

Product datasheet for **TP316061M**

GBA (NM_000157) Human Recombinant Protein

Product data:

Product Type:	Recombinant Proteins
Description:	Recombinant protein of human glucosidase, beta; acid (includes glucosylceramidase) (GBA), transcript variant 1, 100 µg
Species:	Human
Expression Host:	HEK293T
Expression cDNA Clone or AA Sequence:	>RC216061 representing NM_000157 Red =Cloning site Green =Tags(s)

MEFSSPSREECPKPLSRVSIAGSLTGLLLLQAVSWASGARPCIPKSFYSSWVCNATYCDSFDPPTF
PALGTFSRYESTRSGRRMELSMGPIQANHTGTGLLLTLQPEQKFQKVKGFGGAMTDAAALNILALSPPAQ
NLLLKSYFSEEGIGYNIIRVPMASCDFSIRTYTYADTPDDFQLHNFSLPEEDTKLKIPLIHRALQLAQRP
VLLASPWTSPTWLKTN GAVNGKSLKGQPGDIYHQTWARYFVKFLDAYAEHKLQFWAVTAENEPSAGLL
SGYPFQCLGFTPEHQRFIARDLGP TLANSTHHNVRLMLDDQRLLPHWAKVVLTDPEAAKYVHGIAVH
WYLDFLAPAKATLGETHRFPNTMLFASEACVGSKFWEQSVRLGSDRGMQYSHSIITNLLYHVVGWTDW
NLALNPEGPNWVRNFVDSP IVDITKDTFYKQPMFYHLGHFSKFIPEGSQRVGLVASQKNDLDAVALMH
PDGSAWVWLNRSKDVPLTIK DPAVG FLETISPGYSIHTYLWRRQ

TRTRPLEQKLISEEDLAANDILDYKDDDDKV

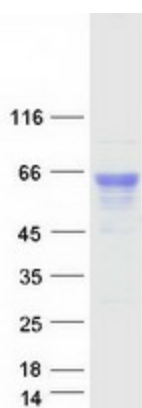
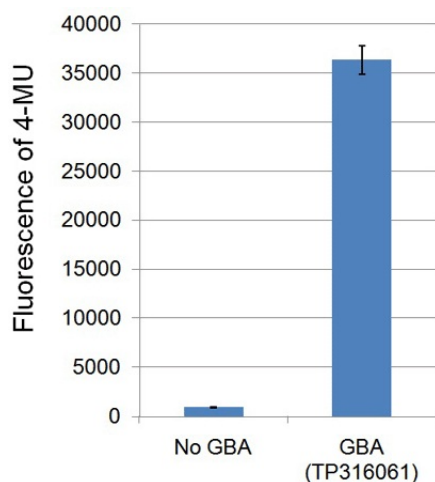
Tag:	C-Myc/DDK
Predicted MW:	55.5 kDa
Concentration:	>0.05 µg/µL as determined by microplate BCA method
Purity:	> 80% as determined by SDS-PAGE and Coomassie blue staining
Buffer:	25 mM Tris-HCl, 100 mM glycine, pH 7.3, 10% glycerol



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Bioactivity:	The enzymatic activity of TP316061 (GBA) was measured by its ability to hydrolyze a fluorescent substrate 4-methylumbelliferyl- β -D-glucopyranoside. The specific activity is > 70,000 pmol/hour/ μ g, as measured under the following conditions: 27 ng of GBA was incubated with 10 mM 4-methylumbelliferyl- β -D-glucopyranoside in the following buffer at 37°C for 40 min: 150 mM citrate-phosphate buffer, pH 5.4, 0.25% (w/w) sodium taurocholate, 0.25% (w/w) Triton X-100, and 1% bovine serum albumin. The reaction was terminated by adding 0.5 volume of 1M glycine buffer, pH 12.5. The hydrolyzed product of reaction, 4-methylumbelliferone (4-MU), was measured using a FlexStation 3 microplate reader (Ex365/Em445). Specific activity of GBA was calculated based on a standard curve of known concentration of 4-MU.
Preparation:	Recombinant protein was captured through anti-DDK affinity column followed by conventional chromatography steps.
Note:	For testing in cell culture applications, please filter before use. Note that you may experience some loss of protein during the filtration process.
Storage:	Store at -80°C.
Stability:	Stable for 12 months from the date of receipt of the product under proper storage and handling conditions. Avoid repeated freeze-thaw cycles.
RefSeq:	NP_000148
Locus ID:	2629
UniProt ID:	P04062 , A0A068F658
RefSeq Size:	2324
Cytogenetics:	1q22
RefSeq ORF:	1608
Synonyms:	GBA1; GCB; GLUC
Summary:	This gene encodes a lysosomal membrane protein that cleaves the beta-glucosidic linkage of glycosylceramide, an intermediate in glycolipid metabolism. Mutations in this gene cause Gaucher disease, a lysosomal storage disease characterized by an accumulation of glucocerebrosides. A related pseudogene is approximately 12 kb downstream of this gene on chromosome 1. Alternative splicing results in multiple transcript variants. [provided by RefSeq, Jan 2010]
Protein Families:	Druggable Genome
Protein Pathways:	Lysosome, Metabolic pathways, Other glycan degradation, Sphingolipid metabolism

Product images:



Coomassie blue staining of purified GBA protein (Cat# [TP316061]). The protein was produced from HEK293T cells transfected with GBA cDNA clone (Cat# [RC216061]) using MegaTran 2.0 (Cat# [TT210002]).