Integrin cell surface interactions

16/01/2021

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. ↗

Sidiropoulos, K., Viteri, G., Sevilla, C., Jupe, S., Webber, M., Orlic-Milacic, M. et al. (2017). Reactome enhanced pathway visualization. *Bioinformatics, 33*, 3461-3467. ↗

Fabregat, A., Jupe, S., Matthews, L., Sidiropoulos, K., Gillespie, M., Garapati, P. et al. (2018). The Reactome Pathway Knowledgebase. *Nucleic Acids Res, 46*, D649-D655. ↗

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. ↗
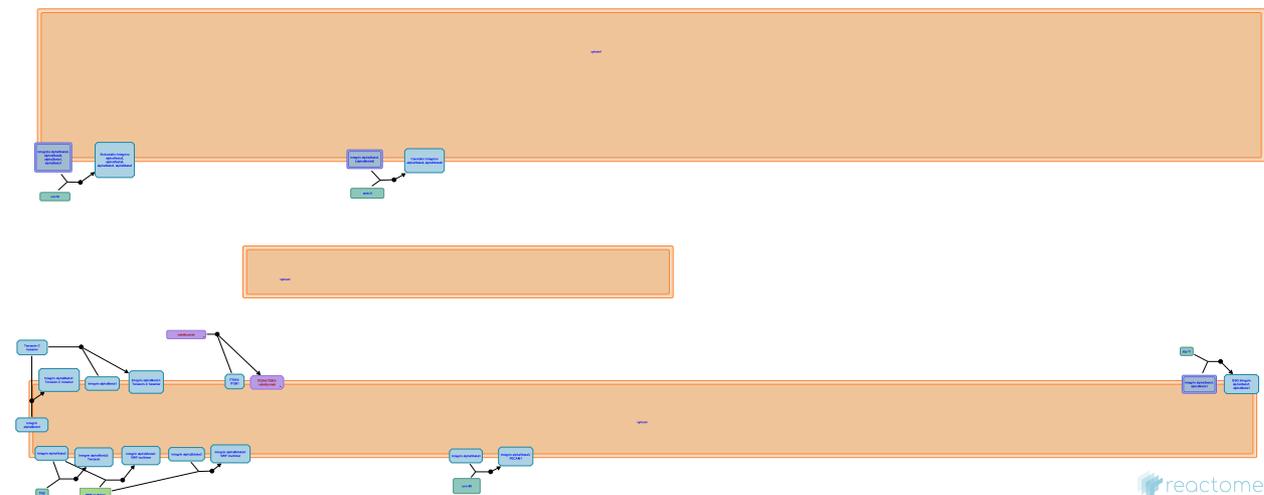
Reactome database release: 75

This document contains 1 pathway and 10 reactions (see Table of Contents)

Integrin cell surface interactions ↗

Stable identifier: R-CEL-216083

Inferred from: Integrin cell surface interactions (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

Endostatin binds integrin alphaVbeta3, alphaVbeta5, alpha3beta1, alpha5beta1 ↗
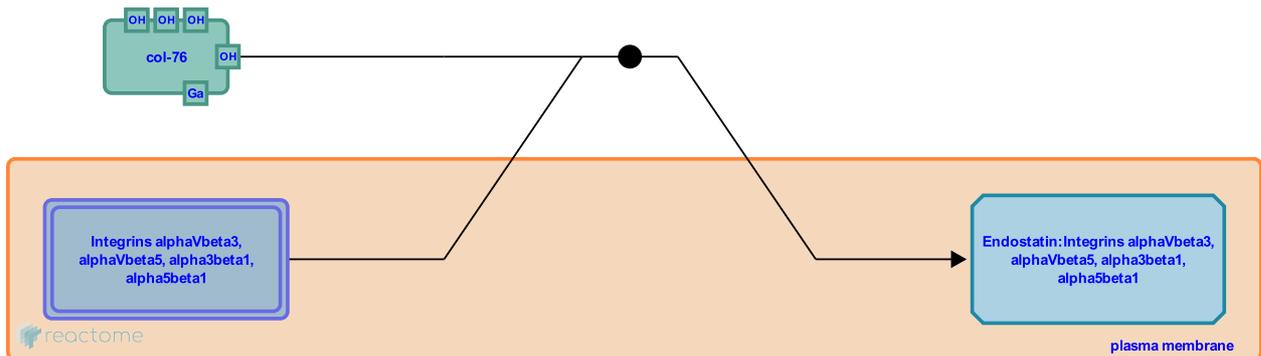
Location: Integrin cell surface interactions

Stable identifier: R-CEL-4088264

Type: binding

Compartments: extracellular region, plasma membrane

Inferred from: Endostatin binds integrin alphaVbeta3, alphaVbeta5, alpha3beta1, alpha5beta1 (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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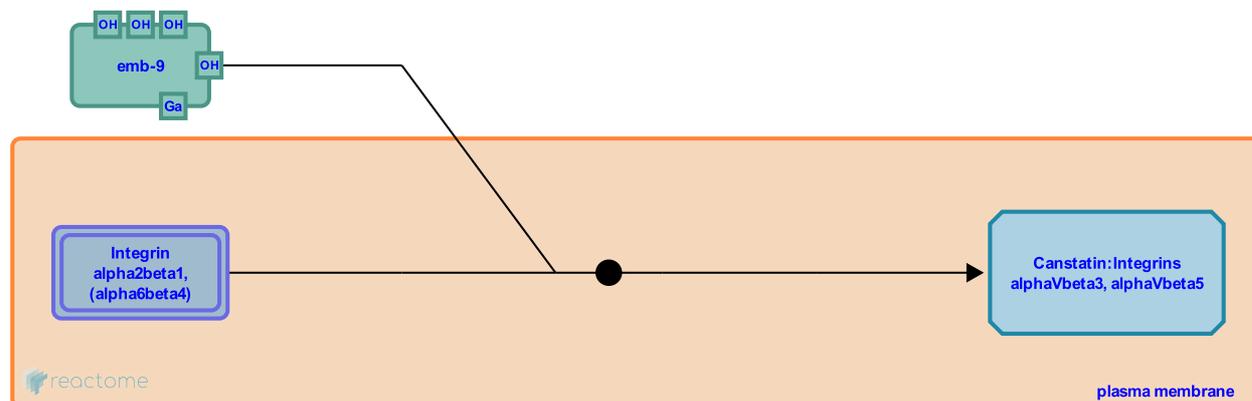
Canstatin binds integrins alphaVbeta3, alphaVbeta5 ↗

Location: Integrin cell surface interactions

Stable identifier: R-CEL-4085087

Type: binding

Compartments: plasma membrane, extracellular region

Inferred from: Canstatin binds integrins alphaVbeta3, alphaVbeta5 (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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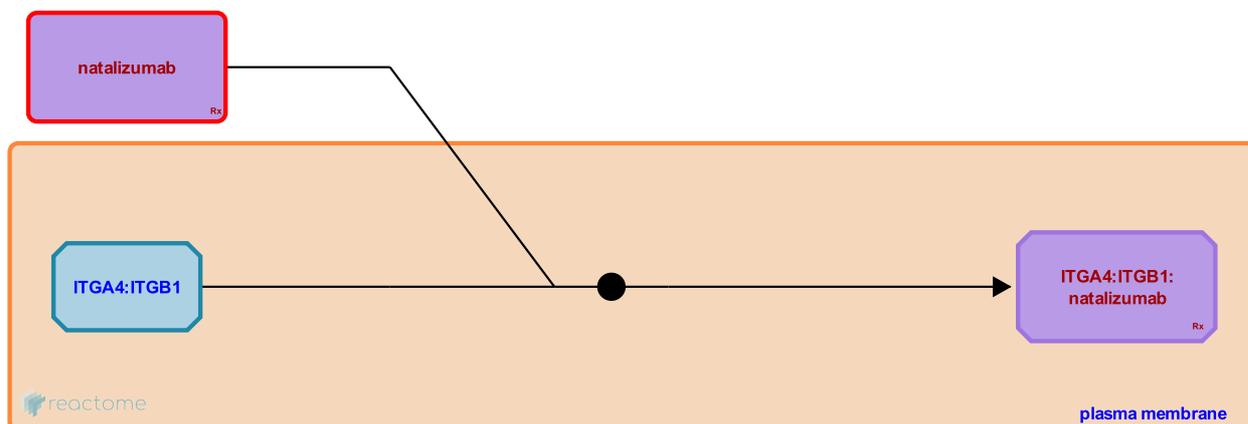
ITGA4:ITGB1 binds natalizumab ↗

Location: Integrin cell surface interactions

Stable identifier: R-CEL-9679740

Type: binding

Compartments: plasma membrane, extracellular region

Inferred from: ITGA4:ITGB1 binds natalizumab (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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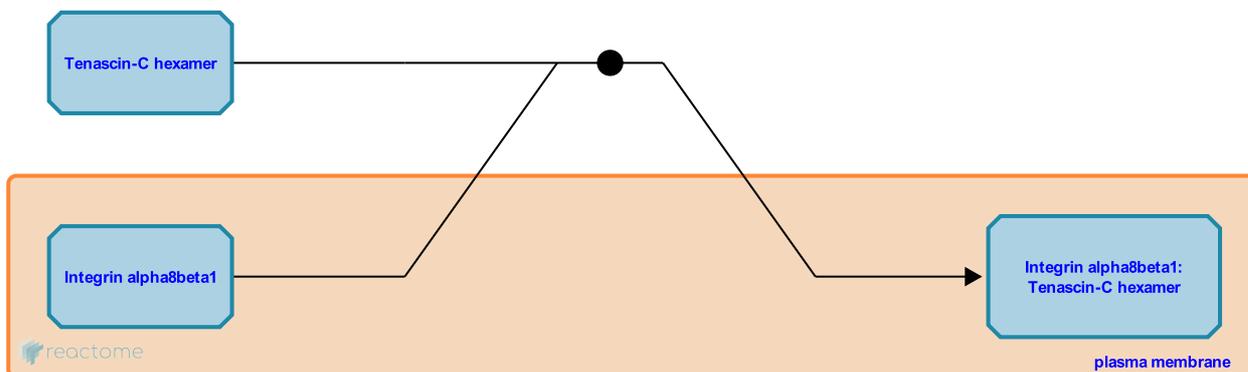
Interaction of integrin alpha8beta1 with Tenascin-C ↗

Location: Integrin cell surface interactions

Stable identifier: R-CEL-216064

Type: binding

Compartments: extracellular region, plasma membrane

Inferred from: Interaction of integrin alpha8beta1 with Tenascin-C (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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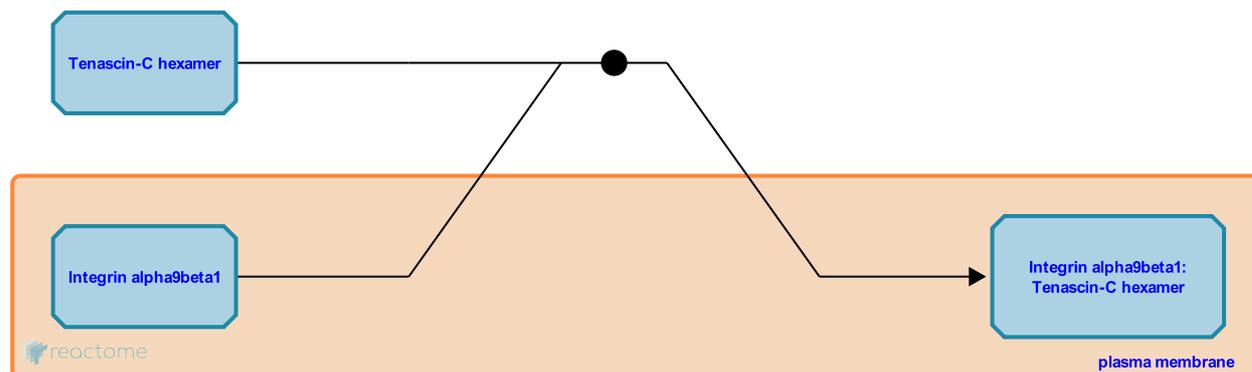
Interaction of integrin alpha9beta1 with Tenascin-C ↗

Location: Integrin cell surface interactions

Stable identifier: R-CEL-216068

Type: binding

Compartments: extracellular region, plasma membrane

Inferred from: Interaction of integrin alpha9beta1 with Tenascin-C (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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BSG (basigin) binds Integrin alpha3beta1, alpha6beta1 ↗
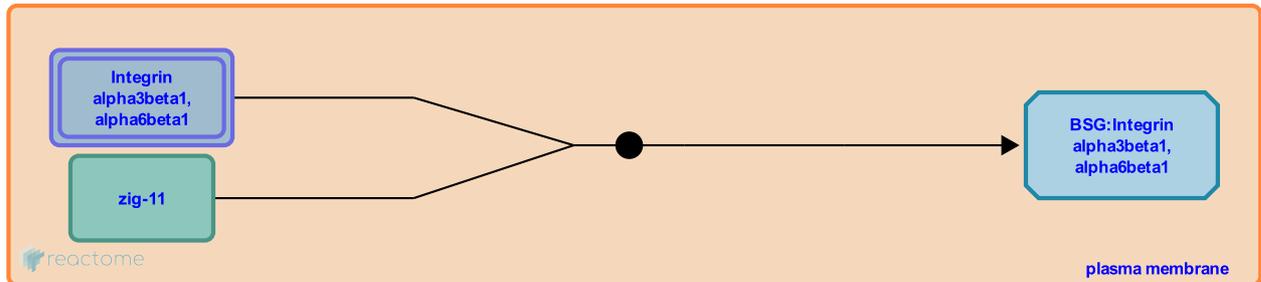
Location: Integrin cell surface interactions

Stable identifier: R-CEL-204434

Type: binding

Compartments: plasma membrane

Inferred from: BSG (basigin) binds Integrin alpha3beta1, alpha6beta1 (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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Interaction of integrin alphaVbeta3 with Tenascin ↗
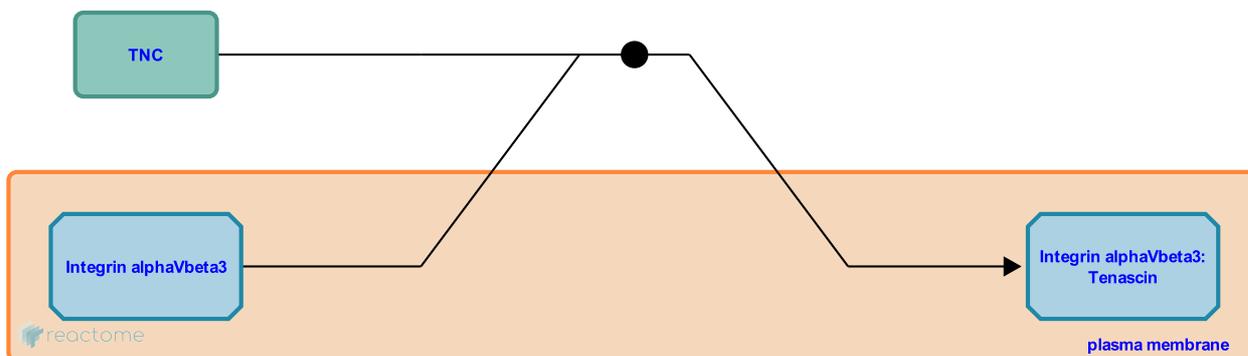
Location: Integrin cell surface interactions

Stable identifier: R-CEL-265426

Type: binding

Compartments: extracellular region, plasma membrane

Inferred from: Interaction of integrin alphaVbeta3 with Tenascin (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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Interaction of integrin alphaVbeta3 with von Willbrand Factor ↗

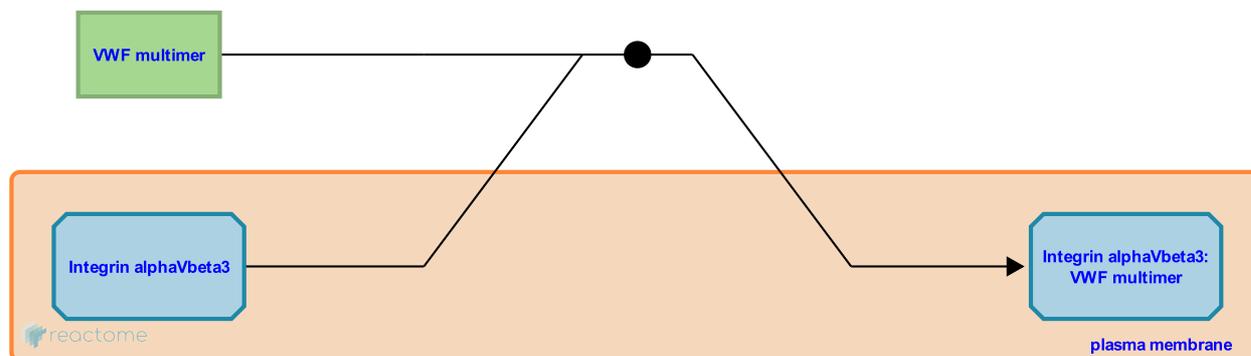**Location:** Integrin cell surface interactions

Stable identifier: R-CEL-265425

Type: binding

Compartments: extracellular region, plasma membrane

Inferred from: Interaction of integrin alphaVbeta3 with von Willbrand Factor (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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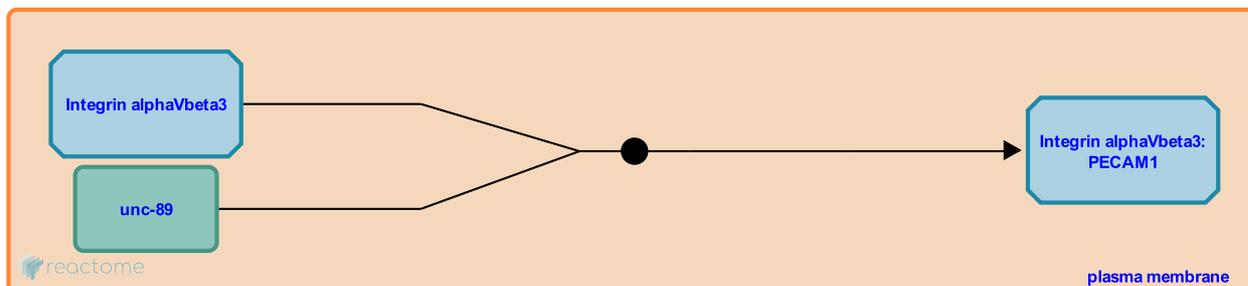
Interaction of integrin alphaVbeta3 with PECAM1 ↗

Location: Integrin cell surface interactions

Stable identifier: R-CEL-210304

Type: binding

Compartments: plasma membrane

Inferred from: Interaction of integrin alphaVbeta3 with PECAM1 (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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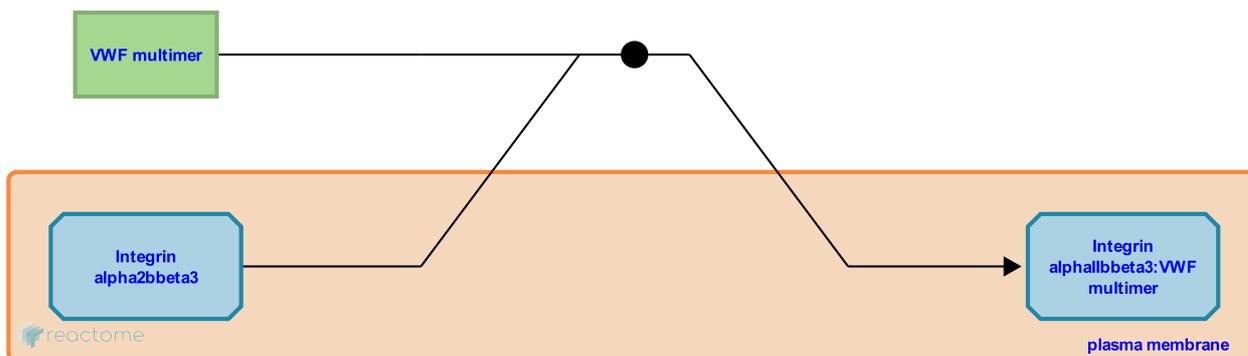## Interaction of integrin alphaIIbbeta3 with von Willebrand factor ↗

Location: Integrin cell surface interactions

Stable identifier: R-CEL-216072

Type: binding

Compartments: extracellular region, plasma membrane

Inferred from: Interaction of integrin alphaIIbbeta3 with von Willebrand factor (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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