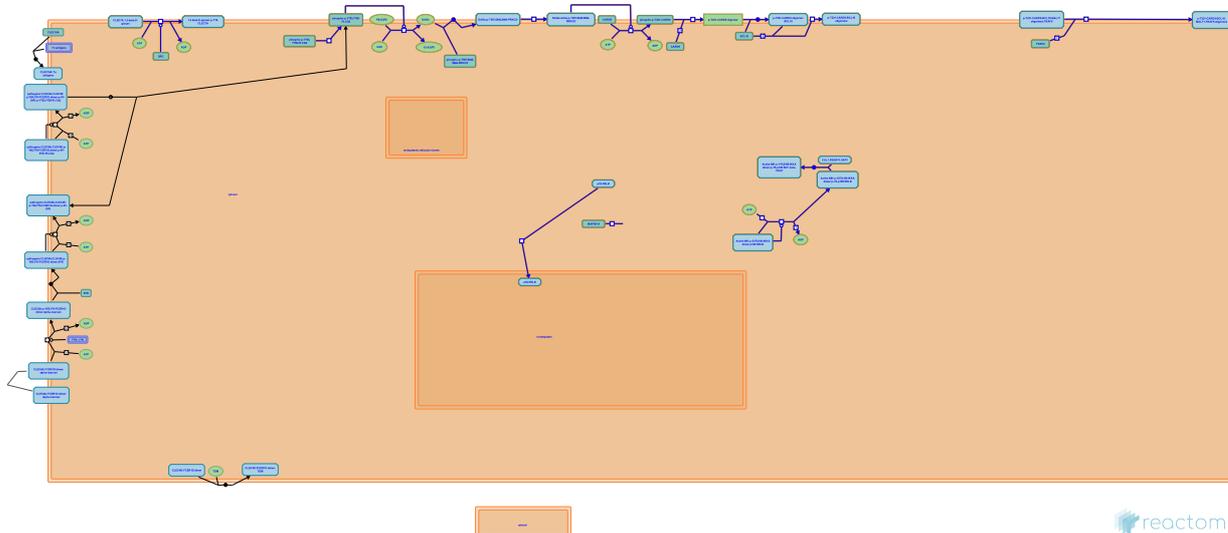


# CLEC7A (Dectin-1) signaling



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

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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.

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

- Fabregat, A., Sidiropoulos, K., Viteri, G., Forner, O., Marin-Garcia, P., Arnau, V. et al. (2017). Reactome pathway analysis: a high-performance in-memory approach. *BMC bioinformatics*, 18, 142. [↗](#)
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- Fabregat, A., Korninger, F., Viteri, G., Sidiropoulos, K., Marin-Garcia, P., Ping, P. et al. (2018). Reactome graph database: Efficient access to complex pathway data. *PLoS computational biology*, 14, e1005968. [↗](#)

Reactome database release: 74

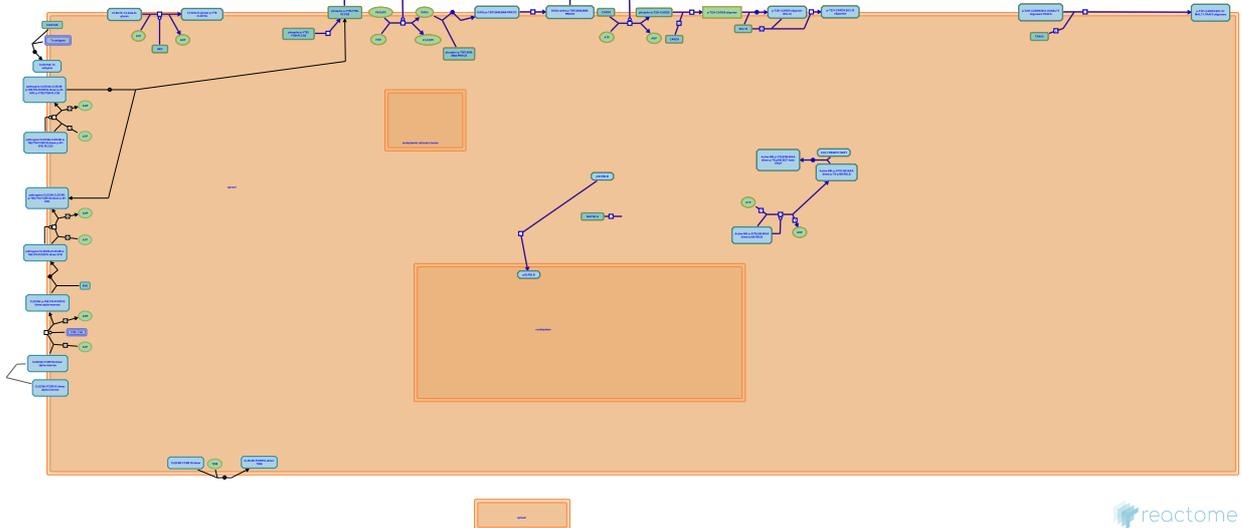
This document contains 2 pathways and 10 reactions ([see Table of Contents](#))

## CLEC7A (Dectin-1) signaling [↗](#)

**Stable identifier:** R-BTA-5607764

**Compartments:** plasma membrane

**Inferred from:** [CLEC7A \(Dectin-1\) 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.](/electronic_inference_compara.html) For details on PANTHER see also: <http://www.pantherdb.org/about.jsp>

## SRC kinase phosphorylates CLEC7A:1,3-beta-D-glucan ↗

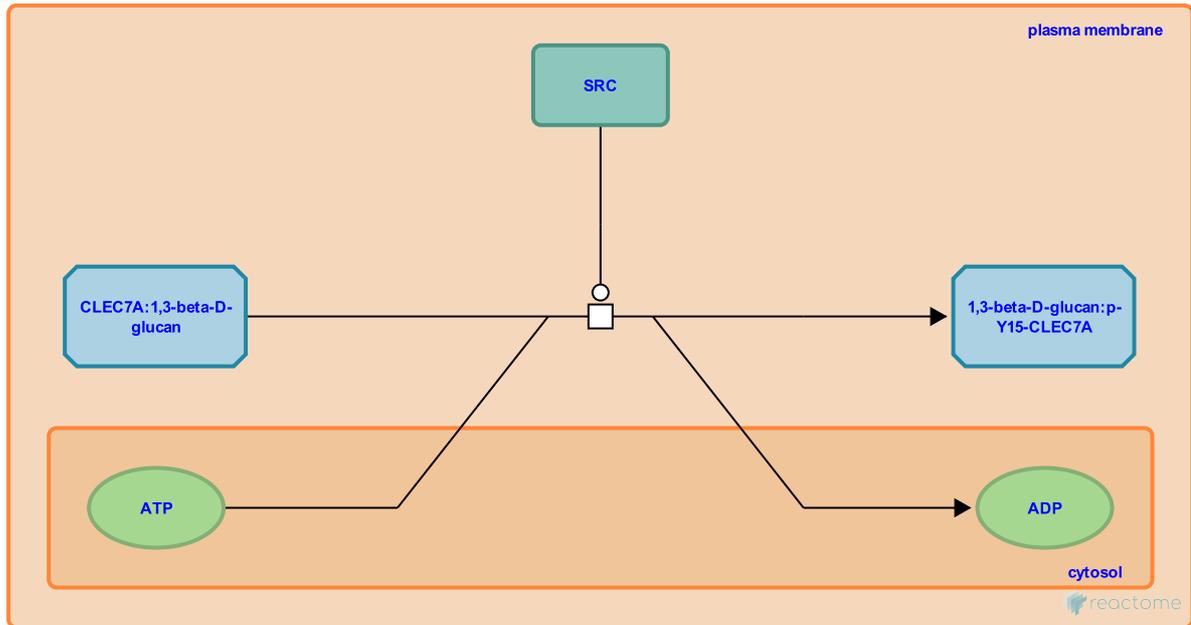
**Location:** CLEC7A (Dectin-1) signaling

**Stable identifier:** R-BTA-5607750

**Type:** transition

**Compartments:** plasma membrane, cytosol

**Inferred from:** SRC kinase phosphorylates CLEC7A:1,3-beta-D-glucan (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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## p-Y753,Y759-PLCG2 translocates from cytosol to plasma membrane ↗

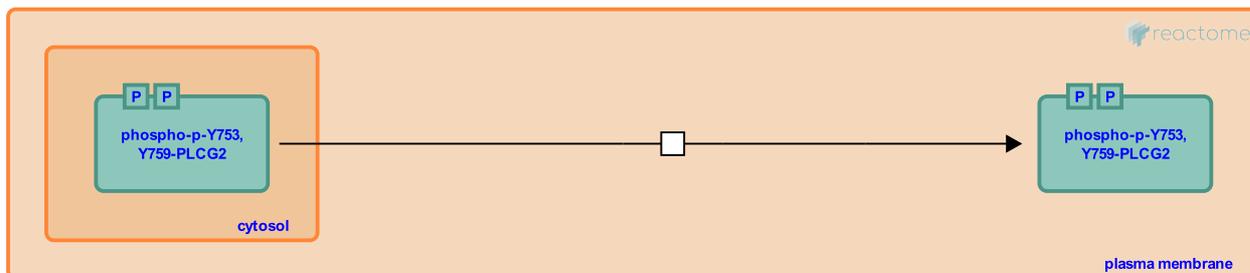
**Location:** CLEC7A (Dectin-1) signaling

**Stable identifier:** R-BTA-5607755

**Type:** transition

**Compartments:** plasma membrane, cytosol

**Inferred from:** p-Y753,Y759-PLCG2 translocates from cytosol to plasma membrane (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.](/electronic_inference_compara.html) For details on PANTHER see also: <http://www.pantherdb.org/about.jsp>

**Followed by:** p-Y753,Y759-PLCG2 hydrolyses PIP2

## p-Y753,Y759-PLCG2 hydrolyses PIP2 ↗

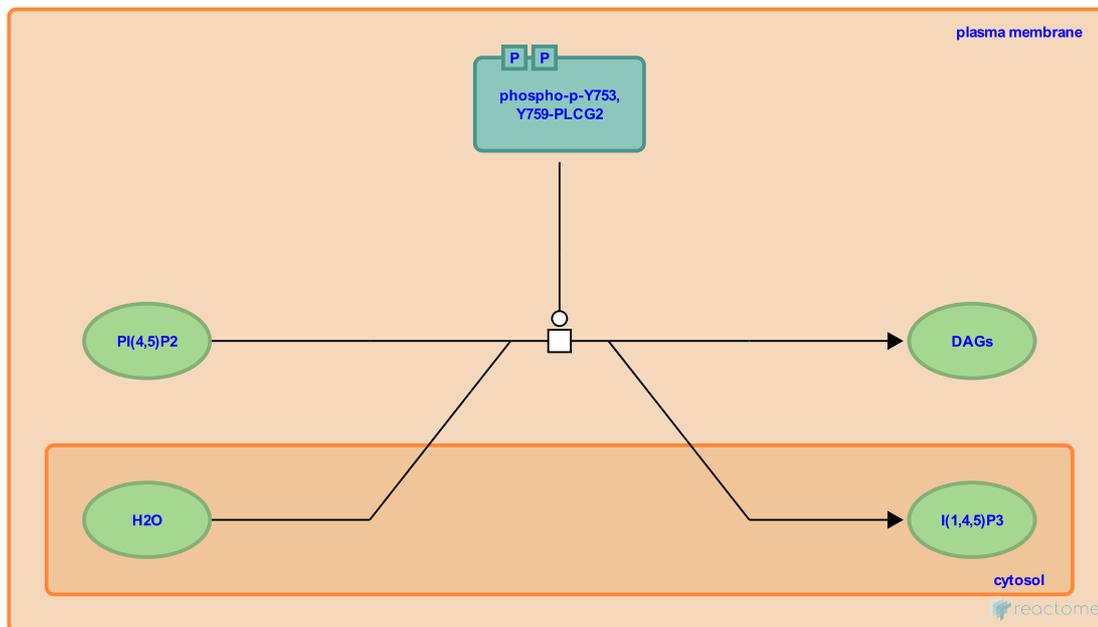
**Location:** CLEC7A (Dectin-1) signaling

**Stable identifier:** R-BTA-5607735

**Type:** transition

**Compartments:** plasma membrane, cytosol

**Inferred from:** p-Y753,Y759-PLCG2 hydrolyses PIP2 (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.](/electronic_inference_compara.html) For details on PANTHER see also: <http://www.pantherdb.org/about.jsp>

**Preceded by:** p-Y753,Y759-PLCG2 translocates from cytosol to plasma membrane

**Followed by:** PKC-delta translocates to plasma membrane

## PKC-delta translocates to plasma membrane ↗

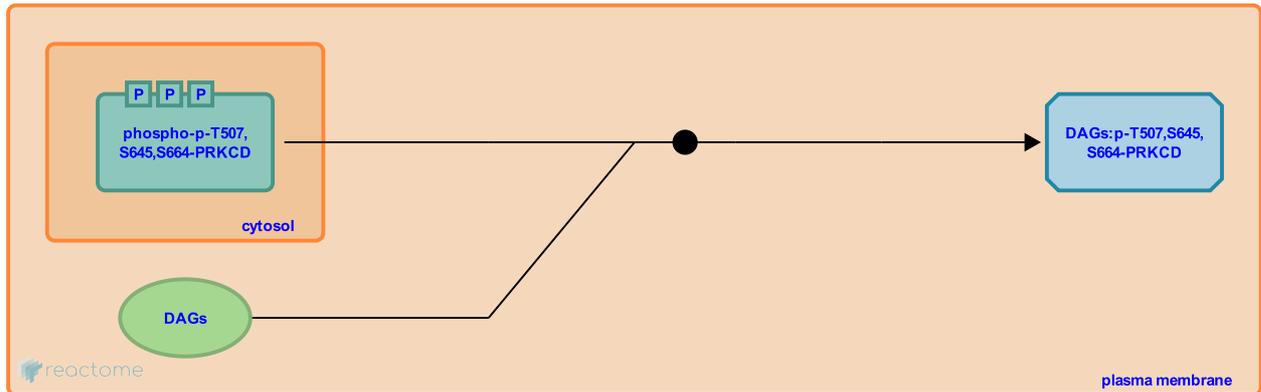
**Location:** [CLEC7A \(Dectin-1\) signaling](#)

**Stable identifier:** R-BTA-5607734

**Type:** binding

**Compartments:** plasma membrane, cytosol

**Inferred from:** [PKC-delta translocates to plasma membrane \(Homo sapiens\)](#)



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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**Preceded by:** [p-Y753, Y759-PLCG2 hydrolyses PIP2](#)

**Followed by:** [PKC-delta is activated](#)

## PKC-delta is activated ↗

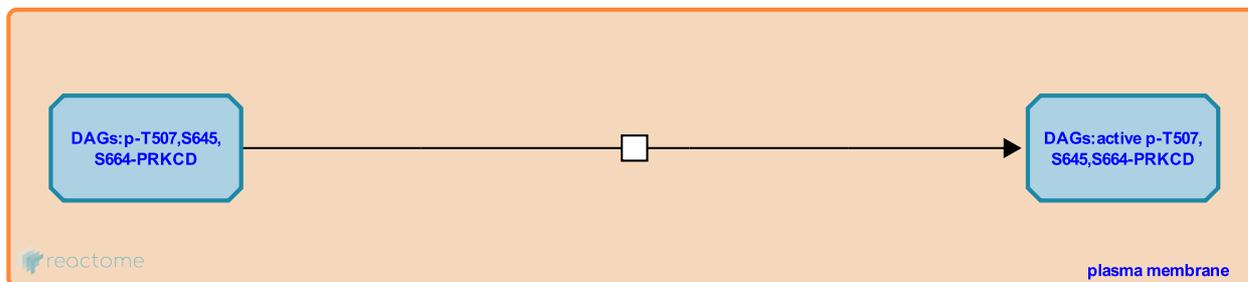
**Location:** [CLEC7A \(Dectin-1\) signaling](#)

**Stable identifier:** R-BTA-5607746

**Type:** transition

**Compartments:** plasma membrane

**Inferred from:** [PKC-delta is activated \(Homo sapiens\)](#)



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.](/electronic_inference_compara.html) For details on PANTHER see also: <http://www.pantherdb.org/about.jsp>

**Preceded by:** [PKC-delta translocates to plasma membrane](#)

**Followed by:** [PKC-delta phosphorylates CARD9](#)

## PKC-delta phosphorylates CARD9 ↗

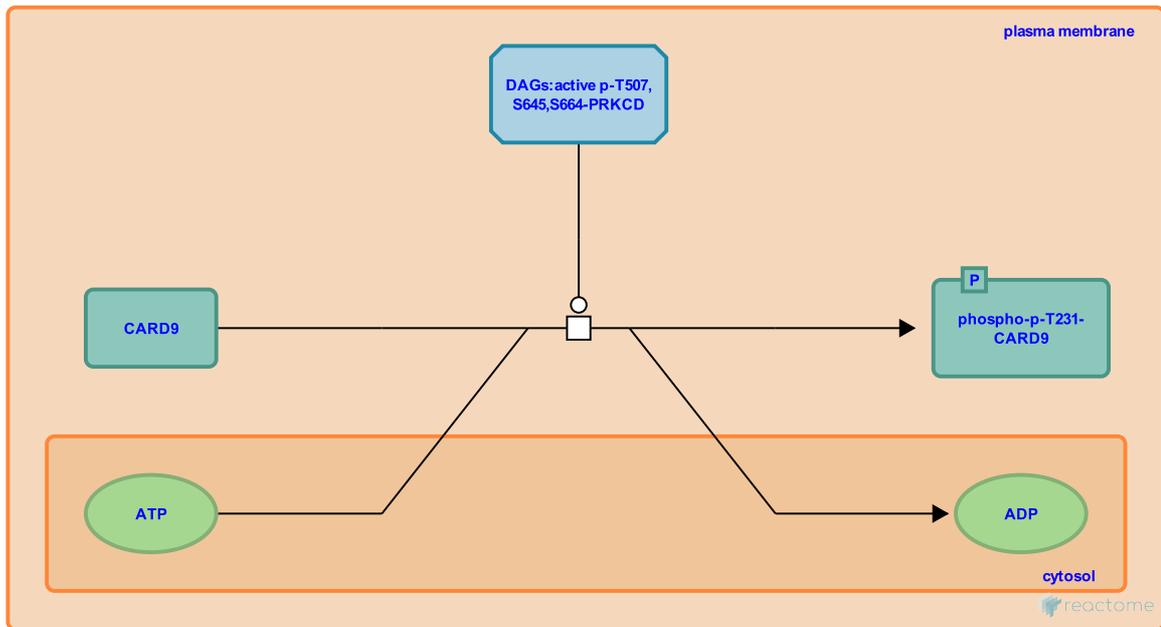
**Location:** [CLEC7A \(Dectin-1\) signaling](#)

**Stable identifier:** R-BTA-5607740

**Type:** transition

**Compartments:** plasma membrane, cytosol

**Inferred from:** [PKC-delta phosphorylates CARD9 \(Homo sapiens\)](#)



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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**Preceded by:** [PKC-delta is activated](#)

**Followed by:** [CARD9 oligomerizes](#)

## CARD9 oligomerizes ↗

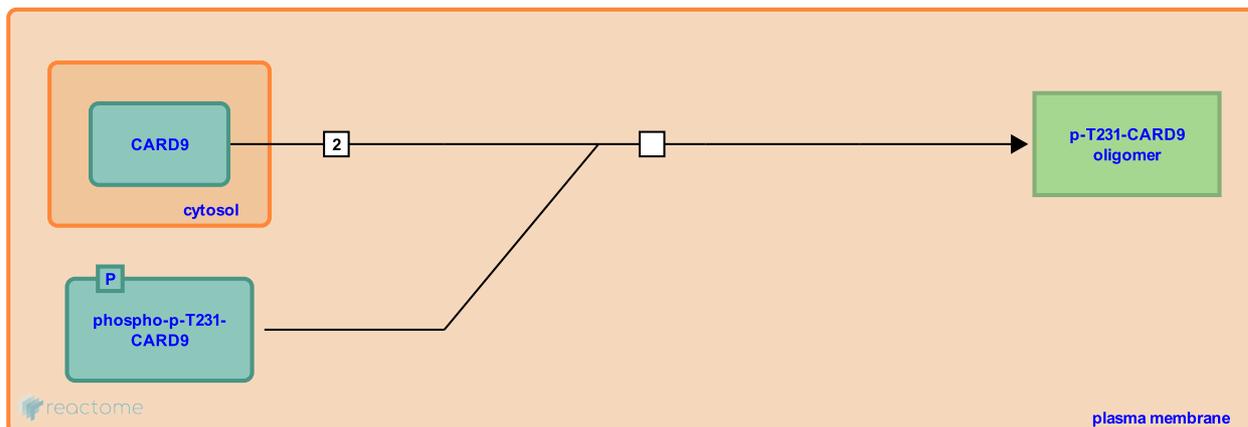
**Location:** [CLEC7A \(Dectin-1\) signaling](#)

**Stable identifier:** R-BTA-5607753

**Type:** transition

**Compartments:** plasma membrane, cytosol

**Inferred from:** [CARD9 oligomerizes \(Homo sapiens\)](#)



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.](/electronic_inference_compara.html) For details on PANTHER see also: <http://www.pantherdb.org/about.jsp>

**Preceded by:** [PKC-delta phosphorylates CARD9](#)

**Followed by:** [BCL10 binds CARD9](#)

## BCL10 binds CARD9 ↗

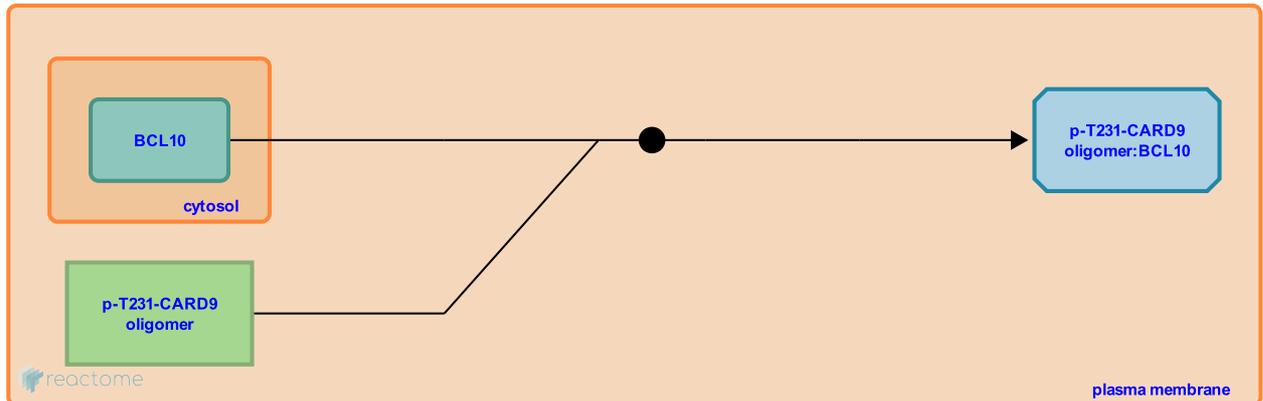
**Location:** [CLEC7A \(Dectin-1\) signaling](#)

**Stable identifier:** R-BTA-5607733

**Type:** binding

**Compartments:** plasma membrane, cytosol

**Inferred from:** [BCL10 binds CARD9 \(Homo sapiens\)](#)



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.](/electronic_inference_compara.html) For details on PANTHER see also: <http://www.pantherdb.org/about.jsp>

**Preceded by:** [CARD9 oligomerizes](#)

**Followed by:** [BCL10 oligomerizes](#)

## BCL10 oligomerizes ↗

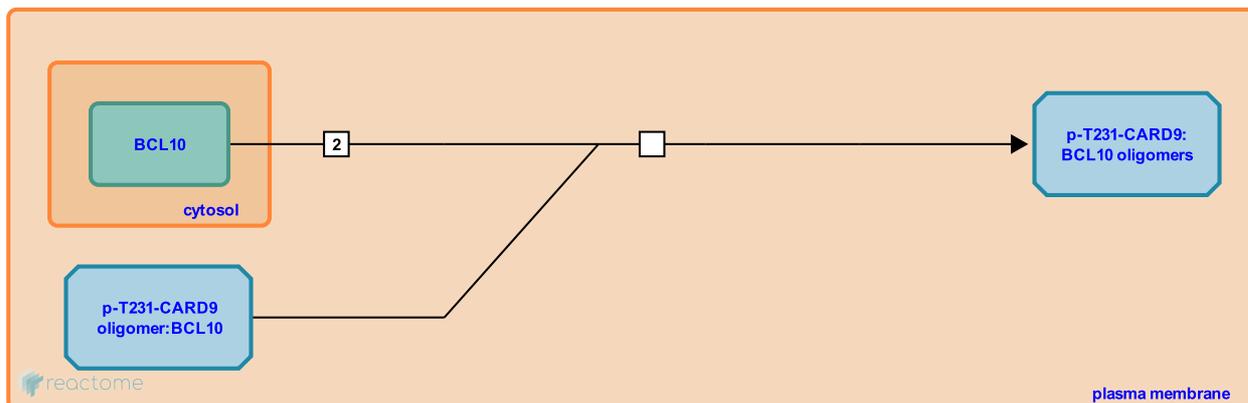
**Location:** CLEC7A (Dectin-1) signaling

**Stable identifier:** R-BTA-5607737

**Type:** transition

**Compartments:** plasma membrane, cytosol

**Inferred from:** BCL10 oligomerizes (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.](/electronic_inference_compara.html) For details on PANTHER see also: <http://www.pantherdb.org/about.jsp>

**Preceded by:** BCL10 binds CARD9

## TRAF6 oligomerizes ↗

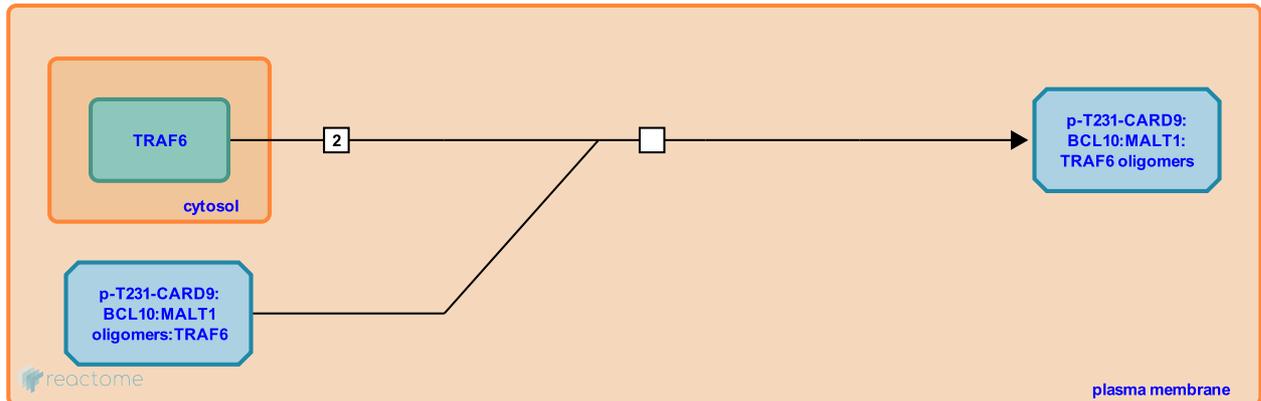
**Location:** [CLEC7A \(Dectin-1\) signaling](#)

**Stable identifier:** R-BTA-5607751

**Type:** transition

**Compartments:** plasma membrane, cytosol

**Inferred from:** [TRAF6 oligomerizes \(Homo sapiens\)](#)



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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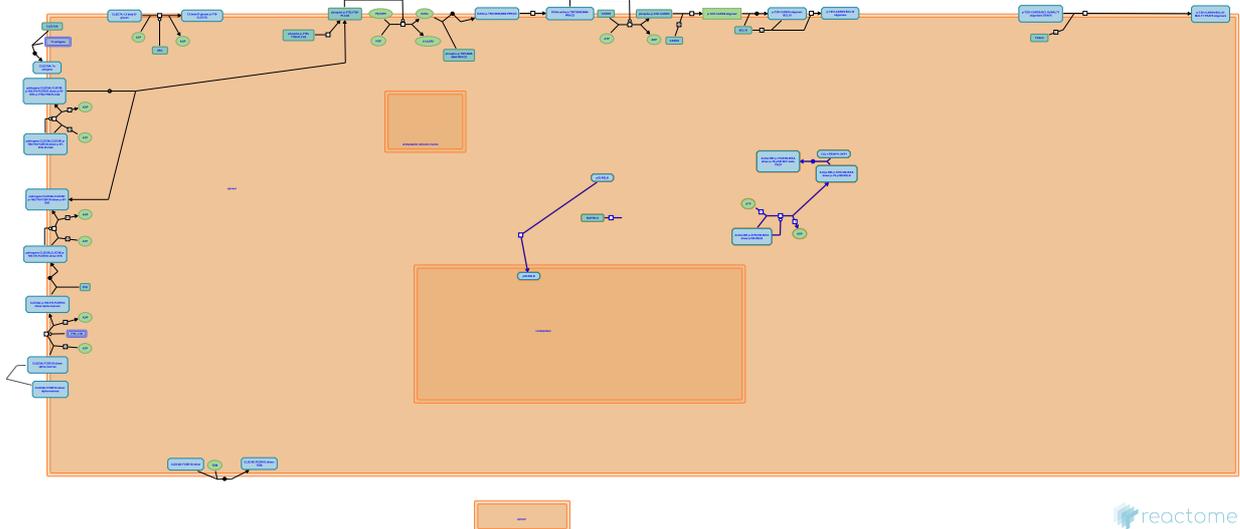
## Dectin-1 mediated noncanonical NF-kB signaling ↗

**Location:** [CLEC7A \(Dectin-1\) signaling](#)

**Stable identifier:** R-BTA-5607761

**Compartments:** cytosol, nucleoplasm

**Inferred from:** [Dectin-1 mediated noncanonical NF-kB 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.](/electronic_inference_compara.html) For details on PANTHER see also: <http://www.pantherdb.org/about.jsp>

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