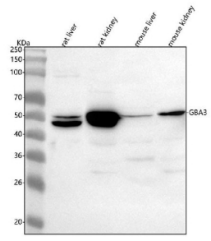
GBA3 Antibody / Glucosidase beta acid 3 / Cytosolic beta-glucosidase (FY12274)

Catalog No.	Formulation	Size
FY12274	Adding 0.2 ml of distilled water will yield a concentration of 500 ug/ml	100 ug

Bulk quote request

Availability	1-2 days
Species Reactivity	Human, Mouse, Rat
Format	Lyophilized
Host	Rabbit
Clonality	Polyclonal (rabbit origin)
Isotype	Rabbit IgG
Purity	Immunogen affinity purified
Buffer	Each vial contains 4 mg Trehalose, 0.9 mg NaCl, 0.2 mg Na2HPO4.
UniProt	Q9H227
Applications	Western Blot: 0.25-0.5ug/ml ELISA: 0.1-0.5ug/ml
Limitations	This GBA3 antibody is available for research use only.



Western blot analysis of GBA3 using anti-GBA3 antibody. Lane 1: rat liver tissue lysates, Lane 2: rat kidney tissue lysates, Lane 3: mouse liver tissue lysates, Lane 4: mouse kidney tissue lysates. After electrophoresis, proteins were transferred to a nitrocellulose membrane at 150 mA for 50-90 minutes. Blocked the membrane with 5% non-fat milk/TBS for 1.5 hour at RT. The membrane was incubated with rabbit anti-GBA3 antibody at 0.5 ug/ml overnight at 4oC, then washed with TBS-0.1%Tween 3 times with 5 minutes each and probed with a goat anti-rabbit IgG-HRP secondary antibody at a dilution of 1:5000 for 1.5 hour at RT. The signal was developed using enhanced chemiluminescent. The expected band size for GBA3 is at 54 kDa.

Description

GBA3 antibody detects Cytosolic beta-glucosidase, encoded by the GBA3 gene on chromosome 4p15.33. GBA3 antibody is commonly used in carbohydrate metabolism, detoxification, and nutrition-related research. GBA3 is a cytosolic glycoside hydrolase that catalyzes the hydrolysis of beta-glycosidic bonds in various substrates, including plant-derived glycosides and dietary glucosides. Unlike lysosomal beta-glucosidases, GBA3 operates in the cytosol, processing

exogenous and endogenous compounds.

Structurally, GBA3 is a ~54 kDa protein belonging to the glycosyl hydrolase family 1 (GH1). It contains a conserved catalytic domain with a (beta/alpha)8 barrel fold that accommodates diverse glycoside substrates. GBA3 is widely expressed in liver, kidney, and intestine, where it contributes to detoxification and carbohydrate processing.

Functionally, GBA3 hydrolyzes beta-glycosidic bonds in compounds such as cyanogenic glycosides and flavonoid glucosides. This activity detoxifies plant-derived compounds and releases bioactive aglycones. GBA3 also metabolizes certain drugs and xenobiotics, influencing pharmacokinetics. Researchers use GBA3 antibody to study carbohydrate metabolism, dietary compound processing, and xenobiotic metabolism.

Clinically, GBA3 activity influences metabolism of dietary compounds and may impact drug responses. Although GBA3 deficiency is not associated with a defined Mendelian disorder, variation in GBA3 may affect nutrition, pharmacology, and detoxification capacity. Because beta-glucosidases have roles in metabolic disease and cancer, GBA3 has been explored as a potential biomarker. NSJ Bioreagents provides GBA3 antibody to support research in nutrition, toxicology, and carbohydrate metabolism.

Experimentally, GBA3 antibody is applied in western blotting to detect the ~54 kDa protein, in immunohistochemistry to study expression in liver and intestine, and in enzymatic assays to confirm substrate specificity. Co-immunoprecipitation with GBA3 antibody helps identify partners in carbohydrate and xenobiotic metabolism pathways.

Application Notes

Optimal dilution of the GBA3 antibody should be determined by the researcher.

Immunogen

E.coli-derived human GBA3 recombinant protein (Position: Q17-L469) was used as the immunogen for the GBA3 antibody.

Storage

After reconstitution, the GBA3 antibody can be stored for up to one month at 4oC. For long-term, aliquot and store at -20oC. Avoid repeated freezing and thawing.

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