

Recombinant Human GBE1

Cat. No. GBE1-28988TH **Lot. No.** (See product label)

SPECIFICATION

Product Overview	Recombinant full length Human GBE1 with a N terminal proprietary tag: predicted molecular weight 103.29 kDa.
Species	Human
Source	Wheat Germ
ProteinLength	702 amino acids
Description	The protein encoded by this gene is a glycogen branching enzyme that catalyzes the transfer of alpha-1,4-linked glucosyl units from the outer end of a glycogen chain to an alpha-1,6 position on the same or a neighboring glycogen chain. Branching of the chains is essential to increase the solubility of the glycogen molecule and, consequently, in reducing the osmotic pressure within cells. Highest level of this enzyme are found in liver and muscle. Mutations in this gene are associated with glycogen storage disease IV (also known as Andersens disease).
Molecular Weight	103.290kDa inclusive of tags
Tissue specificity	Highest levels found in liver and muscle.
Form	Liquid
Purity	Proprietary Purification

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Storage buffer	pH: 8.00Constituents:0.3% Glutathione, 0.79% Tris HCl
Storage	Shipped on dry ice. Upon delivery aliquot and store at -80oC. Avoid freeze / thaw cycles.
Sequences of amino acids	MAAPMTPAARPEDYEAALNAALADVPELARLLEIDPYLKP YAVDFQRRYKQFSQILK NIGENEGGIDKFSRGYESFGVHR CADGGLYCKEWAPGAEGVLTGDFNGWNPFSS YPYKKLDYG KWELYIPPKQNKSVLVPHGSKLKVVITSKSGEILYRISPW AKYVVREG DNVNYDWHWDPEHSYEFKHSRPPKPRSLRIY ESHVGISSHEGKVASYKHFTCNVL PRIKGLGYNCIQLMAI MEHAYYASFGYQITSFFAASSRYGSPEELQELVDTAHSMT II VLLDVVHSHASKNSADGLNMFDTGTDSCYFHSGPRGTHD LWDSRLFAYSSWEVLRF LLSNIRWWLEEYRFDGFRFDGVT SMLYHHHGVGQGFSGDYSEYFGLQVDEDALTY LMLANHLV HTLCPDSITIAEDVSGMPALCSPISQGGGGFDYRLAMAIP DKWIQLLKE FKDEDWNMGDIVYTLTNRRYLEKCIAYAESH DQALVGDKSLAFWLMDAEMYTNMS VLTPTPTVIDRGIQLH KMIRLITHGLGGEGYLNFMGNEFGHPEWLDFPRKGNNESY HYARRQFHLTDDDLLRYKFLNNFDRDMNRLEERYGWLAAP QAYVSEKHEGNKIIAF ERAGLLFIFNFHPSKSYTDYRVGT ALPGKFKIVLDSDAAEYGGHQRLDHSTDFESEA FEHNGRP YSLLVYIPSRVALILQNVDLPN
Sequence Similarities	Belongs to the glycosyl hydrolase 13 family.
GENE INFORMATION	
Gene Name	GBE1 glucan (1,4-alpha-), branching enzyme 1 [Homo sapiens]
Official Symbol	GBE1
Synonyms	GBE1; glucan (1,4-alpha-), branching enzyme 1; 1,4-alpha-glucan-branching enzyme; Andersen disease; glycogen branching enzyme; glycogen storage disease type IV;

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Gene ID	2632
mRNA Refseq	NM_000158
Protein Refseq	NP_000149
MIM	607839
Uniprot ID	Q04446
Chromosome Location	3
Pathway	Glucose metabolism, organism-specific biosystem; Glycogen Metabolism, organism-specific biosystem; Glycogen synthesis, organism-specific biosystem; Metabolic pathways, organism-specific biosystem; Metabolism of carbohydrates, organism-specific biosystem;
Function	1,4-alpha-glucan branching enzyme activity; cation binding; hydrolase activity, hydrolyzing O-glycosyl compounds; transferase activity, transferring glycosyl groups;

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