

Comparing Prokaryotic and Eukaryotic Cells: An Overview

1. Prokaryotic and eukaryotic cells are similar in their chemical composition and chemical reactions.
2. Prokaryotic cells lack membrane-enclosed organelles (including a nucleus).
3. Peptidoglycan is found in prokaryotic cell walls but not in eukaryotic cell walls.
4. Eukaryotic cells have a membrane-bound nucleus and other organelles.

THE PROKARYOTIC CELL

1. Bacteria are unicellular, and most of them multiply *by* binary fission .
2. Bacterial species are differentiated *by* morphology, chemical composition, nutritional requirements, biochemical activities, and source of energy.

The Size, Shape, and Arrangement of Bacterial Cells

1. Most bacteria are 0.2 to 2.0 Mm in diameter and 2 to 8 Mm in length.
2. The three basic bacterial shapes are coccus (spherical), bacillus (rod -shaped), and spiral (twisted) .
3. Pleomorphic bacteria can assume several shapes

References': 1- Microbiology an introduction TENTH EDITION. Gerard. Tortora.2010.

2- Microbiology an introduction TWELFTH EDITION. Gerard. Tortora.2016.