

**S3 Table. *S. cerevisiae* strains used in this study**

Strain name	Parent strain	Genotype	Source
YTD 386	AA 527	<i>trm8Δ::natMX trm4Δ::kanMX</i>	[1]
YTD 558	YTD 386	<i>trm8Δ::natMX trm4Δ::BleMX</i>	This study
YTD 559	YTD 558	<i>trm8Δ::natMX trm4Δ::BleMX gcn2Δ::KanMX</i>	This study
YTD 561	YTD 566	<i>gcn2Δ::KanMX</i>	This study
YTD 562	AA 413	<i>trm8Δ::NatMX</i>	This study
YTD 563	YLN 5	<i>trm1Δ::BleMX</i>	This study
YTD 564	ISC 188	<i>tan1Δ::KanMX</i>	This study
YTD 565	ISC 834	<i>tan1Δ::KanMX trm44Δ::natMX</i>	[2]
YTD 566	ISC 534	WT MATa	This study
YTD 567	YTD 558	<i>trm8Δ::natMX trm4Δ::BleMX gcn1Δ::KanMX</i>	This study
YTD 568	YTD 558	<i>trm8Δ::natMX trm4Δ::BleMX gcn4Δ::KanMX</i>	This study
YTD 569	YTD 562	<i>trm8Δ::NatMX gcn2Δ::KanMX</i>	This study
YTD 570	YTD 563	<i>trm1Δ::NatMX gcn2Δ::KanMX</i>	This study
YTD 571	YTD 564	<i>tan1Δ::BleMX</i>	This study
YTD 572	YTD 565	<i>tan1Δ::BleMX trm44Δ::natMX</i>	This study
YTD 573	YTD 566	<i>gcn1Δ::KanMX</i>	This study
YTD 574	YTD 566	<i>gcn4Δ::HygMX</i>	This study
YTD 575	YTD 559	<i>trm8Δ trm4Δ gcn2Δ met22Δ::HygMX</i>	This study
YTD 576	YTD 571	<i>tan1Δ::BleMX gcn2Δ::KanMX</i>	This study
YTD 577	YTD 572	<i>tan1Δ::BleMX trm44Δ::natMX gcn2Δ::KanMX</i>	This study

### References

- Alexandrov A, Chernyakov I, Gu W, Hiley SL, Hughes TR, Grayhack EJ, et al. Rapid tRNA decay can result from lack of nonessential modifications. *Mol Cell*. 2006;21(1):87-96.
- Kotelawala L, Grayhack EJ, Phizicky EM. Identification of yeast tRNA Um(44) 2'-O-methyltransferase (Trm44) and demonstration of a Trm44 role in sustaining levels of specific tRNA(Ser) species. *RNA*. 2008;14(1):158-69.