

Table S1A Estimated mass of protein/mRNA for different ratios of protein to RNA

mRNA length	g/mole RNA MW	Protein if: 50% protein :50% RNA	Protein if: 60% protein :40% RNA	Protein if: 70% protein :30% RNA	Protein if: 80% protein :20% RNA
500	165,000	165,000	247,500	385,000	660,000
1,000	330,000	330,000	500,000	770,000	1.32 x 10 ⁶
3,000	1 x 10 ⁶	1 x 10 ⁶	1.5 x 10 ⁶	2.31 x 10 ⁶	3.96 x 10 ⁶
10,000	3.3 x 10 ⁶	3.3 x 10 ⁶	5 x 10 ⁶	7.7 x 10 ⁶	1.32 x 10 ⁷
20,000	6.6 x 10 ⁶	6.6 x 10 ⁶	1 x 10 ⁷	1.54 x 10 ⁷	2.64 x 10 ⁷
100,000	3.3 x 10 ⁷	3.3 x 10 ⁷	5 x 10 ⁷	7.7 x 10 ⁷	1.32 x 10 ⁸

Table S1B Extrapolation of RNP composition to bound proteins and recognized RNA

	Composition	Mass of Protein	Mass of Protein - Core	Possible Protein Mix	Proteins kb	RNA bounds/kb	% RNA bound
A) 3000 base mRNA	40% RNA :60% protein	1.5×10^6	1×10^6	a) 10 100 KD b) 20 50 KD c) 40 25 KD	3.3 6.6 13.3	33 66 133	3.3 6.6 13.3
	20% RNA :80% Protein	3.6×10^6	3.5×10^6	a) 35 100 KD b) 70 50 KD c) 140 25 KD	11.7 23.3 47	117 233 470	12% 23% 47%
B) 10,000 base mRNA	40% RNA :60% Protein	5×10^6	4.5×10^6	a) 45 100 KD b) 90 50 KD c) 180 25 KD	4.5 9.0 18.0	45 90 180	45% 9% 18%
	20% RNA :80% Protein	1.32×10^7	1.27×10^7	a) 127 100 KD b) 254 50 KD c) 508 25 KD	12.7 25.4 50.8	127 254 508	12.7% 25.4% 50%

Assumption: Any RNA-BP covers 10 bases