

alpha-aminoadipate + alpha-ketoglutarate

<=> alpha-ketoadipate + glutamate

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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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Reactome database release: 70

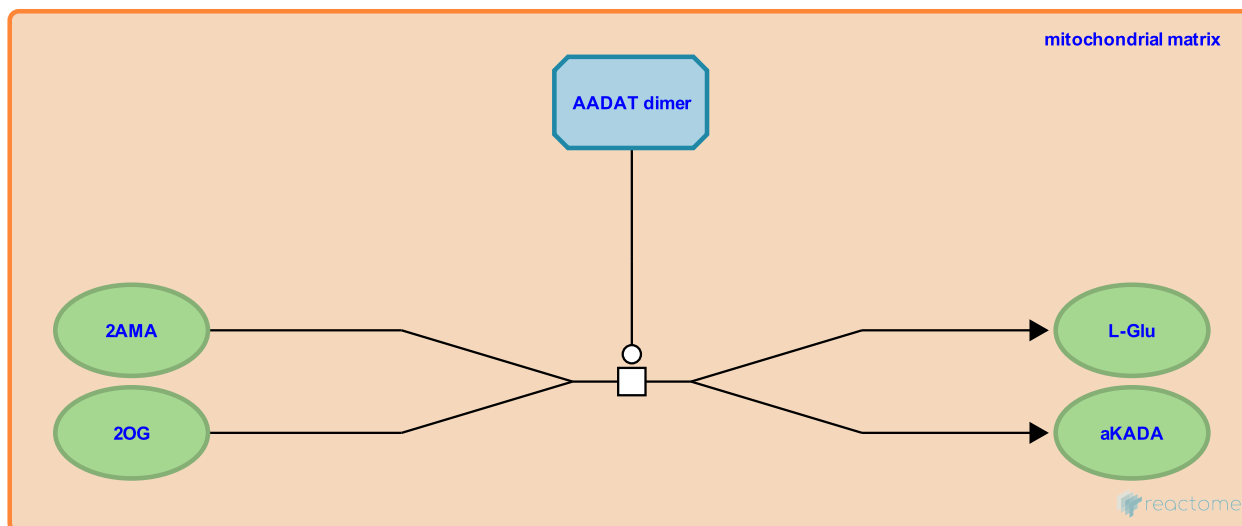
This document contains 1 reaction ([see Table of Contents](#))

alpha-aminoadipate + alpha-ketoglutarate <=> alpha-ketoadipate + glutamate ↗

Stable identifier: R-HSA-70952

Type: transition

Compartments: mitochondrial matrix



Kynurenine/alpha-aminoadipate aminotransferase (AADAT) catalyzes the reversible reaction of alpha-aminoadipate and alpha-ketoglutarate to form alpha-ketoadipate and glutamate. Crystallographic studies have demonstrated that active AADAT enzyme is a homodimer with a pyridoxal phosphate moiety covalently attached to each monomer (Han et al. 2008; Rossi et al. 2008). The enzyme is inferred to be located within the mitochondrion because of a mitochondrial localization sequence motif at the aminoterminal end of the AADAT polypeptide (Goh et al. 2002).

Literature references

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Editions

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