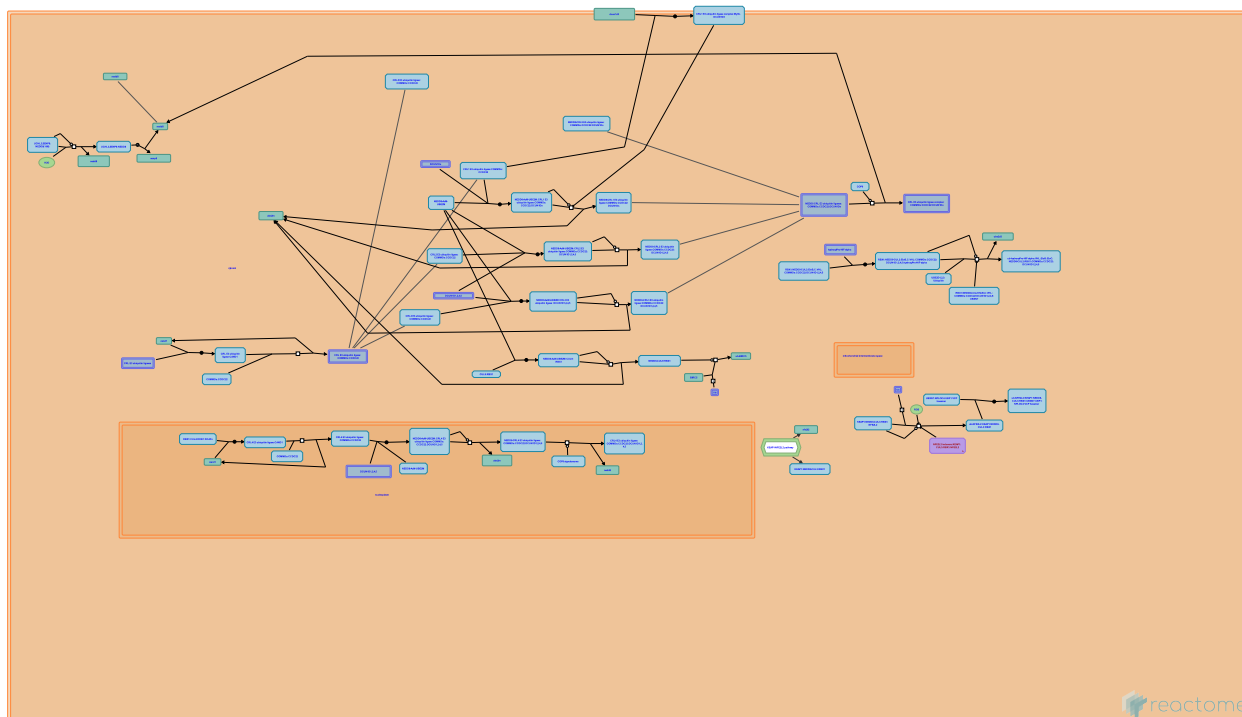


# Neddylation



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](https://reactome.org/textbook).

04/05/2024

## 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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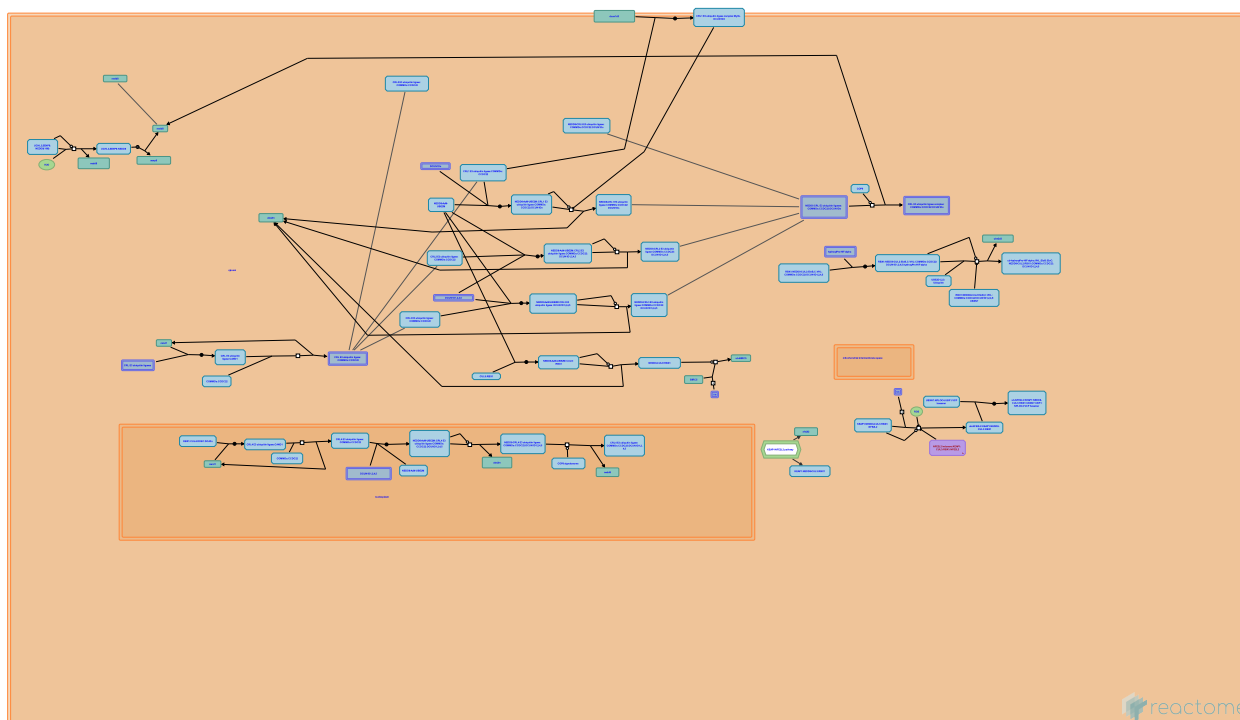
Reactome database release: 88

This document contains 1 pathway and 24 reactions ([see Table of Contents](#))

## Neddylation ↗

**Stable identifier:** R-XTR-8951664

**Inferred from:** Neddylation (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>

## UCHL3, SENP8 cleave NEDD8 ↗

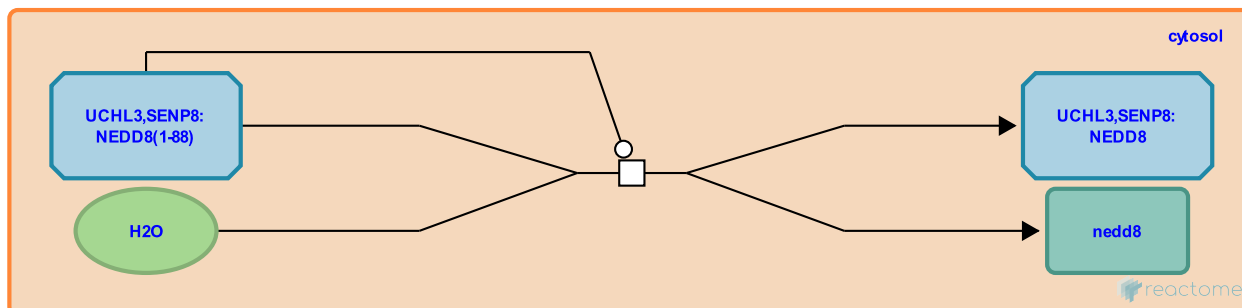
**Location:** [Neddylation](#)

**Stable identifier:** R-XTR-5690808

**Type:** transition

**Compartments:** cytosol

**Inferred from:** [UCHL3, SENP8 cleave NEDD8 \(Homo sapiens\)](#)



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:** [Release of mature NEDD8](#)

## Release of mature NEDD8 ↗

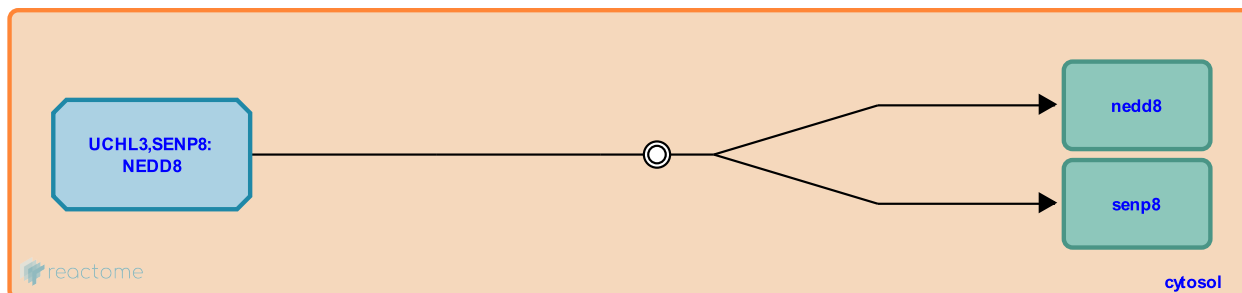
**Location:** [Neddylation](#)

**Stable identifier:** R-XTR-8951644

**Type:** dissociation

**Compartments:** cytosol

**Inferred from:** [Release of mature NEDD8 \(Homo sapiens\)](#)



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>

**Preceded by:** [UCHL3, SENP8 cleave NEDD8](#)

## CAND1 binds cytosolic CRL E3 ubiquitin ligases ↗

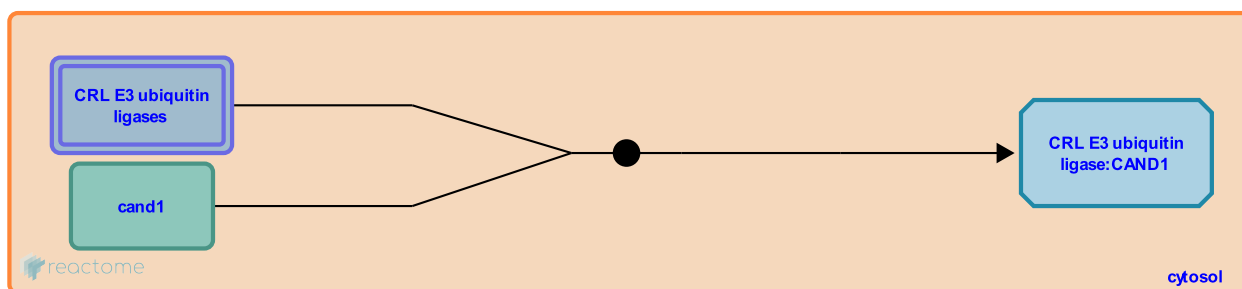
**Location:** [Neddylaton](#)

**Stable identifier:** R-XTR-8955241

**Type:** binding

**Compartments:** cytosol

**Inferred from:** [CAND1 binds cytosolic CRL E3 ubiquitin ligases \(Homo sapiens\)](#)



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:** [COMMDs displace CAND1 from cytosolic CRL E3 ubiquitin ligase complexes](#)

## COMMDs displace CAND1 from cytosolic CRL E3 ubiquitin ligase complexes ↗

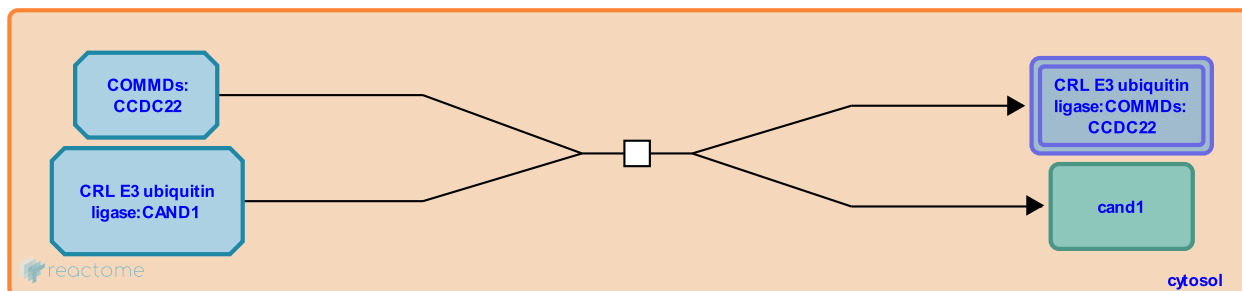
**Location:** [Neddylation](#)

**Stable identifier:** R-XTR-8955289

**Type:** transition

**Compartments:** cytosol

**Inferred from:** [COMMDs displace CAND1 from cytosolic CRL E3 ubiquitin ligase complexes \(Homo sapiens\)](#)



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>

**Preceded by:** [CAND1 binds cytosolic CRL E3 ubiquitin ligases](#)

**Followed by:** [MyrG-DCUN1D3 binds CRL1 E3 ubiquitin ligase complex](#), [NEDD8:AcM-UBE2M binds CRL1 E3 ubiquitin ligase complex](#), [NEDD8:AcM-UBE2M binds CRL3 E3 ubiquitin ligase complex](#), [NEDD8:AcM-UBE2M binds CRL2 E3 ubiquitin ligase complex](#)

## MyrG-DCUN1D3 binds CRL1 E3 ubiquitin ligase complex ↗

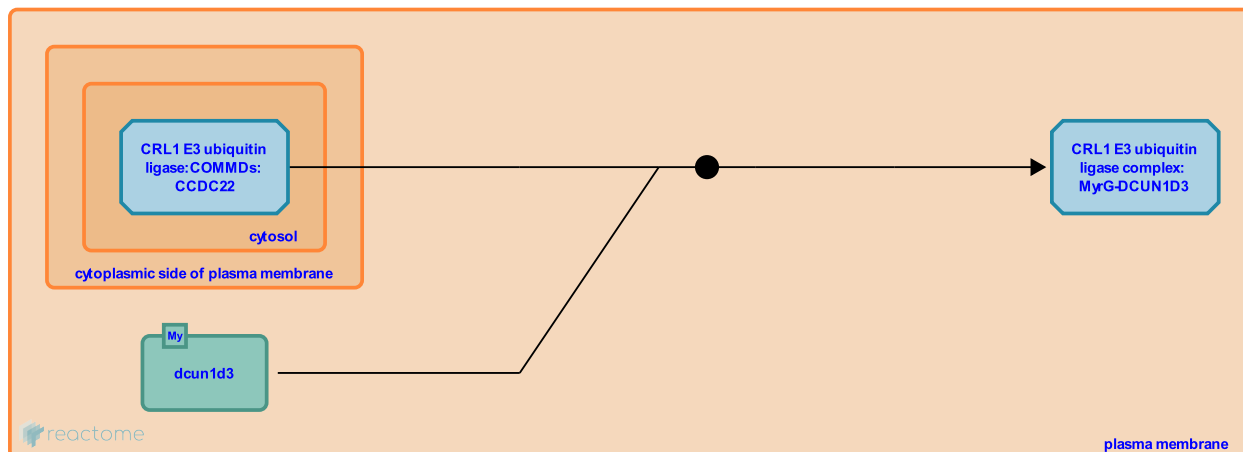
**Location:** [Neddylation](#)

**Stable identifier:** R-XTR-8956200

**Type:** binding

**Compartments:** plasma membrane

**Inferred from:** [MyrG-DCUN1D3 binds CRL1 E3 ubiquitin ligase complex \(Homo sapiens\)](#)



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>

**Preceded by:** [COMMDs displace CAND1 from cytosolic CRL E3 ubiquitin ligase complexes](#)



## CAND1 binds CRL4 E3 ubiquitin ligase in the nucleus ↗

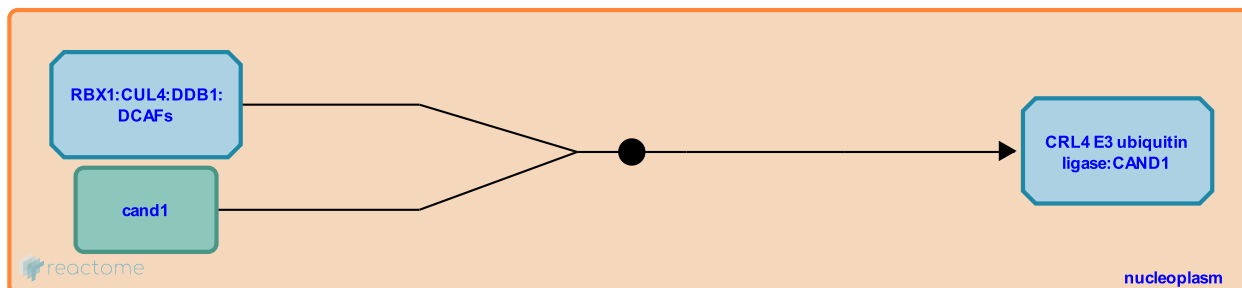
**Location:** [Neddylaton](#)

**Stable identifier:** R-XTR-8955245

**Type:** binding

**Compartments:** nucleoplasm

**Inferred from:** [CAND1 binds CRL4 E3 ubiquitin ligase in the nucleus \(Homo sapiens\)](#)



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:** [COMMDs displace CAND1 from CRL4 E3 ubiquitin ligase complex](#)

## COMMDs displace CAND1 from CRL4 E3 ubiquitin ligase complex ↗

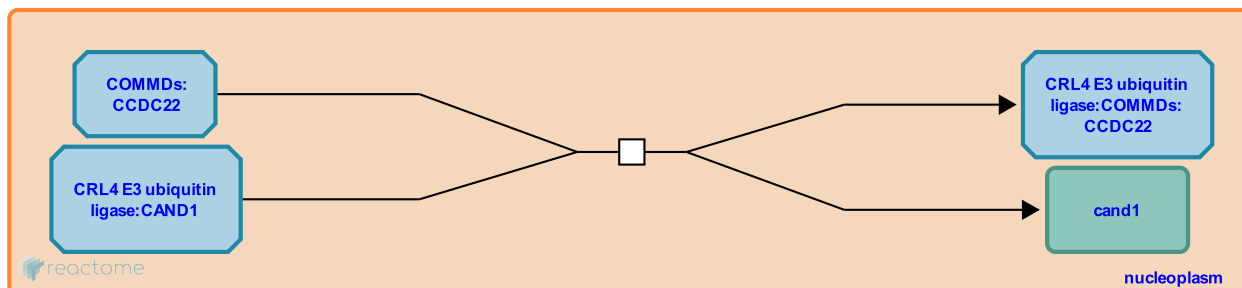
**Location:** [Neddylaton](#)

**Stable identifier:** R-XTR-8955285

**Type:** transition

**Compartments:** nucleoplasm

**Inferred from:** [COMMDs displace CAND1 from CRL4 E3 ubiquitin ligase complex \(Homo sapiens\)](#)



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>

**Preceded by:** [CAND1 binds CRL4 E3 ubiquitin ligase in the nucleus](#)

**Followed by:** [NEDD8:AcM-UBE2M binds CRL4 E3 ubiquitin ligase complex](#)

## NEDD8:AcM-UBE2M binds CRL1 E3 ubiquitin ligase complex ↗

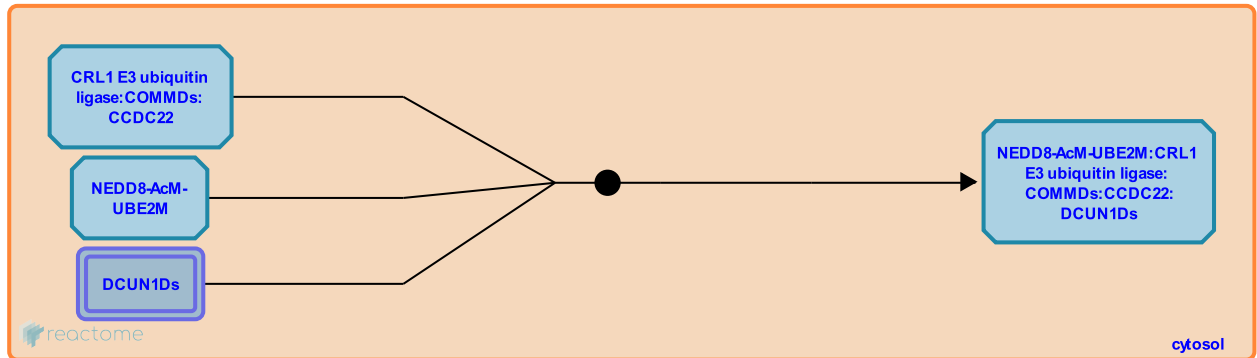
**Location:** [Neddylation](#)

**Stable identifier:** R-XTR-8952620

**Type:** binding

**Compartments:** cytosol

**Inferred from:** [NEDD8:AcM-UBE2M binds CRL1 E3 ubiquitin ligase complex \(Homo sapiens\)](#)



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>

**Preceded by:** [COMMDs displace CAND1 from cytosolic CRL E3 ubiquitin ligase complexes](#)

**Followed by:** [AcM-UBE2M transfers NEDD8 to CRL1 E3 ubiquitin ligase complex](#)

## AcM-UBE2M transfers NEDD8 to CRL1 E3 ubiquitin ligase complex ↗

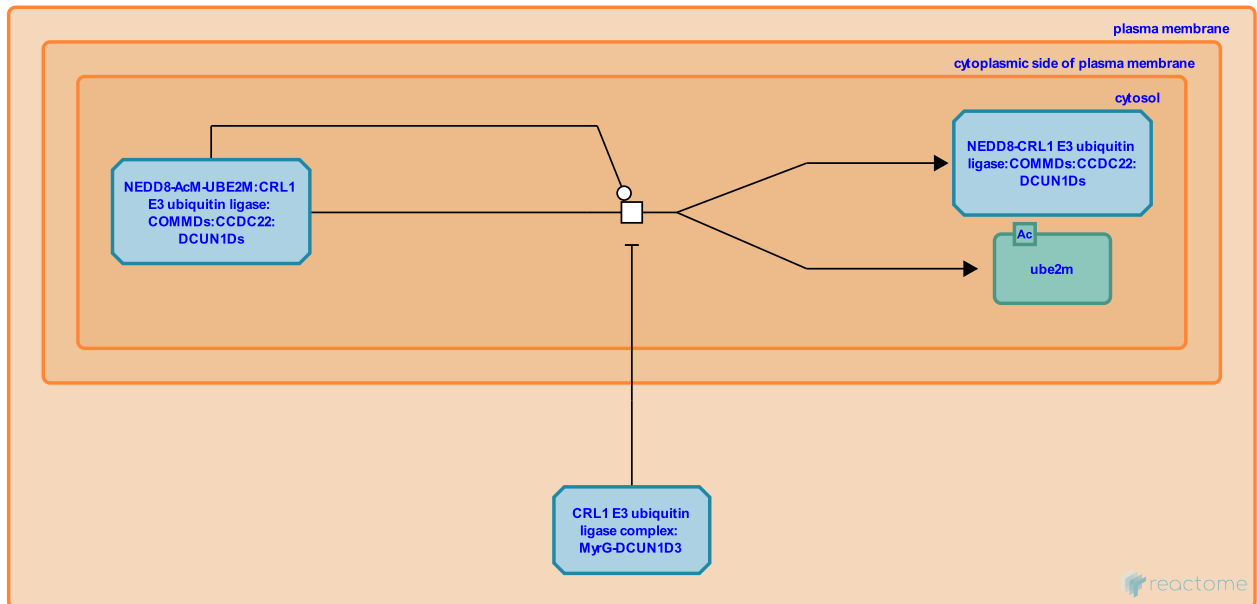
**Location:** [Neddylation](#)

**Stable identifier:** R-XTR-8952618

**Type:** transition

**Compartments:** cytosol

**Inferred from:** [AcM-UBE2M transfers NEDD8 to CRL1 E3 ubiquitin ligase complex \(Homo sapiens\)](#)



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>

**Preceded by:** [NEDD8:AcM-UBE2M binds CRL1 E3 ubiquitin ligase complex](#)

**Followed by:** [COP9 signalosome deneddylates cytosolic CRL E3 ubiquitin ligase complexes](#)

## NEDD8:AcM-UBE2M binds CRL2 E3 ubiquitin ligase complex ↗

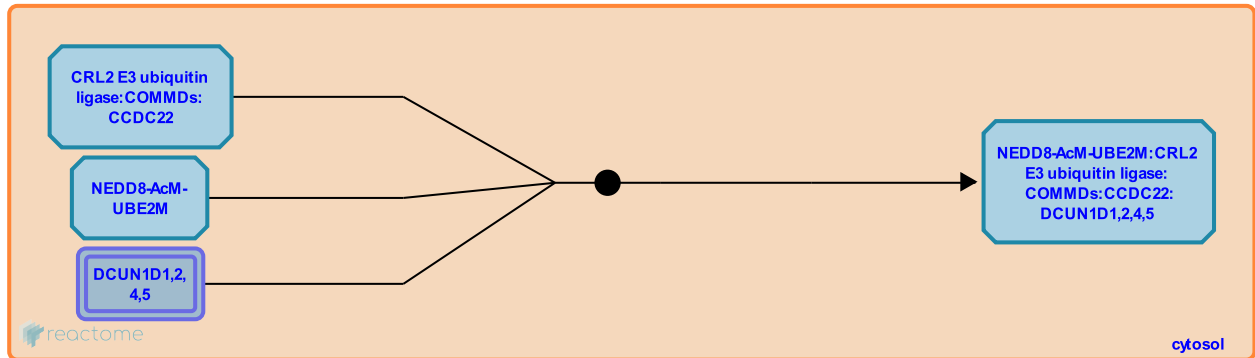
**Location:** [Neddylation](#)

**Stable identifier:** R-XTR-8952625

**Type:** binding

**Compartments:** cytosol

**Inferred from:** [NEDD8:AcM-UBE2M binds CRL2 E3 ubiquitin ligase complex \(Homo sapiens\)](#)



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>

**Preceded by:** [COMMDs displace CAND1 from cytosolic CRL E3 ubiquitin ligase complexes](#)

**Followed by:** [AcM-UBE2M transfers NEDD8 to CRL2 E3 ubiquitin ligase complex](#)

## AcM-UBE2M transfers NEDD8 to CRL2 E3 ubiquitin ligase complex ↗

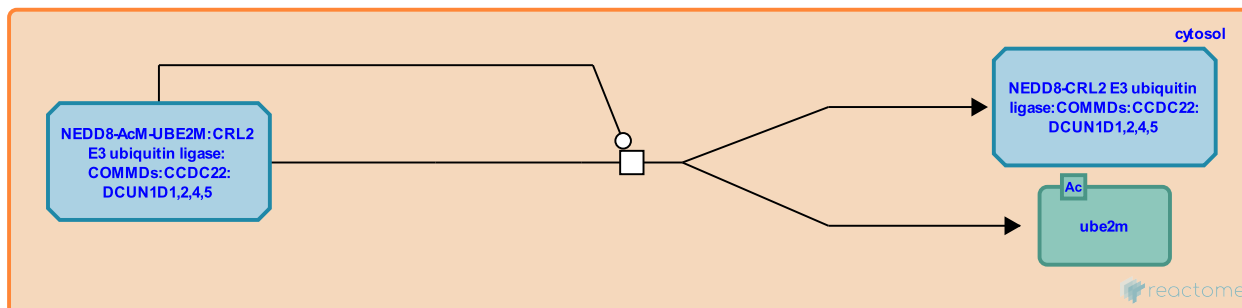
**Location:** [Neddylaton](#)

**Stable identifier:** R-XTR-8952626

**Type:** transition

**Compartments:** cytosol

**Inferred from:** [AcM-UBE2M transfers NEDD8 to CRL2 E3 ubiquitin ligase complex \(Homo sapiens\)](#)



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>

**Preceded by:** [NEDD8:AcM-UBE2M binds CRL2 E3 ubiquitin ligase complex](#)

**Followed by:** [VHL:EloB,C:NEDD8-CUL2:RBX1 complex binds hydroxyprolyl-HIF-alpha](#), [COP9 signalosome deneddylates cytosolic CRL E3 ubiquitin ligase complexes](#)

## NEDD8:AcM-UBE2M binds CRL3 E3 ubiquitin ligase complex ↗

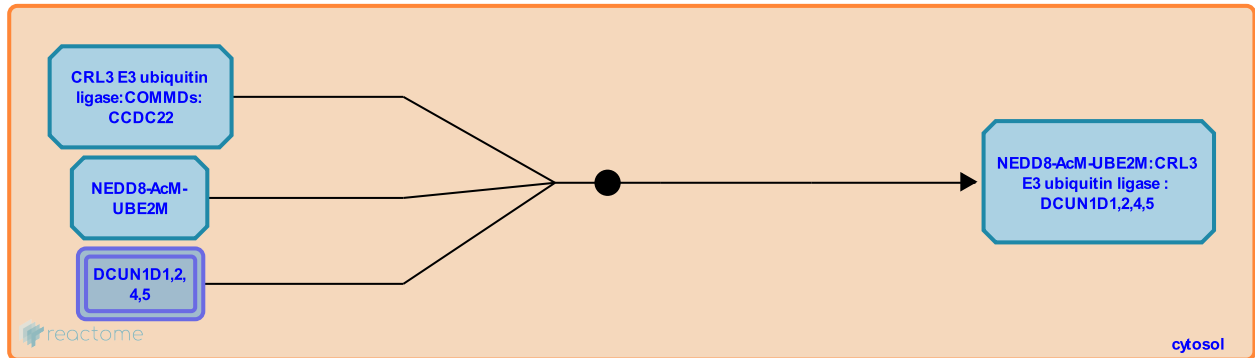
**Location:** Neddylation

**Stable identifier:** R-XTR-8952630

**Type:** binding

**Compartments:** cytosol

**Inferred from:** NEDD8:AcM-UBE2M binds CRL3 E3 ubiquitin ligase complex (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>

**Preceded by:** COMMDs displace CAND1 from cytosolic CRL E3 ubiquitin ligase complexes

**Followed by:** AcM-UBE2M transfers NEDD8 to CRL3 E3 ubiquitin ligase complex

## AcM-UBE2M transfers NEDD8 to CRL3 E3 ubiquitin ligase complex ↗

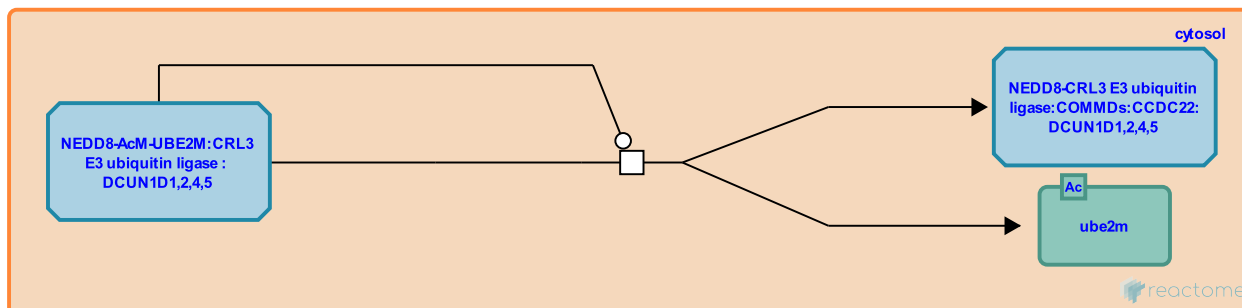
**Location:** [Neddylaton](#)

**Stable identifier:** R-XTR-8952631

**Type:** transition

**Compartments:** cytosol

**Inferred from:** [AcM-UBE2M transfers NEDD8 to CRL3 E3 ubiquitin ligase complex \(Homo sapiens\)](#)



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>

**Preceded by:** [NEDD8:AcM-UBE2M binds CRL3 E3 ubiquitin ligase complex](#)

**Followed by:** [COP9 signalosome deneddylates cytosolic CRL E3 ubiquitin ligase complexes](#)



## NEDD8:AcM-UBE2M binds CRL4 E3 ubiquitin ligase complex ↗

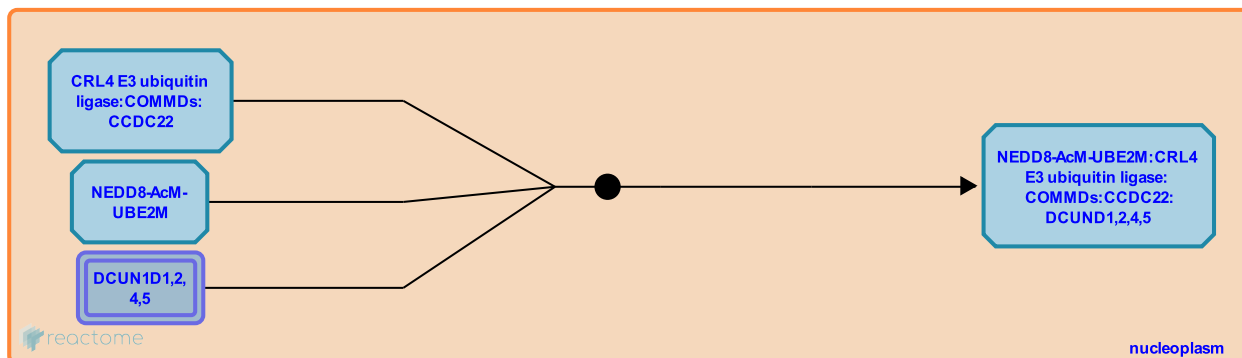
**Location:** [Neddylation](#)

**Stable identifier:** R-XTR-8952639

**Type:** binding

**Compartments:** nucleoplasm

**Inferred from:** [NEDD8:AcM-UBE2M binds CRL4 E3 ubiquitin ligase complex \(Homo sapiens\)](#)



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>

**Preceded by:** [COMMDs displace CAND1 from CRL4 E3 ubiquitin ligase complex](#)

**Followed by:** [AcM-UBE2M transfers NEDD8 to CRL4 E3 ubiquitin ligase complex](#)

## AcM-UBE2M transfers NEDD8 to CRL4 E3 ubiquitin ligase complex ↗

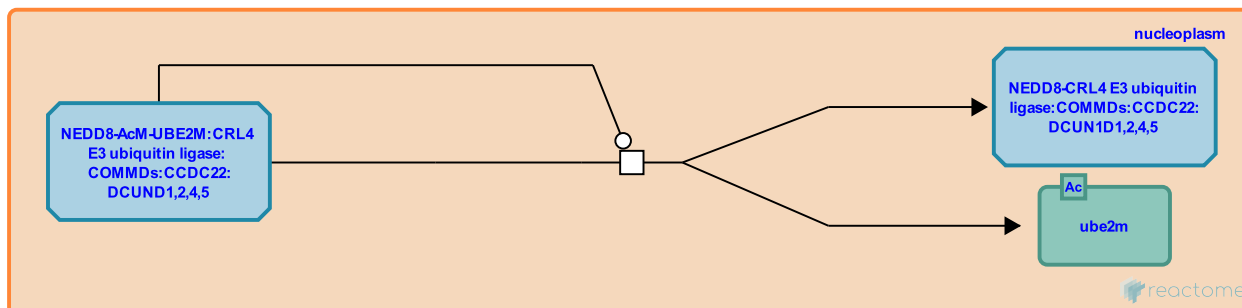
**Location:** [Neddylaton](#)

**Stable identifier:** R-XTR-8952638

**Type:** transition

**Compartments:** nucleoplasm

**Inferred from:** [AcM-UBE2M transfers NEDD8 to CRL4 E3 ubiquitin ligase complex \(Homo sapiens\)](#)



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>

**Preceded by:** [NEDD8:AcM-UBE2M binds CRL4 E3 ubiquitin ligase complex](#)

**Followed by:** [COP9 signalosome deneddylates nuclear CRL4 E3 ubiquitin ligase complex](#)

## NEDD8:AcM-UBE2M binds CUL9:RBX1 ubiquitin ligase complex ↗

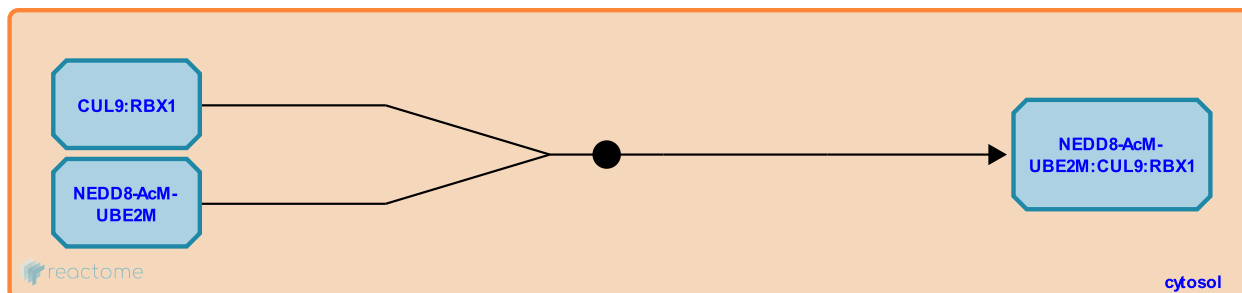
**Location:** [Neddylation](#)

**Stable identifier:** R-XTR-8956031

**Type:** binding

**Compartments:** cytosol

**Inferred from:** [NEDD8:AcM-UBE2M binds CUL9:RBX1 ubiquitin ligase complex \(Homo sapiens\)](#)



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:** [AcM-UBE2M transfers NEDD8 to CUL9:RBX1](#)

## AcM-UBE2M transfers NEDD8 to CUL9:RBX1 ↗

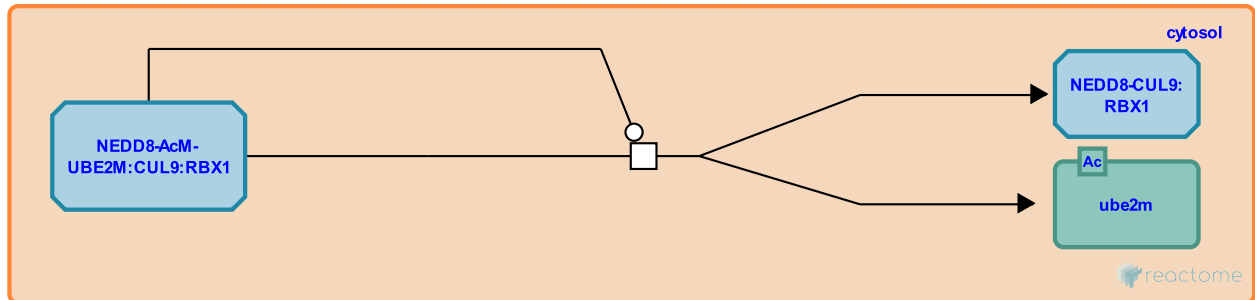
**Location:** [Neddylation](#)

**Stable identifier:** R-XTR-8956025

**Type:** transition

**Compartments:** cytosol

**Inferred from:** [AcM-UBE2M transfers NEDD8 to CUL9:RBX1 \(Homo sapiens\)](#)



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>

**Preceded by:** [NEDD8:AcM-UBE2M binds CUL9:RBX1 ubiquitin ligase complex](#)

**Followed by:** [CUL9:RBX1 ubiquitinates BIRC5](#)

## CUL9:RBX1 ubiquitinates BIRC5 ↗

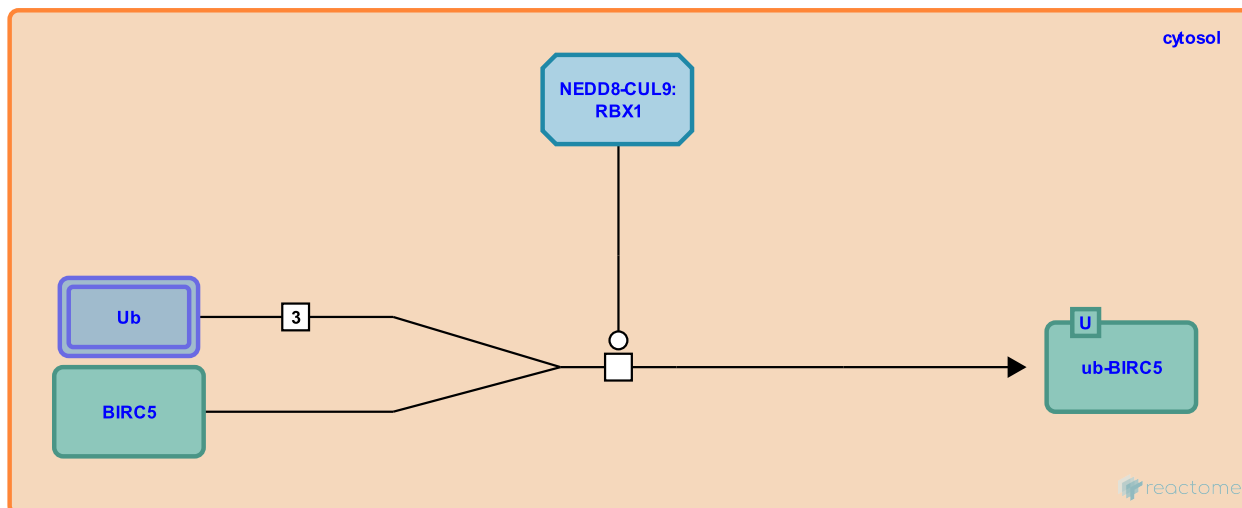
**Location:** [Neddylation](#)

**Stable identifier:** R-XTR-8956026

**Type:** transition

**Compartments:** cytosol

**Inferred from:** [CUL9:RBX1 ubiquitinates BIRC5 \(Homo sapiens\)](#)



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>

**Preceded by:** [AcM-UBE2M transfers NEDD8 to CUL9:RBX1](#)

## COP9 signalosome deneddylates cytosolic CRL E3 ubiquitin ligase complexes ↗

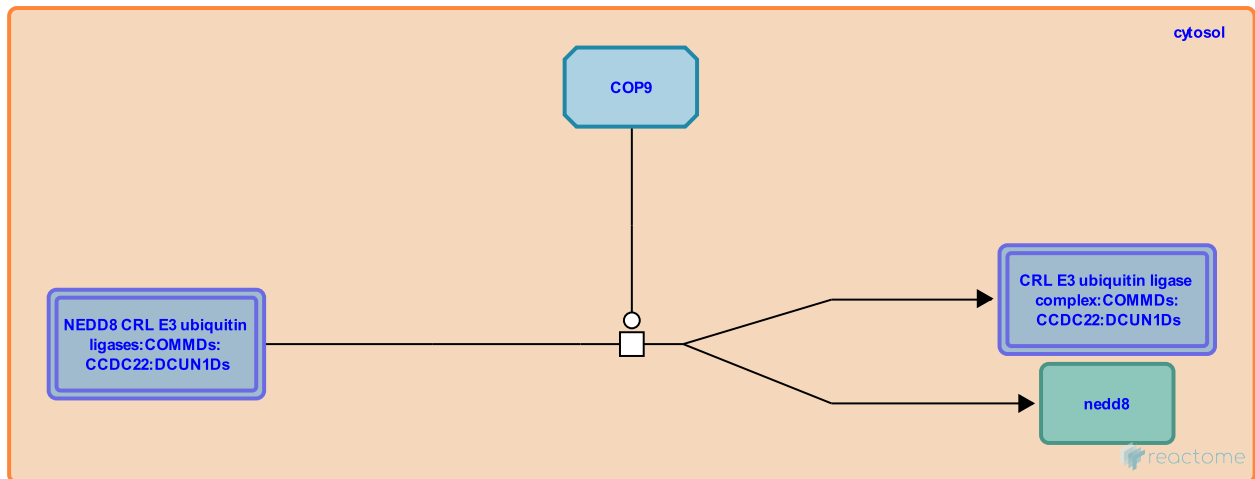
**Location:** [Neddylation](#)

**Stable identifier:** R-XTR-8956040

**Type:** transition

**Compartments:** cytosol

**Inferred from:** [COP9 signalosome deneddylates cytosolic CRL E3 ubiquitin ligase complexes \(Homo sapiens\)](#)



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>

**Preceded by:** [AcM-UBE2M transfers NEDD8 to CRL1 E3 ubiquitin ligase complex](#), [AcM-UBE2M transfers NEDD8 to CRL3 E3 ubiquitin ligase complex](#), [AcM-UBE2M transfers NEDD8 to CRL2 E3 ubiquitin ligase complex](#)

## COP9 signalosome deneddylates nuclear CRL4 E3 ubiquitin ligase complex ↗

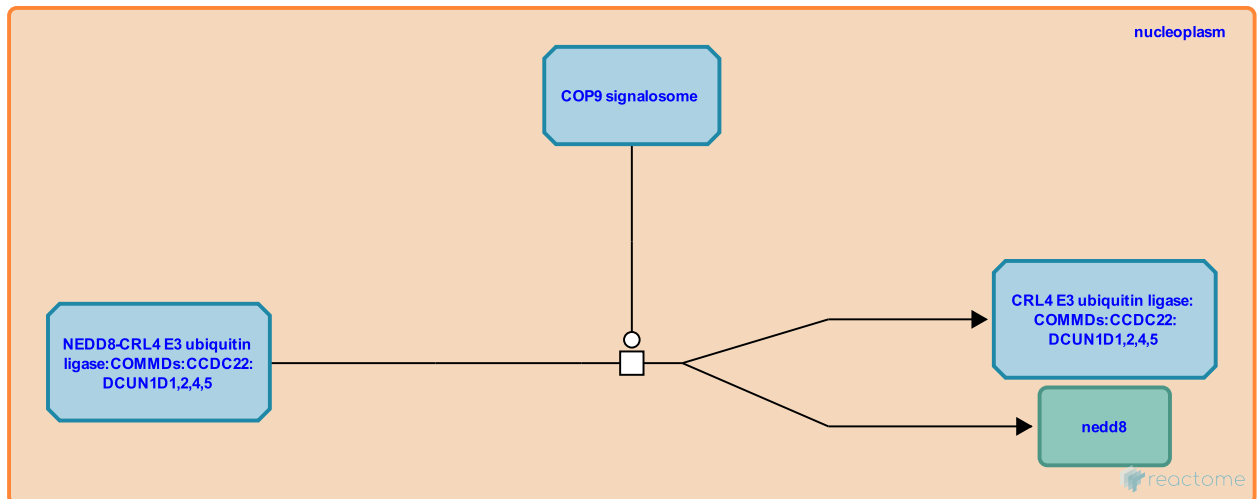
**Location:** [Neddylation](#)

**Stable identifier:** R-XTR-8956045

**Type:** transition

**Compartments:** nucleoplasm

**Inferred from:** [COP9 signalosome deneddylates nuclear CRL4 E3 ubiquitin ligase complex \(Homo sapiens\)](#)



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>

**Preceded by:** [AcM-UBE2M transfers NEDD8 to CRL4 E3 ubiquitin ligase complex](#)

## VHL:EloB,C:NEDD8-CUL2:RBX1 complex binds hydroxyprolyl-HIF-alpha ↗

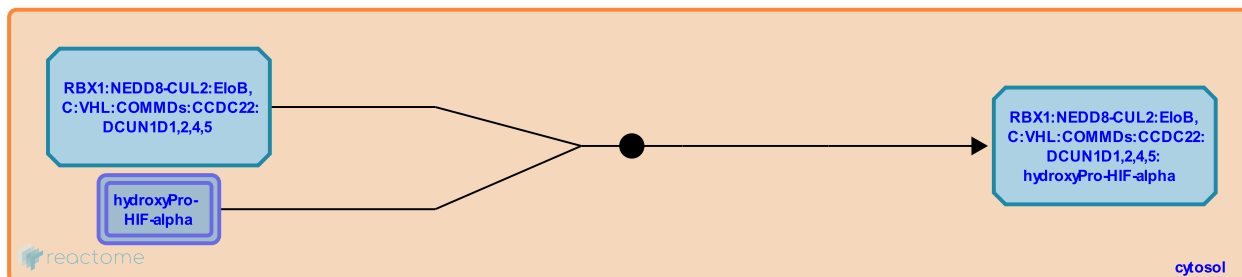
**Location:** [Neddylation](#)

**Stable identifier:** R-XTR-8956103

**Type:** binding

**Compartments:** cytosol

**Inferred from:** [VHL:EloB,C:NEDD8-CUL2:RBX1 complex binds hydroxyprolyl-HIF-alpha \(Homo sapiens\)](#)



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>

**Preceded by:** [AcM-UBE2M transfers NEDD8 to CRL2 E3 ubiquitin ligase complex](#)

**Followed by:** [VHL:EloB,C:NEDD8-CUL2:RBX1 complex ubiquitinylates HIF-alpha](#)



## VHL:EloB,C:NEDD8-CUL2:RBX1 complex ubiquitinylates HIF-alpha ↗

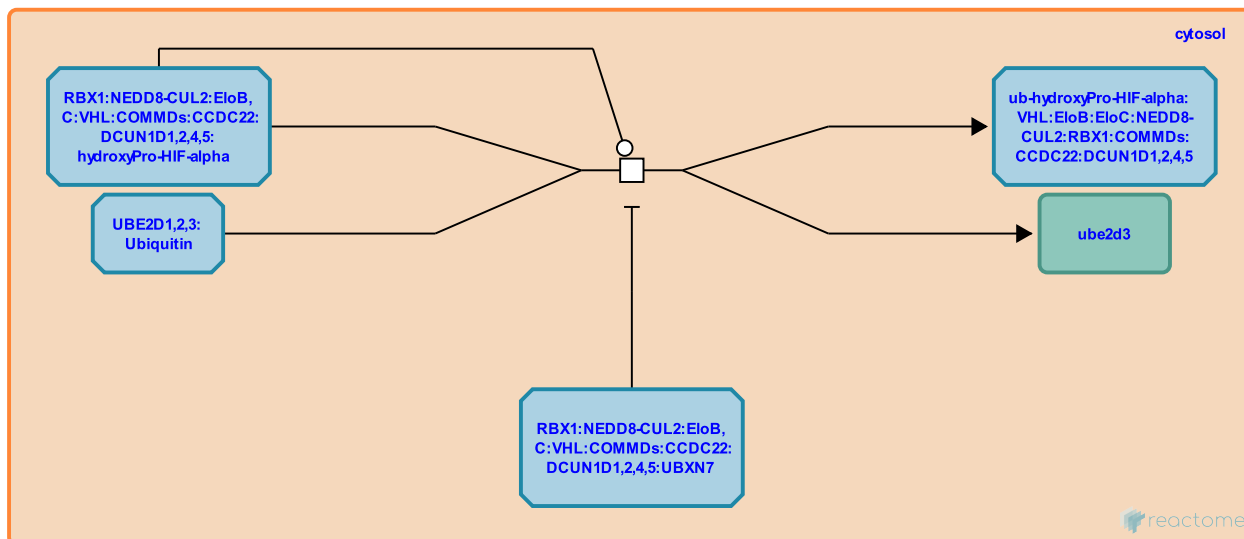
**Location:** Neddylation

**Stable identifier:** R-XTR-8956106

**Type:** transition

**Compartments:** cytosol

**Inferred from:** VHL:EloB,C:NEDD8-CUL2:RBX1 complex ubiquitinylates HIF-alpha (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>

**Preceded by:** VHL:EloB,C:NEDD8-CUL2:RBX1 complex binds hydroxyprolyl-HIF-alpha

## KEAP1:NEDD8-CUL3:RBX1 complex ubiquitinates NFE2L2 ↗

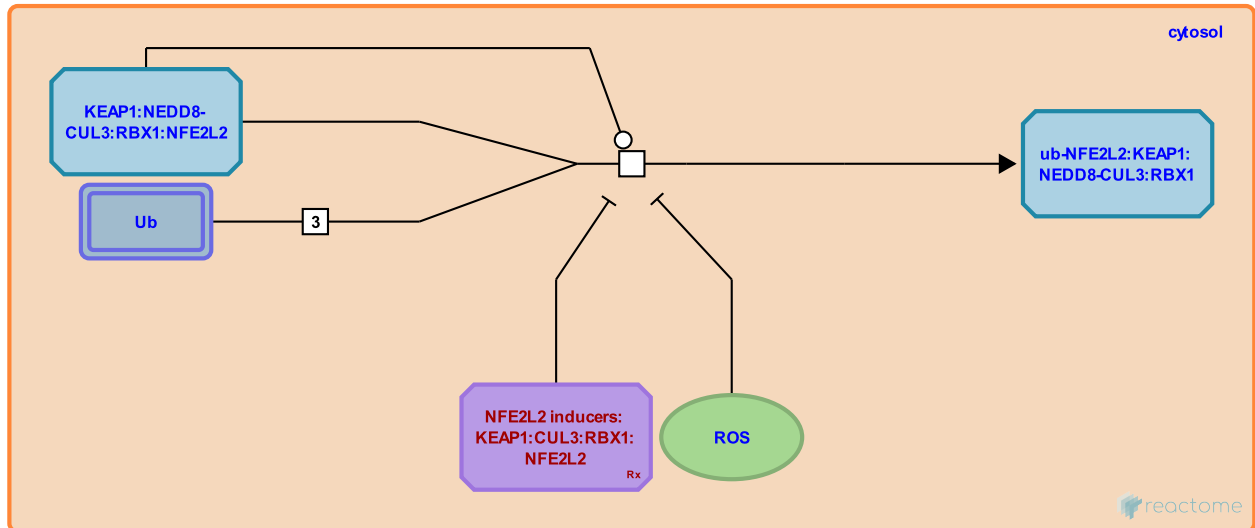
**Location:** Neddylation

**Stable identifier:** R-XTR-9755505

**Type:** transition

**Compartments:** cytosol

**Inferred from:** KEAP1:NEDD8-CUL3:RBX1 complex ubiquitinates NFE2L2 (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>

**Followed by:** [UBXN7:UBF1:NPLOC4:VCP hexamer binds NFE2L2:CRL3 complex](#)

## UBXN7:UBF1:NPLOC4:VCP hexamer binds NFE2L2:CRL3 complex ↗

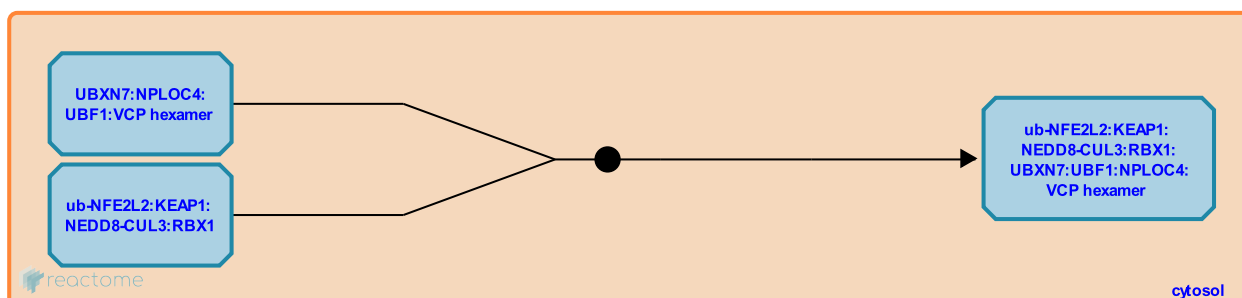
**Location:** [Neddylation](#)

**Stable identifier:** R-XTR-9755507

**Type:** binding

**Compartments:** cytosol

**Inferred from:** [UBXN7:UBF1:NPLOC4:VCP hexamer binds NFE2L2:CRL3 complex \(Homo sapiens\)](#)



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>

**Preceded by:** [KEAP1:NEDD8-CUL3:RBX1 complex ubiquitinates NFE2L2](#)

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