

## Cell Organelles Flashcards PDF

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What is the function of the nucleus in a cell?

The nucleus serves as the control center of the cell, housing the cell's DNA and coordinating activities such as growth, metabolism, and reproduction.

What is the role of mitochondria?

The mitochondria are known as the powerhouse of the cell, responsible for producing energy in the form of ATP through cellular respiration.

What do ribosomes do?

Ribosomes are the sites of protein synthesis, where they translate messenger RNA into polypeptide chains.

What is the function of the endoplasmic reticulum?

The endoplasmic reticulum (ER) is involved in the synthesis of proteins and lipids; the rough ER has ribosomes for protein synthesis, while the smooth ER is involved in lipid synthesis.

What is the purpose of the Golgi apparatus?

The Golgi apparatus modifies, sorts, and packages proteins and lipids for secretion or delivery to other organelles.

What are lysosomes?

Lysosomes are membrane-bound organelles that contain digestive enzymes to break down waste materials and cellular debris.

What is the function of the cell membrane?

The cell membrane regulates what enters and exits the cell, providing protection and structural support.

What is the role of chloroplasts?

Chloroplasts are found in plant cells and are responsible for photosynthesis, converting light energy into chemical energy.

What is the cytoskeleton?

The cytoskeleton is a network of fibers that provides structural support, helps maintain cell shape, and facilitates cell movement.

What is the function of vacuoles?

Vacuoles are storage organelles that can hold various substances, including nutrients, waste products, and water.