

NEXT3 is cleaved to produce NICD3

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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: 83

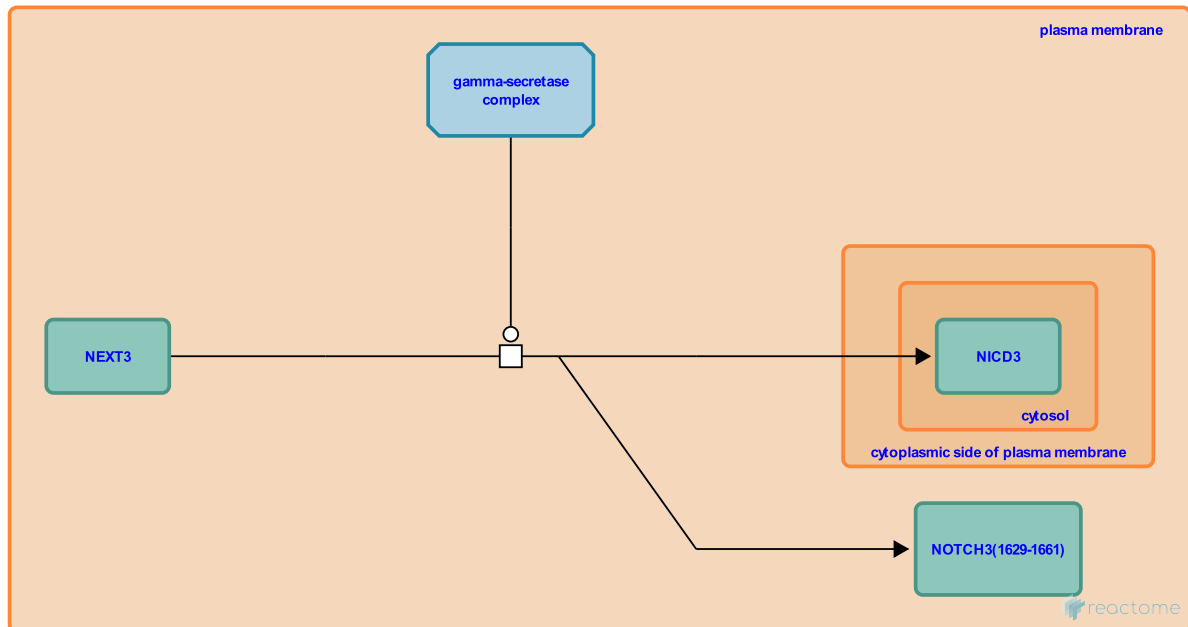
This document contains 1 reaction ([see Table of Contents](#))

NEXT3 is cleaved to produce NICD3 [↗](#)

Stable identifier: R-HSA-9013361

Type: transition

Compartments: cytosol, plasma membrane



NEXT3 fragment of NOTCH3 is further cleaved at the S3 site by the gamma-secretase complex, containing either PSEN1 (presenilin-1) or PSEN2 (presenilin-2) as the catalytic subunit, which releases the intracellular domain NICD3 into the cytosol (Groot et al. 2014).

Literature references

Groot, AJ., Habets, R., Vooijs, M., Saftig, P., Hodin, CM., Theys, J. et al. (2014). Regulated proteolysis of NOTCH2 and NOTCH3 receptors by ADAM10 and presenilins. *Mol. Cell. Biol.*, 34, 2822-32. [↗](#)

Editions

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