

**GBA Antibody**  
**Rabbit mAb**  
**Catalog # AP91173**

## Specification

### GBA Antibody - Product Information

Application	WB, IHC
Primary Accession	<a href="#">P04062</a>
Reactivity	Rat
Clonality	Monoclonal
<b>Other Names</b>	
Alglucerase; betaGC; GBA1; GCase; GCB; GLUC; Glucosylceramidase; Imiglucerase;	
Isotype	Rabbit IgG
Host	Rabbit
Calculated MW	59716 Da

### GBA Antibody - Additional Information

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:<a href="http://www.uniprot.org/citations/15916907" target="\_blank">15916907</a>, PubMed:<a href="http://www.uniprot.org/citations/24211208" target="\_blank">24211208</a>, PubMed:<a href="http://www.uniprot.org/citations/32144204" target="\_blank">32144204</a>, PubMed:<a href="http://www.uniprot.org/citations/9201993" target="\_blank">9201993</a>). Plays a central

role in the degradation of complex lipids and the turnover of cellular membranes (PubMed:<a href="http://www.uniprot.org/citations/27378698" target="\_blank">27378698</a>). Through the production of ceramides, participates in the PKC-activated salvage pathway of ceramide formation (PubMed:<a href="http://www.uniprot.org/citations/19279011" target="\_blank">19279011</a>). Catalyzes the glucosylation of cholesterol, through a transglucosylation reaction where glucose is transferred from GlcCer to cholesterol (PubMed:<a href="http://www.uniprot.org/citations/24211208" target="\_blank">24211208</a>, PubMed:<a href="http://www.uniprot.org/citations/26724485" target="\_blank">26724485</a>, PubMed:<a href="http://www.uniprot.org/citations/32144204" target="\_blank">32144204</a>). 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:<a href="http://www.uniprot.org/citations/24211208" target="\_blank">24211208</a>). Under specific conditions, may alternatively catalyze the reverse reaction, transferring glucose from cholesteryl 3-beta-D-glucoside to ceramide (Probable) (PubMed:<a href="http://www.uniprot.org/citations/26724485" target="\_blank">26724485</a>). Can also hydrolyze cholesteryl 3-beta-D-glucoside producing glucose and cholesterol (PubMed:<a href="http://www.uniprot.org/citations/24211208" target="\_blank">24211208</a>, PubMed:<a href="http://www.uniprot.org/citations/26724485" target="\_blank">26724485</a>). 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:<a href="http://www.uniprot.org/citations/32144204" target="\_blank">32144204</a>). 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:<a href="http://www.uniprot.org/citations/33361282" target="\_blank">33361282</a>).

### Cellular Location

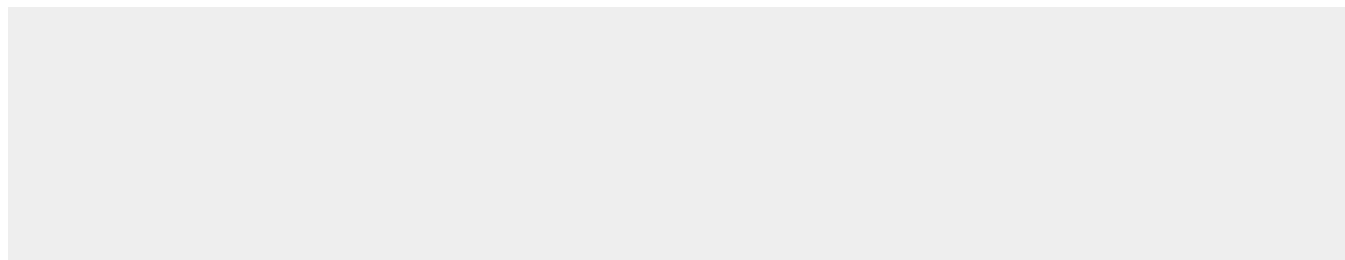
Lysosome membrane; Peripheral membrane protein; Lumenal side. Note=Interaction with saposin-C promotes membrane association (PubMed:10781797). Targeting to lysosomes occurs through an alternative MPR-independent mechanism via SCARB2 (PubMed:18022370).

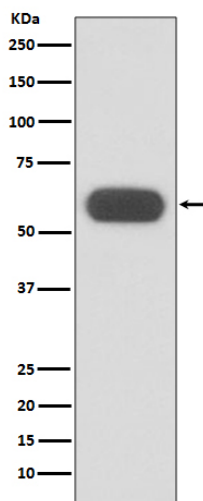
### GBA Antibody - Protocols

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.