Co-transport (influx) of glucose/mannose and Na+ ions by SGLT4

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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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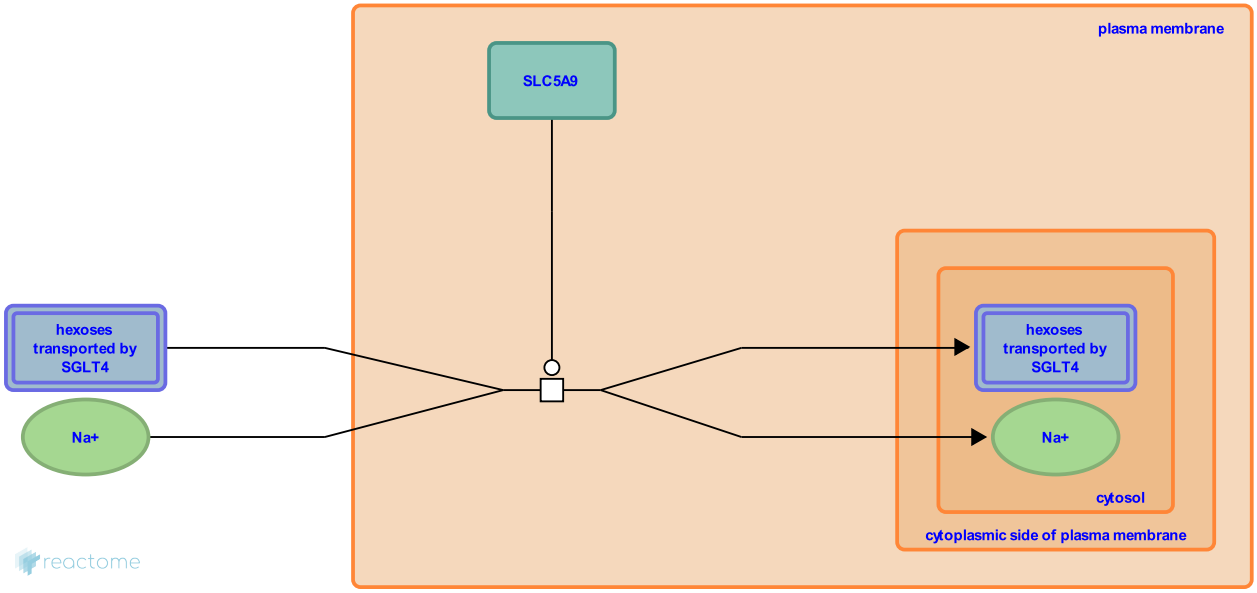
Stable identifier: R-HSA-429567

Type: transition

Compartments: plasma membrane



The human gene SLC5A9 encodes a low affinity transporter for glucose and mannose (SGLT4). Of the tissues tested, SGLT4 appears to be highly expressed in the kidney and intestine, with lower levels detected in the liver. Human SGLT4 expressed in african green monkey cells exhibited glucose and mannose co-transport with Na+ ions (Tazawa S et al, 2005).

Literature references

Sugiyama, T., Takemura, Y., Maruyama, H., Isogai, T., Yamato, T., Tazawa, S. et al. (2005). SLC5A9/SGLT4, a new Na+-dependent glucose transporter, is an essential transporter for mannose, 1,5-anhydro-D-glucitol, and fructose. *Life Sci, 76*, 1039-50.

Editions

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