

GLUT7 and GLUT11 transport glucose and fructose

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Introduction

Reactome is open-source, open access, manually curated and peer-reviewed pathway database. Pathway annotations are authored by expert biologists, in collaboration with Reactome editorial staff and cross-referenced to many bioinformatics databases. A system of evidence tracking ensures that all assertions are backed up by the primary literature. Reactome is used by clinicians, geneticists, genomics researchers, and molecular biologists to interpret the results of high-throughput experimental studies, by bioinformaticians seeking to develop novel algorithms for mining knowledge from genomic studies, and by systems biologists building predictive models of normal and disease variant pathways.

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Literature references

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Reactome database release: 88

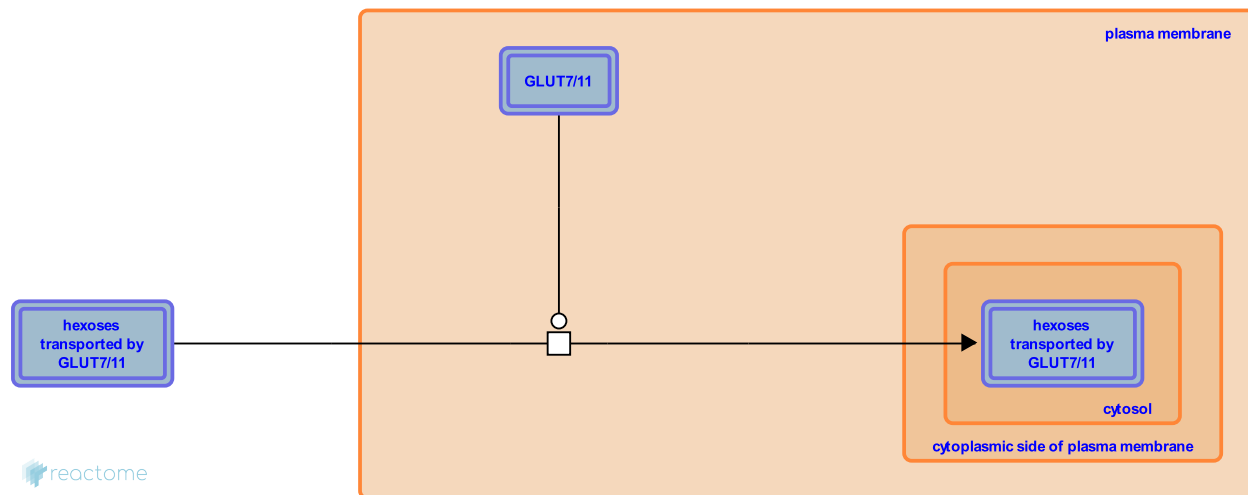
This document contains 1 reaction ([see Table of Contents](#))

GLUT7 and GLUT11 transport glucose and fructose ↗

Stable identifier: R-HSA-428779

Type: transition

Compartments: plasma membrane



SLC2A7 encodes GLUT7, a class II facilitative glucose transporter which was cloned from a human intestinal cDNA library (Li Q et al, 2004). It has a high affinity for glucose and fructose uptake. GLUT7 is found predominantly in the small intestine, colon, testis and prostate.

SLC2A11 encodes GLUT11 (Doege H et al, 2001), another member of the class II facilitative glucose transporters. It has the highest similarity with GLUT5 and in humans, three isoforms are expressed (GLUT11A-C) (Sasaki T et al, 2001). Human GLUT11 has been shown to transport glucose and fructose but not galactose when expressed in *Xenopus* oocytes (Scheepers A et al, 2005).

Literature references

Doege, H., Bocianski, A., Joost, HG., Axer, H., Schürmann, A., Eckel, J. et al. (2001). Characterization of human glucose transporter (GLUT) 11 (encoded by SLC2A11), a novel sugar-transport facilitator specifically expressed in heart and skeletal muscle. *Biochem J*, 359, 443-9. ↗

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