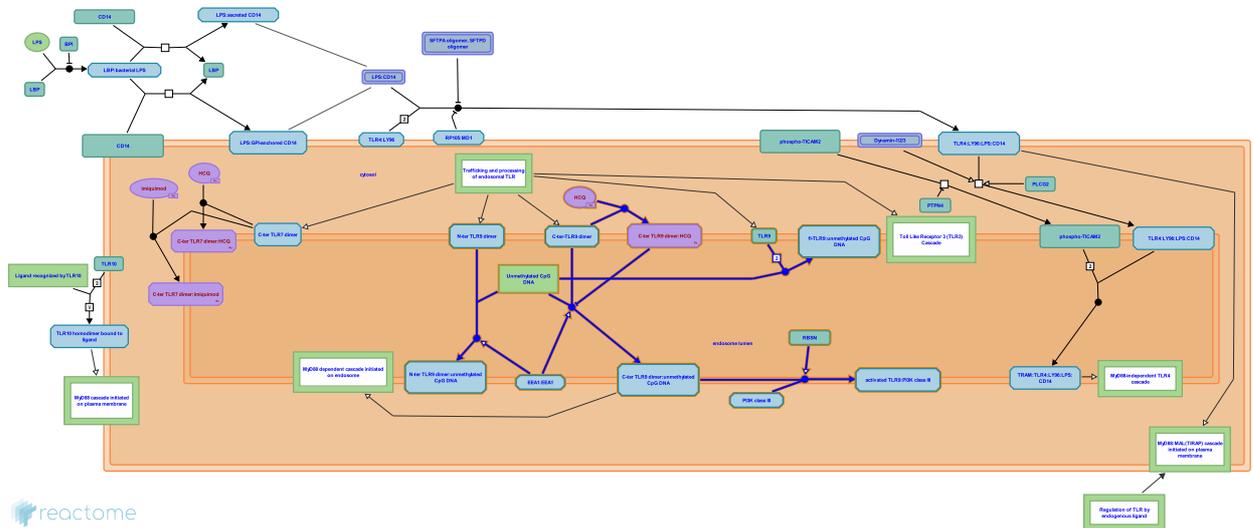


Toll Like Receptor 9 (TLR9) Cascade



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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

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Reactome database release: 81

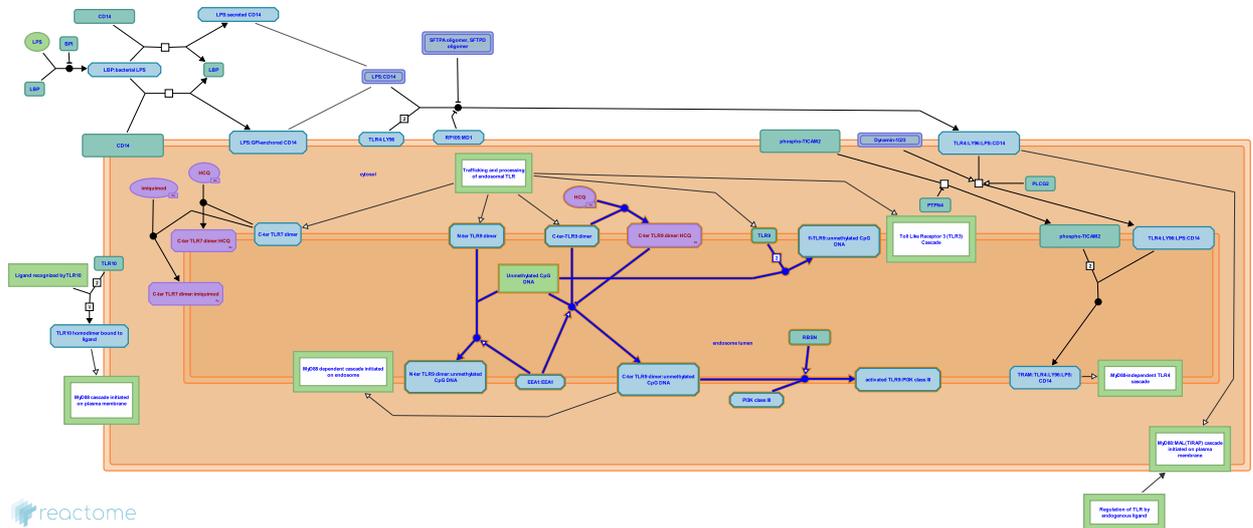
This document contains 2 pathways and 5 reactions ([see Table of Contents](#))

Toll Like Receptor 9 (TLR9) Cascade ↗

Stable identifier: R-SSC-168138

Compartments: cytosol, endosome membrane, nucleoplasm

Inferred from: Toll Like Receptor 9 (TLR9) Cascade (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>

Engulfed CpG DNA binds to endosomal full-length TLR9 ↗

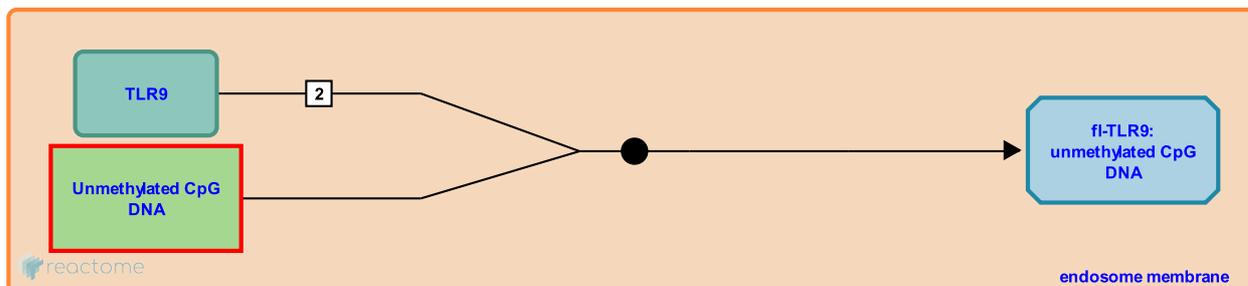
Location: Toll Like Receptor 9 (TLR9) Cascade

Stable identifier: R-SSC-1679589

Type: binding

Compartments: endosome membrane

Inferred from: Engulfed CpG DNA binds to endosomal full-length TLR9 (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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Engulfed CpG DNA binds to endosomal N-ter TLR9 dimer ↗

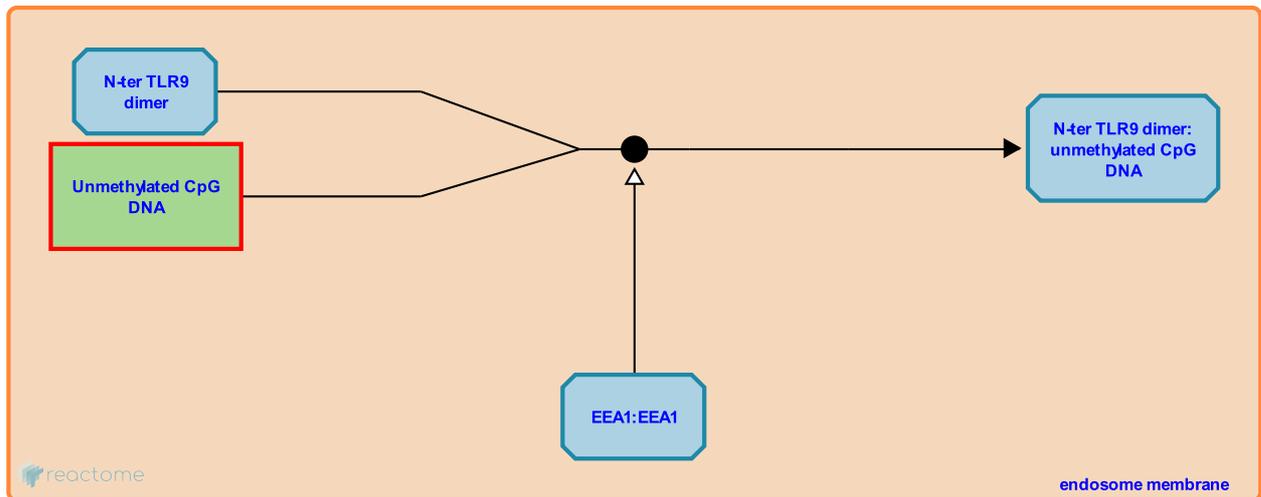
Location: Toll Like Receptor 9 (TLR9) Cascade

Stable identifier: R-SSC-1679098

Type: binding

Compartments: endosome membrane

Inferred from: Engulfed CpG DNA binds to endosomal N-ter TLR9 dimer (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>

Engulfed CpG DNA binds to endosomal C-ter TLR9 ↗

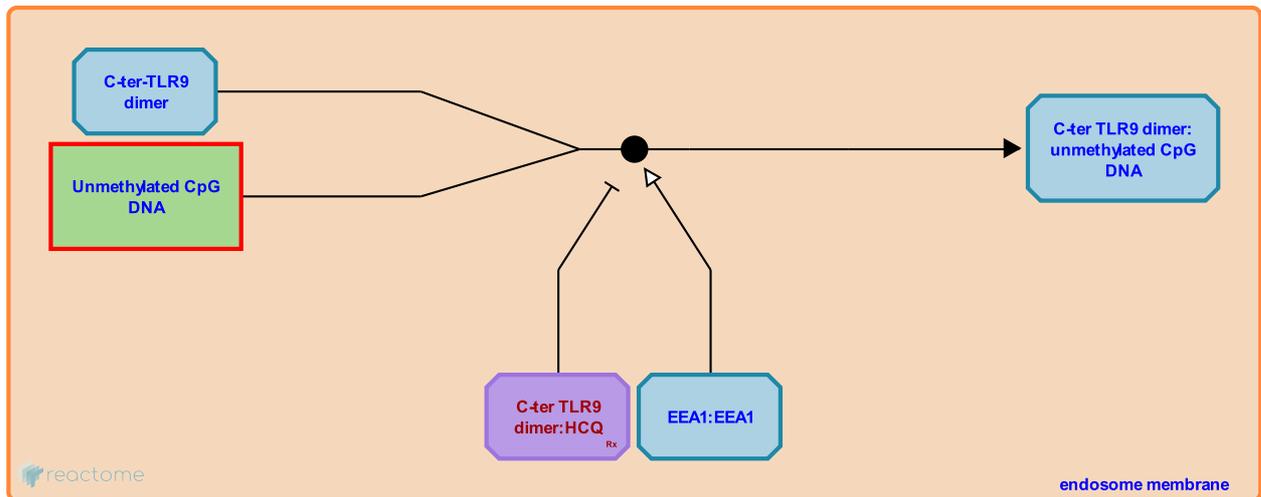
Location: Toll Like Receptor 9 (TLR9) Cascade

Stable identifier: R-SSC-187895

Type: binding

Compartments: endosome membrane

Inferred from: Engulfed CpG DNA binds to endosomal C-ter TLR9 (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: [Rab5-mediated recruitment of class III PI3K to TLR9](#)

C-ter TLR9 dimer binds HCQ ↗

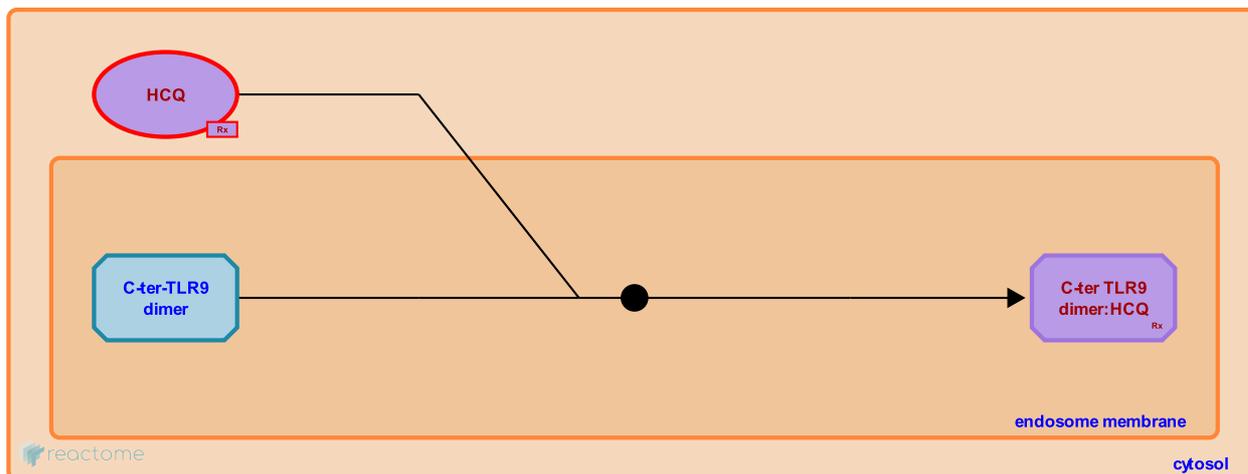
Location: Toll Like Receptor 9 (TLR9) Cascade

Stable identifier: R-SSC-9679045

Type: binding

Compartments: endosome membrane, cytosol

Inferred from: C-ter TLR9 dimer binds HCQ (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>

Rab5-mediated recruitment of class III PI3K to TLR9 ↗

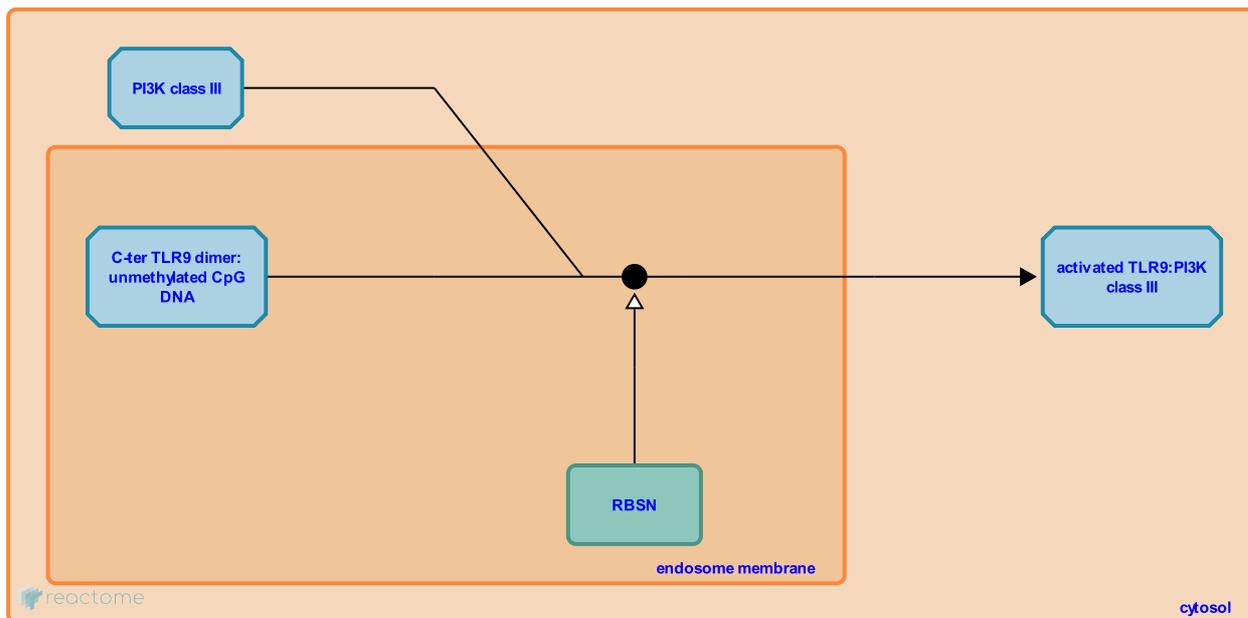
Location: Toll Like Receptor 9 (TLR9) Cascade

Stable identifier: R-SSC-188002

Type: binding

Compartments: endosome membrane, cytosol

Inferred from: Rab5-mediated recruitment of class III PI3K to TLR9 (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: Engulfed CpG DNA binds to endosomal C-ter TLR9

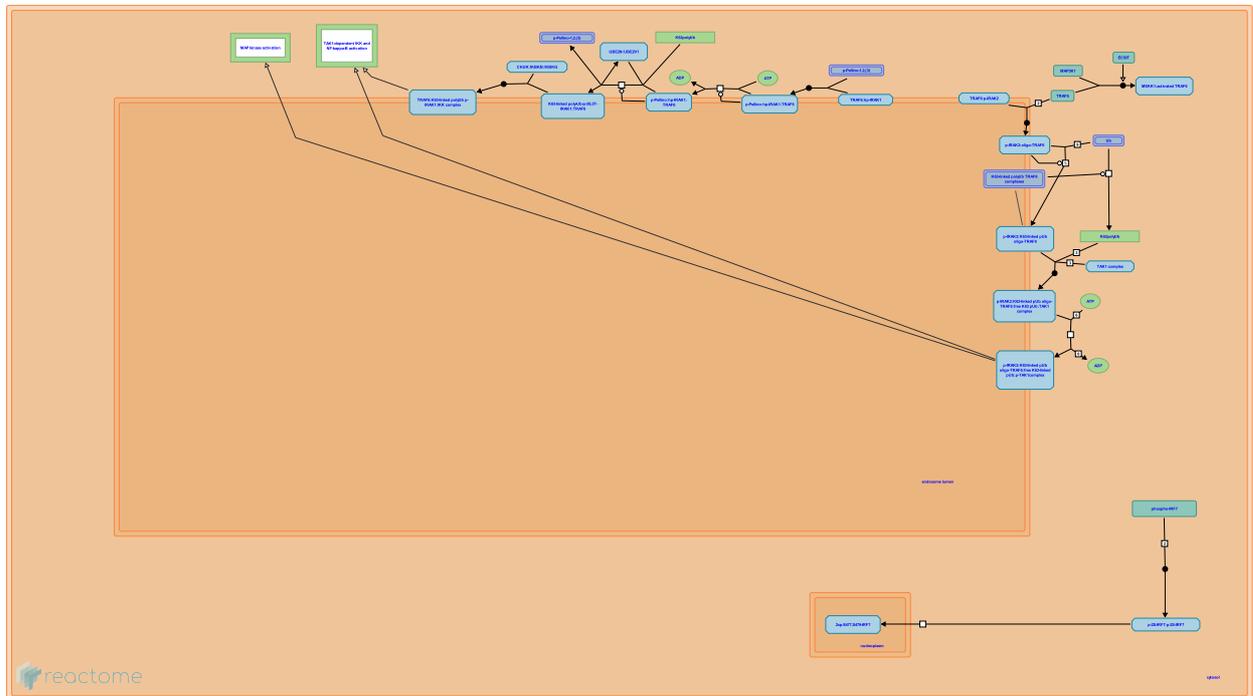
MyD88 dependent cascade initiated on endosome ↗

Location: Toll Like Receptor 9 (TLR9) Cascade

Stable identifier: R-SSC-975155

Compartments: endosome membrane, nucleoplasm, cytosol

Inferred from: MyD88 dependent cascade initiated on endosome (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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