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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: 74

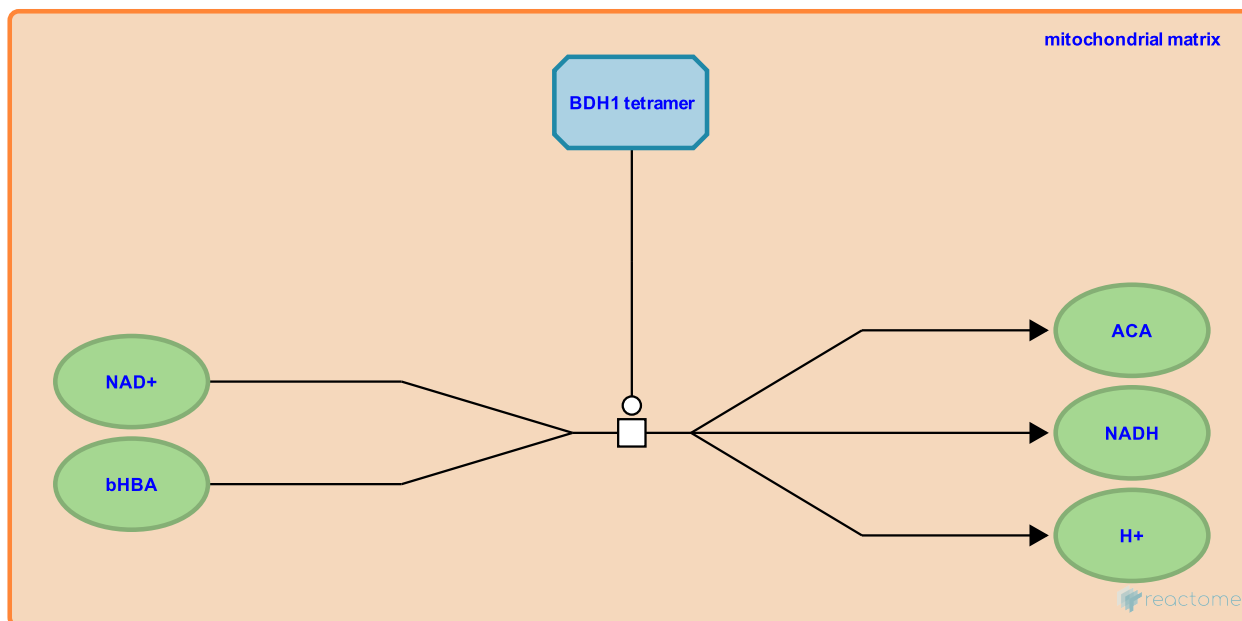
This document contains 1 reaction ([see Table of Contents](#))

D-beta hydroxybutyrate+NAD+ <=> acetoacetate+NADH+H+ ↗

Stable identifier: R-HSA-73920

Type: transition

Compartments: mitochondrial matrix



D-beta-hydroxybutyrate dehydrogenase tetramer (BDH1) in the mitochondrial matrix catalyzes the reversible reaction of D-beta hydroxybutyrate and NAD+ to form acetoacetate and NADH + H+ (Marks et al. 1992).

Literature references

Marks, AR., McIntyre, JO., Duncan, TM., Erdjument-Bromage, H., Tempst, P., Fleischer, S. (1992). Molecular cloning and characterization of (R)-3-hydroxybutyrate dehydrogenase from human heart. *J Biol Chem*, 267, 15459-63. ↗