

Digestion of 1-6 linkages of limit dextrans to yield maltose, maltotriose, longer maltosides, and glucose

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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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- Fabregat, A., Jupe, S., Matthews, L., Sidiropoulos, K., Gillespie, M., Garapati, P. et al. (2018). The Reactome Pathway Knowledgebase. *Nucleic Acids Res*, 46, D649-D655. [↗](#)
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Reactome database release: 88

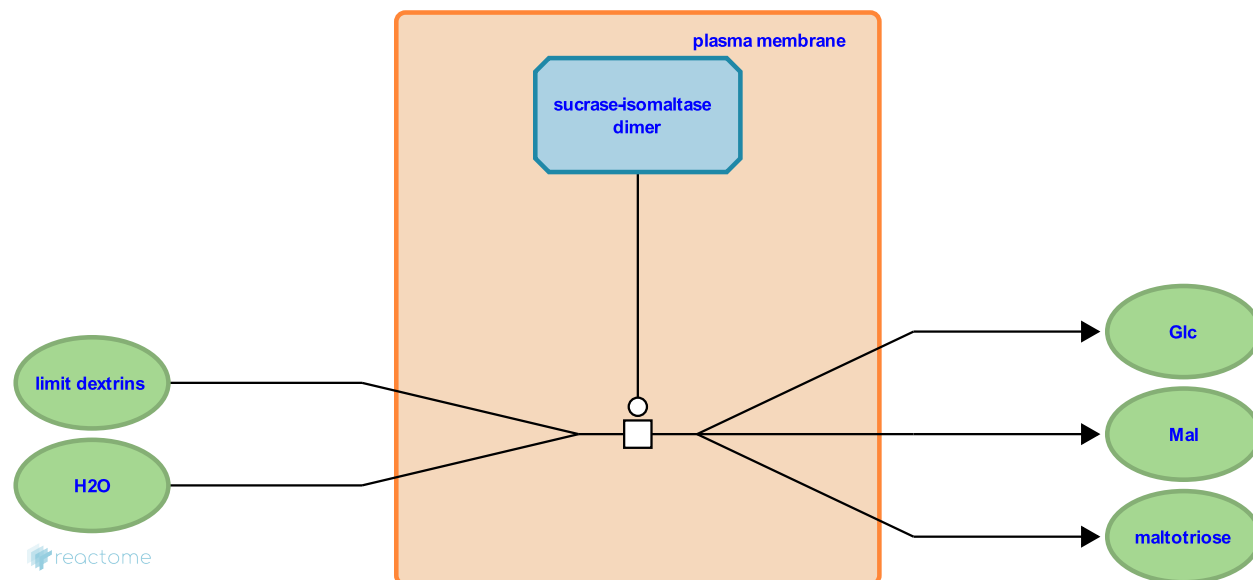
This document contains 1 reaction ([see Table of Contents](#))

Digestion of 1-6 linkages of limit dextrans to yield maltose, maltotriose, longer maltosides, and glucose ↗

Stable identifier: R-HSA-189053

Type: transition

Compartments: extracellular region, plasma membrane



The 1-6 linkages in extracellular limit dextrans are hydrolyzed by sucrase-isomaltase to yield maltose, maltotriose, longer maltosides, and glucose (Conklin et al. 1975; Nichols et al. 1998). In the body, this enzyme is found on the external face of enterocytes in microvilli of the small intestine (Hauri et al. 1985), and acts on limit dextrans generated by the hydrolysis of amylopectin starch.

Literature references

Hauri, HP., Fransen, JA., Bienz, D., Marxer, A., Sterchi, EE. (1985). Expression and intracellular transport of microvillus membrane hydrolases in human intestinal epithelial cells. *J Cell Biol*, 101, 838-51. ↗

Quaroni, A., Eldering, J., Hahn, D., Nichols, BL., Avery, S. (1998). Human small intestinal maltase-glucoamylase cDNA cloning. Homology to sucrase-isomaltase. *J Biol Chem*, 273, 3076-81. ↗

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Editions

2006-11-03	Authored, Edited	D'Eustachio, P.
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