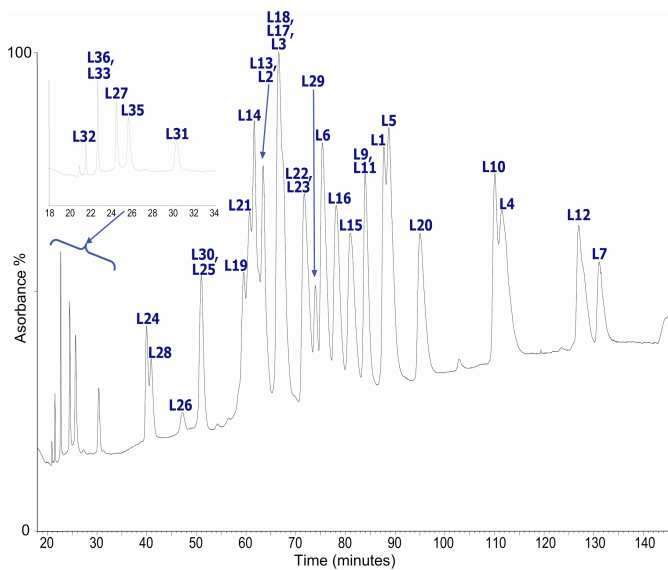


Supplementary Material

Production of 50S ribosomal subunits from *E. coli*

10 liter of L-broth (10 g tryptone, 5 g yeast extract, 5 g NaCl) supplemented with 10 mM MgSO₄ in a BF4 fermentor (New Brunswick Scientific Co. Inc.), was inoculated with 100 ml of actively growing culture of *E. coli* strain MRE600 and grown at 37°C from A₆₀₀ 0.05 to 0.5 at 400 rpm agitation with 5 l min⁻¹ aeration. The culture was then cooled to 15°C over 15 min, harvested by continuous flow centrifugation at 4°C (Contifuge, Heraeus Inc.), washed in THM buffer (10 mM Tris-HCl pH 7.4, 10 mM Mg acetate), repelleted and stored at -80°C. Preparation of *E. coli* 50S subunits followed that of Spedding (Spedding, 1990) with 1mM magnesium ion in the sucrose density gradient.

Supplementary Fig. 1



RP-HPLC of 50S ribosomal proteins from *E. coli*. Protein identifications from MS analysis are given on the corresponding absorbance peaks. The inset shows an expanded view of the earliest part of the chromatogram.

Supplementary Table 1

50S ribosomal proteins from *E. coli*

Protein	Mass Detected	Mass Difference	Modifications*
L1	24596.2	-2	
L2	29734	5	
L3	22256.2	13	Methylated
L4	22090.6	4	
L5	20168.8	-2	
L6	18771.4	-1	
L7	12208	44	Acetylated
L9	15772	3	
L10	17579	-1	
L11	14872.6	128	Methylated 9X
L12	12166.6	3	
L13	16021	2	
L14	13542.8	2	
L15	14969.2	-11	Unknown
L16	15330	49	Unknown
L17	14363.2	-1	
L18	12771.4	2	
L19	13004.2	2	
L20	13365.2	-1	
L21	11566.2	2	
L22	12228.4	2	
L23	11200.6	2	
L24	11186.8	2	
L25	10692.8	-1	
L26	9554	1	
L27	8993.8	1	
L28	8876	1	
L29	7274.2	1	
L30	6410.6	0	
L31	7871.6	1	
L32	6316	1	
L33	6253.4	13	Methylated
L35	7157.8	0	
L36	4364.8	0	

* proposed by (Arnold & Reilly, 1999)

Supplementary Table 2

50S ribosomal proteins from *D. radiodurans*

Protein	Mass Detected	N-met	Mass difference	Annotation	Modification	<i>E. coli</i> modification
L1	24228.2	No	-1			
L2	29913.2	No	0			
L3	22464.8	No	28		2x methyl	1X methyl
L4	22146.8	No	0			
L5	20378		28		2x methyl	
L6	19450.4	No	-3377	Δ 1-27		
L9	16066		0			
L10	17622.8	No	0			
L11	15011.6		139		10x methyl	9X methyl
L12	12511	No	15		1x methyl	1X methyl
L13	16296.2		-2894	Δ 1-28		
L14	14232.2		0			
L15	16860.8		1			
L16	16109	No	14		1x methyl	unknown
L17	12899		0			
L18	12007.6	No	0			
L19	18317		1			
L20	13826	No	0			
L21	11147.2		-7314	Δ 1-69		
L22	15069.8	No	42		Acetylated	
L23	10391.6	No	1			
L24	12227.2	No	0			
CTC (L25)	25389		-1457	Δ 1-16		
L27	9343		-247		Δ D91	
L28	8831.8	No	0			
L29	7759.6		0			
L30	6066.4		-1			
L31	8582		0			
L32	6658.6	No	-2			
L33	6227.2	No	-3050	Δ 1-27		1X methyl
L34	ND					
L35	7294.6	No	0			
L36	4308		-1			