *his3*Δ1 *leu2*Δ0 *met15*Δ0 *hmt1::GCNpm-TAP-URA3*	ATGAGCACGGCAGCA GTAGCAGATTCTGCT

YMW036	4	*HMT1::GCNpm*	**MATa** *his3*Δ1 *leu2*Δ0 *met15*Δ0 *hmt1::GCNpm-TAP-URA3*	ATGAGCACGGCAGCAGTAGCAGATTCTGCT
YMW037	2	*HMT1::C1*	**MATa** *his3*Δ1 *leu2*Δ0 *met15*Δ0 *hmt1::C1-TAP-URA3*	ATGAGCCAGCAGCTGCTGAAAGATTCTGCT
YMW038	3	*HMT1::C1*	**MATa** *his3*Δ1 *leu2*Δ0 *met15*Δ0 *hmt1::C1-TAP-URA3*	ATGAGCCAGCAGCTGCTGAAAGATTCTGCT
YMW039	4	*HMT1::C1*	**MATa** *his3*Δ1 *leu2*Δ0 *met15*Δ0 *hmt1::C1-TAP-URA3*	ATGAGCCAGCAGCTGCTGAAAGATTCTGCT
YMW040	7	*HMT1::C1*	**MATa** *his3*Δ1 *leu2*Δ0 *met15*Δ0 *hmt1::C1-TAP-URA3*	ATGAGCCAGCAGCTGCTGAAAGATTCTGCT