

GBA Antibody
Rabbit mAb
Catalog # AP91173

Specification

GBA Antibody - Product Information

Application	WB, IHC
Primary Accession	P04062
Reactivity	Rat
Clonality	Monoclonal
Other Names	
Alglucerase; betaGC; GBA1; GCase; GCB; GLUC; Glucosylceramidase; Imiglucerase;	
Isotype	Rabbit IgG
Host	Rabbit
Calculated MW	59716 Da

GBA Antibody - Additional Information

Dilution	WB~~1:1000 IHC~~1:100~500
Purification	Affinity-chromatography
Immunogen	A synthesized peptide derived from human GBA
Description	Defects in GBA are the cause of Gaucher disease (GD) [MIM:230800]; also known as glucocerebrosidase deficiency. GD is the most prevalent lysosomal storage disease, characterized by accumulation of glucosylceramide in the reticulo-endothelial system.
Storage Condition and Buffer	Rabbit IgG in phosphate buffered saline , pH 7.4, 150mM NaCl, 0.02% sodium azide and 50% glycerol. Store at +4°C short term. Store at -20°C long term. Avoid freeze / thaw cycle.

GBA Antibody - Protein Information

Name GBA1 ([HGNC:4177](#))

Synonyms GBA, GC, GLUC

Function

Glucosylceramidase that catalyzes, within the lysosomal compartment, the hydrolysis of glucosylceramides/GlcCers (such as beta- D-glucosyl-(1<->1')-N-acylsphing-4-enine) into free ceramides (such as N-acylsphing-4-enine) and glucose (PubMed:15916907, PubMed:24211208, PubMed:24211208, PubMed:24211208)

[32144204](http://www.uniprot.org/citations/32144204), PubMed: [9201993](http://www.uniprot.org/citations/9201993)). Plays a central role in the degradation of complex lipids and the turnover of cellular membranes (PubMed: [27378698](http://www.uniprot.org/citations/27378698)). Through the production of ceramides, participates in the PKC-activated salvage pathway of ceramide formation (PubMed: [19279011](http://www.uniprot.org/citations/19279011)). Catalyzes the glucosylation of cholesterol, through a transglucosylation reaction where glucose is transferred from GlcCer to cholesterol (PubMed: [24211208](http://www.uniprot.org/citations/24211208), PubMed: [26724485](http://www.uniprot.org/citations/26724485), PubMed: [32144204](http://www.uniprot.org/citations/32144204)). GlcCer containing mono-unsaturated fatty acids (such as beta-D-glucosyl-N-(9Z-octadecenoyl)-sphing-4-enine) are preferred as glucose donors for cholesterol glucosylation when compared with GlcCer containing same chain length of saturated fatty acids (such as beta-D-glucosyl-N-octadecanoyl-sphing-4-enine) (PubMed: [24211208](http://www.uniprot.org/citations/24211208)). Under specific conditions, may alternatively catalyze the reverse reaction, transferring glucose from cholesteryl 3-beta-D-glucoside to ceramide (Probable) (PubMed: [26724485](http://www.uniprot.org/citations/26724485)). Can also hydrolyze cholesteryl 3-beta-D-glucoside producing glucose and cholesterol (PubMed: [24211208](http://www.uniprot.org/citations/24211208), PubMed: [26724485](http://www.uniprot.org/citations/26724485)). Catalyzes the hydrolysis of galactosylceramides/GalCers (such as beta-D-galactosyl-(1->1')-N-acylsphing-4-enine), as well as the transfer of galactose between GalCers and cholesterol in vitro, but with lower activity than with GlcCers (PubMed: [32144204](http://www.uniprot.org/citations/32144204)). Contrary to GlcCer and GalCer, xylosylceramide/XylCer (such as beta-D-xylosyl-(1->1')-N-acylsphing-4-enine) is not a good substrate for hydrolysis, however it is a good xylose donor for transxylosylation activity to form cholesteryl 3-beta-D-xyloside (PubMed: [33361282](http://www.uniprot.org/citations/33361282)).

Cellular Location

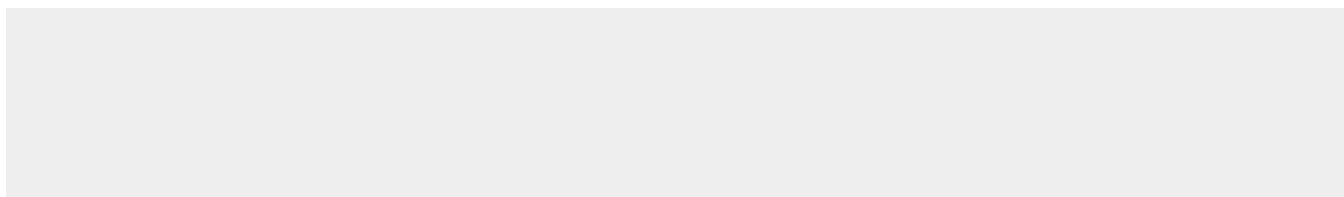
Lysosome membrane; Peripheral membrane protein; Lumenal side. Note=Interaction with saposin-C promotes membrane association (PubMed:10781797). Targeting to lysosomes occurs through an alternative MPR-independent mechanism via SCARB2 (PubMed:18022370).

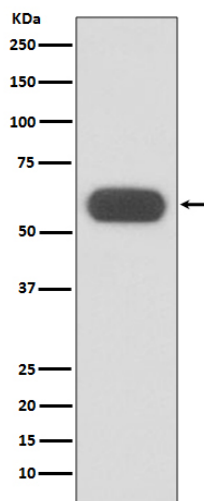
GBA Antibody - Protocols

Provided below are standard protocols that you may find useful for product applications.

- [Western Blot](#)
- [Blocking Peptides](#)
- [Dot Blot](#)
- [Immunohistochemistry](#)
- [Immunofluorescence](#)
- [Immunoprecipitation](#)
- [Flow Cytometry](#)
- [Cell Culture](#)

GBA Antibody - Images





Western blot analysis of GBA expression in U87-MG cell lysate.