

ANIMAL CELL ORGANELLES

REFERENCE CHART

Organelle	Primary Function	Key Characteristics
Nucleus	Stores genetic material (DNA) and coordinates cell activities like growth and reproduction.	<i>The "Control Center"</i>
Mitochondria	Performs cellular respiration to generate ATP (energy) for the cell.	<i>Double-membrane bound</i>
Ribosomes	Synthesizes proteins by translating messenger RNA.	<i>Found on ER or floating</i>
Endoplasmic Reticulum	Rough: Protein synthesis; Smooth: Lipid synthesis and detoxification.	<i>Network of membranes</i>
Golgi Apparatus	Modifies, sorts, and packages proteins and lipids for transport.	<i>Stacked cisternae</i>
Lysosomes	Contains digestive enzymes to break down waste materials and cellular debris.	<i>Acidic interior</i>
Plasma Membrane	Regulates the passage of molecules in and out of the cytoplasm.	<i>Phospholipid bilayer</i>

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Cytoplasm	Gel-like substance that holds organelles in place and provides a site for reactions.	<i>Includes the cytosol</i>
Centrioles	Aids in cell division by facilitating the separation of chromosomes.	<i>Unique to animal cells</i>