

Cell Organelle 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 is the function of ribosomes?

Ribosomes are responsible for protein synthesis, translating messenger RNA (mRNA) into polypeptide chains.

What is the purpose of the endoplasmic reticulum (ER)?

The endoplasmic reticulum is involved in the synthesis of proteins and lipids; it comes in two forms: rough ER (with ribosomes) and smooth ER (without ribosomes).

What is the function of the Golgi apparatus?

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

What is the role of lysosomes?

Lysosomes contain digestive enzymes that 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 purpose of chloroplasts?

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

What is the function of the cytoskeleton?

The cytoskeleton provides structural support, helps maintain cell shape, and facilitates cell movement.

What is the role of vacuoles?

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