

ANKLE2 is deacetylated by SIRT2

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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. [↗](#)

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

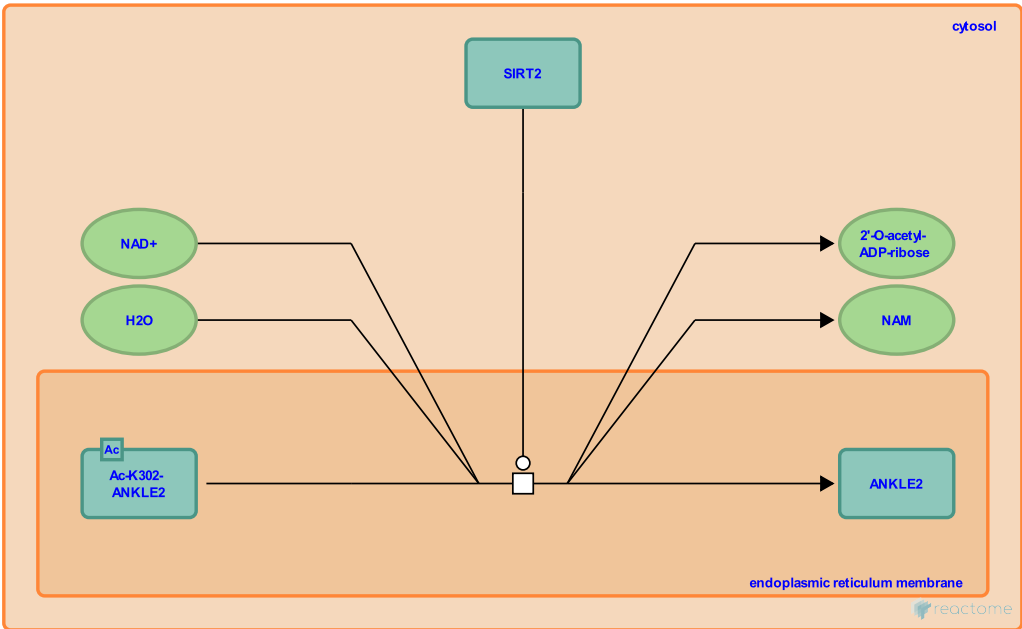
This document contains 1 reaction ([see Table of Contents](#))

ANKLE2 is deacetylated by SIRT2 ↗

Stable identifier: R-HSA-9667952

Type: transition

Compartments: endoplasmic reticulum membrane, cytosol



ANKLE2 (LEM4) is required for normal nuclear envelope (NE) formation at the end of mitosis (Ascencio et al. 2012, Kaufmann et al. 2016). Deacetylation of ANKLE2 on residue K302 by SIRT2 promotes this process (Kaufman et al. 2016).

Literature references

Kostrhon, S., Kukulj, E., Opravil, S., Slade, D., Brachner, A., Kaufmann, T. et al. (2016). SIRT2 regulates nuclear envelope reassembly through ANKLE2 deacetylation. *J. Cell. Sci.*, 129, 4607-4621. ↗

Wallenfang, MR., Mall, M., Davidson, IF., Santarella-Mellwig, R., Ly-Hartig, TB., Asencio, C. et al. (2012). Coordination of kinase and phosphatase activities by Lem4 enables nuclear envelope reassembly during mitosis. *Cell*, 150, 122-35. ↗

Editions

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