

TABLE 6.1. Bacteria and archaea share many features to the exclusion of eukaryotes

Feature	Archaea and Bacteria	Eukaryotes
Nuclear membrane	Absent	Present
Genomes	Usually one circular chromosome; frequently one or more small DNA circles (plasmids)	Multiple linear chromosomes
Mitosis	Absent	Present
Introns	Rare	Common
Cytoskeleton composed of microtubules	Absent	Present
Internal membranes	Simple and rare	Complex and common
Primary mode of genetic recombination	Lateral gene transfer	Sexual reproduction
Size	Small, 1–5 μm	Larger, 20–100 μm
Organelles	No	Yes
Ploidy	Haploid	Diploid or more

Based on Madigan M.T., Martinko J., and Parker J. 1997. *Brock biology of microorganisms*, 8th ed. Prentice Hall, New York, Table 3.5.

What we list here are features of most of the members of these groups.