

Table S4. Nucleus and nucleolus sizes of different strains used in this study

Telomere/condition	Arm length, kb	Mean radius, $\mu\text{m}$	$V_{\text{nucleus}}, \mu\text{m}^3$	$V_{\text{nucleolus}}, \mu\text{m}^3$	$V_{\text{nucleoplasmic}}, \mu\text{m}^3$	$V_{\text{nucleolus}}$ fraction, %	$n$
Tel-9R	85	1.2	6.8	1.3	5.5	19.4	2,057
Tel-6R	122	1.1	5.6	1.2	4.4	22.1	1,222
Tel-6L	148	1.1	5.5	1.3	4.2	23.3	1,797
Tel-1L	150	1.1	5.5	1.2	4.3	22.4	1,183
Tel-14R	157	1.1	6.4	1.4	5.0	22.2	3,287
Tel-10R	310	1.1	5.8	1.3	4.4	23.4	1,840
Tel-5R	430	1.2	6.7	1.5	5.2	22.2	2,048
Tel-11L	440	1.1	6.2	1.2	5.0	19.0	2,018
Tel-13R	658	1.1	5.9	1.2	4.7	20.8	3,308
Tel-15R	705	1.1	5.8	1.2	4.7	20.0	3,443
Tel-4R	1,050	1.2	6.5	1.4	5.1	21.7	4,113
Tel-9R + rapamycin	85	1.2	6.3	0.6	5.7	9.4	813
Tel-9R (control)	85	1.1	6.3	1.2	5.1	18.8	1,005
Tel-6R + rapamycin	122	1.1	6.1	0.6	5.4	10.6	1,199
Tel-6R (control)	122	1.1	6.1	1.2	4.9	20.0	1,791
Tel-10R + rapamycin	310	1.1	5.4	0.6	4.8	10.9	1,862
Tel-10R (control)	310	1.1	5.3	1.1	4.2	21.0	930
Tel-11L + rapamycin	440	1.1	5.7	0.6	5.1	10.5	1,559
Tel-11L (control)	440	1.1	5.8	1.2	4.7	19.7	1,063
Tel-13R + rapamycin	658	1.1	5.8	0.7	5.1	12.1	1,377
Tel-13R (control)	658	1.2	6.4	1.2	5.2	18.7	1,029
Tel-4R + rapamycin	1,050	1.1	5.9	0.6	5.3	10.7	1,214
Tel-4R (control)	1,050	1.1	6.1	1.2	4.9	20.2	1,190

All values indicated are the mean of the distributions.  $V_{\text{nucleoplasmic}}$  corresponds to the nuclear volume minus the nucleolar volume. The  $V_{\text{nucleolus}}$  fraction is the proportion of the total nuclear volume occupy by the nucleolus.