

Supplemental Table 2. List of yeast strains used in this study

| Strain | Background | Genotype | Source |
|--------|------------|---|----------------------------|
| K601 | W303 [a] | <i>MATa</i> | Cunningham and Fink (1996) |
| K605 | W303 | <i>MATa pmc1::TRP1</i> | Cunningham and Fink (1996) |
| K661 | W303 | <i>MATa vcx1Δ</i> | Cunningham and Fink (1996) |
| K665 | W303 | <i>MATa pmc1::TRP1 vcx1Δ</i> | Cunningham and Fink (1996) |
| K1801 | W303 | <i>MATa</i> | This Study |
| K1802 | W303 | <i>MATa stv1::KanR</i> | This Study |
| K1803 | W303 | <i>MATa vph1::NatR</i> | This Study |
| K1804 | W303 | <i>MATa vph1::NatR stv1::KanR</i> | This Study |
| K1805 | W303 | <i>MATa gdt1::HIS3</i> | This Study |
| K1806 | W303 | <i>MATa gdt1::HIS3 stv1::KanR</i> | This Study |
| K1807 | W303 | <i>MATa gdt1::HIS3 vph1::NatR</i> | This Study |
| K1808 | W303 | <i>MATa gdt1::HIS3 vph1::NatR stv1::KanR</i> | This Study |
| K1809 | W303 | <i>MATa vcx1Δ</i> | This Study |
| K1810 | W303 | <i>MATa vcx1Δ stv1::KanR</i> | This Study |
| K1811 | W303 | <i>MATa vcx1Δ vph1::NatR</i> | This Study |
| K1812 | W303 | <i>MATa vcx1Δ vph1::NatR stv1::KanR</i> | This Study |
| K1813 | W303 | <i>MATa vcx1Δ gdt1::HIS3</i> | This Study |
| K1814 | W303 | <i>MATa vcx1Δ gdt1::HIS3 stv1::KanR</i> | This Study |
| K1815 | W303 | <i>MATa vcx1Δ gdt1::HIS3 vph1::NatR</i> | This Study |
| K1816 | W303 | <i>MATa vcx1Δ gdt1::HIS3 vph1::NatR stv1::KanR</i> | This Study |
| K1817 | W303 | <i>MATa</i> | This Study |
| K1818 | W303 | <i>MATa stv1::KanR</i> | This Study |
| K1819 | W303 | <i>MATa vph1::NatR</i> | This Study |
| K1820 | W303 | <i>MATa vph1::NatR stv1::KanR</i> | This Study |
| K1821 | W303 | <i>MATa gdt1::HIS3</i> | This Study |
| K1822 | W303 | <i>MATa gdt1::HIS3 stv1::KanR</i> | This Study |
| K1823 | W303 | <i>MATa gdt1::HIS3 vph1::NatR</i> | This Study |
| K1824 | W303 | <i>MATa gdt1::HIS3 vph1::NatR stv1::KanR</i> | This Study |
| K1825 | W303 | <i>MATa vcx1Δ</i> | This Study |
| K1826 | W303 | <i>MATa vcx1Δ stv1::KanR</i> | This Study |
| K1827 | W303 | <i>MATa vcx1Δ vph1::NatR</i> | This Study |
| K1828 | W303 | <i>MATa vcx1Δ vph1::NatR stv1::KanR</i> | This Study |
| K1829 | W303 | <i>MATa vcx1Δ gdt1::HIS3</i> | This Study |
| K1830 | W303 | <i>MATa vcx1Δ gdt1::HIS3 stv1::KanR</i> | This Study |
| K1831 | W303 | <i>MATa vcx1Δ gdt1::HIS3 vph1::NatR</i> | This Study |
| K1832 | W303 | <i>MATa vcx1Δ gdt1::HIS3 vph1::NatR stv1::KanR</i> | This Study |
| K1833 | W303 | <i>MATa</i> | This Study |
| K1834 | W303 | <i>MATa</i> | This Study |
| K1841 | W303 | <i>MATa gdt1::HIS3</i> | This Study |
| K1842 | W303 | <i>MATa gdt1::HIS3</i> | This Study |
| K1849 | W303 | <i>MATa pmc1::LEU2</i> | This Study |
| K1850 | W303 | <i>MATa pmc1::LEU2</i> | This Study |
| K1857 | W303 | <i>MATa pmc1::LEU2 gdt1::HIS3</i> | This Study |
| K1858 | W303 | <i>MATa pmc1::LEU2 gdt1::HIS3</i> | This Study |
| K1865 | W303 | <i>MATa vcx1Δ pmc1::LEU2</i> | This Study |
| K1866 | W303 | <i>MATa vcx1Δ pmc1::LEU2</i> | This Study |
| K1873 | W303 | <i>MATa vcx1Δ pmc1::LEU2 gdt1::HIS3</i> | This Study |
| K1874 | W303 | <i>MATa vcx1Δ pmc1::LEU2 gdt1::HIS3</i> | This Study |
| K1883 | W303 | <i>MATa vcx1Δ pmc1::TRP1 crz1::KanR</i> | This Study |
| CTS05 | W303 | <i>MATa</i> | This Study |
| CTS06 | W303 | <i>MATa</i> | This Study |
| CTS09 | W303 | <i>MATa gdt1::HIS3</i> | This Study |
| CTS10 | W303 | <i>MATa gdt1::HIS3</i> | This Study |
| CTS13 | W303 | <i>MATa pmr1::LEU2</i> | This Study |
| CTS14 | W303 | <i>MATa pmr1::LEU2</i> | This Study |
| CTS17 | W303 | <i>MATa pmr1::LEU2 gdt1::HIS3</i> | This Study |
| CTS18 | W303 | <i>MATa pmr1::LEU2 gdt1::HIS3</i> | This Study |
| AK011 | W303 | <i>MATa vph1::NatR</i> | This Study |
| AK012 | W303 | <i>MATa pmc1::TRP1 vph1::NatR</i> | This Study |
| AK013 | W303 | <i>MATa pmc1::TRP1 vcx1Δ vph1::NatR</i> | This Study |
| AK014 | W303 | <i>MATa vcx1Δ vph1::NatR</i> | This Study |
| NS001 | W303 | <i>MATa vcx1Δ</i> | This Study |
| NS002 | W303 | <i>MATa vcx1Δ</i> | This Study |
| NS118 | W303 | <i>MATa erd1::NatR</i> | This Study |
| NS119 | W303 | <i>MATa erd1::NatR</i> | This Study |
| NS185 | W303 | <i>MATa pho84::TRP1</i> | This Study |
| NS186 | W303 | <i>MATa pho84::TRP1</i> | This Study |
| NS187 | W303 | <i>MATa erd1::NatR pho84::TRP1</i> | This Study |
| NS188 | W303 | <i>MATa erd1::NatR pho84::TRP1</i> | This Study |
| EY916 | W303 | <i>MATa pho84Δ::HIS3 pho87Δ::CgHIS3 pho89Δ::CgHIS3 pho90Δ::CgHIS3 pho91Δ::KIURA3</i> | Wykoff and O'Shea (2001) |
| NS229 | W303 | <i>MATa pho84Δ::HIS3 pho87Δ::CgHIS3 pho89Δ::CgHIS3 pho90Δ::CgHIS3 pho91Δ::KIURA3 erd1::NatR</i> | This Study |
| TSA36 | BY4741 | <i>MATa sec1-1::KanR</i> | Li et al. (2011) |
| NS227 | BY4741 | <i>MATa sec1-1::KanR erd1::NatR</i> | This Study |
| | BY4741 | <i>MATa VRG4-TAP-AID-6xFLAG::TIR1::URA3</i> | This Study |
| NS228 | BY4741 | <i>MATa VRG4-TAP-AID-6xFLAG::TIR1::URA3 erd1::NatR</i> | This Study |

[a] background mutations in W303 (*leu2-3,112 trp1-1 can1-100 ura3-1 ade2-1 his3-11,15*)

[b] background mutations in BY4741 (*his3Δ1 leu2Δ0 met15Δ0 ura3Δ0*)