10320 Camino Santa Fe, Suite G
San Diego, CA 92121
Tel: 858.875.1900 Fax: 858.875.1999

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), 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 ; Lumenal 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, PubMed:24211208, PubMed:32144204, PubMed:9201993). Plays a central role in the degradation of complex lipids and the turnover of cellular membranes (PubMed:27378698). Through the production of ceramides, participates in the PKC-activated salvage pathway of ceramide formation (PubMed:19279011). Catalyzes the glucosylation of cholesterol, through a transglucosylation reaction where glucose is transferred from GlcCer to cholesterol (PubMed:24211208, PubMed:26724485, PubMed: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). Under specific conditions, may alternatively catalyze the reverse reaction, transferring glucose from cholesteryl 3-beta-D-glucoside to ceramide (Probable) (PubMed:26724485). Can also hydrolyze cholesteryl 3-beta-D- glucoside producing glucose and cholesterol (PubMed:24211208, PubMed: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). Contrary to GlcCer and GalCer, xylosylceramide/XylCer (such as beta-D-xyosyl-(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).

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).

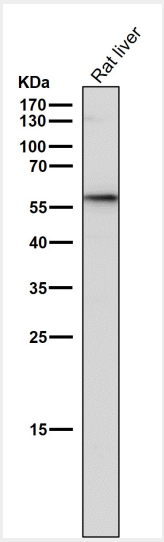
10320 Camino Santa Fe, Suite G
San Diego, CA 92121
Tel: 858.875.1900 Fax: 858.875.1999

Anti-GBA/Glucosylceramidase Rabbit Monoclonal Antibody - Protocols

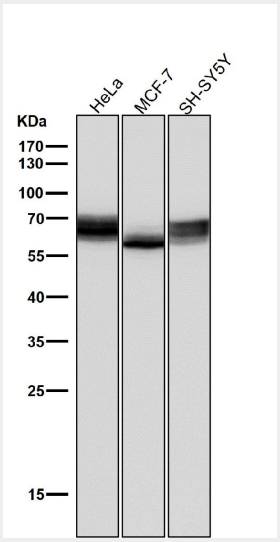
Provided below are standard protocols that you may find useful for product applications.

- Western Blot
- Blocking Peptides
- Dot Blot
- Immunohistochemistry
- Immunofluorescence
- Immunoprecipitation
- Flow Cytomety
- Cell Culture

Anti-GBA/Glucosylceramidase Rabbit Monoclonal Antibody - Images

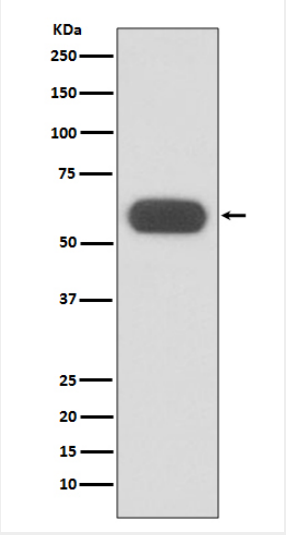


All lanes use the Antibody at 1:5K dilution for 1 hour at room temperature.



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

10320 Camino Santa Fe, Suite G
San Diego, CA 92121
Tel: 858.875.1900 Fax: 858.875.1999



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