

Organic compounds in cells.

Organic compound	Elements	Examples	Where found in cell	Functions
Carbohydrates	Carbon Hydrogen Oxygen	Monosaccharides - glucose	Chloroplast Mitochondrion	Energy source and storage
		Disaccharides - sucrose	Cytoplasm	Strengthens plant cell walls
		Polysaccharides - starch - glycogen - cellulose	Plastid Cytoplasm Cell wall	Provides tough exterior covering
Lipid	Carbon Hydrogen Oxygen Phosphorus (in phospholipids)	Fats and oils	Cytoplasm	Energy storage
		Phospholipids	Cell membrane	Cell membrane component
		Steroids	Cell membrane	Chemical messengers
		Waxes	Cell surface	Protection
Protein	Carbon Hydrogen Oxygen Nitrogen Sometimes sulfur and phosphorus	Messenger proteins and antibodies	Ribosome, endoplasmic reticulum, Golgi apparatus, vesicles	Immunity Communication Transport materials
		Receptor proteins Transport proteins	Cell membrane	Support cell and body structures
		Structural proteins	Cell surface	Speed up chemical reactions
		Enzymes	Throughout the cell	
Nucleic acid	Carbon Hydrogen Oxygen Nitrogen Phosphorus	DNA	Nucleus Chloroplast Mitochondrion	Store hereditary information (DNA) Decode hereditary information (RNA)
		RNA	Nucleus Cytoplasm Ribosome	

Chemical Composition of cells

