SLC43A1 (LAT3)-mediated uptake of large neutral amino acids

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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

Fabregat, A., Sidiropoulos, K., Viteri, G., Forner, O., Marin-Garcia, P., Arnau, V. et al. (2017). Reactome pathway analysis: a high-performance in-memory approach. *BMC bioinformatics, 18*, 142. ↗

Sidiropoulos, K., Viteri, G., Sevilla, C., Jupe, S., Webber, M., Orlic-Milacic, M. et al. (2017). Reactome enhanced pathway visualization. *Bioinformatics, 33*, 3461-3467. ↗

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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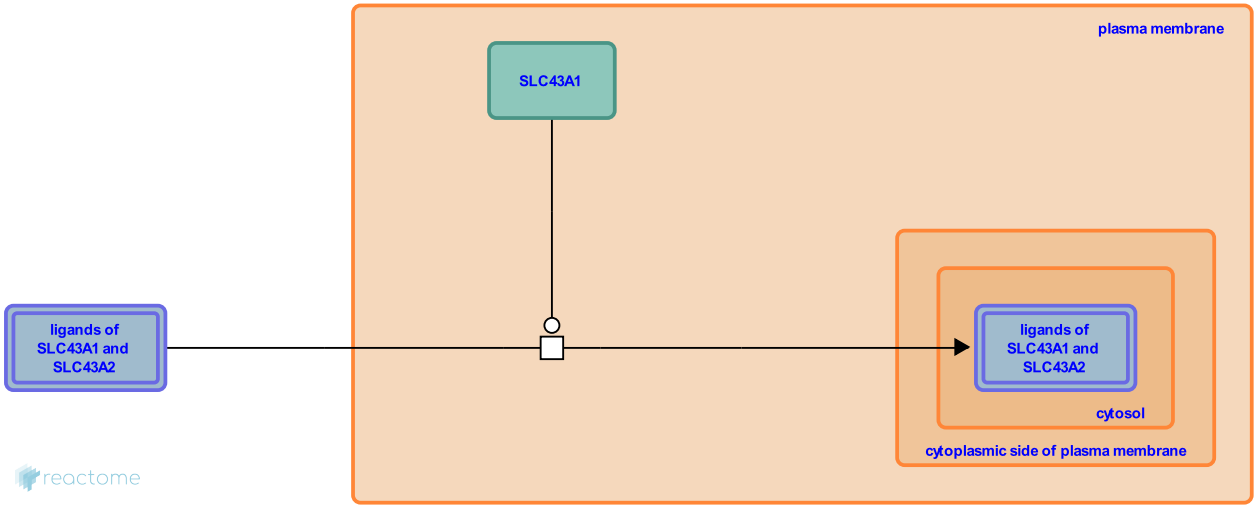
Stable identifier: R-HSA-352103

Type: transition

Compartments: plasma membrane



SLC43A1 (LAT3), associated with the plasma membrane, mediates the uptake of isoleucine, leucine, methionine, phenylalanine, and valine in a biphasic and sodium ion-independent transport process. Northern blotting experiments indicate gene expression in liver, pancreas, and skeletal muscle, and at lower levels in many tissues including kidney and intestine (Babu et al. 2003).

Literature references

Chairoungdua, A., Babu, E., Tangtrongsup, S., Kim, DK., Sakamoto, S., Nagamori, S. et al. (2003). Identification of a novel system L amino acid transporter structurally distinct from heterodimeric amino acid transporters. *J Biol Chem, 278*, 43838-45. ↗

Editions

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