Metabolism of water-soluble vitamins and cofactors

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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.

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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**


Reactome database release: 82

This document contains 11 pathways (see Table of Contents)

https://reactome.org
Metabolism of water-soluble vitamins and cofactors

Stable identifier: R-DDI-196849

Inferred from: Metabolism of water-soluble vitamins and cofactors (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

http://www.reactome.org
Vitamin C (ascorbate) metabolism

**Location:** Metabolism of water-soluble vitamins and cofactors

**Stable identifier:** R-DDI-196836

**Inferred from:** Vitamin C (ascorbate) metabolism (Homo sapiens)

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

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https://reactome.org
Vitamin B1 (thiamin) metabolism

Location: Metabolism of water-soluble vitamins and cofactors

Stable identifier: R-DDI-196819

Inferred from: Vitamin B1 (thiamin) metabolism (Homo sapiens)

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

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Vitamin B2 (riboflavin) metabolism

**Location:** Metabolism of water-soluble vitamins and cofactors

**Stable identifier:** R-DDI-196843

**Inferred from:** Vitamin B2 (riboflavin) metabolism (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.](https://reactome.org) For details on PANTHER see also: [http://www.pantherdb.org/about.jsp](http://www.pantherdb.org/about.jsp)
**Vitamin B5 (pantothenate) metabolism**

**Location:** Metabolism of water-soluble vitamins and cofactors

**Stable identifier:** R-DDI-199220

**Inferred from:** Vitamin B5 (pantothenate) metabolism (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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Vitamins B6 activation to pyridoxal phosphate

**Location:** Metabolism of water-soluble vitamins and cofactors

**Stable identifier:** R-DDI-964975

**Inferred from:** Vitamins B6 activation to pyridoxal phosphate (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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Cobalamin (Cbl, vitamin B12) transport and metabolism

Location: Metabolism of water-soluble vitamins and cofactors

Stable identifier: R-DDI-196741

Inferred from: Cobalamin (Cbl, vitamin B12) transport and metabolism (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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https://reactome.org
Nicotinate metabolism ➔

**Location:** Metabolism of water-soluble vitamins and cofactors

**Stable identifier:** R-DDI-196807

**Inferred from:** Nicotinate metabolism (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
Metabolism of folate and pterines

Location: Metabolism of water-soluble vitamins and cofactors

Stable identifier: R-DDI-196757

Inferred from: Metabolism of folate and pterines (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/parologue (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.

<a href='/electronic_inference_compara.html' target='NEW'>More details and caveats of the event inference in Reactome. For details on PANTHER see also: <a href='http://www.pantherdb.org/about.jsp' target='NEW'>http://www.pantherdb.org/about.jsp

https://reactome.org
Molybdenum cofactor biosynthesis

**Location:** Metabolism of water-soluble vitamins and cofactors

**Stable identifier:** R-DDI-947581

**Compartments:** cytosol

**Inferred from:** Molybdenum cofactor biosynthesis (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.

[a href='/electronic_inference_compara.html' target = 'NEW']More details and caveats of the event inference in Reactome. For details on PANTHER see also: [a href='http://www.pantherdb.org/about.jsp' target='NEW']http://www.pantherdb.org/about.jsp
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