

ANIMAL CELL STRUCTURE

[Illustration Area: Typical Animal Cell with Cross-Section]

Organelle	Primary Function
Nucleus	Contains genetic material (DNA); coordinates cell activities like growth and reproduction.
Mitochondria	The "powerhouse" of the cell; generates ATP through cellular respiration.
Ribosomes	Small particles of RNA and protein; the site of protein synthesis.
Endoplasmic Reticulum	Network of membranes involved in producing proteins (Rough) and lipids (Smooth).
Golgi Apparatus	Modifies, sorts, and packages proteins for secretion or delivery to other organelles.
Lysosomes	Contains digestive enzymes to break down waste materials and cellular debris.
Cell Membrane	Semi-permeable lipid bilayer that regulates what enters and exits the cell.
Cytoplasm	Jelly-like substance that fills the cell and surrounds the organelles.

Organelle	Primary Function
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Centrioles	Cylindrical structures that help organize microtubule assembly during cell division.
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