

TABLE 1. RNA and protein content at different temperatures

Temp (°C)	Expt no.	Growth rate (doublings/h)	Stable RNA, R_s			Protein, P			R_s/P nucl./100 aa		
			A_{260}/OD_{460}^a	10^{16} nucl./ OD_{460}^b	$\mu\text{g}/OD_{460}^c$	A_{750}/OD_{460}^d	10^{17} aa/ OD_{460}^e	$\mu\text{g}/OD_{460}^f$			
21	1	0.42	1.04	1.08	5.9	32	0.51	0.50	5.7	102	10.3
	2	0.42	1.10				0.46				
	3	0.42	1.10				0.52				
25	4	0.72	1.09	1.11	6.0	32	0.56	0.55	6.2	112	9.7
	5	0.73	1.12				0.54				
	6	0.71	1.11				1.55				
30	7	0.95	1.19	1.19	6.5	35	0.43	0.44	5.0	90	12.9
	8	0.95	1.18				0.44				
	9	0.92	1.20				0.44				
37	10	1.28	1.06	1.12	6.1	33	0.47	0.48	5.5	98	11.1
	11	1.28	1.08				0.48				
	12	1.28	1.22				0.50				
42	13	1.30	0.93	0.97	5.3	29	0.52	0.52	5.9	106	8.9
	14	1.33	0.99				0.51				
	15	1.28	0.98				0.52				

^a Total RNA, including mRNA, measured as A_{260} of an RNA hydrolysate (acid pH), normalized to OD_{460} of culture.

^b Stable RNA, assuming 3% of total RNA to be mRNA (18, 22); for conversion of A_{260} into nucleotides (nucl.), see the text.

^c Assuming the molecular weight of an average nucleotide residue in *E. coli* stable RNA to be 324.3.

^d Total TCA-precipitable protein as determined by the A_{750} of a colorimetric protein assay (see the text).

^e Assuming 5.6×10^{15} amino acid (aa) residues per μg of protein.

^f Determined from the A_{750} of the Lowry assay by calibration with weighed amounts of bovine serum albumin. An $A_{750} = 1.0$ corresponded to 204 μg of bovine serum albumin per assay.