

isomaltose + H₂O => 2 D-glucose (sucrase- isomaltase)

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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

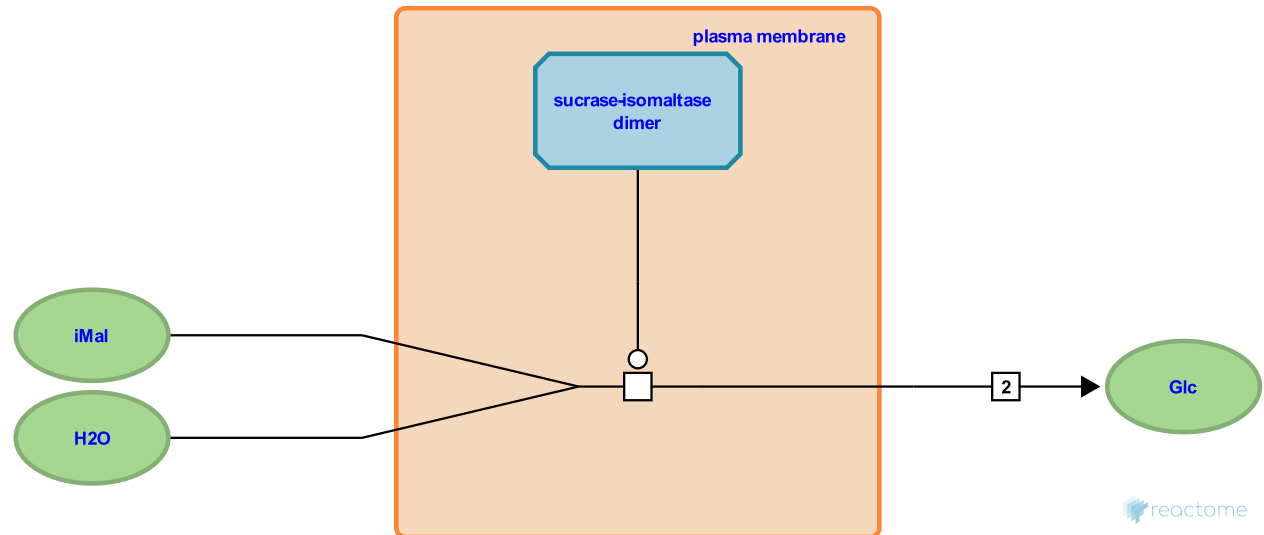
This document contains 1 reaction ([see Table of Contents](#))

isomaltose + H₂O => 2 D-glucose (sucrase-isomaltase) ↗

Stable identifier: R-HSA-5659861

Type: transition

Compartments: extracellular region, plasma membrane



The alpha-1,6 linkages of extracellular isomaltose are hydrolyzed to yield glucose in a reaction catalyzed by sucrase-isomaltase (Sim et al. 2010). 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). The predominant form of mature SI in the membrane is a dimer, as established from a variety of studies of the processing of the porcine enzyme (Cowell et al. 1986; Danielsen 1994) and crystallographic studies of the human one (Sim et al. 2010).

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