

Supporting Information: S5 Table

Protein Synthesis in E. coli: Dependence of Codon-specific Elongation on tRNA Concentration and Codon Usage

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Table S5. Concentrations of free ternary complexes in *E. coli* for four different specific growth rates, assuming a 2-1-2 pathway of tRNA release from the E site.
All concentrations in μM .

	Specific growth rate $[\text{h}^{-1}]$					Specific growth rate $[\text{h}^{-1}]$			
	0.7	1.07	1.6	2.5		0.7	1.07	1.6	2.5
Ala1B	5.70	7.89	8.77	9.81	Leu5	2.69	3.28	2.86	2.41
Ala2	0.83	1.15	1.68	1.65	Lys	2.62	3.05	2.46	1.88
Arg2	9.74	10.57	16.20	16.77	Met m	1.03	1.38	1.90	1.86
Arg3	2.27	1.24	1.94	1.49	Phe	1.24	2.03	1.70	1.26
Arg4	2.09	2.34	2.87	2.54	Pro1	1.10	2.07	1.11	0.95
Arg5	1.43	1.45	2.20	1.58	Pro2	1.86	1.71	3.10	2.26
Asn	1.28	1.84	2.57	2.74	Pro3	0.62	1.00	0.77	0.58
Asp1	4.14	4.51	6.42	8.60	Sec	0.79	0.88	0.95	0.92
Cys	3.88	4.22	5.65	4.98	Ser1	3.95	3.96	4.89	4.37
Gln1	1.87	2.73	2.17	2.68	Ser2	0.89	1.01	1.17	1.16
Gln2	1.08	1.53	2.31	2.74	Ser3	3.08	3.28	3.82	3.01
Glu2	9.85	10.87	15.46	19.27	Ser5	1.44	1.65	1.95	1.82
Gly1	2.52	2.73	3.85	3.51	Thr1	0.17	0.24	0.21	0.28
Gly2	3.63	3.95	5.62	4.70	Thr2	1.62	1.73	2.19	2.32
Gly3	9.33	10.76	11.53	15.38	Thr3	1.55	1.73	1.85	2.31
His	0.64	1.12	1.29	1.91	Thr4	1.94	2.05	3.05	3.73
Ile1	6.66	7.93	11.19	15.38	Trp	2.00	2.56	3.11	3.64
Ile2	0.46	0.52	0.75	0.83	Tyr1	1.56	1.80	3.14	2.82
Leu1	10.35	12.03	14.68	14.77	Tyr2	2.49	2.50	3.56	3.39
Leu2	2.46	3.04	3.46	3.42	Val1	7.24	6.46	11.62	11.69
Leu3	1.64	1.80	2.12	1.99	Val2	2.78	3.26	4.09	4.35
Leu4	5.48	6.05	8.31	7.60					