

Table 2. Approximate chemical composition of a bacterium, yeast and mammalian cell.

		<i>E. coli</i>	<i>S. cerevisiae</i>	Mammalian Cell
% total weight	Water	70	80	70
% dry weight	DNA	3	0.1–0.6	1
	RNA	20	6–12	4
	Proteins	50–55	35–60	60
	Lipids	7–9	4–10	13
	References	[15,34,35]	[36–40]	[35]

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15. Bremer H, Dennis PP (2008) Modulation of chemical composition and other parameters of the cell by growth rate. In: Curtiss R III, Kaper JB, Karp PD, Neidhardt FC, Nyström T, et al., editors. *EcoSal - Escherichia coli* and *Salmonella*: Cellular and Molecular Biology. ASM Press, Washington, DC. 1553–1569. doi:10.1128/ecosal.5.2.3.
34. Watson JD (1972) *Molecular Biology of the Gene*. 2nd ed. Philadelphia: Saunders.
35. Alberts B, Johnson A, Lewis J, Raff M, Roberts K, et al. (2002) *Molecular Biology of the Cell*. 4 ed. New York: Garland Science.
36. Sherman F (1998) An introduction to the genetics and molecular biology of the yeast *Saccharomyces cerevisiae*. In: Meyers RA, editor. *The Encyclopedia of Molecular Biology and Molecular Medicine*. 302–325.
37. Polakis ES, Bartley W (1966) Changes in dry weight, protein, deoxyribonucleic acid, ribonucleic acid and reserve and structural carbohydrate during the aerobic growth cycle of yeast. *Biochem J* 98: 883–887.
38. Yamada EA, Sgarbieri VC (2005) Yeast (*Saccharomyces cerevisiae*) protein concentrate: preparation, chemical composition, and nutritional and functional properties. *J Agric Food Chem* 53: 3931–3936. doi:10.1021/jf0400821.
39. Nissen TL, Schulze U, Nielsen J, Villadsen J (1997) Flux distributions in anaerobic, glucose-limited continuous cultures of *Saccharomyces cerevisiae*. *Microbiology* 143 (Pt 1): 203–218.
40. Halász A, Lásztity R (1991) *Chemical Composition and Biochemistry of Yeast Biomass. Use of Yeast in Biomass Food Production*. Boca Raton: CRC Press. p. 319.