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

GBA3 Polyclonal Antibody
Purified Rabbit Polyclonal Antibody (Pab)
Catalog # AP55124

Specification

GBA3 Polyclonal Antibody - Product Information

Application	**WB, IHC-P, IHC-F, IF, ICC, E**
Primary Accession	Q9H227
Reactivity	**Rat, Pig, Bovine**
Host	**Rabbit**
Clonality	**Polyclonal**
Calculated MW	**54 KDa**
Physical State	**Liquid**
Immunogen	**KLH conjugated synthetic peptide derived from human GBA3/CBG**
Epitope Specificity	**151-250/469**
Isotype	**IgG**

Purity
affinity purified by Protein A

Buffer	**0.01M TBS (pH7.4) with 1% BSA, 0.02% Proclin300 and 50% Glycerol.**
SUBCELLULAR LOCATION	**Cytoplasm; cytosol.**
SIMILARITY	**Belongs to the glycosyl hydrolase 1 family. Klotho subfamily.**
Post-translational modifications	**The N-terminus is blocked.**
Important Note	**This product as supplied is intended for research use only, not for use in human, therapeutic or diagnostic applications.**

Background Descriptions
CBG is a monomeric enzyme involved in the absorption and metabolism of flavonoid glucosides. CBG is found predominately in the liver, but is also located in tissues such as spleen, small intestine and kidney. Through its catalytic activity, CBG is able to hydrolyze a variety of glycosides including phytoestrogens, cyanogens, and flavonols. Although its catalytic activity extends to many dietary flavonoids, CBG has increased specificity for hydrophobic aglycones such as beta-D-glucoside and beta-D-galactoside. Hydrolysis is inhibited by sodium taurocholate and glucosyl-sphingosine, both of which regulate CBG enzymatic activity. Deficiencies in CBG have been implicated in Gaucher’s disease, a lysosomal storage disease that causes a build up of fatty material in the spleen, liver, lung and kidneys.

GBA3 Polyclonal Antibody - Additional Information

Gene ID 57733

Other Names
Cytosolic beta-glucosidase, 3.2.1.21, Cytosolic beta-glucosidase-like protein 1, Cytosolic glycosylceramidase, Cytosolic GCase, Glucosidase beta acid 3 {ECO:0000312|HGNC:HGNC:19069}, Glucosylceramidase beta 3 {ECO:0000312|HGNC:HGNC:19069}, Klotho-related protein, KLrP, GBA3 (<a

href="http://www.genenames.org/cgi-bin/gene_symbol_report?hgnc_id=19069" target="_blank">HGNC:19069), CBG, CBGL1

Target/Specificity
Present in small intestine (at protein level). Expressed in liver, small intestine, colon, spleen and kidney. Down-regulated in renal cell carcinomas and hepatocellular carcinomas.

Dilution
WB~~1:1000<br \>IHC-P~~N/A<br \>IHC-F~~N/A<br \>IF~~1:50~200<br \>ICC~~N/A<br \>E~~N/A

Storage
Store at -20 ℃ for one year. Avoid repeated freeze/thaw cycles. When reconstituted in sterile pH 7.4 0.01M PBS or diluent of antibody the antibody is stable for at least two weeks at 2-4 ℃.

GBA3 Polyclonal Antibody - Protein Information

Name GBA3 (HGNC:19069)

Synonyms CBG, CBGL1

Function
Neutral cytosolic beta-glycosidase with a broad substrate specificity that could play a role in the catabolism of glycosylceramides (PubMed:11389701, PubMed:11784319, PubMed:17595169, PubMed:20728381, PubMed:26724485, PubMed:33361282). Has a significant glucosylceramidase activity in vitro (PubMed:17595169, PubMed:26724485). However, that activity is relatively low and its significance in vivo is not clear (PubMed:17595169, PubMed:20728381, PubMed:26724485). Hydrolyzes galactosylceramides/GalCers, glucosylsphingosines/GlcSphs and galactosylsphingosines/GalSphs (PubMed:17595169). However, the in vivo relevance of these activities is unclear (PubMed:17595169). It can also hydrolyze a broad variety of dietary glycosides including phytoestrogens, flavonols, flavones, flavanones and cyanogens in vitro and could therefore play a role in the metabolism of xenobiotics (PubMed:11784319). Possesses transxylosylase activity in vitro using xylosylated ceramides/XylCers (such as beta-D-xylosyl-(1<->1')-N-acylsphing-4-enine) as xylosyl donors and cholesterol as acceptor (PubMed:33361282). Could also play a role in the catabolism of cytosolic sialyl free N-glycans (PubMed:26193330).

Cellular Location
Cytoplasm, cytosol

Tissue Location
Present in small intestine (at protein level). Expressed in liver, small intestine, colon, spleen and kidney. Down- regulated in renal cell carcinomas and hepatocellular carcinomas

GBA3 Polyclonal 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

GBA3 Polyclonal Antibody - Images