maltotriose + H2O => maltose + D-glucose

(maltase-glucoamylase)

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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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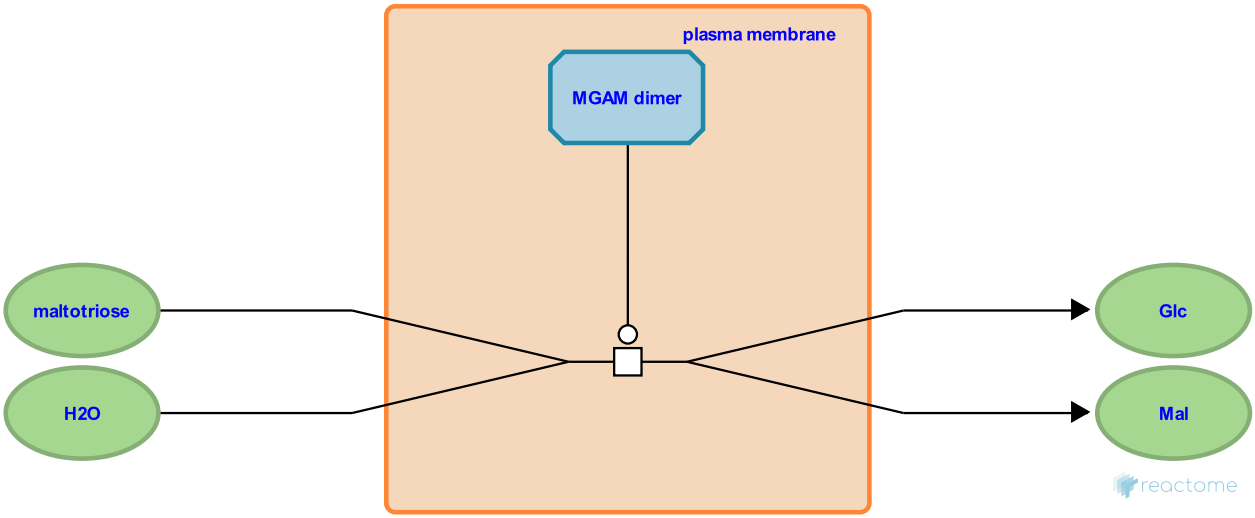
Stable identifier: R-HSA-191116

Type: transition

Compartments: extracellular region, plasma membrane



Maltotriose is representative of linear glucose oligomers containing more than two residues. The 1-4 linkages of extracellular maltotriose are hydrolyzed to yield maltose and glucose in a reaction catalyzed by the exoglucosidase activity of maltase-glucoamylase (Nichols et al. 1998). In the body, this enzyme is found as a dimer on the external face of enterocytes in microvilli of the small intestine (Hauri et al. 1985), and acts on maltotriose derived directly from the diet and from the hydrolysis of starch. This reaction can also be catalyzed by sucrase-isomaltase, but maltase-glucoamylase is about a hundredfold more active.

Literature references

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Editions

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