

KNOWLEDGE



QUESTION

1. How does the cell interact with its environment? What are the inputs and outputs of the cell? How does the cell maintain its internal environment?

ANSWER

The cell interacts with its environment through the exchange of matter and energy. The cell takes in nutrients and oxygen from the environment and releases carbon dioxide and waste products. The cell maintains its internal environment through homeostasis, which involves the regulation of temperature, pH, and ion concentrations.

QUESTION

2. How does the cell maintain its internal environment? What are the mechanisms of homeostasis? How does the cell regulate its internal environment?

ANSWER

The cell maintains its internal environment through homeostasis, which involves the regulation of temperature, pH, and ion concentrations. The cell uses various mechanisms to maintain homeostasis, including the use of buffers, enzymes, and feedback loops. The cell also regulates its internal environment through the control of gene expression and protein synthesis.