

Cell Organelles

Organelle	Light microscope or Electron microscope	Found in plant or animal cells (or both)	Function
Cell Membrane	Light Microscope	Both	'Selective barrier' which allows certain substances to pass through and prevents others from doing so.
Nucleus	Light Microscope	Both	The control centre of the cell. It controls the formation of proteins as it contains all the instructions for the cell.
Chloroplast	Light Microscope	Plant Cell	Carries out the process of photosynthesis.
Cell Wall	Light Microscope	Plant Cell	Acts as a pressure vessel, preventing over-expansion when water enters the cell.
Mitochondria	Light Microscope	Both	Responsible for producing energy needed by the cell via a process called respiration.
Nucleolus	Light Microscope	Both	Contains RNA and is responsible for the manufacture of ribosomes.
Vacuole	Light Microscope	Plant Cell	Fluid-filled sacs which provide support.
Lysosomes	Electron Microscope	Animal Cell	Contains digestive enzymes to break down old organelles.
Smooth Endoplasmic Reticulum	Electron Microscope	Both	Produces lipids for membranes.
Endoplasmic Reticulum (E.R.)	Electron Microscope	Both	Responsible for the processing of proteins as well as the transport of proteins to other parts of the cell.
Ribosomes	Electron Microscope	Both	Responsible for protein synthesis necessary for the cell to function.
Golgi Body	Electron Microscope	Both	Responsible for the processing, packaging and sort of cell products.