

Addition of GlcNAc to position 4 by N-acetylglucosaminyltransferase (GnT)-IV

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

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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: 88

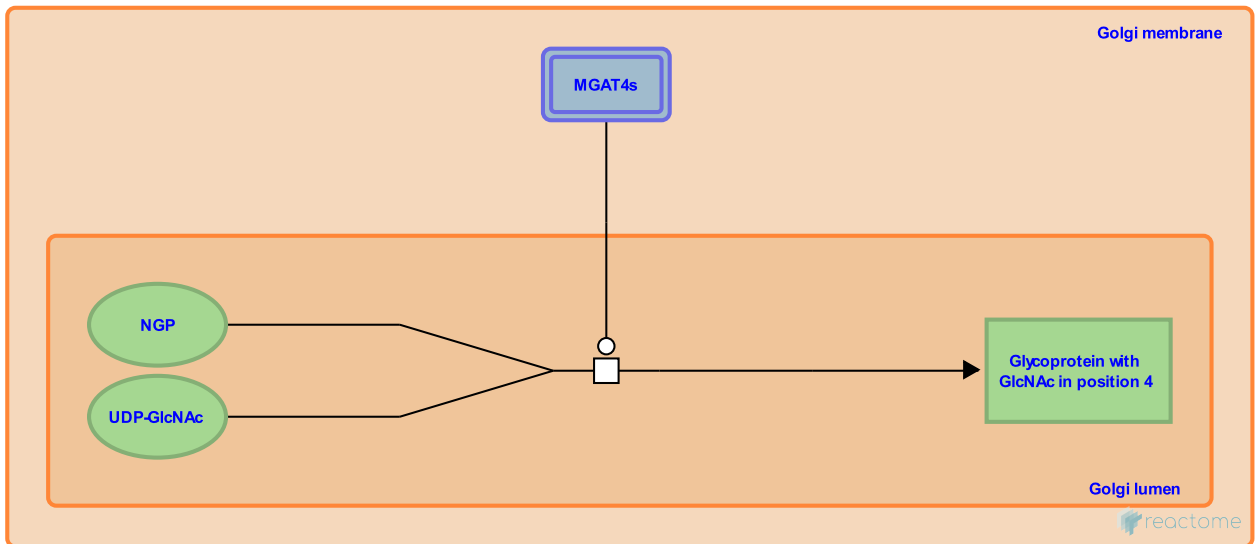
This document contains 1 reaction ([see Table of Contents](#))

Addition of GlcNAc to position 4 by N-acetylglucosaminyltransferase (GnT)-IV ↗

Stable identifier: R-HSA-975903

Type: transition

Compartments: Golgi membrane, Golgi lumen



N-acetylglucosaminyltransferase (GnT)-IV catalyzes the addition of GlcNAc beta,1,4 on the GlcNAc beta1,2 Man,alpha1,3 arm of both complex and hybrid N-glycans (Oguri S et al, 2006). Two human GnT-IV isozymes have been characterized (MGAT4A, MGAT4B) , plus a putative MGAT4C on chromosome 2 (Furukawa T et al, 1999). Aberrant expression of MGAT4A or MGAT4B is associated with pancreatic cancer (Ide Y et al, 2006; Kudo T et al , 2007)

Literature references

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Editions

2009-11-10	Authored	Dall'Olio, GM.
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