

Transport of glycoproteins with Man8 (or Man9) N-glycans to the Golgi

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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: 70

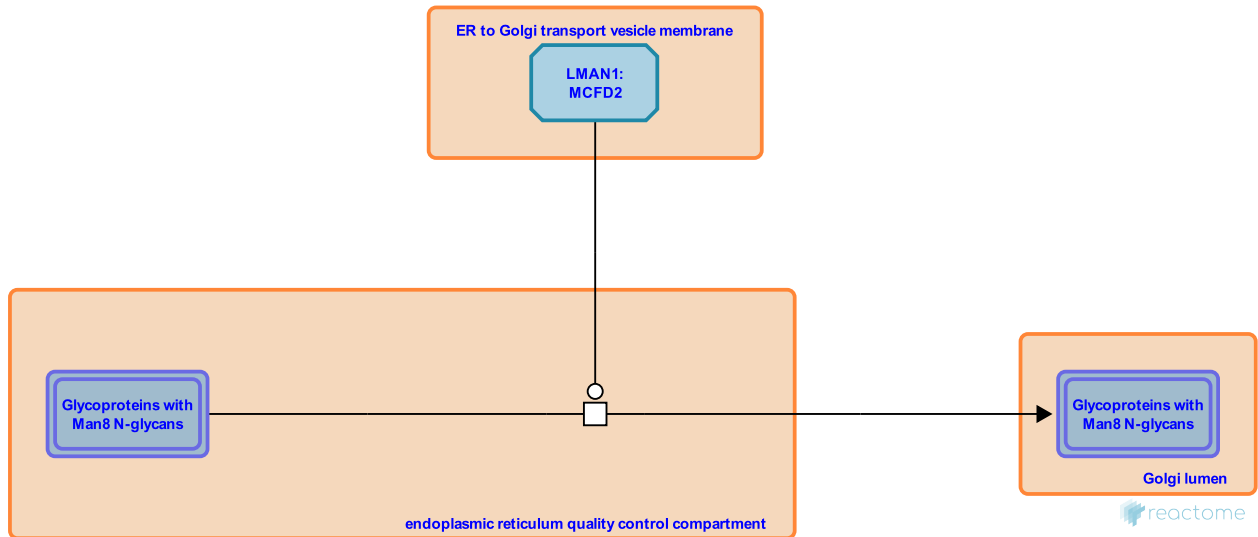
This document contains 1 reaction ([see Table of Contents](#))

Transport of glycoproteins with Man8 (or Man9) N-glycans to the Golgi [↗](#)

Stable identifier: R-HSA-947991

Type: transition

Compartments: endoplasmic reticulum quality control compartment, Golgi lumen



The LMAN1(also known as ERGIC-53)/MCFD2 complex recognizes Man8 and Man9 N-glycans released by the Calnexin/Calreticulin cycle and mediate their transport to the Golgi (Nyefeler B et al, 2003; Zhang B et al, 2003). Man8 glycan transfer is shown here.

Literature references

Nyefeler, B., Nufer, O., Matsui, T., Mori, K., Hauri, HP. (2003). The cargo receptor ERGIC-53 is a target of the unfolded protein response. *Biochem Biophys Res Commun*, 304, 599-604. [↗](#)

Zhang, B., Cunningham, MA., Nichols, WC., Bernat, JA., Seligsohn, U., Pipe, SW. et al. (2003). Bleeding due to disruption of a cargo-specific ER-to-Golgi transport complex. *Nat Genet*, 34, 220-5. [↗](#)

Editions

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