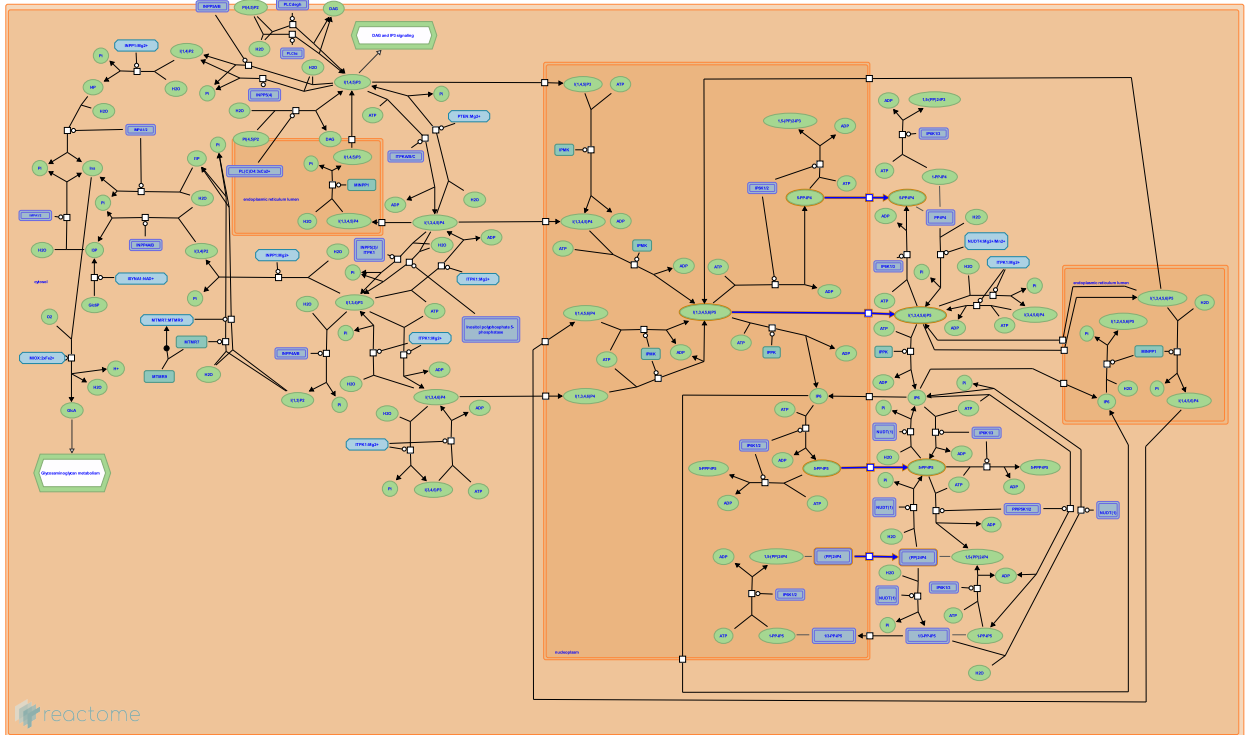


IPs transport between nucleus and cytosol



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This is just an excerpt of a full-length report for this pathway. To access the complete report, please download it at the [Reactome Textbook](https://reactome.org/textbook).

29/04/2024

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

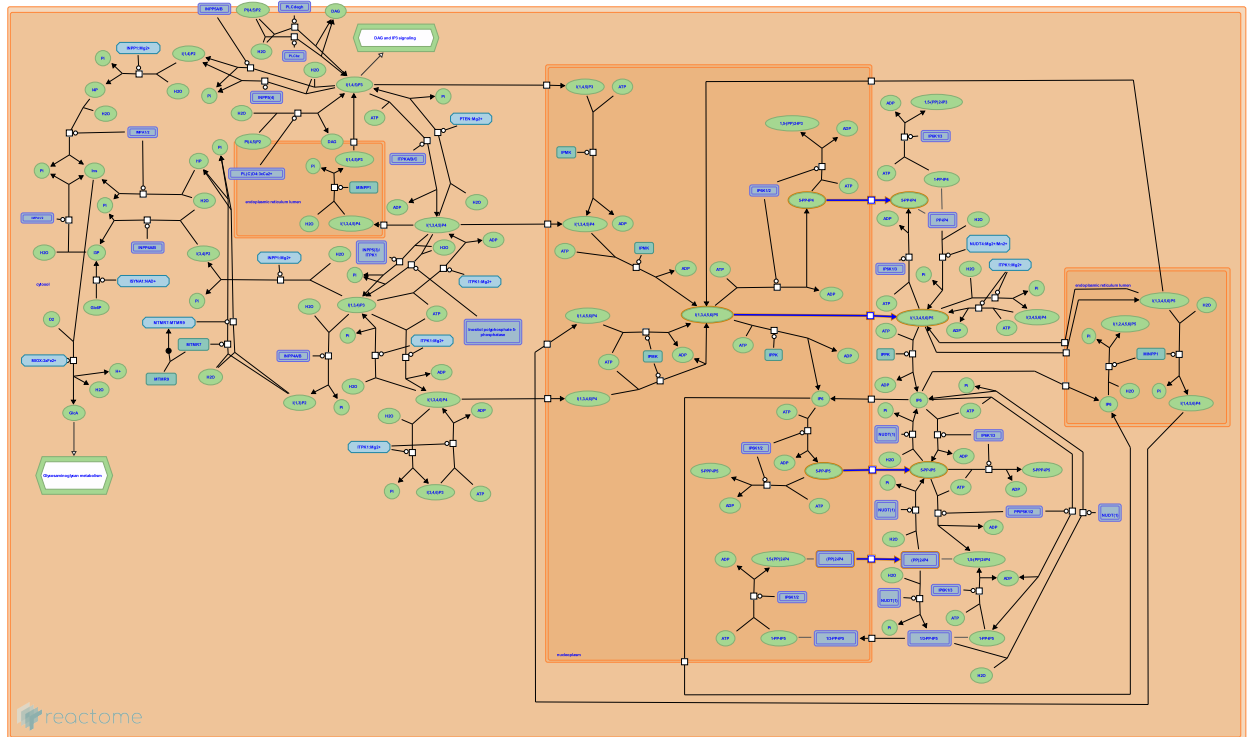
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Reactome database release: 88

This document contains 1 pathway and 4 reactions ([see Table of Contents](#))

IPs transport between nucleus and cytosol ↗

Stable identifier: R-HSA-1855170



Inositol phosphates (IPs) synthesised in the nucleus are imported into the cytosol from the nucleus. The molecular details of these transport processes remain uncertain (Nalaskowski et al. 2002; Ho et al. 2002, Brehm et al. 2007, Saiardi et al. 2001, Saiardi et al. 2000, Fridy et al. 2007, Leslie et al. 2002).

Literature references

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Editions

2011-10-28	Authored, Edited	Williams, MG.
2012-11-07	Reviewed	Wundenberg, T.

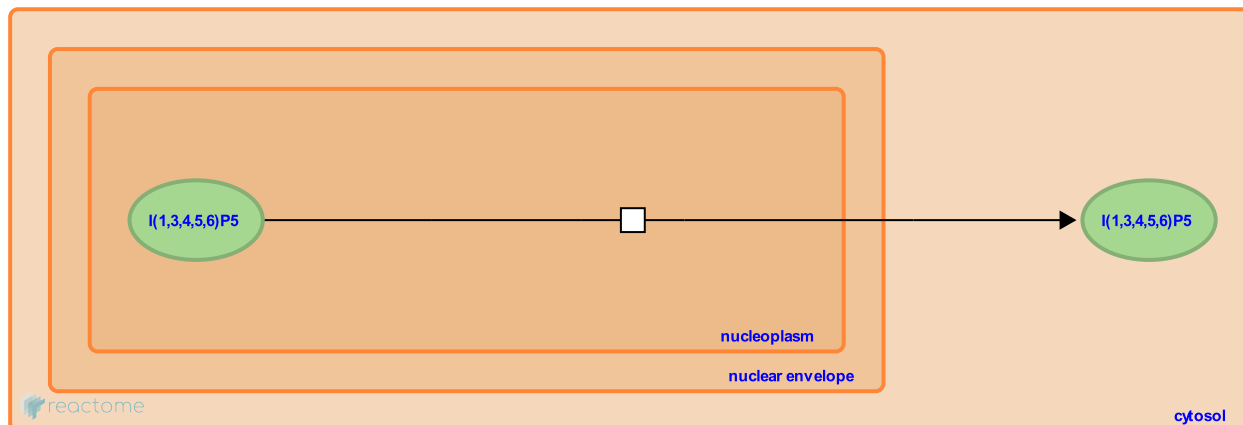
I(1,3,4,5,6)P5 transports from the nucleus to the cytosol ↗

Location: IPs transport between nucleus and cytosol

Stable identifier: R-HSA-1855161

Type: transition

Compartments: nucleoplasm, cytosol



Inositol 1,3,4,5,6-pentakisphosphate I(1,3,4,5,6)P5 translocates from the nucleus to the cytosol (Nalaskowski et al. 2002; Ho et al. 2002, Brehm et al. 2007).

Literature references

Nalaskowski, MM., Windhorst, S., Schenk, TM., Kobras, M., Brehm, MA., Mayr, GW. et al. (2007). Intracellular localization of human Ins(1,3,4,5,6)P5 2-kinase. *Biochem J*, 408, 335-45. ↗

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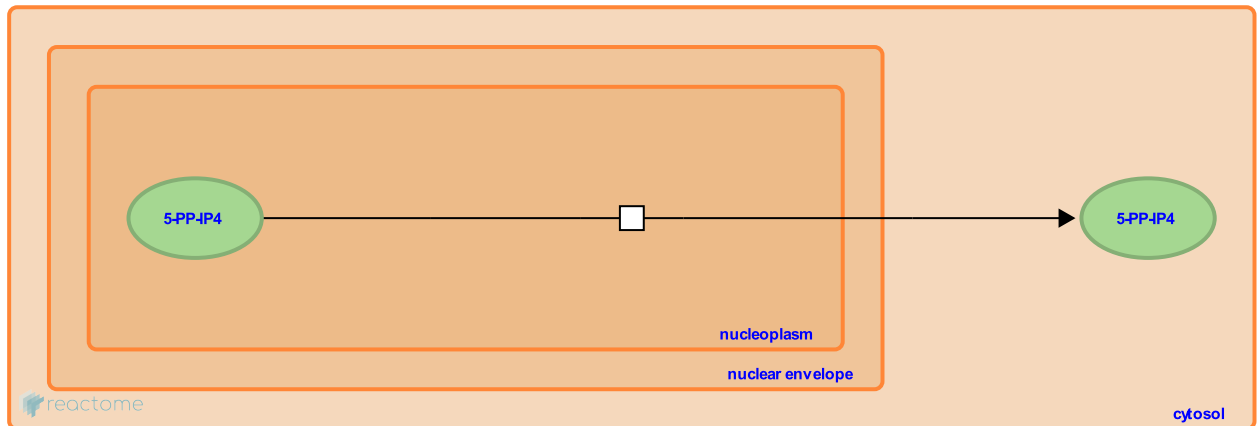
5-PP-IP4 transports from the nucleus to the cytosol ↗

Location: IPs transport between nucleus and cytosol

Stable identifier: R-HSA-1855173

Type: transition

Compartments: nucleoplasm, cytosol



Inositol 5-diphospho-1,3,4,6-tetrakisphosphate (5-PP-IP4) translocates from the nucleus to the cytosol (Saiardi et al. 2001, Saiardi et al. 2000).

Literature references

Saiardi, A., Snyder, SH., Caffrey, JJ., Shears, SB. (2000). The inositol hexakisphosphate kinase family. Catalytic flexibility and function in yeast vacuole biogenesis. *J Biol Chem*, 275, 24686-92. ↗

Nagata, E., Saiardi, A., Snyder, SH., Snowman, AM., Luo, HR. (2001). Identification and characterization of a novel inositol hexakisphosphate kinase. *J Biol Chem*, 276, 39179-85. ↗

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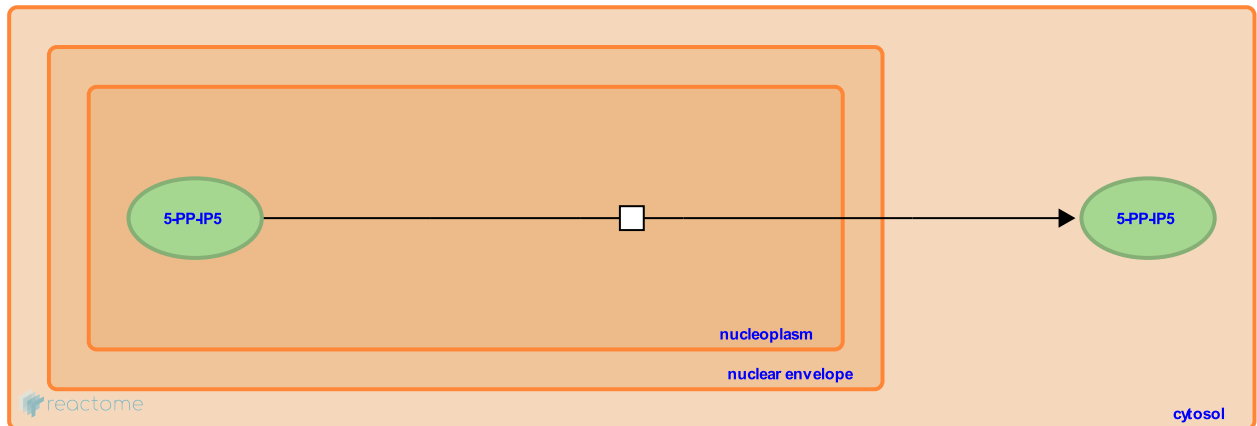
5-PP-IP5 transports from the nucleus to the cytosol ↗

Location: IPs transport between nucleus and cytosol

Stable identifier: R-HSA-1855203

Type: transition

Compartments: nucleoplasm, cytosol



Inositol 5-diphospho-1,2,3,4,6-pentakisphosphate (5-PP-IP5) translocates from the nucleus to the cytosol (Fridy et al. 2007).

Literature references

Dollins, DE., Otto, JC., York, JD., Fridy, PC. (2007). Cloning and characterization of two human VIP1-like inositol hexakisphosphate and diphosphoinositol pentakisphosphate kinases. *J Biol Chem*, 282, 30754-62. ↗

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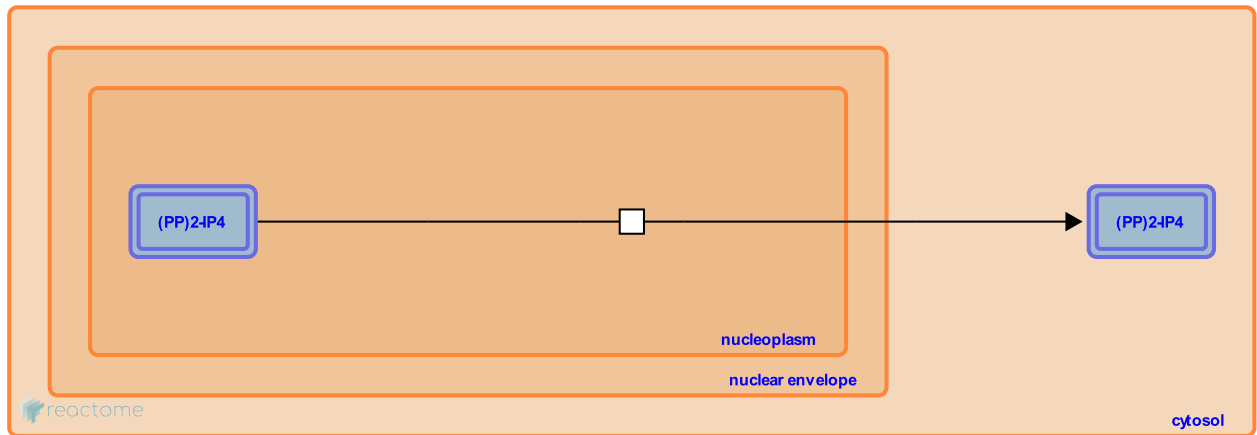
(PP)2-IP4 transports from the nucleus to the cytosol ↗

Location: IPs transport between nucleus and cytosol

Stable identifier: R-HSA-1855220

Type: transition

Compartments: nucleoplasm, cytosol



Inositol 1,5-bisdiphospho-2,3,4,6-tetrakisphosphate (1,5-(PP)2-IP4) and inositol 3,5-bisdiphospho-1,2,4,6-tetrakisphosphate (3,5-(PP)2-IP4) translocate from the nucleus to the cytosol (Leslie et al. 2002).

Literature references

Safrany, ST., Leslie, NR., McLennan, AG. (2002). Cloning and characterisation of hAps1 and hAps2, human diadenosine polyphosphate-metabolising Nudix hydrolases. *BMC Biochem*, 3, 20. ↗

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