

综述

自噬的分子机制与病理生理意义

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摘要

自噬是以细胞质空泡化为特征的溶酶体依赖性的降解途径。自噬可以降解胞质内受损的结构, 并产生氨基酸、游离脂肪酸等物质以供蛋白质和能量的合成, 使细胞能够适应缺氧和饥饿等环境。自噬的过程受一系列复杂的信号分子的调控, 调控机制的失效与肿瘤、神经退行性疾病、衰老等有重要的联系。

关键词 [自噬](#); [自噬体](#); [溶酶体](#); [信号转导](#)

分类号

Molecular mechanism of autophagy associated with diseases

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Abstract

Autophagy is a vacuolar process of cytoplasmic degradation by lysosome. Cells may exploit autophagy as a means to adapt to hypoxic and nutrient limiting environments by eliminating defective cell structures and producing substrates such as amino acids, free fatty acids for ongoing protein synthesis and energy production. The process is controlled by complex signalling pathways. Irregulation of autophagy is associated with such as several diseased states cancer, neurodegenerative diseases, and aging.

Key words [autophagy](#); [autophagosome](#); [lysosome](#); [signaling transduction](#)

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