

Recombinant Human GLB1 protein, His-tagged

Cat. No. GLB1-7758H **Lot. No.** (See product label)

SPECIFICATION

Product Overview	Recombinant Human GLB1(Leu24-Val677) fused with His tag at C-terminal was expressed in HEK293.
Species	Human
Source	HEK293
ProteinLength	24-677 a.a.
Description	β Galactosidase is a lysosomal β Galactosidase that hydrolyzes the terminal β Galactose from Ganglioside and Keratan sulfate. In lysosome, the mature β Galactosidase protein associates with Cathepsin A and Neuraminidase 1 to form the lysosomal multienzyme complex . An alternative splicing at the RNA level of β Galactosidase results a catalytically inactive β Galactosidase that plays an important role in vascular development. Defects of β-galactosidase (GLB1) are the cause of diseases like GM1-gangliosidosis which is a lysosomal storage disease and Morquio Syndrome B that cause patients to have abnormal elastic fibers. More than 100 mutations have been identified for β Galactosidase, which result in different residual activities of the mutant enzymes and a spectrum of symptoms in the two related diseases.
Form	Supplied as a 0.2 μ m filtered solution of 20mM TrisHCl, 150mM NaCl, pH 8.0.
AA Sequence	LRNATQRMFEIDYSRDSFLKDGQPFYISGSIHYSRVPRFYWKDRLLKMKMAGLNAI

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QTYVPWNF HEPWPGQYQFSEDHDVEYFLRLAHELGLLVILRPGPYICAEWEMGGL
PAWLLEKESILLRSSDPD YLAAVDKWLGVLPLPKMKPLLYQNGGPVITVQVENEYGS
YFACDFDYLRFLQKRFRHHLGDDVVLFTTDGAHKTFCLKCGALQGLYTTVDFGTGSN
ITDAFLSQRKCEPKGPLINSEFYTGWLDHWGQPHST IKTEAVASSLYDILARGASVN
LYMFIGGTNFAYWNGANSFYAAQPTSXDYDAPLSEAGDLTEKYF ALRNIIQKFEKVP
EGPIPPSTPKFAYGKVTLEKLKTVGAAALDILCPSPGPIKSLYPLTFIQVKQHY GFVLYRT
TLPQDCSNPAPLSSPLNGVHDRAYVAVDGIPQGVLERNNVITLNTGKAGATLDLLVE
NMGRVNYGAYINDFKGLVSNLTLSSNITDWTIFPLDTEDAVRSHLGGWGHDRDSGH
HDEAWAHNS SNYTLPAFYMGNFSPSGIPDLPQDTFIQFPGWTKGQVWINGFNLGR
YWPARGPQLTLFVPQHIL MTSAPNTITVLELEWAPCSSDDPELCAVTFVDRPVGSS
VTYDHPSKPVKRLMPPPPQKNKDSW LDHVVDHHHHHH

Endotoxin Less than 0.1 ng/g (1 IEU/g) as determined by LAL test.

Purity Greater than 95% as determined by reducing SDS-PAGE.

Storage Store at < -20 centigrade, stable for 6 months after receipt.
Please minimize freeze-thaw cycles.

GENE INFORMATION

Gene Name GLB1 galactosidase, beta 1 [Homo sapiens]

Official Symbol GLB1

Synonyms GLB1; galactosidase, beta 1; elastin receptor 1 (67kD) , elastin receptor 1, 67kDa , ELNR1; beta-galactosidase; EBP; lactase; acid beta-galactosidase; elastin receptor 1, 67kDa; ELNR1; MPS4B;

Gene ID 2720

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mRNA Refseq	NM_000404
Protein Refseq	NP_000395
MIM	611458
UniProt ID	P16278
Chromosome Location	3p22.3
Pathway	Galactose metabolism, organism-specific biosystem; Galactose metabolism, conserved biosystem; Glycosaminoglycan degradation, organism-specific biosystem; Glycosaminoglycan degradation, conserved biosystem; Glycosphingolipid biosynthesis - ganglio series, organism-specific biosystem; Glycosphingolipid biosynthesis - ganglio series, conserved biosystem; Glycosphingolipid metabolism, organism-specific biosystem;
Function	beta-galactosidase activity; cation binding; galactoside binding; hydrolase activity, hydrolyzing O-glycosyl compounds; protein binding;