

**Table S13.**

		$q1_{\Delta r}$ (count)	$q2_{\Delta r}$	$q3_{\Delta r}$	$q4_{\Delta r}$	$\chi^2$ test P value (Bonferroni correction)
<b>A.</b> charge score	1	578	630	700	766	1.3e-06 (3.8e-06)
	0	270	256	255	242	0.67
	-1	496	457	388	335	5.2e-08 (1.6e-07)
	Binomial test on +1 and -1 charge score counts, P value (Bonferroni correction)	0.013 (0.052)	1.7e-07 (6.8e-07)	< 2.2e-16 (8.8e-16)	< 2.2e-16 (8.8e-16)	-
<b>B.</b> tAI score	1	576	600	601	551	0.41
	0	0	0	0	0	-
	-1	768	743	742	792	0.53
	Binomial test on +1 and -1 tAI score counts, P value (Bonferroni correction)	1.8e-07 (7.2e-07)	0.00011 (0.00042)	0.00013 (0.00053)	5.2e-11 (2.1e-10)	-
<b>C.</b> rare pair score <i>rare 6-mer score</i>	1	180 257	184 205	160 177	92 115	9.9e-08 (3.0e-07) 4.8e-12 (1.4e-11)
	0	904 712	907 711	958 730	1101 868	7.6e-06 (2.3e-05) 4.6e-05 (0.00014)
	-1	260 375	252 427	225 436	150 360	2.0e-07 (6.0e-07) 0.014 (0.042)
	Binomial test on +1 and -1 rare pair score counts, P value (Bonferroni correction)	0.00016 (0.00064) 3.1e-06 (1.2e-05)	0.0013 (0.0052) <2.2e-16 (8.8e-16)	0.0011 (0.0044) <2.2e-16 (8.8e-16)	0.00023 (0.00092) <2.2e-16 (8.8e-16)	-
<b>C.</b> PARS score <i>conservative PARS score</i>	1	88 301	88 269	88 289	59 304	0.05 0.46
	0	491 0	510 0	516 0	554 0	0.26 -
	-1	155 433	136 465	130 445	121 430	0.21 0.64
	Binomial test on +1 and -1 rare pair score counts, P value (Bonferroni correction)	2.1e-05 (8.2e-05) 1.2e-06 (5.0e-05)	0.0016 (0.0065) 4.5e-13 (1.8e-12)	0.0054 (0.022) 9.4e-09 (4.4e-06)	4.4e-06 (1.8e-05) 3.8e-06 (1.5e-05)	-

**Table S13. Table 1 done again, allowing the lower-occupancy window to have a ribosomal occupancy of 0.**