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综述

小肠上皮单糖转运体GLUT5与SGLT1的基本生理和功能

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摘要
易化性单糖转运体5(GLUT5)和Na+依赖性单糖转运体1（SGLT1）是哺乳动物体内的2种单糖转运体，分别属于GLUTs家族和SGLTs家族，主要存在于小肠上皮细胞肠腔侧，对碳水化合物的吸收起重要作用。其表达与年龄、肠道部位、日周期节律等因素有关，并受到饮食、激素分泌、周围电生理变化以及底物浓度等多种因素的影响。其数量和功能上的异常可导致一系列病理改变和临床症状。但目前对于这两种转运体基本机理还远未阐明，有待于进一步研究。

关键词 单糖转运体；易化性单糖转运体5；Na+依赖性单糖转运体1

分类号

Basic physiology and function of the intestinal glucose transporter: GLUT5 and SGLT1

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Abstract
Facilitated glucose transporter 5(GLUT5) and sodium dependent glucose transporter 1 (SGLT1), two kinds of glucose transporters, are mainly located at the intestinal epithelium cells of mammals. They belong to the GLUTs and SGLTs family, separately. They are of important roles in the absorption of carbohydrate. Their expression is related with age, location of the intestinal tract and the daily cycle. And their expression is also influenced by diet, hormones, the change of electrophysiology in the environment around, the concentration of the substrate and other factors. Their numerical and functional abnormity will lead to a series of pathological changes and clinical symptoms. But the basic mechanism of these two transporters has not yet been elucidated entirely nowadays. It still waited to be investigated further.

Key words glucose transporter facilitated glucose transporter 5(GLUT5) sodium dependent glucose transporter 1(SGLT1)

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