RD SYSTEMS a biotechne brand

Human Cytosolic β-Glucosidase/GBA3 Antibody

Antigen Affinity-purified Polyclonal Sheep IgG Catalog Number: AF5969

DESCRIPTION		
Species Reactivity	Human	
Specificity	Detects human Cytosolic β-Glucosidase/GBA3 in direct ELISAs and Western blots.	
Source	Polyclonal Sheep IgG	
Purification	Antigen Affinity-purified	
Immunogen	<i>S. frugiperda</i> insect ovarian cell line <i>Sf</i> 21-derived recombinant human Cytosolic β-Glucosidase/GBA3 Accession # Q9H227	
Formulation	Lyophilized from a 0.2 μm filtered solution in PBS with Trehalose. See Certificate of Analysis for details. *Small pack size (-SP) is supplied either lyophilized or as a 0.2 μm filtered solution in PBS.	

APPLICATIONS

Please Note: Optimal dilutions should be determined by each laboratory for each application. General Protocols are available in the Technical Information section on our website.

	Recommended Concentration	Sample
Western Blot	1 µg/mL	See Below
Immunoprecipitation	25 μg/mL	Conditioned cell culture medium spiked with Recombinant Human Cytosolic beta-
		Glucosidase/GBA3 (Catalog # 5969-GH), see our available Western blot detection antibodies

DATA

Western Blot

KDa 98 - 55 - Cystolic β-Glucosidase	Detection of Human Cytosolic β-Glucosidase/GBA3 by Western Blot Western blot shows lysates of human kidney (cortex) tissue. PVDF Membrane was probed with 1 µg/mL of Sheep Anti-Human Cytosolic β-Glucosidase/GBA3 Antigen Affinity-purified Polyclonal Antibody (Catalog # AF5969) followed by HRP-conjugated Anti-Sheep IgG Secondary Antibody (Catalog # HAF016). A specific band was detected for Cytosolic β-Glucosidase/GBA3 at approximately 57 kDa (as indicated). This experiment was conducted under reducing conditions and using Immunoblot Buffer Group 1.				
20					

PREPARATION AND STORAGE			
Reconstitution			
Shipping	The product is shipped at ambient temperature. Upon receipt, store it immediately at the temperature recommended below. *Small pack size (-SP) is shipped with polar packs. Upon receipt, store it immediately at -20 to -70 °C		
Stability & Storage	 Use a manual defrost freezer and avoid repeated freeze-thaw cycles. 12 months from date of receipt, -20 to -70 °C as supplied. 1 month, 2 to 8 °C under sterile conditions after reconstitution. 6 months, -20 to -70 °C under sterile conditions after reconstitution. 		

BACKGROUND

There are three beta-glucosidases (GBA) in human genome. GBA1 endodes a lysosomal membrane protein that cleaves the beta-glucosidic linkage of glucosylceramide (1). GBA2 encodes a microsomal beta-glucosidase that catalyzes the hydrolysis of bile acid 3-O-glucosides (2). GBA3 is a cytosolic beta-glucosidase and is predominantly expressed in liver. GBA3 efficiently hydrolyzes beta-D-glucoside and beta-D-galactoside, but not any known physiological beta-glycoside, suggesting that it may be involved in detoxification of plant glycosides (3). GBA3 also has significant neutral glycosylceramidase activity, suggesting that it may be involved in a nonlysosomal catabolic pathway of glucosylceramide metabolism (4). At the protein level, GBA3 shows significant homology (>40%) with Klotho protein that is known for its association with aging process (3, 4).

References:

- 1. Tybulewicz, V.L. et al. (1992) Nature 357:407.
- 2. Matern, H. et al. (2001) J. Biol. Chem. 276:37929.
- 3. de Graaf, M. *et al.* (2001) Biochem. J. **356**:907.
- 4. Hayashi, Y. et al. (2007) J. Biol. Chem. 282:30889.

Rev. 11/30/2018 Page 1 of 1



Global bio-techne.com info@bio-techne.com techsupport@bio-techne.com TEL +1 612 379 2956 USA TEL 800 343 7475 Canada TEL 855 668 8722 China TEL +86 (21) 52380373 Europe | Middle East | Africa TEL +44 (0)1235 529449