Synthesis of IPs in the ER lumen

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29/11/2021
**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**


Reactome database release: 78

This document contains 1 pathway and 3 reactions (see Table of Contents)
Synthesis of IPs in the ER lumen

Stable identifier: R-HSA-1855231

In the endoplasmic reticulum (ER) lumen, inositol phosphates IP4, IP5, and IP6 are dephosphorylated by multiple inositol polyphosphate phosphatase 1 (MINPP1) (Caffrey et al. 1999, Chi et al. 1999, Deleu et al. 2006, Nogimori et al. 1991).

Literature references


Editions

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I(1,3,4,5)P4 is dephosphorylated to I(1,4,5)P3 by MINPP1 in the ER lumen

**Location:** Synthesis of IPs in the ER lumen

**Stable identifier:** R-HSA-1855200

**Type:** transition

**Compartments:** endoplasmic reticulum lumen

In the endoplasmic reticulum (ER) lumen, multiple inositol polyphosphate phosphatase 1 (MINPP1) dephosphorylates inositol 1,3,4,5-tetrakisphosphate (I(1,3,4,5)P4) to inositol 1,4,5-trisphosphate (I(1,4,5)P3) (Caffrey et al. 1999, Chi et al. 1999).

**Literature references**


**Editions**

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I(1,3,4,5,6)P5 is dephosphorylated to I(1,4,5,6)P4 by MINPP1 in the ER lumen

**Location:** Synthesis of IPs in the ER lumen

**Stable identifier:** R-HSA-1855163

**Type:** transition

**Compartments:** endoplasmic reticulum lumen

In the endoplasmic reticulum (ER) lumen, multiple inositol polyphosphate phosphatase 1 (MINPP1) dephosphorylates inositol 1,3,4,5,6-pentakisphosphate (I(1,3,4,5,6)P5) to inositol 1,4,5,6-tetrakisphosphate (I(1,4,5,6)P4) (Caffrey et al. 1999, Chi et al. 1999).

**Preceded by:** IP6 is dephosphorylated to I(1,2,4,5,6)P5 by MINPP1 in the ER lumen

**Literature references**


**Editions**

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IP6 is dephosphorylated to I(1,2,4,5,6)P5 by MINPP1 in the ER lumen

Location: Synthesis of IPs in the ER lumen

Stable identifier: R-HSA-1855225

Type: transition

Compartments: endoplasmic reticulum lumen

In the endoplasmic reticulum (ER) lumen, multiple inositol polyphosphate phosphatase 1 (MINPP1) dephosphorylates 1,2,3,4,5,6-hexakisphosphate (IP6) to inositol 1,2,4,5,6-pentakisphosphate (I(1,2,4,5,6)P5) (Caffrey et al. 1999, Chi et al. 1999, Deleu et al. 2006, Nogimori et al. 1991).

Followed by: I(1,3,4,5,6)P5 is dephosphorylated to I(1,4,5,6)P4 by MINPP1 in the ER lumen

Literature references


Editions

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2012-11-07 Reviewed: Wundenberg, T.

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