

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 FPALGTFSRY ESTRSGRRME LSMGPIQANH TGTGLLLTLQ PEQKFQKVKG FGGAMTDAAALNILALSPPA QNLLLSYFS EEGIGYNIIR VPMASCDFSI RTYTYADTPD DFQLHNFSLP EEDTKLKIPL IHRALQLAQR PVSLLASPWTSPTWLKTNGA VNGKGSCLKGQ PGDIYHQTWA RYFVKFLDAY AEHKLQFWAV TAENEPSAGL LSGYPFQCLG FTPEHQRFDI ARDLGPTLANSTHHNVRLLM LDDQRLLLP WAKVVLTDPE AAKYVHGIAV HWYLDLAPA KATLGETHRL FPNTMLFASE ACVGSKFWEQ

 Tel: 1-631-559-9269 1-516-512-3133

 Email: info@creative-biomart.com  Fax: 1-631-938-8127

 45-1 Ramsey Road, Shirley, NY 11967, USA

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 glucosylhydrolase; 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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