

# MAN1B1, EDEM2 hydrolyse 1,2-linked mannose (b branch)

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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

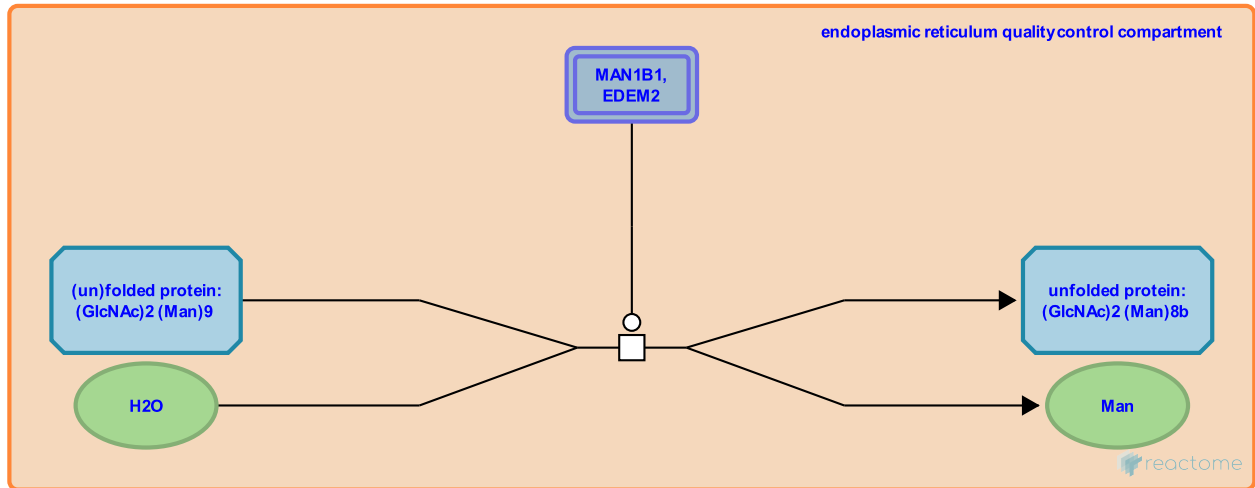
This document contains 1 reaction ([see Table of Contents](#))

## MAN1B1,EDEM2 hydrolyse 1,2-linked mannose (b branch) ↗

**Stable identifier:** R-HSA-901074

**Type:** transition

**Compartments:** endoplasmic reticulum quality control compartment



The enzyme ER Man I can slowly trim up to four of the mannoses on the N-glycan on unfolded proteins accumulated in the ER. This step describes the removal of the mannose in the B position (Gonzalez et al. 1999, Karaveg et al. 2005, Avezov et al. 2008). The ER degradation-enhancing alpha-mannosidase-like protein 2 (EDEM2) is also able to hydrolyse the alpha-1,2-mannose from (GlcNAc)<sub>2</sub>(Man)<sub>9</sub> to form (GlcNAc)<sub>2</sub>(Man)<sub>8b</sub> (Ninagawa et al. 2014).

### Literature references

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### Editions

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