

Rabbit GC Polyclonal Antibody | anti-GBA antibody

GC Antibody (Center)

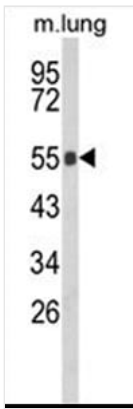
CATALOG #	HOST	REACTIVITY	APPLICATIONS
AAA284403	Rabbit	Human, mouse (Predicted Reactivity: Bovine, Pig)	ELISA, Western Blot, Flow Cytometry, Functional Assay, Immunohistochemistry

PRODUCT SYNONYMS

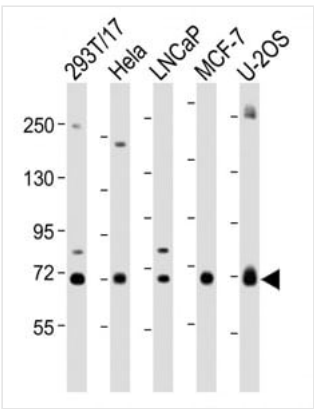
GC; Polyclonal Antibody; GC Antibody (Center); Glucosylceramidase; Acid beta-glucosidase; Alglucerase; Beta-glucocerebrosidase; Beta-GC; D-glucosyl-N-acylsphingosine glucosylhydrolase; Imiglucerase; GBA; GLUC; anti-GBA antibody

PRODUCT SPECIFICATIONS

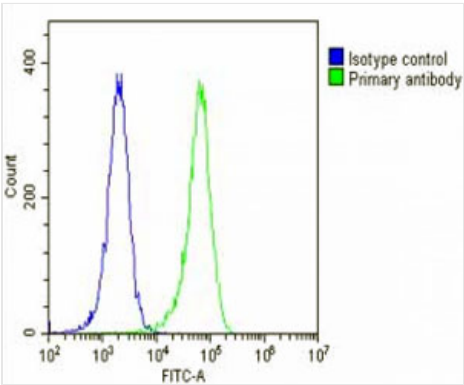
Host	Rabbit
Reactivity	Human, mouse (Predicted Reactivity: Bovine, Pig)
Clonality	Polyclonal
Isotype	IgG
Specificity	This GC antibody is generated from rabbits immunized with a KLH conjugated synthetic peptide between 337-365 amino acids from the Central region of human GC.
Purity/Purification	This antibody is purified through a protein A column, followed by peptide affinity purification.
Form/Format	Purified polyclonal antibody supplied in PBS with 0.09% (W/V) sodium azide.
Sequence Positions	337-365
Applicable Applications for anti-GBA antibody	ELISA, WB (Western Blot), FCM/FACS (Flow Cytometry), IHC (Immunohistochemistry)
Clone Names	RB21567
Function	Glucosylceramidase that catalyzes, within the lysosomal compartment, the hydrolysis of glucosylceramide/GlcCer into free ceramide and glucose (PubMed:9201993, PubMed:24211208). Thereby, plays a central role in the degradation of complex lipids and the turnover of cellular membranes (PubMed:27378698). Through the production of ceramides, participates to the PKC-activated salvage pathway of ceramide formation (PubMed:19279011). Also plays a role in cholesterol metabolism (PubMed:24211208, PubMed:26724485). May either catalyze the glucosylation of cholesterol, through a transglucosylation reaction that transfers glucose from glucosylceramide to cholesterol (PubMed:24211208, PubMed:26724485). The short chain saturated C8:0-GlcCer and the mono-unsaturated C18:0-GlcCer being the most effective glucose donors for that transglucosylation reaction (PubMed:24211208). Under specific conditions, may alternatively catalyze the reverse reaction, transferring glucose from cholesteryl-beta-D-glucoside to ceramide (PubMed:26724485). Finally, may also hydrolyze cholesteryl-beta-D-glucoside to produce D-glucose and cholesterol (PubMed:24211208, PubMed:26724485).
Cellular Location	Lysosome membrane; Peripheral membrane protein; Luminal 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).
Precautions	GC Antibody (Center) is for research use only.
Preparation and Storage	Maintain refrigerated at 2-8 degree C for up to 2 weeks. For long term storage store at -20 degree C in small aliquots to prevent freeze-thaw cycles.



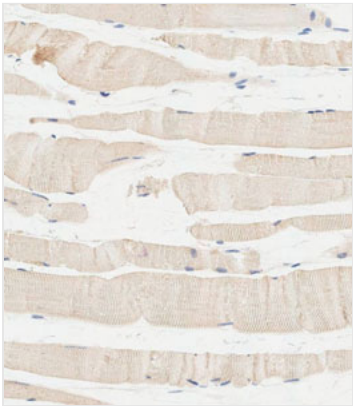
WB (Western Blot)
Western blot analysis of GC Antibody (Center) (Cat. #AAA284403) in mouse lung tissue lysates (35ug/lane). GC (arrow) was detected using the purified Pab.



WB (Western Blot)
All lanes : Anti-GC Antibody (Center) at 1:2000 dilution Lane 1: 293T/17 whole cell lysate Lane 2: Hela whole cell lysate Lane 3: LNCaP whole cell lysate Lane 4: MCF-7 whole cell lysate Lane 5: U-2OS whole cell lysate Lysates/proteins at 20 ug per lane. Secondary Goat Anti-Rabbit IgG, (H+L), Peroxidase conjugated at 1/10000 dilution. Predicted band size : 60 kDa Blocking/Dilution buffer: 5% NFDM/TBST.



FCM/FACS (Flow Cytometry)
Overlay histogram showing HeLa cells stained with AAA284403 (green line). The cells were fixed with 2% paraformaldehyde (10 min) and then permeabilized with 90% methanol for 10 min. The cells were then incubated in 2% bovine serum albumin to block non-specific protein-protein interactions followed by the antibody (AAA284403, 1:25 dilution) for 60 min at 37°C. The secondary antibody used was Goat-Anti-Rabbit IgG, DyLight® 488 Conjugated Highly Cross-Adsorbed at 1/200 dilution for 40 min at 37°C. Isotype control antibody (blue line) was rabbit IgG1 (1ug/1x10⁶ cells) used under the same conditions. Acquisition of >10,000 events was performed.



IHC (Immunohistochemistry)
Immunohistochemical analysis of paraffin-embedded human skeletal muscle tissue using AAA284403 performed on the Leica® BOND RXm. Samples were incubated with primary antibody(1/500) for 1 hours at room temperature. A undiluted biotinylated CRF Anti-Polyvalent HRP Polymer antibody was used as the secondary antibody.

ADDITIONAL INFORMATION

Related Product Information for anti-GBA antibody	GC is a protein that cleaves the beta-glucosidic linkage of glycosylceramide, an intermediate in glycolipid metabolism.
Product Categories/Family for anti-GBA antibody	Cancer; Metabolism; Neuroscience; Signal transduction
References	Jamrozik,Z., et.al., J. Neurol. 257 (3), 459-460 (2010) Mao,X.Y., et.al., Neurosci. Lett. 469 (2), 256-259 (2010)

NCBI AND UNIPROT INFORMATION

NCBI GI #	54607043
NCBI GeneID	2629
NCBI Accession #	NP_000148.2; NP_001005741.1; NP_001005742.1

NCBI GenBank Nucleotide #	NM_000157.3
UniProt Accession #	P04062; Q16545; Q4VX22; Q6I9R6; Q9UMJ8; A8K796; B7Z5G2; B7Z6S1; J3KQG4; J3KQK9
NCBI Official Full Name	glucosylceramidase isoform 1
NCBI Official Synonym Full Names	glucosidase, beta, acid
NCBI Official Symbol	GBA
NCBI Official Synonym Symbols	GCB; GBA1; GLUC
NCBI Protein Information	glucosylceramidase
UniProt Protein Name	Glucosylceramidase
UniProt Gene Name	GBA
UniProt Synonym Gene Names	GC; GLUC; Beta-GC
UniProt Entry Name	GLCM_HUMAN

For Research Use Only. Not for use in diagnostic or therapeutic procedures. Small volumes of product may become entrapped in the seal of the vial during shipment and storage; if necessary, briefly centrifuge the vial on a tabletop centrifuge to dislodge any liquid in the cap.

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Online datasheet: <https://www.aaabiotech.com/polyclonal/gc-antibody-western-blot-flow-cytometry-immunohistochemistry-elisa/284403>