

pp1a cleaves itself

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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.

The development of Reactome is supported by grants from the US National Institutes of Health (P41 HG003751), University of Toronto (CFREF Medicine by Design), European Union (EU STRP, EMI-CD), and the European Molecular Biology Laboratory (EBI Industry program).

Literature references

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Reactome database release: 81

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

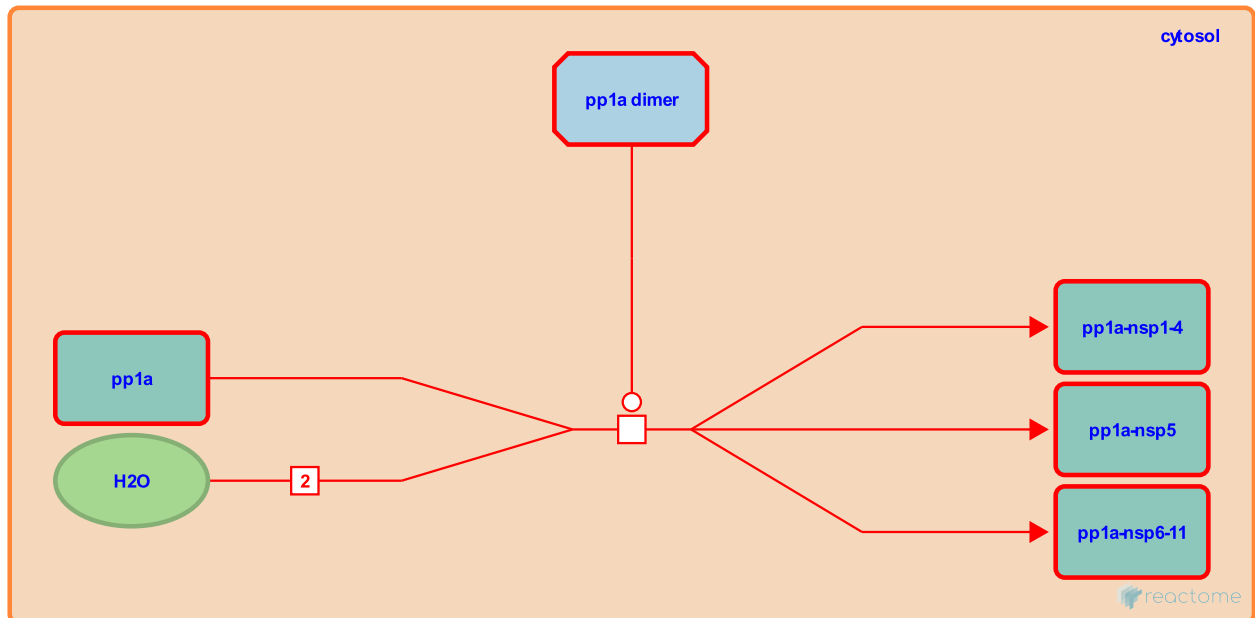
pp1a cleaves itself ↗

Stable identifier: R-HSA-9684351

Type: transition

Compartments: cytosol

Diseases: severe acute respiratory syndrome



The crucial step of autocleavage of pp1a involves the formation of an "intermediate" pp1a dimer which has weak protease activity. This "embedded" 3CLp liberates itself by cleaving the ends off its monomer in trans. Only after that the cleaved 3CLp forms a dimer, the most efficient form of the enzyme (Hsu et al, 2005; Chen et al, 2010; Muramatsu et al, 2016).

Literature references

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Editions

2020-04-14	Authored	Stephan, R.
2020-05-21	Edited	D'Eustachio, P.
2020-05-27	Reviewed	Mazein, A., Acencio, ML.