

Animal cell organelles and functions

Organelle	Function
Cell membrane	A thin, flexible phospholipid bilayer with embedded proteins that surrounds the cell and controls what enters and leaves.
Cytoplasm	The jelly-like fluid (cytosol) that fills the cell and holds the organelles; many chemical reactions happen here.
Nucleus	Contains the cell's DNA and controls its activities; surrounded by a double nuclear envelope with pores.
Nucleolus	A dense region inside the nucleus that makes ribosomal RNA and assembles ribosome subunits.
Rough endoplasmic reticulum	Folded membranes studded with ribosomes that make and fold proteins, many of them for export or for membranes.
Smooth endoplasmic reticulum	Tube-like membranes without ribosomes that make lipids, help detoxify substances and store calcium.
Ribosomes	Tiny structures, free in the cytoplasm or on the rough ER, that build proteins by reading messenger RNA.
Golgi apparatus	A stack of flattened sacs that modifies, sorts and packages proteins and lipids into vesicles.
Mitochondrion	The site of aerobic respiration, releasing energy from glucose to make ATP; has its own DNA.
Lysosome	A small sac of digestive enzymes that breaks down waste, worn-out organelles and engulfed particles.
Centrioles	A pair of cylinders of microtubules near the nucleus that help organise the spindle during cell division.
Vesicle	A small membrane bubble that carries substances around the cell and to the membrane.
Vacuole	In animal cells, small and often temporary sacs for storage or transport (plant cells have one large vacuole).

Notes