

**GBA2 Antibody (Center)**  
**Purified Rabbit Polyclonal Antibody (Pab)**  
**Catalog # AP22212c****Specification**

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**GBA2 Antibody (Center) - Product Information**

Application	WB,E
Primary Accession	<a href="#">Q9HCG7</a>
Other Accession	<a href="#">Q69ZF3</a> , <a href="#">Q5M868</a>
Reactivity	Human, Mouse
Predicted	Rat
Host	Rabbit
Clonality	polyclonal
Isotype	Rabbit IgG
Calculated MW	104649
Antigen Region	593-623

**GBA2 Antibody (Center) - Additional Information****Gene ID** 57704**Other Names**

Non-lysosomal glucosylceramidase, NLGase, 3.2.1.45, Beta-glucocerebrosidase 2, Beta-glucosidase 2, Glucosylceramidase 2, GBA2, KIAA1605

**Target/Specificity**

This GBA2 antibody is generated from a rabbit immunized with a KLH conjugated synthetic peptide between 593-623 amino acids from the Central region of human GBA2.

**Dilution**

WB~~1:2000

E~~Use at an assay dependent concentration.

**Format**

Purified polyclonal antibody supplied in PBS with 0.09% (W/V) sodium azide. This antibody is purified through a protein A column, followed by peptide affinity purification.

**Storage**

Maintain refrigerated at 2-8°C for up to 2 weeks. For long term storage store at -20°C in small aliquots to prevent freeze-thaw cycles.

**Precautions**

GBA2 Antibody (Center) is for research use only and not for use in diagnostic or therapeutic procedures.

**GBA2 Antibody (Center) - Protein Information****Name** GBA2 ([HGNC:18986](#))

**Function** Non-lysosomal glucosylceramidase that catalyzes the hydrolysis of glucosylceramides/GlcCers (such as beta-D-glucosyl- (11')-N-acylsphing-4-enine) to free glucose and ceramides (such as N-acylsphing-4-enine) (PubMed:[17105727](#), PubMed:[30308956](#), PubMed:[32144204](#)). GlcCers are membrane glycosphingolipids that have a wide intracellular distribution (By similarity). They are the main precursors of more complex glycosphingolipids that play a role in cellular growth, differentiation, adhesion, signaling, cytoskeletal dynamics and membrane properties (By similarity). Involved in the transglucosylation of cholesterol, transfers glucose from GlcCer to cholesterol, thereby modifying its water solubility and biological properties (PubMed:[32144204](#)). Under specific conditions, may catalyze the reverse reaction, transferring glucose from cholesteryl-3-beta-D- glucoside to ceramide (such as N-acylsphing-4-enine) (Probable). May play a role in the metabolism of bile acids (PubMed:[11489889](#), PubMed:[17080196](#), PubMed:[9111029](#)). Able to hydrolyze bile acid 3-O- glucosides as well as to produce bile acid-glucose conjugates thanks to a bile acid glucosyl transferase activity (PubMed:[11489889](#), PubMed:[17080196](#), PubMed:[9111029](#)). Catalyzes the hydrolysis of galactosylceramides/GalCers (such as beta-D-galactosyl-(11')-N- acylsphing-4-enine), as well as the galactosyl transfer between GalCers and cholesterol in vitro with lower activity compared with their activity against GlcCers (PubMed:[32144204](#)).

#### **Cellular Location**

Endoplasmic reticulum membrane {ECO:0000250|UniProtKB:Q69ZF3}; Peripheral membrane protein; Cytoplasmic side {ECO:0000250|UniProtKB:Q69ZF3}. Golgi apparatus membrane {ECO:0000250|UniProtKB:Q69ZF3}; Peripheral membrane protein; Cytoplasmic side {ECO:0000250|UniProtKB:Q69ZF3}. Note=Localization to the plasma membrane and alternative topologies have also been reported

#### **Tissue Location**

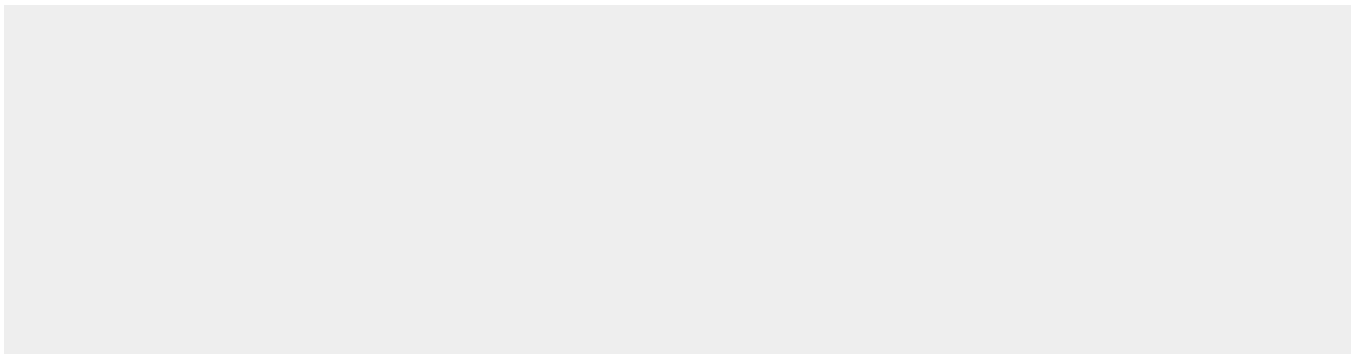
Widely expressed (PubMed:11489889). Mainly expressed in brain, heart, skeletal muscle, kidney and placenta and expressed at lower levels in liver, spleen, small intestine and lung (PubMed:11489889). Detectable in colon, thymus and peripheral blood leukocytes (PubMed:11489889).

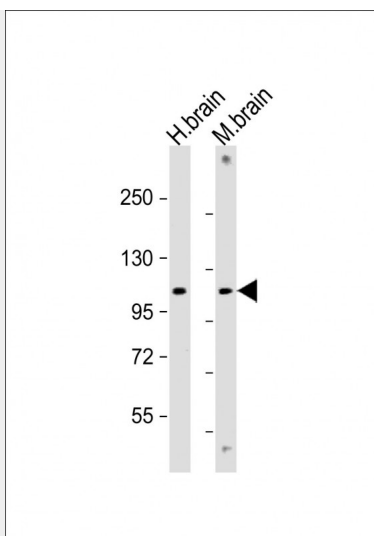
### **GBA2 Antibody (Center) - Protocols**

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](#)

### **GBA2 Antibody (Center) - Images**





All lanes : Anti-GBA2 Antibody (Center) at 1:2000 dilution Lane 1: human brain lysate Lane 2: mouse brain lysate Lysates/proteins at 20 µg per lane. Secondary Goat Anti-Rabbit IgG, (H+L), Peroxidase conjugated at 1/10000 dilution. Predicted band size : 105 kDa Blocking/Dilution buffer: 5% NFDM/TBST.

#### **GBA2 Antibody (Center) - Background**

Non-lysosomal glucosylceramidase that catalyzes the conversion of glucosylceramide (GlcCer) to free glucose and ceramide. Involved in sphingomyelin generation and prevention of glycolipid accumulation. May also catalyze the hydrolysis of bile acid 3-O-glucosides, however, the relevance of such activity is unclear in vivo. Plays a role in central nervous system development. Required for proper formation of motor neuron axons.

#### **GBA2 Antibody (Center) - References**

Matern H.,et al.J. Biol. Chem. 276:37929-37933(2001).  
Nagase T.,et al.DNA Res. 7:273-281(2000).  
Ota T.,et al.Nat. Genet. 36:40-45(2004).  
Bechtel S.,et al.BMC Genomics 8:399-399(2007).  
Humphray S.J.,et al.Nature 429:369-374(2004).