SLC2A9 transports Fru, Glc, urate

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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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Fabregat, A., Jupe, S., Matthews, L., Sidiropoulos, K., Gillespie, M., Garapati, P. et al. (2018). The Reactome Pathway Knowledgebase. *Nucleic Acids Res, 46*, D649-D655. ↗

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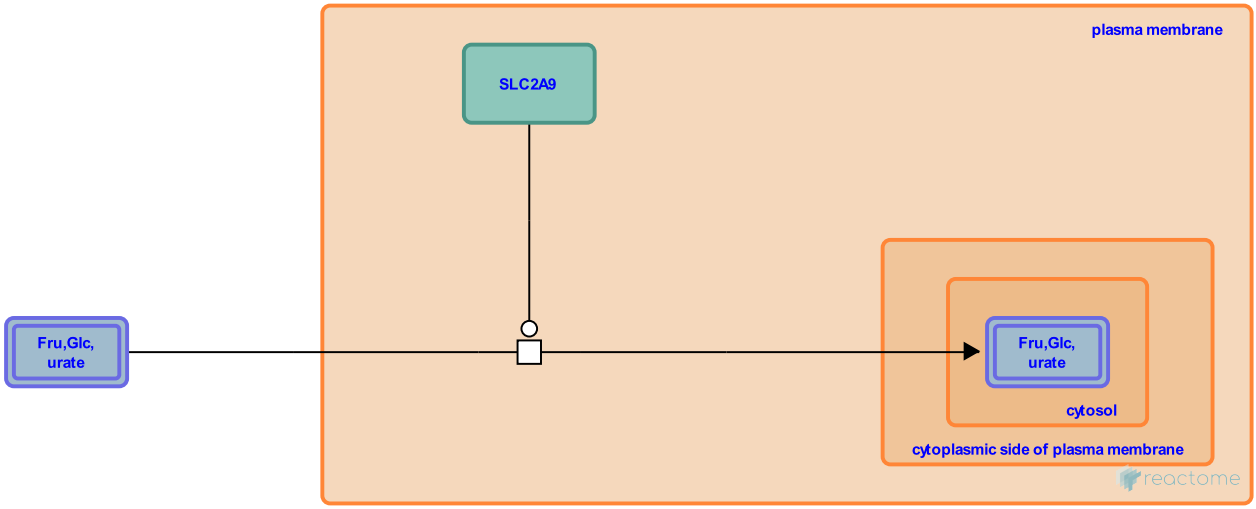
Stable identifier: R-HSA-429036

Type: transition

Compartments: plasma membrane



The human SLC2A9 gene encodes two isoforms of class II facilitative glucose transporter 9; GLUT9 (Phay et al. 2000) and GLUT9DeltaN (Augustin et al. 2004). GLUT9 is expressed mainly in kidney (proximal tubules of epithelial cells) and liver while GLUT9DeltaN is expressed mainly in kidney and placenta. SLC2A9 mediates the transport of urate (uric acid), the end product of purine metabolism in humans and great apes. In addition it mediates the uptake of fructose (Fru) and glucose (Glc) at a low rate (Vitart et al. 2008). Mutations in SLC2A9 influence serum urate concentrations with excess serum accumulation of urate leading to the development of gout (Vitart et al. 2008).

Literature references

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Editions

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