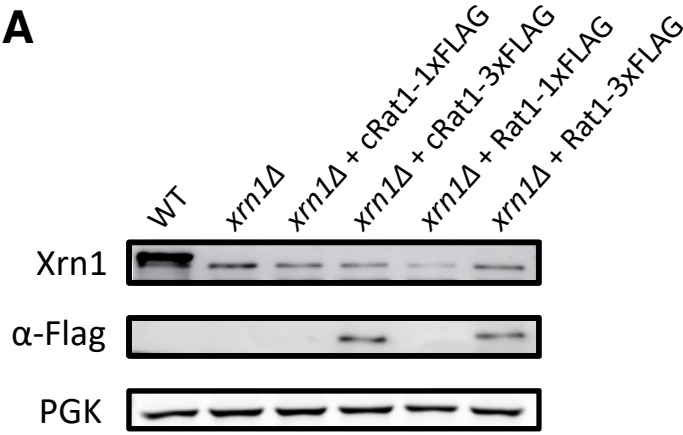


Figure S1

A



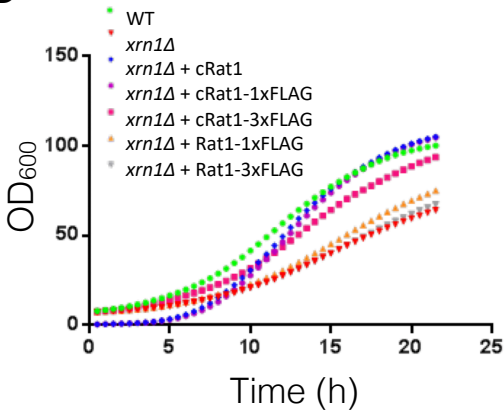
B

Strain	mRNA Half-life (min)	
	RPL25	ACT1
<i>wt</i>	18	50
<i>wt</i> +cRat1-3xFLAG	19	44
<i>xrn1Δ</i>	89	83
<i>xrn1Δ</i> +cRat1-3xFLAG	20	49

C

Strain	Relative cell volume	Rel. global poly(A) half-life	Rel. global [mRNA]
<i>wt</i>	1.00	1.00	1.00
<i>wt</i> +cRat1-3xFLAG	1.19±0.06	1.13±0.20	1.77
<i>xrn1Δ</i>	1.54±0.11	4.81±0.69	0.96
<i>xrn1Δ</i> +cRat1-3xFLAG	1.17	1.79±0.03	1.31

D



E

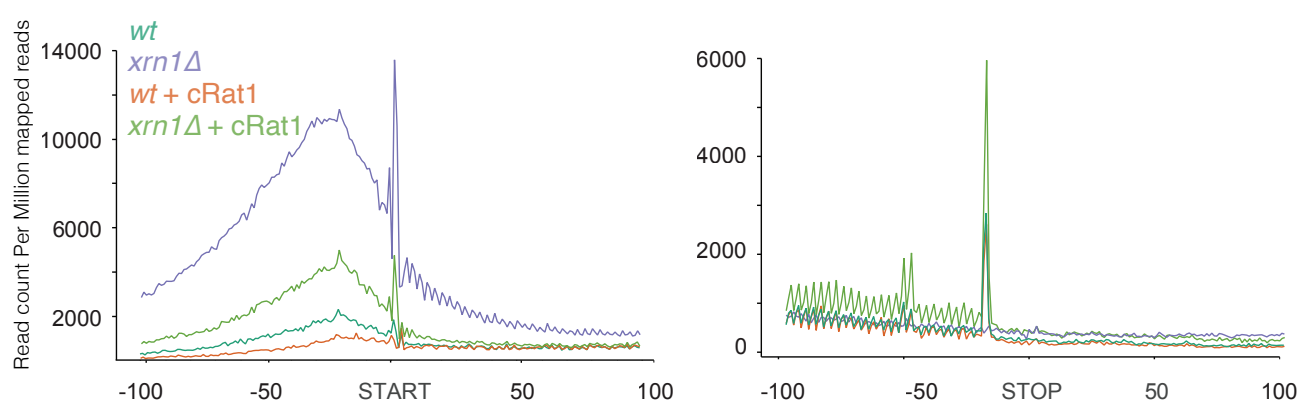
Strain	SC-ura Relative Generation time	Relative Cell Volume
<i>wt</i> + YCpLac33	1.00	1.00
<i>xrn1Δ</i> + YCpLac33	1.43 ± 0.32	1.77 ± 0.06
<i>xrn1Δ</i> + pBBM3 (cRat1)	1.18 ± 0.21 ^{n.s}	1.25 ± 0.06***
<i>wt</i> + pRS426	1.05 ± 0.09	0.95 ± 0.04
<i>xrn1Δ</i> + pRS426	1.82 ± 0.49	1.97 ± 0.08
<i>xrn1Δ</i> + pRScRAT1 (cRat1)	1.20 ± 0.20*	1.25 ± 0.12**

F

Strain	RAT1 mRNA levels	cRAT1 mRNA levels
<i>wt</i> + YCpLac33	1.00	-
<i>xrn1Δ</i> + YCpLac33	2.16 ± 0.29	-
<i>xrn1Δ</i> + pBBM3 (cRat1)	1.59 ± 0.30 ^{n.s}	1.00
<i>wt</i> + pRS426	0.85 ± 0.06	-
<i>xrn1Δ</i> + pRS426	0.75 ± 0.03	-
<i>xrn1Δ</i> + pRScRAT1 (cRat1)	1.51 ± 0.37 ^{n.s}	51.46 ± 15.81**

Figure S2

A



B

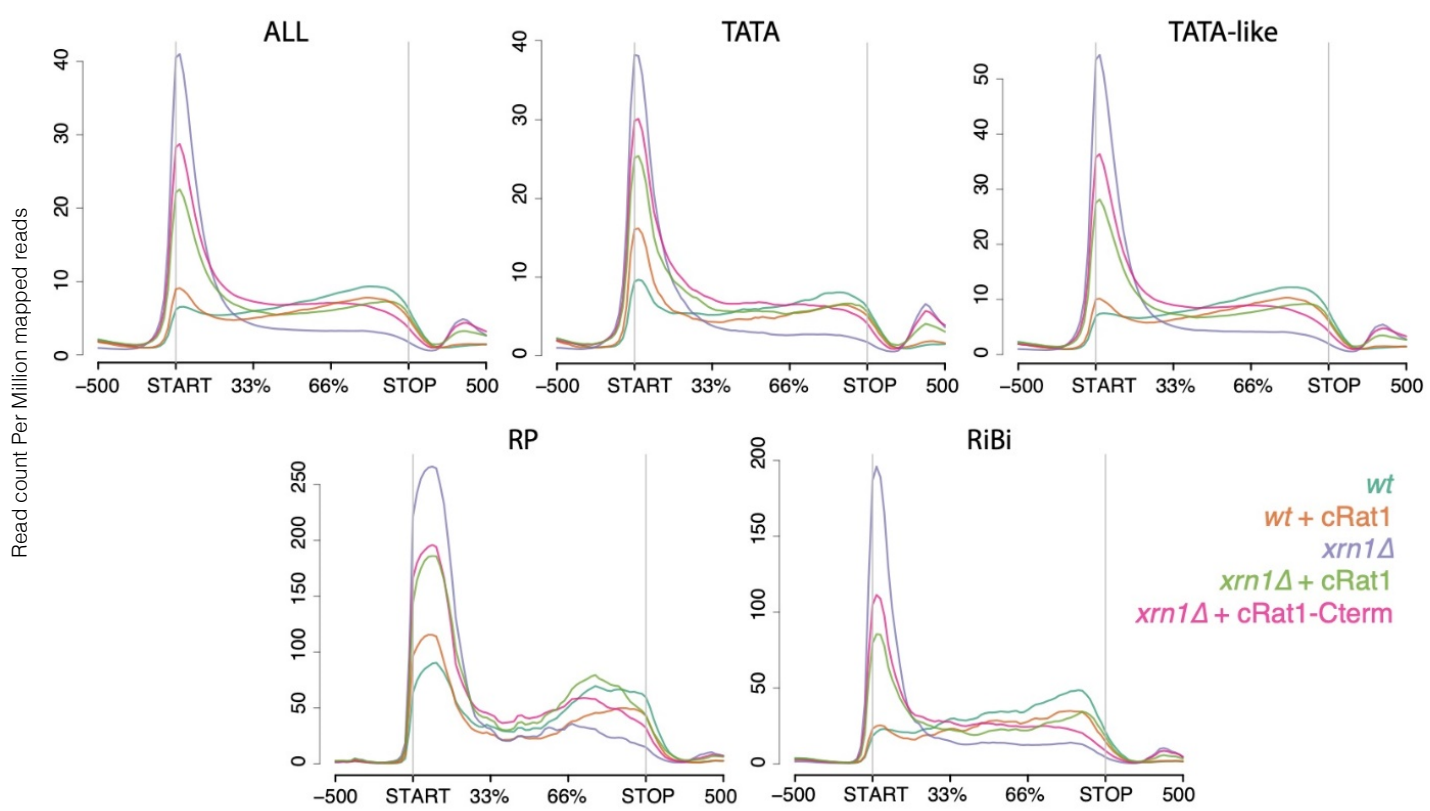


Figure S3

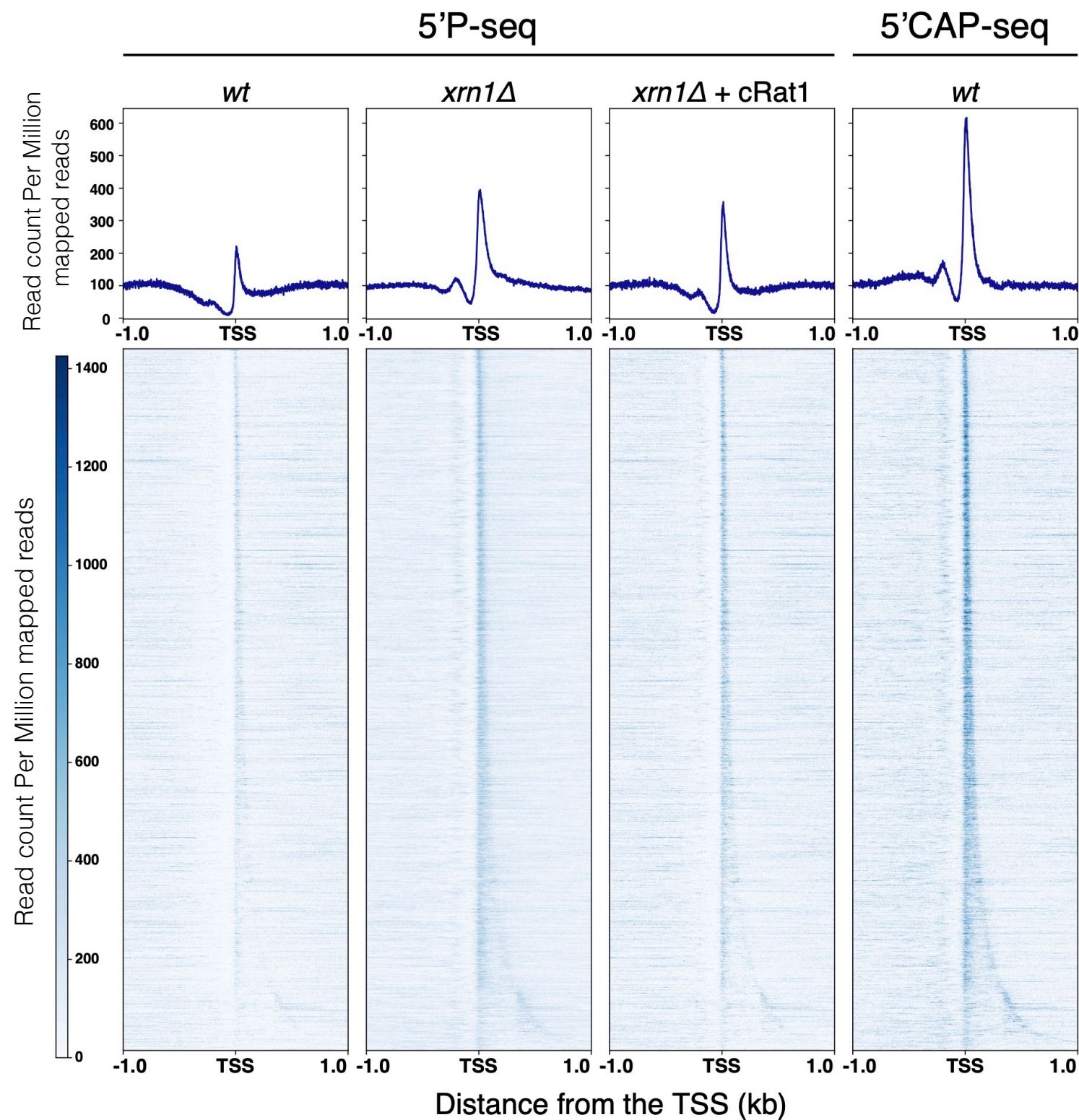


Figure S4

