

Recombinant Human GBA protein, His-tagged

Cat. No. GBA-28H Lot. No. (See product label)

SPECIFICATION

Product Overview	Recombinant human GBA, fused to His-tag at C-terminus, was expressed in insect cell and purified by using conventional chromatography techniques.
Species	Human
Source	Insect Cells
ProteinLength	40-536 aa
Description	GBA, also known as glucosylceramidase isoform 1, is a lysosomal enzyme that presumably requires a signal peptide for transport across the membrane of the rough endoplasmic reticulum and glycosylation for transport into lysosomes. Gaucher disease is due to a deficiency in the activity of the enzyme glucocerebrosidase.
Form	Liquid. In Phosphate Buffered Saline (pH7.4) containing 10% glycerol.
Molecular Mass	56.4kDa (503aa) 50-70kDa (SDS-PAGE under reducing conditions)
AA Sequence	ARPCIPKSFG YSSVVCVCNA TYCDSFDPPT FPALGTFSTRY ESTRSGRRME LSMGPIQANH TGTGLLLTLQ PEQKFQKVKG FGGAMTDAAALNILALSPPA QNLLLKSYFS EEGIGYNIIR VPMASCDFSI RTYTYADTPD DFQLHNFSLP EEDTKLKIPL IHRALQLAQR PVLLASPWTSPTWLKTNGA VNGKGS�KGQ PGDIYHQTWA RYFVKFLDAY AEHKLQFWAV TAENEPSAGL LSGYPFQCLG FTPEHQRFDI ARDLGPTLANSTHHNVRLLM LDDQRLLPH WAKVVLTDPE AAKYVHGIAV HWYLDLFLAPA KATLGETHRL FPNTMLFASE ACVGSKFWEQ

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SVRLGSWDRGMQYSHSIITN LLYHVVGWTD WNLALNPEGG PNWVRNFVDS
 PIIVDITKDT FYKQPMFYHL GHFSKFIPEG SQRVGLVASQ
 KNDLDAVALMHPDGSAVVVV LNRSSKDVPL TIKDPAVGFL ETISPGYSIH
 TYLWRRQHHH HHH

Endotoxin < 1.0 EU per 1 microgram of protein (determined by LAL method)

Purity >80% by SDS – PAGE

Storage Can be stored at +4 centigrade short term (1-2 weeks). For long term storage, aliquot and store at -20 centigrade or -70 centigrade. Avoid repeated freezing and thawing cycles.

Concentration 0.5mg/ml (determined by absorbance at 280nm)

GENE INFORMATION

Gene Name [GBA glucosidase, beta, acid \[Homo sapiens \]](#)

Official Symbol [GBA](#)

Synonyms GBA; glucosidase, beta, acid; GLUC, glucosidase, beta; acid (includes glucosylceramidase) , glucosylceramidase; glucosylceramidase; GBA1; alglucerase; imiglucerase; acid beta-glucosidase; beta-glucocerebrosidase; lysosomal glucocerebrosidase; D-glucosyl-N-acylsphingosine glucohydrolase; GCB; GLUC;

Gene ID [2629](#)

mRNA Refseq [NM_000157](#)

Protein Refseq [NP_000148](#)

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MIM	606463
UniProt ID	P04062
Chromosome Location	1q22
Pathway	Glycosphingolipid metabolism, organism-specific biosystem; Lysosome, organism-specific biosystem; Lysosome, conserved biosystem; Metabolic pathways, organism-specific biosystem; Metabolism, organism-specific biosystem; Metabolism of lipids and lipoproteins, organism-specific biosystem; Other glycan degradation, organism-specific biosystem;
Function	cation binding; glucosylceramidase activity; hydrolase activity, acting on glycosyl bonds; receptor binding;

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