

Table 1. *Cell dimensions of S. typhimurium* LT2 at different growth rates

Media used were as follows. 1: LB medium. 2: AB medium plus casein hydrolysate (0.4 %, w/v), glucose (0.2 %, w/v), tryptophan (25 $\mu\text{g ml}^{-1}$), adenine, cytosine, guanine, uracil and thymidine (each 20 $\mu\text{g ml}^{-1}$) and thiamin and biotin (each 2 $\mu\text{g ml}^{-1}$). 3: AB medium plus casein hydrolysate (0.4 %, w/v), glucose (0.2 %, w/v) and tryptophan (25 $\mu\text{g ml}^{-1}$). 4: AB medium plus glucose (0.2 %, w/v) and methionine, histidine, arginine, proline, threonine and tryptophan (each 25 $\mu\text{g ml}^{-1}$). 5: AB medium plus glucose (0.2 %, w/v). 6: AB medium plus glycerol (0.4 %, w/v). 7: AB medium plus sodium acetate (0.4 %, w/v). 8: AB medium plus L-alanine (0.4 %, w/v).

All values are means of at least two different experiments, the values of individual experiments being represented in Fig. 1(a). Values of length and diameter are the average of at least 100 cells measured in each experiment. The numbers in the parentheses correspond to the standard deviation.

Medium	Doubling rate (h ⁻¹)	A ₄₅₀ per 10 ⁹ cells	Length (μm)	Diameter (μm)	Surface area (μm^2)	Volume (μm^3)
1	2.40	4.06	2.80 (0.727)	0.731 (0.054)	6.43	1.073
2	2.18	3.52	2.69 (0.702)	0.676 (0.051)	5.71	0.885
3	1.85	3.27	2.60 (0.676)	0.650 (0.049)	5.31	0.791
4	1.60	2.44	2.52 (0.597)	0.598 (0.039)	4.73	0.651
5	1.15	1.91	2.31 (0.514)	0.581 (0.039)	4.21	0.560
6	0.77	1.25	2.06 (0.464)	0.546 (0.041)	3.54	0.441
7	0.56	1.07	1.80 (0.433)	0.528 (0.035)	2.98	0.355
8	0.31	0.88	1.82 (0.417)	0.507 (0.031)	2.90	0.334