

Autocatalytic activation of MMP7

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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: 88

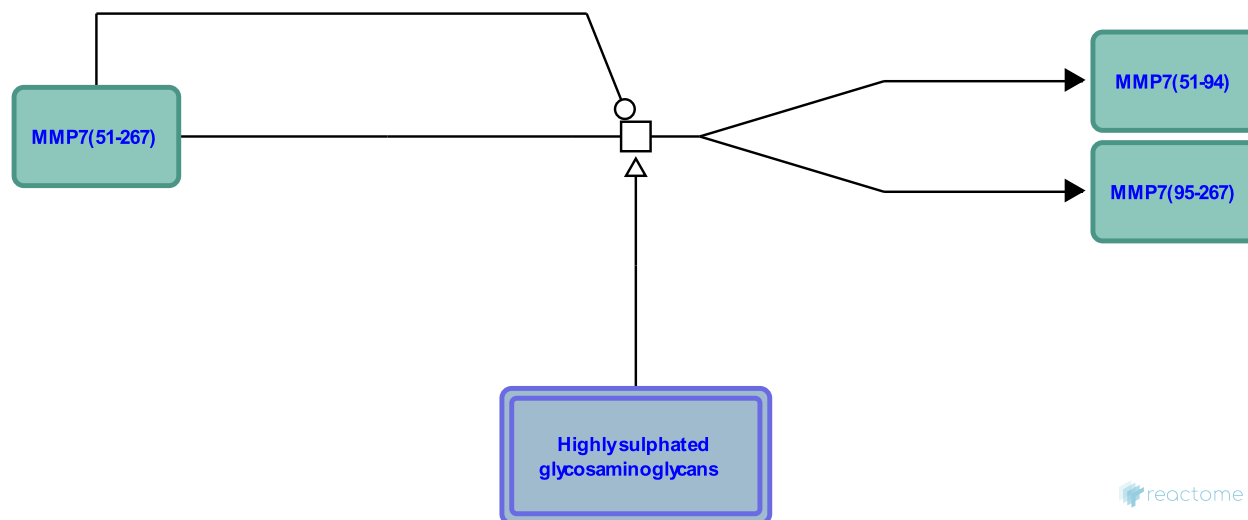
This document contains 1 reaction ([see Table of Contents](#))

Autocatalytic activation of MMP7 [↗](#)

Stable identifier: R-HSA-1604763

Type: transition

Compartments: extracellular region



Once cleaved at Lys50-Asn51 MMP7 undergoes autocatalysis (Crabbe et al. 1992). Highly sulfated glycosaminoglycans (GAG), such as heparin, chondroitin-4,6-sulfate (CS-E), and dermatan sulfate, markedly enhance (>50-fold) the intermolecular autolytic activation of promatrilysin and the activity of fully active matrilysin (Ra et al. 2009).

Literature references

Docherty, AJ., Carne, AF., Eaton, D., Hynds, P., Crabbe, T., Willenbrock, F. et al. (1992). Biochemical characterization of matrilysin. Activation conforms to the stepwise mechanisms proposed for other matrix metalloproteinases. *Biochemistry*, 31, 8500-7. [↗](#)

Editions

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