

SIRT3 deacetylates ACCS2, GLUD, IDH2, SOD2

Haigis, M., Jupe, S.

European Bioinformatics Institute, New York University Langone Medical Center, Ontario Institute for Cancer Research, Oregon Health and Science University.

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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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- 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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Reactome database release: 88

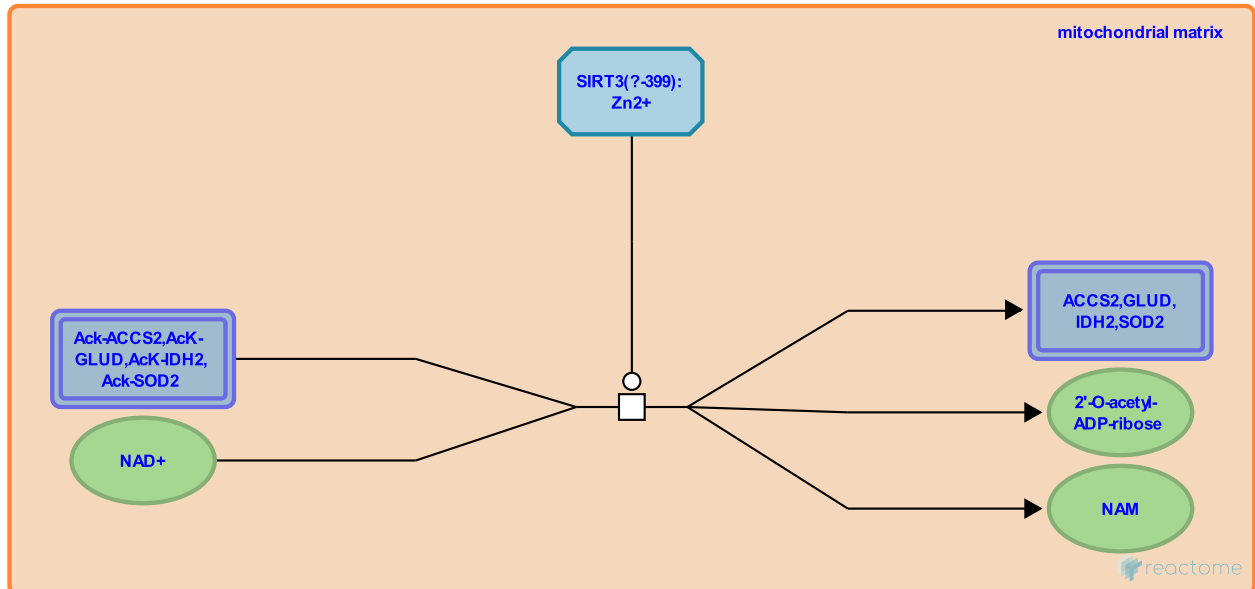
This document contains 1 reaction ([see Table of Contents](#))

SIRT3 deacetylates ACCS2, GLUD, IDH2, SOD2 ↗

Stable identifier: R-HSA-5688289

Type: transition

Compartments: mitochondrial matrix



Sirtuin 3 (SIRT3) is the most extensively studied of the mitochondrial sirtuins. It deacetylates and thereby activates Acetyl-CoA synthetase 2 (ACCS2), Glutamate dehydrogenase (GLUD), Isocitrate dehydrogenase 2 (IDH2) and Superoxide dismutase 2 (SOD2) (Schwer et al. 2006, Lombard et al. 2007, Schlicker et al. 2008, Tao et al. 2010).

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Editions

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