

综述

Na⁺, K⁺-ATP酶信号转导功能的分子机制

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摘要

近年来研究表明, Na⁺, K⁺-ATP酶不仅能主动跨膜转运钾离子, 还具有信号转导功能。Na⁺, K⁺-ATP酶作为受体与其配体(如强心类甾醇)结合后, 可激活细胞内多种信号转导通路, 从而参与心肌、平滑肌等正常细胞肥大、增殖, 肿瘤细胞凋亡等多种生理、病理过程。对Na⁺, K⁺-ATP酶信号转导功能的深入研究, 可能为心血管疾病、肿瘤等的治疗提供新思路。

关键词 [Na⁺, K⁺-ATP酶](#); [信号转导](#); [增殖](#); [凋亡](#)

分类号

Molecular mechanisms of Na⁺, K⁺-ATPase-mediated signal transduction

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Abstract

Na⁺, K⁺-ATPase can work not only as an energy transducing ion pump, but also as a signal transducer. Na⁺, K⁺-ATPase, which acts as a receptor and binds to its ligand (eg. cardiotonic steroids) activates multiple signaling pathways, so that it could take part in multiple physiological and pathological processes, such as the hypertrophy or proliferation of normal cells, apoptosis of tumor cells etc. Lucubrating the signaling function of the enzyme is of great importance for the treatment of cardiovascular disease and cancer in clinical practice.

Key words [Na⁺, K⁺-ATPase](#) [singal transduction](#) [proliferation](#) [apoptosis](#)

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