

SORD oxidizes D-sorbitol to Fru

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

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Reactome database release: 88

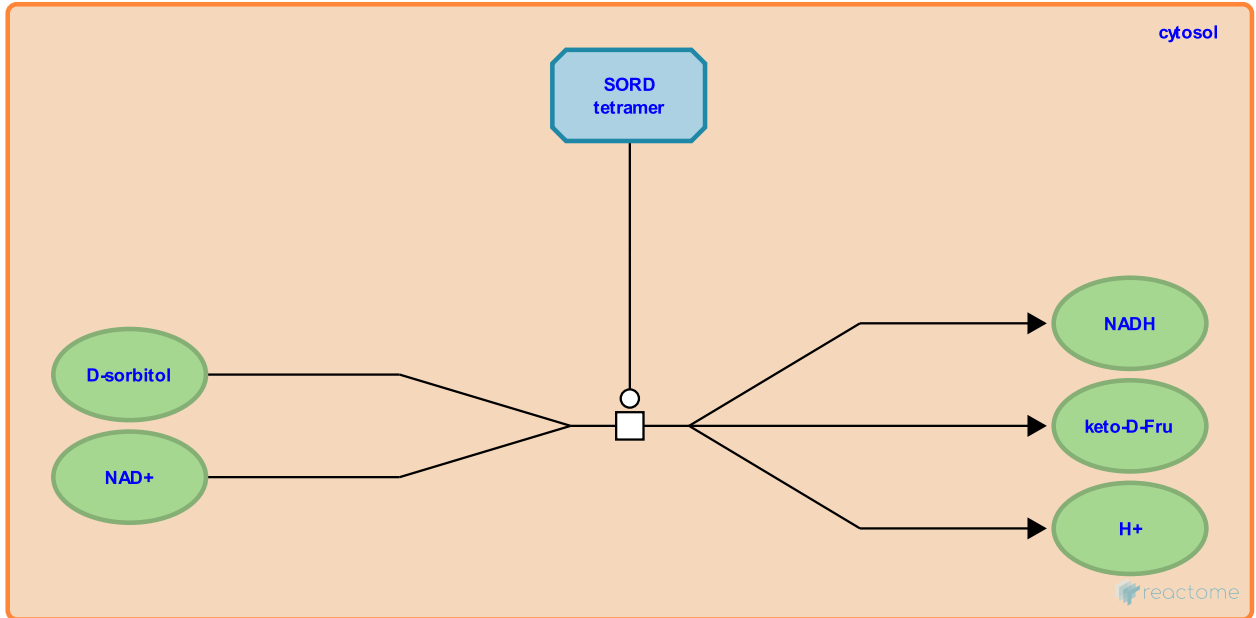
This document contains 1 reaction ([see Table of Contents](#))

SORD oxidizes D-sorbitol to Fru [↗](#)

Stable identifier: R-HSA-5652195

Type: transition

Compartments: cytosol



Cytosolic SORD (sorbitol dehydrogenase) catalyzes the reaction of D-sorbitol and NAD⁺ to form fructose (Fru) and NADH + H⁺. This reaction was first described by Hers (1960) in sheep seminal vesicles; the human enzyme was identified by O'Brien et al. (1983). The active enzyme is a tetramer with four associated Zn²⁺ ions (Pauly et al. 2003) whose amino-terminal methionine residue has been removed (Karlsson et al. 1989).

Literature references

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Editions

2014-11-29	Authored, Edited	D'Eustachio, P.
2015-01-29	Reviewed	Jassal, B.
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