

DESCRIPTION

Species Reactivity	Human
Specificity	Detects human Cytosolic β -Glucosidase/GBA3 in direct ELISAs.
Source	Monoclonal Mouse IgG _{2B} Clone # 728702
Purification	Protein A or G purified from hybridoma culture supernatant
Immunogen	<i>S. frugiperda</i> insect ovarian cell line Sf 21-derived recombinant human Cytosolic β -Glucosidase/GBA3 Thr13-Leu469 Accession # Q9H227
Conjugate	Alexa Fluor 647 Excitation Wavelength: 650 nm Emission Wavelength: 668 nm
Formulation	Supplied 0.2mg/ml in 1X PBS with RDF1 and 0.09% Sodium Azide *Contains <0.1% Sodium Azide, which is not hazardous at this concentration according to GHS classifications. Refer to the Safety Data Sheet (SDS) for additional information and handling instructions.

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.

Immunocytochemistry Optimal dilution of this antibody should be experimentally determined.

PREPARATION AND STORAGE

Shipping	The product is shipped with polar packs. Upon receipt, store it immediately at the temperature recommended below.
Stability & Storage	Protect from light. Do not freeze. 12 months from date of receipt, 2 to 8 °C as supplied

BACKGROUND

There are three beta-glucosidases (GBA) in human genome. GBA1 encodes 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).

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