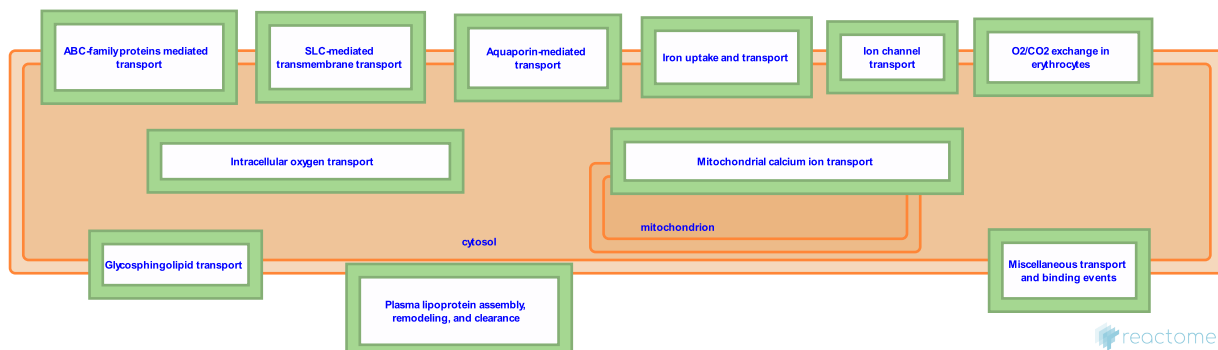


Transport of small molecules



European Bioinformatics Institute, New York University Langone Medical Center, Ontario Institute for Cancer Research, Oregon Health and Science University.

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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](#).

18/05/2024

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.

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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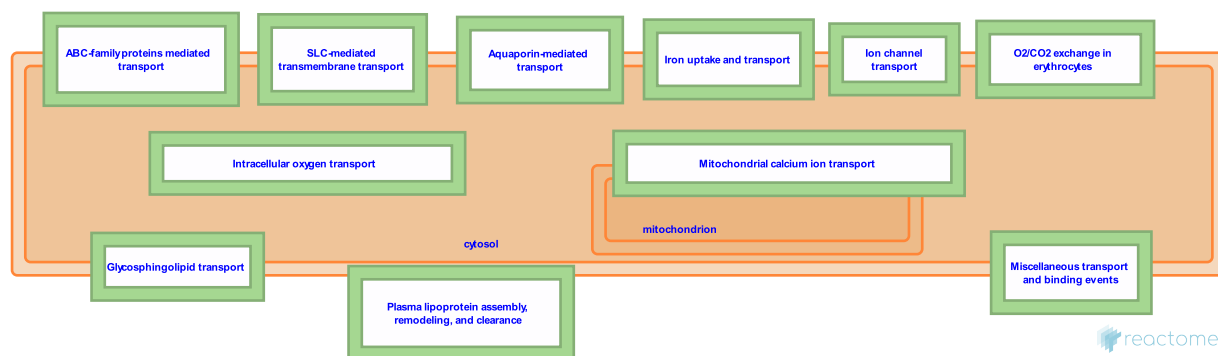
Reactome database release: 88

This document contains 12 pathways ([see Table of Contents](#))

Transport of small molecules ↗

Stable identifier: R-XTR-382551

Inferred from: [Transport of small molecules \(Homo sapiens\)](#)



This event has been computationally inferred from an event that has been demonstrated in another species.

The inference is based on the homology mapping from PANTHER. Briefly, reactions for which all involved PhysicalEntities (in input, output and catalyst) have a mapped orthologue/paralogue (for complexes at least 75% of components must have a mapping) are inferred to the other species. High level events are also inferred for these events to allow for easier navigation.

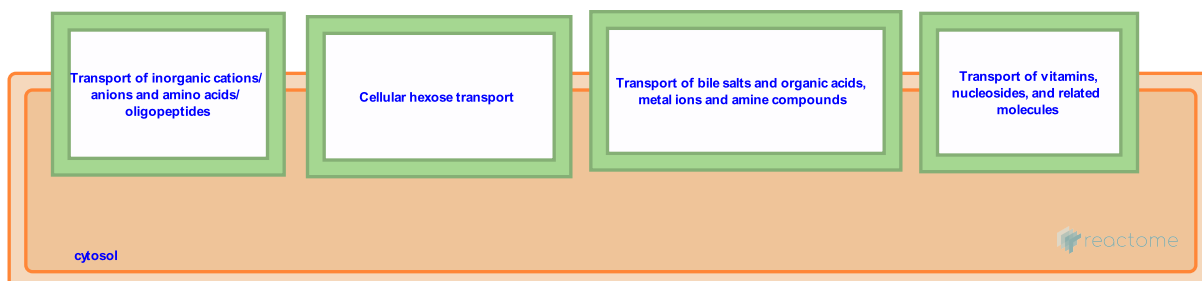
[More details and caveats of the event inference in Reactome.](#) For details on PANTHER see also: <http://www.pantherdb.org/about.jsp>

SLC-mediated transmembrane transport ↗

Location: [Transport of small molecules](#)

Stable identifier: R-XTR-425407

Inferred from: [SLC-mediated transmembrane transport \(Homo sapiens\)](#)



This event has been computationally inferred from an event that has been demonstrated in another species.

The inference is based on the homology mapping from PANTHER. Briefly, reactions for which all involved PhysicalEntities (in input, output and catalyst) have a mapped orthologue/paralogue (for complexes at least 75% of components must have a mapping) are inferred to the other species. High level events are also inferred for these events to allow for easier navigation.

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Aquaporin-mediated transport ↗

Location: [Transport of small molecules](#)

Stable identifier: R-XTR-445717

Compartments: plasma membrane

Inferred from: [Aquaporin-mediated transport \(Homo sapiens\)](#)



 reactome

This event has been computationally inferred from an event that has been demonstrated in another species.

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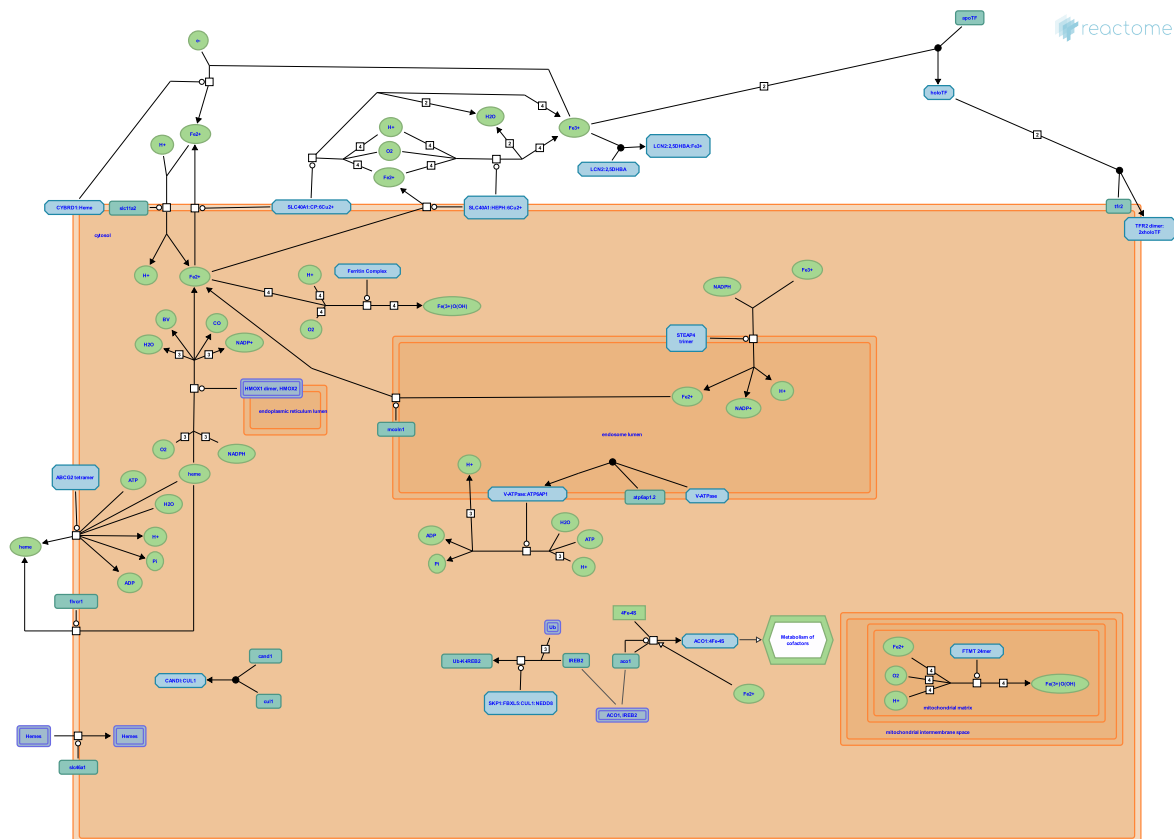
[More details and caveats of the event inference in Reactome.](#) For details on PANTHER see also: <http://www.pantherdb.org/about.jsp>

Iron uptake and transport ↗

Location: Transport of small molecules

Stable identifier: R-XTR-917937

Inferred from: Iron uptake and transport (Homo sapiens)



This event has been computationally inferred from an event that has been demonstrated in another species.

The inference is based on the homology mapping from PANTHER. Briefly, reactions for which all involved PhysicalEntities (in input, output and catalyst) have a mapped orthologue/paralogue (for complexes at least 75% of components must have a mapping) are inferred to the other species. High level events are also inferred for these events to allow for easier navigation.

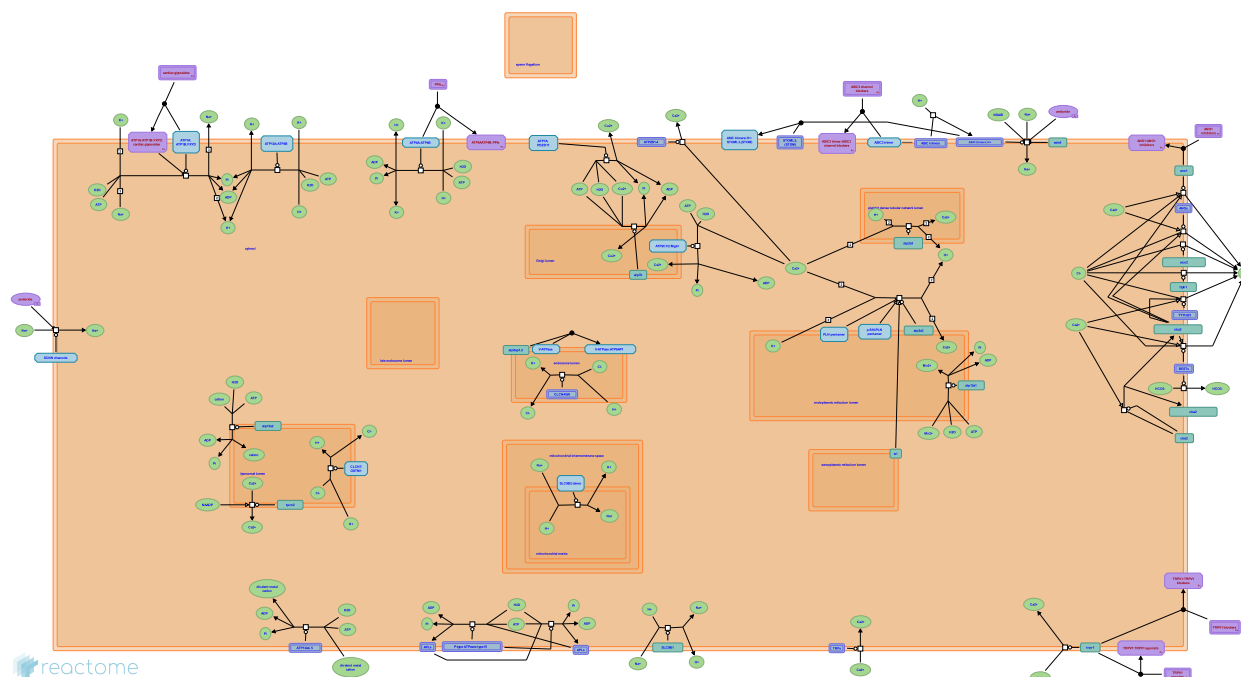
[More details and caveats of the event inference in Reactome.](http://www.pantherdb.org/about.jsp) For details on PANTHER see also: <http://www.pantherdb.org/about.jsp>

Ion channel transport ↗

Location: Transport of small molecules

Stable identifier: R-XTR-983712

Inferred from: Ion channel transport (Homo sapiens)



This event has been computationally inferred from an event that has been demonstrated in another species.

The inference is based on the homology mapping from PANTHER. Briefly, reactions for which all involved PhysicalEntities (in input, output and catalyst) have a mapped orthologue/paralogue (for complexes at least 75% of components must have a mapping) are inferred to the other species. High level events are also inferred for these events to allow for easier navigation.

[More details and caveats of the event inference in Reactome.](http://www.pantherdb.org/about.jsp) For details on PANTHER see also: <http://www.pantherdb.org/about.jsp>

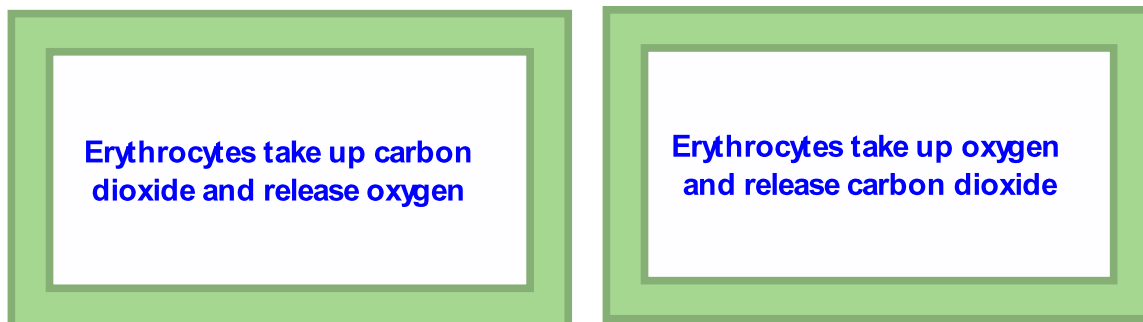
O₂/CO₂ exchange in erythrocytes ↗

Location: [Transport of small molecules](#)

Stable identifier: R-XTR-1480926

Compartments: plasma membrane, extracellular region, cytosol

Inferred from: [O₂/CO₂ exchange in erythrocytes \(Homo sapiens\)](#)



This event has been computationally inferred from an event that has been demonstrated in another species.

The inference is based on the homology mapping from PANTHER. Briefly, reactions for which all involved PhysicalEntities (in input, output and catalyst) have a mapped orthologue/paralogue (for complexes at least 75% of components must have a mapping) are inferred to the other species. High level events are also inferred for these events to allow for easier navigation.

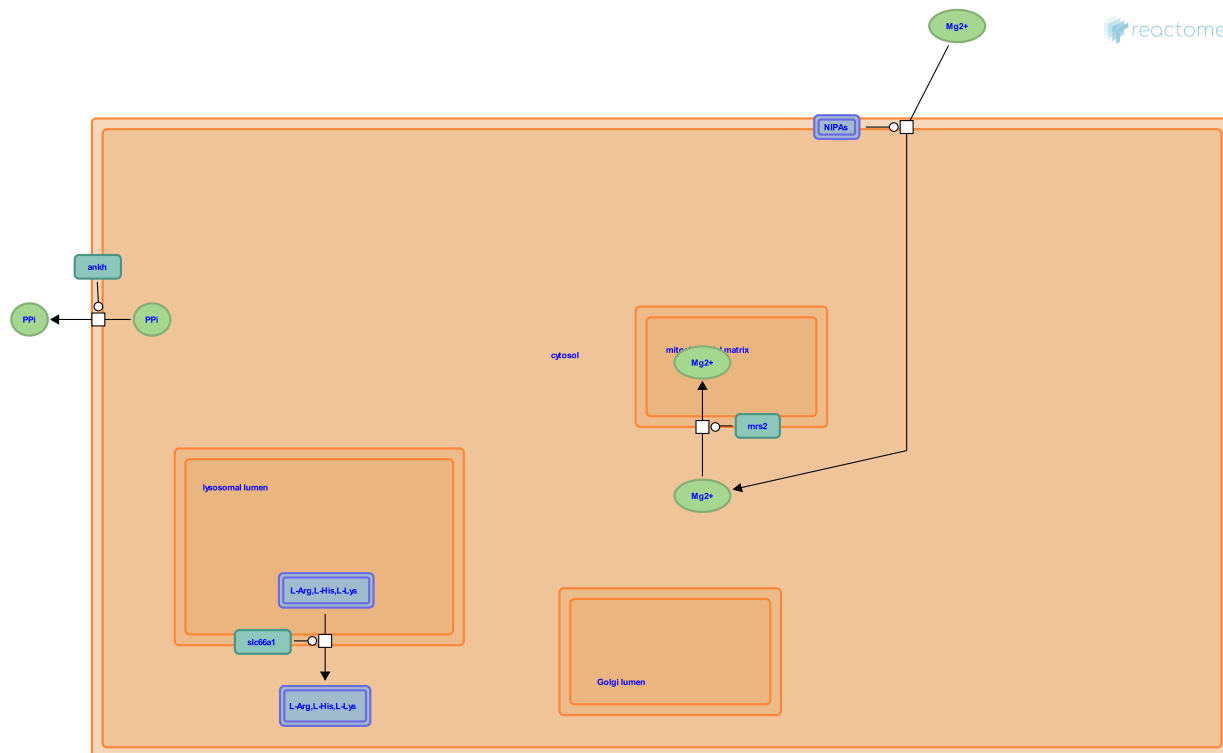
[More details and caveats of the event inference in Reactome.](#) For details on PANTHER see also: <http://www.pantherdb.org/about.jsp>

Miscellaneous transport and binding events [↗](#)

Location: [Transport of small molecules](#)

Stable identifier: R-XTR-5223345

Inferred from: [Miscellaneous transport and binding events \(Homo sapiens\)](#)



This event has been computationally inferred from an event that has been demonstrated in another species.

The inference is based on the homology mapping from PANTHER. Briefly, reactions for which all involved PhysicalEntities (in input, output and catalyst) have a mapped orthologue/paralogue (for complexes at least 75% of components must have a mapping) are inferred to the other species. High level events are also inferred for these events to allow for easier navigation.

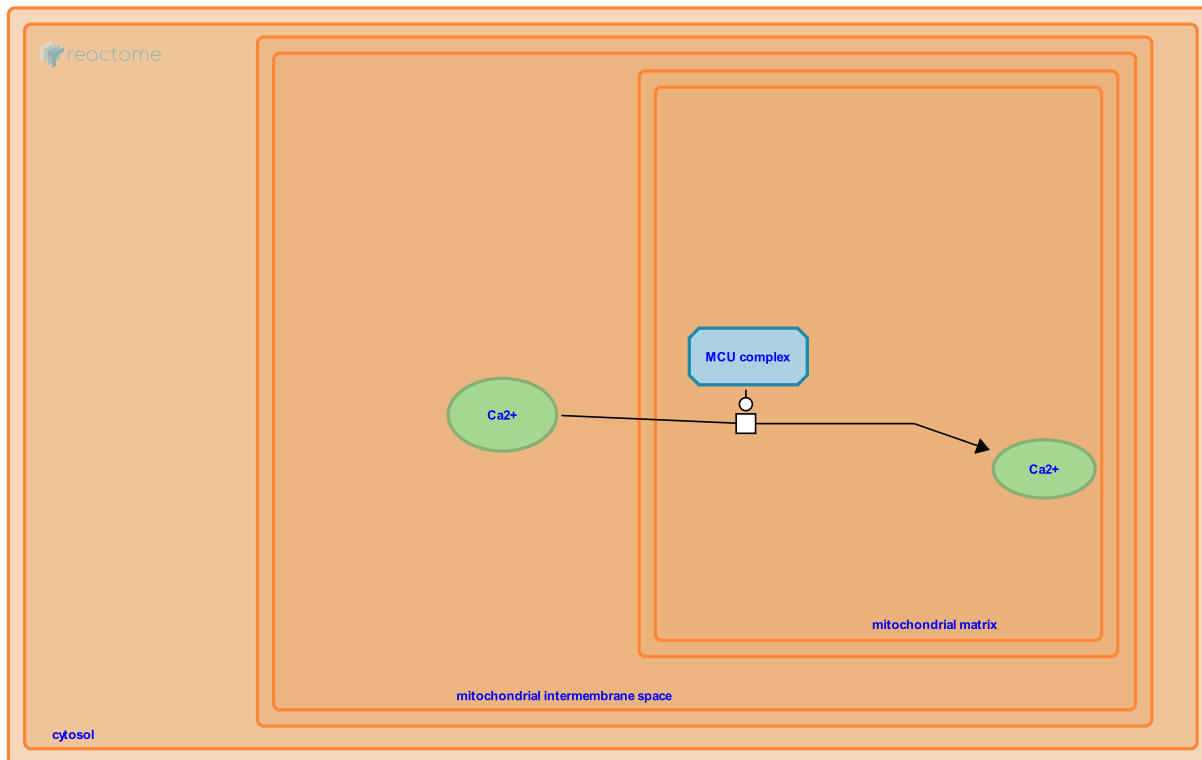
[More details and caveats of the event inference in Reactome.](#) For details on PANTHER see also: <http://www.pantherdb.org/about.jsp>

Mitochondrial calcium ion transport [↗](#)

Location: [Transport of small molecules](#)

Stable identifier: R-XTR-8949215

Inferred from: [Mitochondrial calcium ion transport \(Homo sapiens\)](#)



This event has been computationally inferred from an event that has been demonstrated in another species.

The inference is based on the homology mapping from PANTHER. Briefly, reactions for which all involved PhysicalEntities (in input, output and catalyst) have a mapped orthologue/paralogue (for complexes at least 75% of components must have a mapping) are inferred to the other species. High level events are also inferred for these events to allow for easier navigation.

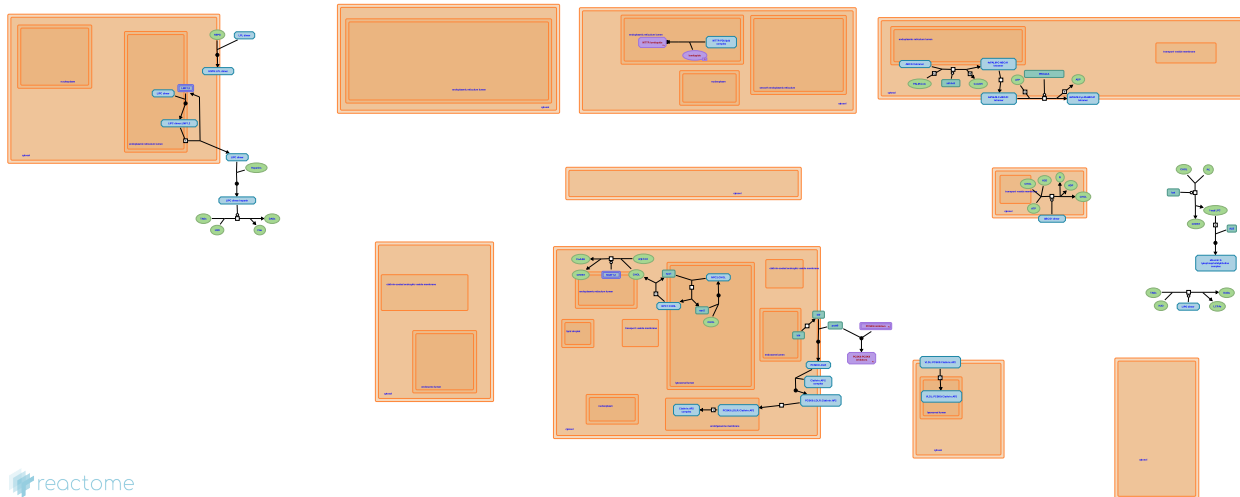
[More details and caveats of the event inference in Reactome.](#) For details on PANTHER see also: <http://www.pantherdb.org/about.jsp>

Plasma lipoprotein assembly, remodeling, and clearance ↗

Location: [Transport of small molecules](#)

Stable identifier: R-XTR-174824

Inferred from: [Plasma lipoprotein assembly, remodeling, and clearance \(Homo sapiens\)](#)



This event has been computationally inferred from an event that has been demonstrated in another species.

The inference is based on the homology mapping from PANTHER. Briefly, reactions for which all involved PhysicalEntities (in input, output and catalyst) have a mapped orthologue/paralogue (for complexes at least 75% of components must have a mapping) are inferred to the other species. High level events are also inferred for these events to allow for easier navigation.

[More details and caveats of the event inference in Reactome.](#) For details on PANTHER see also: <http://www.pantherdb.org/about.jsp>

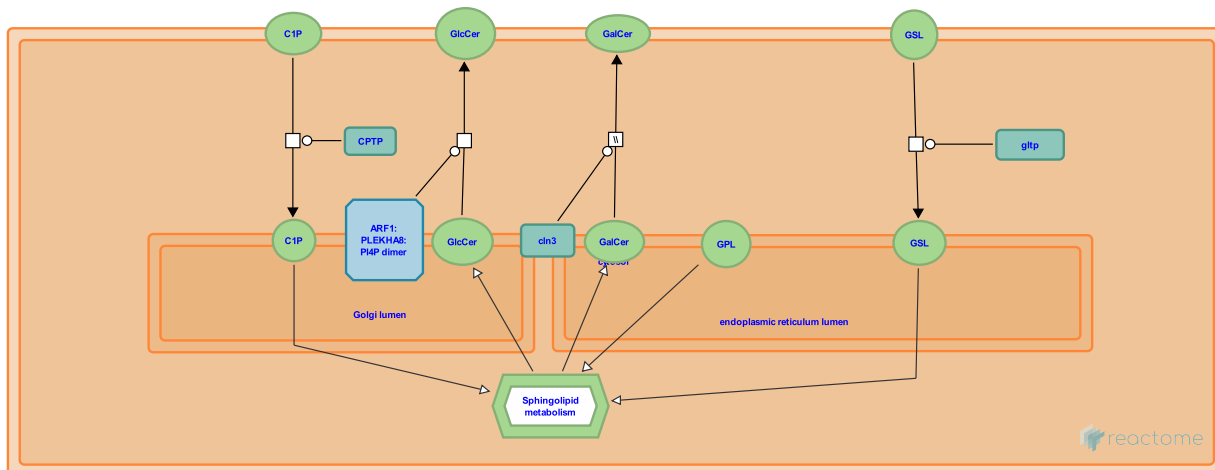
Glycosphingolipid transport ↗

Location: Transport of small molecules

Stable identifier: R-XTR-9845576

Compartments: endoplasmic reticulum membrane, plasma membrane, Golgi membrane, cytosol

Inferred from: Glycosphingolipid transport (Homo sapiens)



This event has been computationally inferred from an event that has been demonstrated in another species.

The inference is based on the homology mapping from PANTHER. Briefly, reactions for which all involved PhysicalEntities (in input, output and catalyst) have a mapped orthologue/paralogue (for complexes at least 75% of components must have a mapping) are inferred to the other species. High level events are also inferred for these events to allow for easier navigation.

[More details and caveats of the event inference in Reactome.](http://www.pantherdb.org/about.jsp) For details on PANTHER see also: <http://www.pantherdb.org/about.jsp>

Table of Contents

Introduction	1
❖ Transport of small molecules	2
❖ ABC-family proteins mediated transport	3
❖ SLC-mediated transmembrane transport	4
❖ Aquaporin-mediated transport	5
❖ Iron uptake and transport	6
❖ Ion channel transport	7
❖ O ₂ /CO ₂ exchange in erythrocytes	8
❖ Miscellaneous transport and binding events	9
❖ Mitochondrial calcium ion transport	10
❖ Plasma lipoprotein assembly, remodeling, and clearance	11
❖ Intracellular oxygen transport	12
❖ Glycosphingolipid transport	13
Table of Contents	14