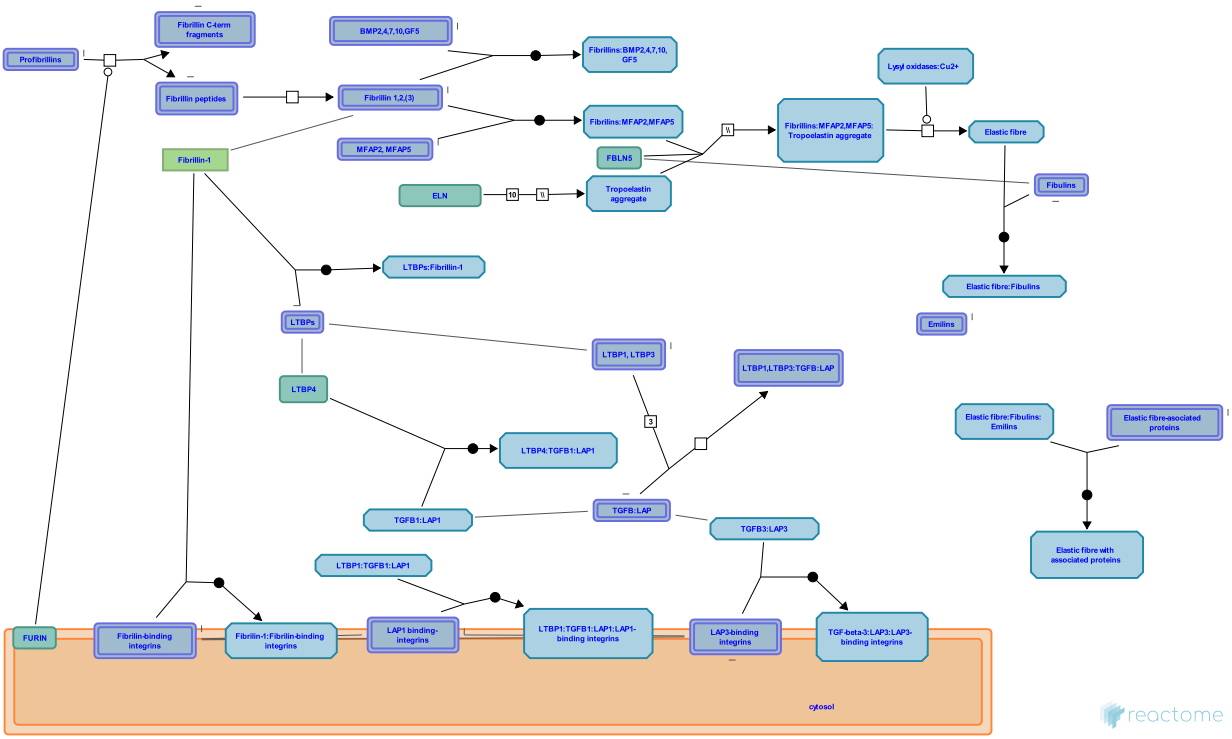
Elastic fibre formation



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

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.

19/05/2024

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

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

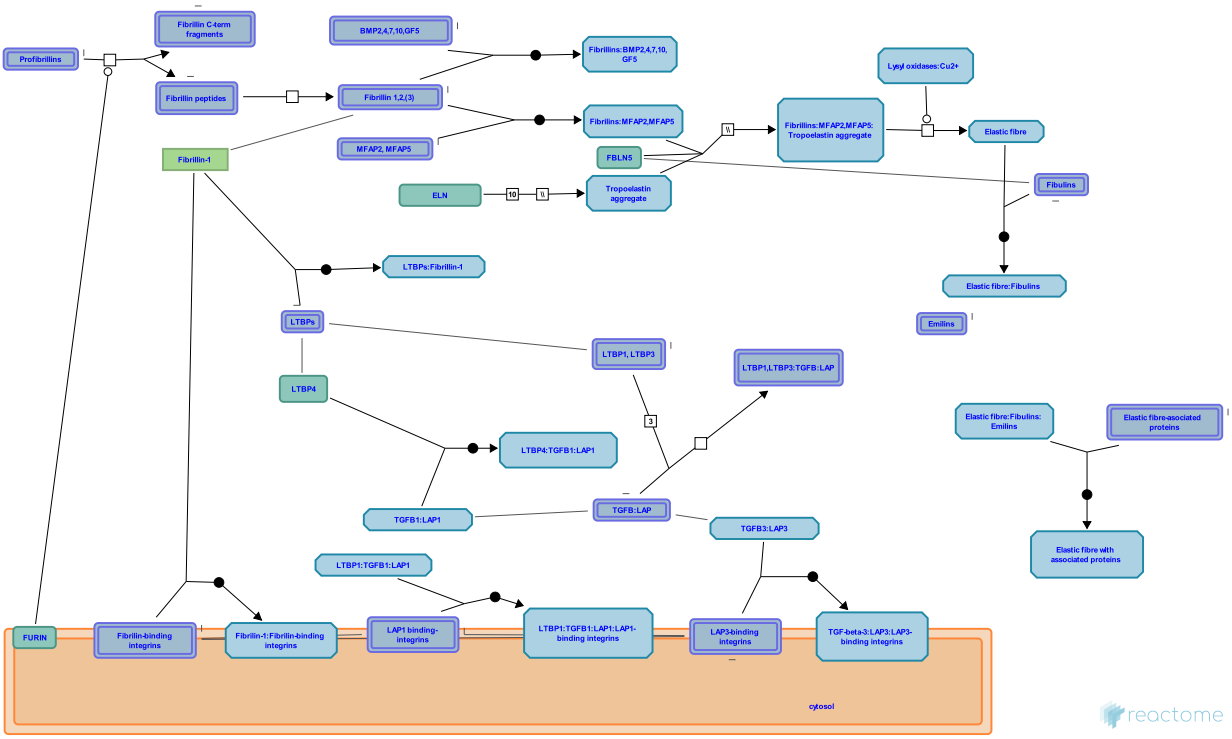
Fabregat, A., Korninger, F., Viteri, G., Sidiropoulos, K., Marin-Garcia, P., Ping, P. et al. (2018). Reactome graph database: Efficient access to complex pathway data. *PLoS computational biology, 14*, e1005968. ↗

Elastic fibre formation ↗

Stable identifier: R-BTA-1566948

Compartments: extracellular region

Inferred from: Elastic fibre formation (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

Fibrillin C-terminal processing ↗

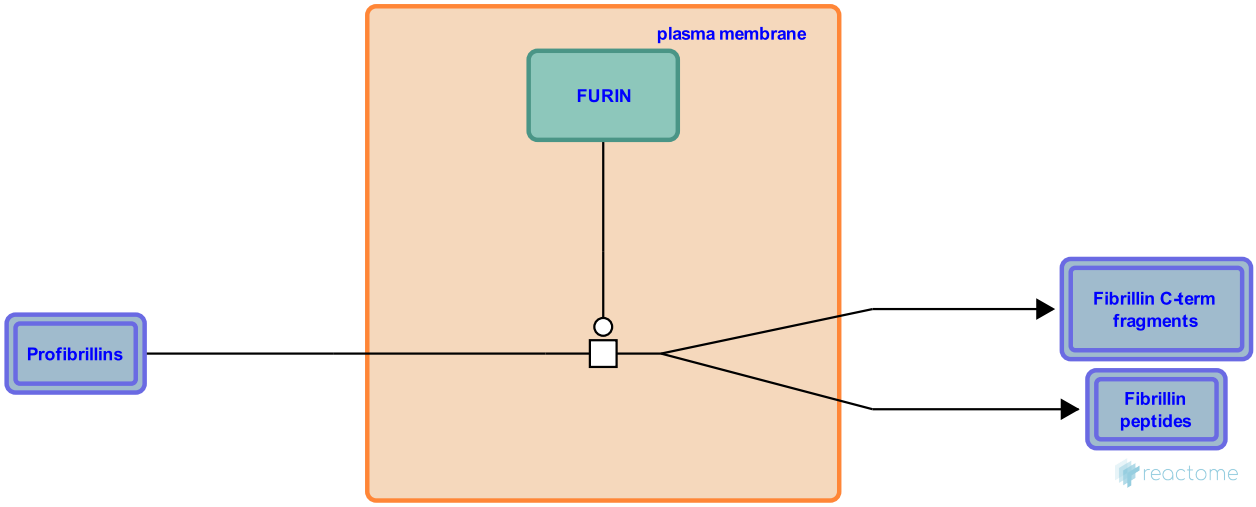
Location: Elastic fibre formation

Stable identifier: R-BTA-2129357

Type: transition

Compartments: plasma membrane

Inferred from: Fibrillin C-terminal processing (Homo sapiens)



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Followed by: Fibrillin microfibril assembly

Fibrillin-1 binds integrins ↗

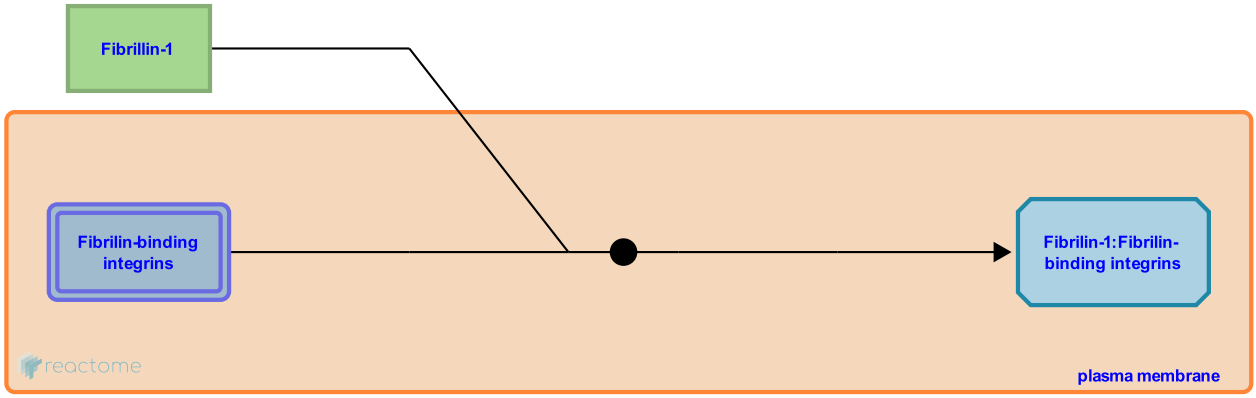
Location: Elastic fibre formation

Stable identifier: R-BTA-2328037

Type: binding

Compartments: plasma membrane

Inferred from: Fibrillin-1 binds integrins (Homo sapiens)



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Preceded by: Fibrillin microfibril assembly

Fibrillin microfibril assembly ↗

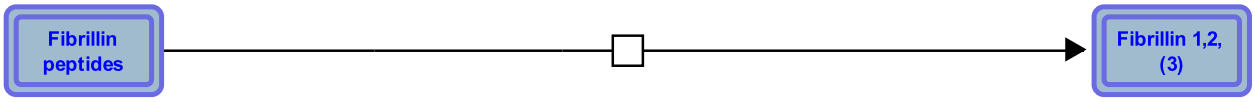
Location: Elastic fibre formation

Stable identifier: R-BTA-2129362

Type: transition

Compartments: extracellular region

Inferred from: Fibrillin microfibril assembly (Homo sapiens)



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Preceded by: Fibrillin C-terminal processing

Followed by: MFAP2, MFAP5 bind microfibrils, Fibrillin-1 binds integrins

MFAP2, MFAP5 bind microfibrils ↗

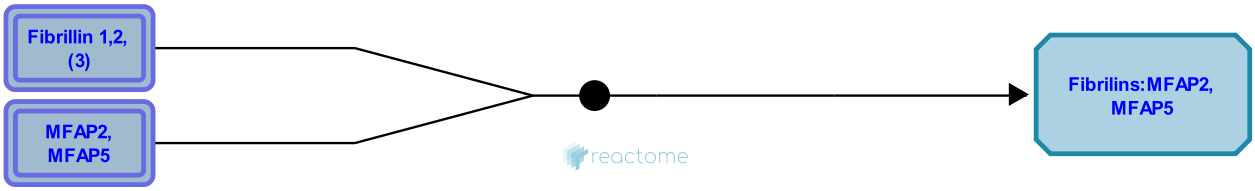
Location: Elastic fibre formation

Stable identifier: R-BTA-2129385

Type: binding

Compartments: extracellular region

Inferred from: MFAP2, MFAP5 bind microfibrils (Homo sapiens)



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Preceded by: Fibrillin microfibril assembly

Followed by: Tropoelastin associates with microfibrils

Tropoelastin forms aggregate globules ↗

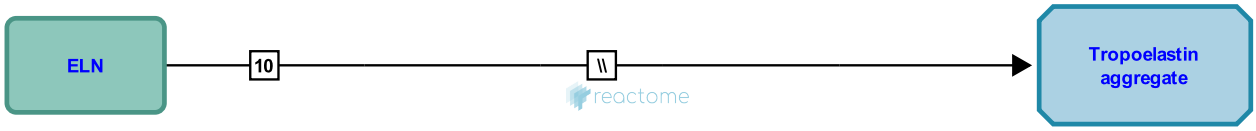
Location: Elastic fibre formation

Stable identifier: R-BTA-2161293

Type: omitted

Compartments: extracellular region

Inferred from: Tropoelastin forms aggregate globules (Homo sapiens)



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Followed by: Tropoelastin associates with microfibrils

Tropoelastin associates with microfibrils ↗

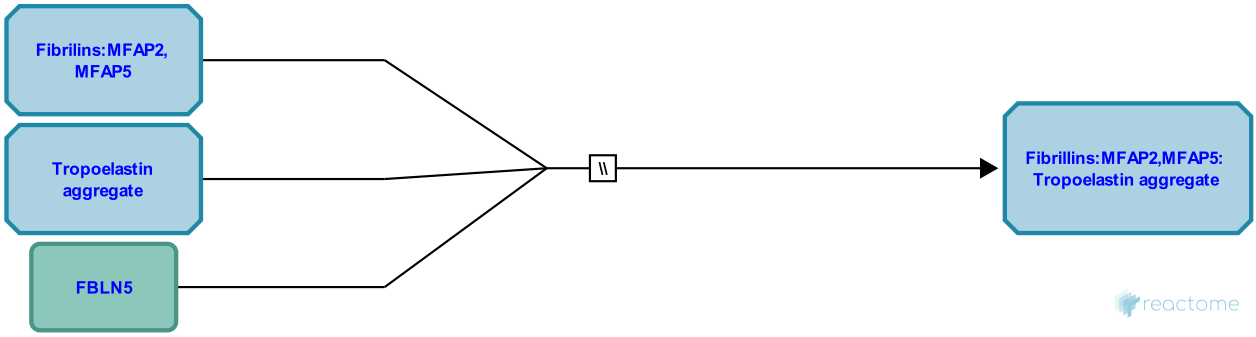
Location: Elastic fibre formation

Stable identifier: R-BTA-2129353

Type: omitted

Compartments: extracellular region

Inferred from: Tropoelastin associates with microfibrils (Homo sapiens)



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More details and caveats of the event inference in Reactome. For details on PANTHER see also: http://www.pantherdb.org/about.jsp

Preceded by: Tropoelastin forms aggregate globules, MFAP2, MFAP5 bind microfibrils

Followed by: Elastin cross-linking by lysyl oxidase

Elastin cross-linking by lysyl oxidase ↗

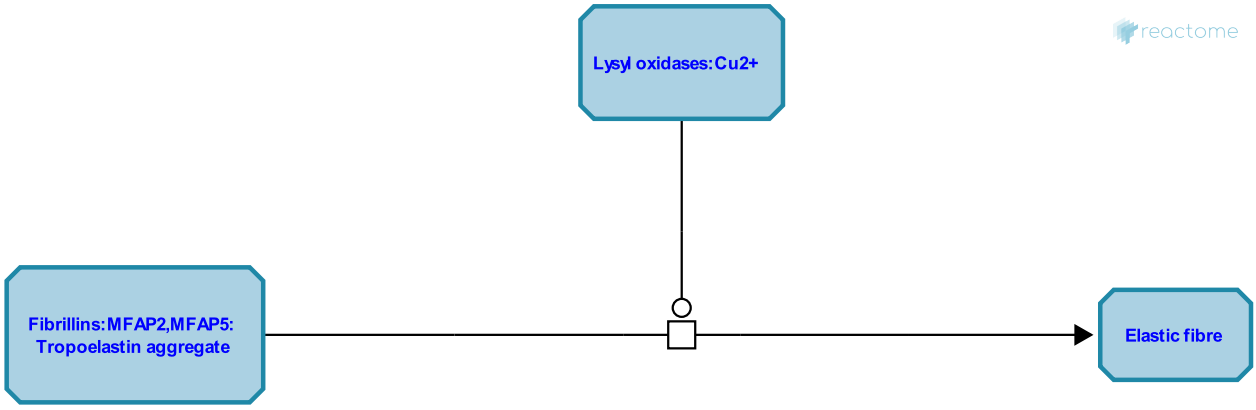
Location: Elastic fibre formation

Stable identifier: R-BTA-2129375

Type: transition

Compartments: extracellular region

Inferred from: Elastin cross-linking by lysyl oxidase (Homo sapiens)



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More details and caveats of the event inference in Reactome. For details on PANTHER see also: http://www.pantherdb.org/about.jsp

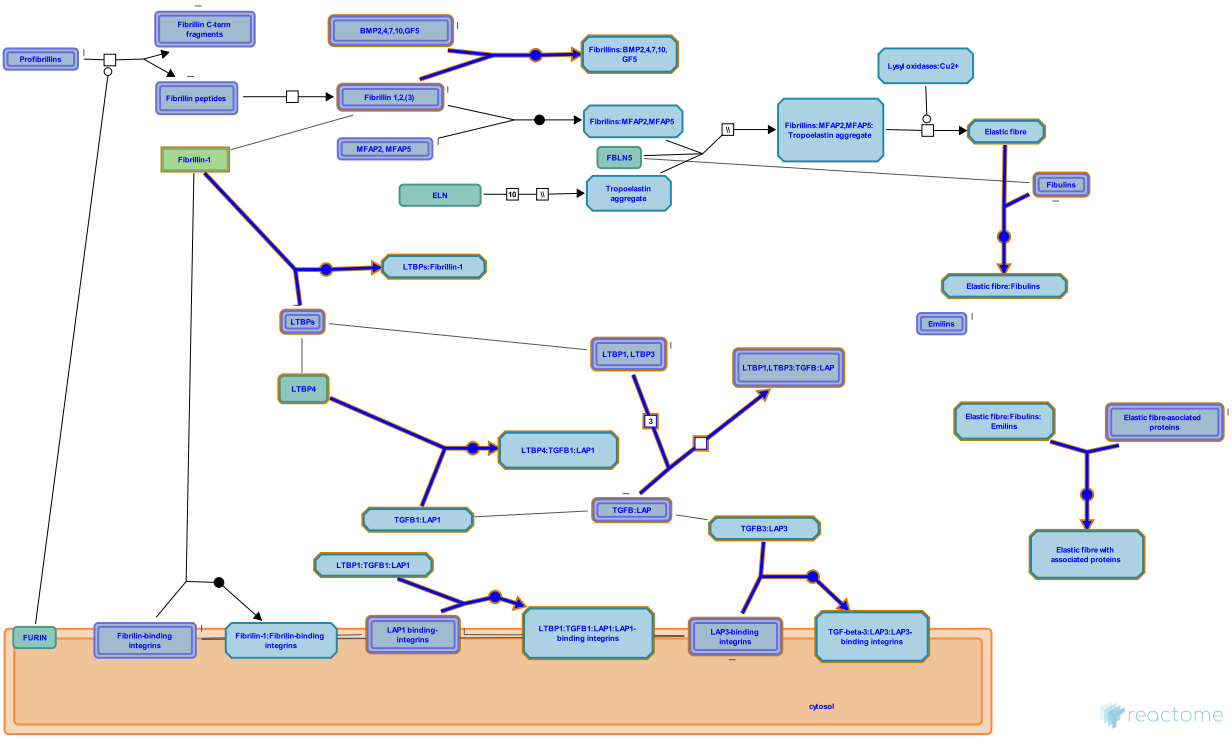
Preceded by: Tropoelastin associates with microfibrils

Molecules associated with elastic fibres ↗

Location: Elastic fibre formation

Stable identifier: R-BTA-2129379

Inferred from: Molecules associated with elastic fibres (Homo sapiens)



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More details and caveats of the event inference in Reactome. For details on PANTHER see also: http://www.pantherdb.org/about.jsp

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