SLC5A10 cotransports Na+ with Man, Fru from extracellular region to cytosol

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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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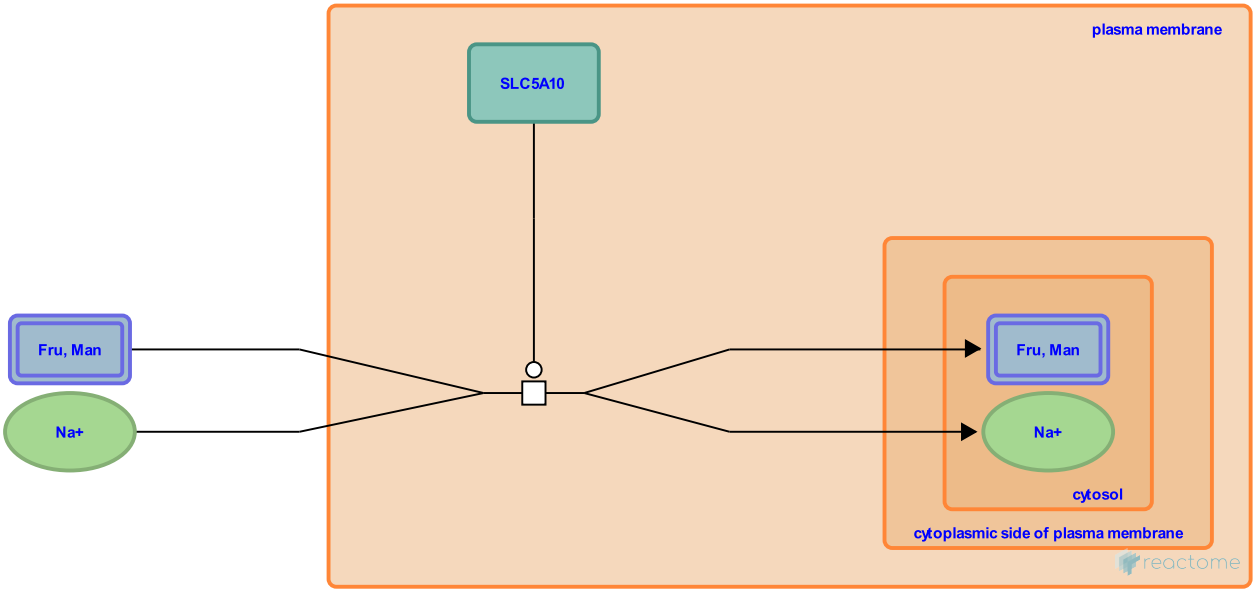
Stable identifier: R-HSA-8876283

Type: transition

Compartments: cytosol, extracellular region, plasma membrane



The sodium/glucose cotransporter 5 (SLC5A10, sodium glucose cotransporter 5, SGLT5) is a plasma membrane-bound transport protein that possesses high capacity to transport mannose (Man) and fructose (Fru) into cells (Grempler et al. 2012). SLC5A10 is exclusively expressed in the kidney and is also able to transport glucose, alpha-methyl-D-glucose (AMG) and galactose, although to a much lower extent than Man and Fru.

Literature references

Eickelmann, P., Simon, E., Augustin, R., Grempler, R., Hildebrandt, T., Mark, M. et al. (2012). Functional characterisation of human SGLT-5 as a novel kidney-specific sodium-dependent sugar transporter. *FEBS Lett., 586*, 248-53. ↗

Editions

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