

Anti-GBA/Glucosylceramidase Rabbit Monoclonal Antibody
Catalog # ABO13280**Specification****Anti-GBA/Glucosylceramidase Rabbit Monoclonal Antibody - Product Information**

Application	WB, IHC
Primary Accession	P04062
Host	Rabbit
Isotype	Rabbit IgG
Reactivity	Rat, Human
Clonality	Monoclonal
Format	Liquid

Description

Anti-GBA/Glucosylceramidase Rabbit Monoclonal Antibody . Tested in WB, IHC applications. This antibody reacts with Human, Rat.

Anti-GBA/Glucosylceramidase Rabbit Monoclonal Antibody - Additional Information

Gene ID 2629

Other Names

Lysosomal acid glucosylceramidase, Lysosomal acid GCase, 3.2.1.45, Acid beta-glucosidase, Alglucerase, Beta-glucocerebrosidase, Beta-GC, Beta-glucosylceramidase 1, Cholesterol glucosyltransferase, SGTase, 2.4.1.-, Cholesteryl-beta-glucosidase, 3.2.1.-, D-glucosyl-N-acylsphingosine glucohydrolase, Glucosylceramidase beta 1 {ECO:0000312|HGNC:HGNC:4177}, Imiglucerase, Lysosomal cholesterol glycosyltransferase, Lysosomal galactosylceramidase, 3.2.1.46, Lysosomal glycosylceramidase, GBA1 ([HGNC:4177](http://www.genenames.org/cgi-bin/gene_symbol_report?hgnc_id=4177)), GBA, GC, GLUC

Calculated MW

59716 MW KDa

Application Details

WB 1:500-1:2000
IHC 1:50-1:200

Subcellular Localization

Lysosome membrane ; Peripheral membrane protein ; Luminal side. Interaction with saposin-C promotes membrane association. Targeting to lysosomes occurs through an alternative MPR-independent mechanism via SCARB2.

Contents

Rabbit IgG in phosphate buffered saline, pH 7.4, 150mM NaCl, 0.02% sodium azide and 50% glycerol, 0.4-0.5mg/ml BSA.

Immunogen

A synthesized peptide derived from human GBA

Purification

Affinity-chromatography

Storage

Store at -20°C for one year. For short term storage and frequent use, store at 4°C for up to one month. Avoid repeated freeze-thaw cycles.

Anti-GBA/Glucosylceramidase Rabbit Monoclonal 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](http://www.uniprot.org/citations/15916907), PubMed:[24211208](http://www.uniprot.org/citations/24211208), PubMed:[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

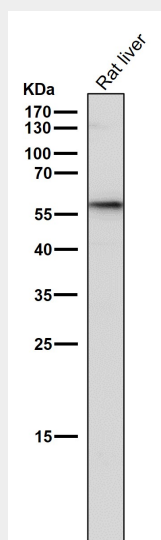
Lysosome membrane; Peripheral membrane protein; Lumenal side. Note=Interaction with saposin-C promotes membrane association (PubMed:10781797). Targeting to lysosomes occurs through an alternative MPR-independent mechanism via SCARB2 (PubMed:18022370).

Anti-GBA/Glucosylceramidase Rabbit Monoclonal Antibody - Protocols

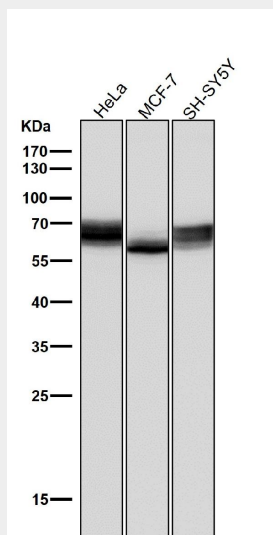
Provided below are standard protocols that you may find useful for product applications.

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

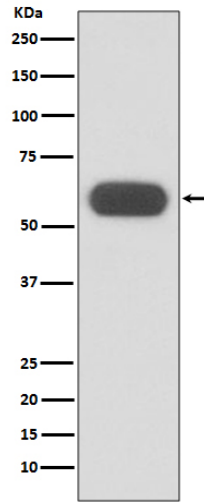
Anti-GBA/Glucosylceramidase Rabbit Monoclonal Antibody - Images



All lanes use the Antibody at 1:5K dilution for 1 hour at room temperature.



All lanes use the Antibody at 1:5K dilution for 1 hour at room temperature.



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