SLC8A3 (NCX3) exchanges sodium (cytosol) for calcium (mitochondrial inter-membrane space)

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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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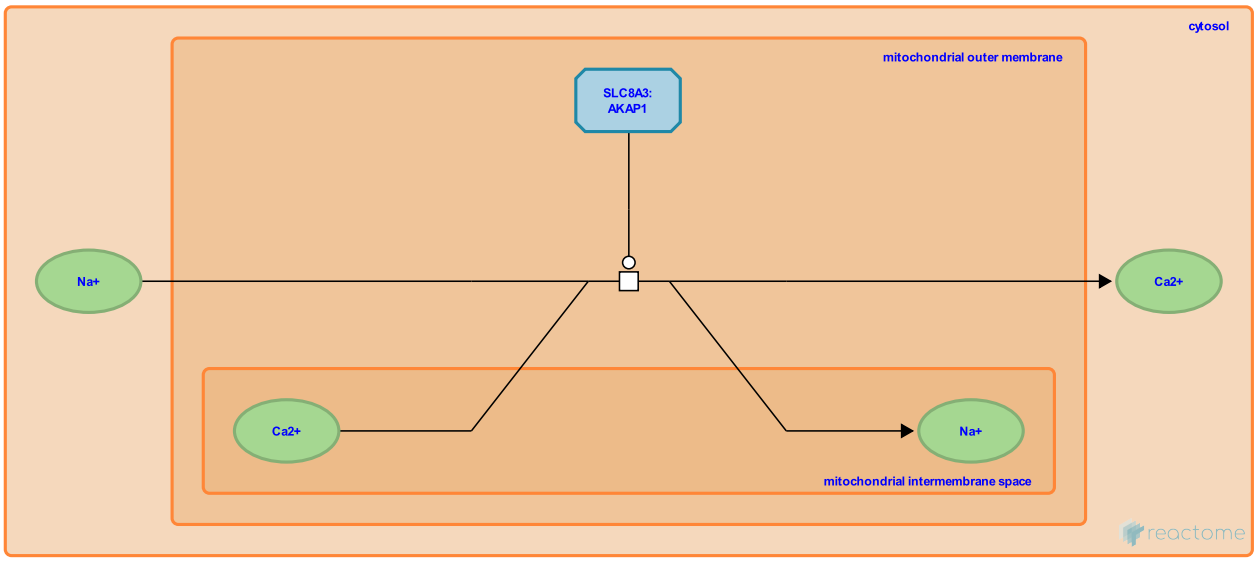
Stable identifier: R-HSA-8949703

Type: transition

Compartments: mitochondrial outer membrane

Inferred from: Slc8a3 (NCX3) exchanges sodium (cytosol) for calcium (mitochondrial intermembrane space) (Mus musculus)



As inferred from rat Slc8a3 and mouse Akap1 (Akap121), SLC8A3 in a complex with AKAP1 exchanges cytosolic sodium ions for divalent calcium from the mitochondrial intermembrane space resulting in an efflux of calcium from the mitochondrion. The mitochondrial localization of SLC8A3 is controversial, however, and SLC8A3 has a limited tissue distribution.

Editions

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