Hypusine synthesis from eIF5A-lysine

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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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https://reactome.org
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 1 pathway and 3 reactions (see Table of Contents)

https://reactome.org
Hypusine synthesis from eIF5A-lysine

Stable identifier: R-PFA-204626

Compartments: cytosol

Inferred from: Hypusine synthesis from eIF5A-lysine (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.

More details and caveats of the event inference in Reactome. For details on PANTHER see also: http://www.pantherdb.org/about.jsp
DHPS tetramer synthesizes Dhp-K50-EIF5A from EIF5A and spermidine

Location: Hypusine synthesis from EIF5A-lysine

Stable identifier: R-PFA-204647

Type: transition

Compartments: cytosol

Inferred from: DHPS tetramer synthesizes Dhp-K50-EIF5A from EIF5A and spermidine (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

Followed by: DOHH:Fe2+ hydroxylates Dhp-K50-EIF5A to form Hyp-K50-EIF5A
**DHPS tetramer synthesizes EIF5A and spermidine from Dhp-K50-EIF5A**

**Location:** Hypusine synthesis from eIF5A-lysine

**Stable identifier:** R-PFA-204617

**Type:** transition

**Compartments:** cytosol

**Inferred from:** DHPS tetramer synthesizes EIF5A and spermidine from Dhp-K50-EIF5A (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.pantherdb.org/about.jsp)
DOHH:Fe²⁺ hydroxylates Dhp-K50-EIF5A to form Hyp-K50-EIF5A

Location: Hypusine synthesis from eIF5A-lysine

Stable identifier: R-PFA-204662

Type: transition

Compartments: cytosol

Inferred from: DOHH:Fe²⁺ hydroxylates Dhp-K50-EIF5A to form Hyp-K50-EIF5A (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.

For details and caveats of the event inference in Reactome, see: https://reactome.org

Preceded by: DHPS tetramer synthesizes Dhp-K50-EIF5A from EIF5A and spermidine
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