



GBA Mouse mAb

Catalog No	YP-mAb-18720
Isotype	IgG
Reactivity	Human;Mouse;Rat
Applications	WB
Gene Name	GBA GC GLUC
Immunogen	Synthesized peptide derived from human GBA
Specificity	This antibody detects endogenous levels of GBA at Human, Mouse
Formulation	Liquid in PBS containing 50% glycerol, 0.5% BSA and 0.02% sodium azide.
Source	
Purification	The antibody was affinity-purified from mouse antiserum by affinity-chromatography using epitope-specific immunogen.
Dilution	WB 1:500-2000
Concentration	1 mg/ml
Purity	≥90%
Storage Stability	-20°C/1 year
Synonyms	Acid beta glucosidase;Acid beta-glucosidase;Alglucerase;Beta glucocerebrosidase;BETA GLUCOSIDASE;ACID;Beta-glucocerebrosidase; betaGC;D glucosyl N acylsphingosine glucohydrolase;D-glucosyl-N-acylsphingosine glucohydrolase;EC 3.2.1.45;GBA;Gba protein;GBA1;GC; GCase;GCB;GLCM_HUMAN;GLUC;Glucocerebrosidase (alt.); Glucocerebrosidase;GLUCOCEREBROSIDASE PSEUDOGENE;Glucosidase beta;Glucosidase;beta;acid (includes glucosylceramidase);Glucosylceramidase; Imiglucerase;Lysosomal glucocerebrosidase;OTTHUMP33992; OTTHUMP33993;GBA GC GLUC;Glucosylceramidase (Acid beta-glucosidase) (Alglucerase) (Beta-glucocerebrosidase) (D-glucosyl-N-acylsphingosine glucohydrolase) (Imiglucerase)
Observed Band	59kD
Calculated Molecular Weight	6 kDa; 6kD(Calculated).
Cell Pathway	Lysosome membrane ; Peripheral membrane protein ; Lumenal side . Interaction with saposin-C promotes membrane association (PubMed:10781797) . Targeting to lysosomes occurs through an alternative MPR-independent mechanism via SCARB2 (PubMed:18022370). .
Tissue Specificity	



Function

Glucosylceramidase that catalyzes, within the lysosomal compartment, the hydrolysis of glucosylceramides/GlcCers (such as beta-D-glucosyl-(1 $\leftrightarrow$ 1')-N-acylsphing-4-enine) into free ceramides (such as N-acylsphing-4-enine) and glucose. Plays a central role in the degradation of complex lipids and the turnover of cellular membranes. Through the production of ceramides, participates in the PKC-activated salvage pathway of ceramide formation. Catalyzes the glucosylation of cholesterol, through a transglucosylation reaction where glucose is transferred from GlcCer to cholesterol. 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). Under specific conditions, may alternatively catalyze the reverse reaction, transferring glucose from cholesteryl 3-beta-D-glucoside to ceramide (Probable). Can also hydrolyze cholesteryl 3-beta-D-glucoside producing glucose and cholesterol. Catalyzes the hydrolysis of galactosylceramides/GalCers (such as beta-D-galactosyl-(1 $\leftrightarrow$ 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. Contrary to GlcCer and GalCer, xylosylceramide/XylCer (such as beta-D-xylosyl-(1 $\leftrightarrow$ 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.

Background

matters needing attention

Avoid repeated freezing and thawing!

Usage suggestions

This product can be used in immunological reaction related experiments. For more information, please consult technical personnel.

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