Trypsin cleaves REG3A or REG3G to generate REG3A,G(38-175)

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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

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. ↗

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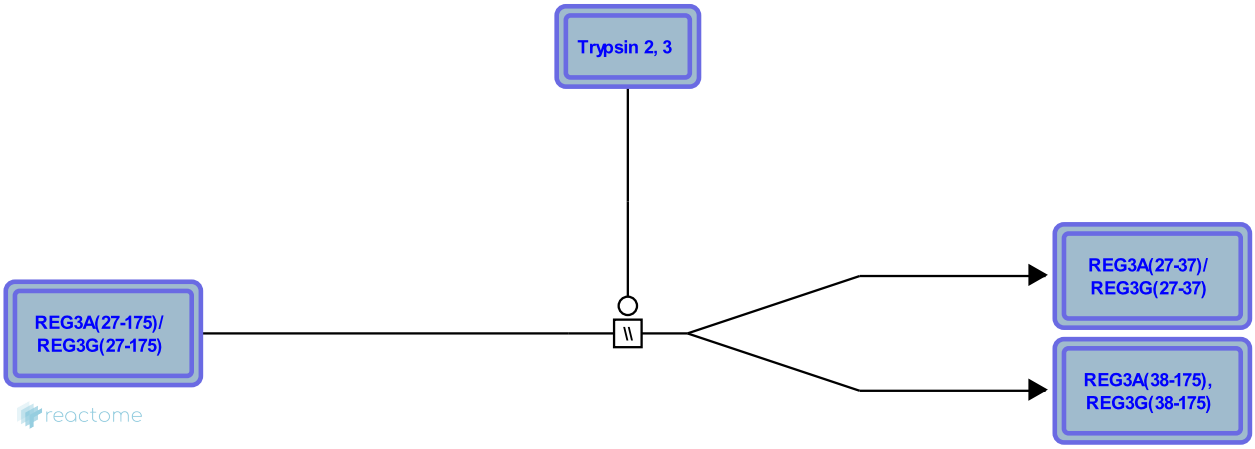
Stable identifier: R-HSA-6801766

Type: omitted

Compartments: extracellular region



Regenerating islet-derived 3 (REG3) proteins belong to the family of C-type lectins (Cash HL et al. 2006a,b; Lehotzky RE et al. 2010). REG3A and REG3G are expressed in the intestine where they moodulate the host interactions with commensal and pathogenic gut bacteria. REG3 proteins bind the peptidoglycan moieties of bacteria inducing damage to the bacterial cell wall. The antibacterial activities of REG3 proteins are restricted to Gram-positive bacteria and are tightly controlled by an inhibitory N-terminal prosegment that is removed by trypsin in vivo (Cash HL et al. 2006; Mukherjee S et al. 2009; Medveczky P et al. 2009).

Literature references

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Editions

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