EPH-Ephrin signaling

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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 5 pathways and 5 reactions (see Table of Contents)
EPH-Ephrin signaling

Stable identifier: R-MMU-2682334

Compartments: cytosol, plasma membrane

Inferred from: EPH-Ephrin signaling (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
**EPHAs bind EFNAs**

**Location:** EPH-Ephrin signaling

**Stable identifier:** R-MMU-3928646

**Type:** binding

**Compartments:** plasma membrane

**Inferred from:** EPHAs bind EFNAs (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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**Followed by:** EPH:EFN dimers tetramerise
**EPHBs bind EFN Bs**

**Location:** EPH-Ephrin signaling

**Stable identifier:** R-MMU-3928624

**Type:** binding

**Compartments:** plasma membrane

**Inferred from:** EPHBs bind EFN Bs (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

**Followed by:** EPH:EFN dimers tetramerise
**EPH:EFN dimers tetramerise**

**Location:** EPH-Ephrin signaling

**Stable identifier:** R-MMU-3928597

**Type:** transition

**Compartments:** plasma membrane

**Inferred from:** EPH:EFN dimers tetramerise (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. For details on PANTHER see also: [http://www.pantherdb.org/about.jsp](http://www.pantherdb.org/about.jsp)

**Preceded by:** EPHAs bind EFNAs, EPHBs bind EFNBs

**Followed by:** EPH:EFN tetramers oligomerise
**EPH:EFN tetramers oligomerise**

**Location:** EPH-Ephrin signaling

**Stable identifier:** R-MMU-3928591

**Type:** transition

**Compartments:** plasma membrane

**Inferred from:** EPH:EFN tetramers oligomerise (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/electronic_inference_compara.html) For details on PANTHER see also: [http://www.pantherdb.org/about.jsp](http://www.pantherdb.org/about.jsp)

**Preceded by:** EPH:EFN dimers tetramerise

**Followed by:** EPH receptors autophosphorylate
EPH receptors autophosphorylate

Location: EPH-Ephrin signaling

Stable identifier: R-MMU-3928578

Type: transition

Compartments: plasma membrane, cytosol

Inferred from: EPH receptors autophosphorylate (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:

Preceded by: EPH:EFN tetramers oligomerise
**EPHA-mediated growth cone collapse**

**Location:** EPH-Ephrin signaling

**Stable identifier:** R-MMU-3928663

**Compartments:** plasma membrane, cytosol

**Inferred from:** EPHA-mediated growth cone collapse (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)
**EPHB-mediated forward signaling**

**Location:** EPH-Ephrin signaling

**Stable identifier:** R-MMU-3928662

**Compartments:** plasma membrane, cytosol

**Inferred from:** EPHB-mediated forward signaling (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
**Ephrin signaling**

**Location:** EPH-Ephrin signaling

**Stable identifier:** R-MMU-3928664

**Compartments:** plasma membrane, cytosol

**Inferred from:** Ephrin signaling (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)
**EPH-ephrin mediated repulsion of cells**

**Location:** EPH-Ephrin signaling

**Stable identifier:** R-MMU-3928665

**Compartments:** plasma membrane

**Inferred from:** EPH-ephrin mediated repulsion of cells (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)
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