

SLC50A1 transports Glc from cytosol to extracellular region

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13/12/2024

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.

The development of Reactome is supported by grants from the US National Institutes of Health (P41 HG003751), University of Toronto (CFREF Medicine by Design), European Union (EU STRP, EMI-CD), and the European Molecular Biology Laboratory (EBI Industry program).

Literature references

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Reactome database release: 91

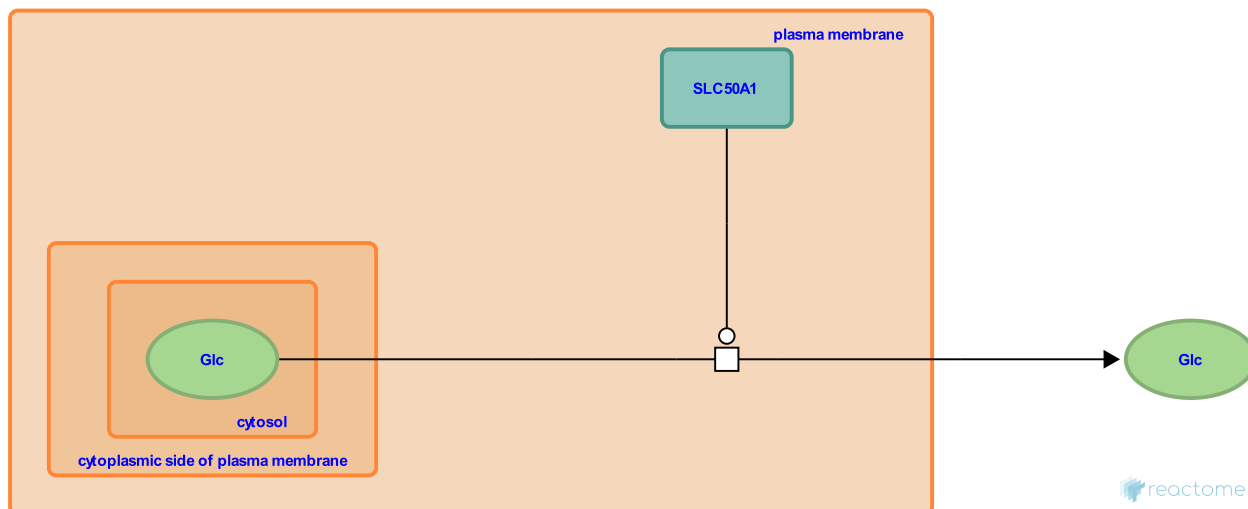
This document contains 1 reaction ([see Table of Contents](#))

SLC50A1 transports Glc from cytosol to extracellular region [↗](#)

Stable identifier: R-HSA-8876319

Type: transition

Compartments: cytosol, extracellular region, plasma membrane



In mammals, glucose efflux from the liver is crucial for the maintenance of blood glucose levels (Deng & Yan 2016). Human sugar transporter SWEET1 (SLC50A1) is a ubiquitously expressed transport protein, with highest expression in oviduct, epididymis and intestine. It localises to the Golgi membrane where it may supply glucose to the Golgi for secretion from intestinal and liver cells (Chen et al. 2010).

Literature references

Deng, D., Yan, N. (2016). GLUT, SGLT, and SWEET: Structural and mechanistic investigations of the glucose transporters. *Protein Sci.*, 25, 546-58. [↗](#)

Underwood, W., Somerville, SC., White, FF., Kim, JG., Lalonde, S., Guo, WJ. et al. (2010). Sugar transporters for intercellular exchange and nutrition of pathogens. *Nature*, 468, 527-32. [↗](#)

Editions

2016-06-13	Authored, Edited	Jassal, B.
2016-07-15	Reviewed	D'Eustachio, P.