

For Research Use Only

Beta galactosidase Recombinant antibody, PBS Only (Detector)

Catalog Number: 83706-6-PBS



Basic Information

Catalog Number: 83706-6-PBS	GenBank Accession Number: BC007493	Purification Method: Protein A purification
Size: 100ug, Concentration: 1 mg/ml by Nanodrop;	GeneID (NCBI): 2720	CloneNo.: 240788F1
Source: Rabbit	UNIPROT ID: P16278	
Isotype: IgG	Full Name: galactosidase, beta 1	
Immunogen Catalog Number: AG7792	Calculated MW: 76 kDa	
	Observed MW: 62-67 kDa	

Applications

Tested Applications:
WB, IF/ICC, FC (Intra), Sandwich ELISA, Indirect ELISA, Sample test

Species Specificity:
human

Product Information

83706-6-PBS targets Beta galactosidase as part of a matched antibody pair:

MP00647-4: 83706-4-PBS capture and 83706-6-PBS detection (validated in Sandwich ELISA)

Unconjugated rabbit recombinant monoclonal antibody in PBS only (BSA and azide free) storage buffer at a concentration of 1 mg/mL, ready for conjugation. Created using Proteintech's proprietary in-house recombinant technology. Recombinant production enables unrivalled batch-to-batch consistency, easy scale-up, and future security of supply.

This conjugation ready format makes antibodies ideal for use in many applications including: ELISAs, multiplex assays requiring matched pairs, mass cytometry, and multiplex imaging applications. Antibody use should be optimized by the end user for each application and assay.

Background Information

GLB1 (Beta-galactosidase) is also named as ELNR1 or Lactase. It cleaves beta-linked terminal galactosyl residues from gangliosides, glycoproteins, and glycosaminoglycans. This protein is identical to the elastin-binding protein (EBP), a major component of the nonintegrin cell surface receptor complex expressed in fibroblasts, smooth muscle cells, chondroblasts, leukocytes, and certain cancer cell types. Defects in GLB1 are the cause of GM1-gangliosidosis type 1 (GM1G1), GM1-gangliosidosis type 2 (GM1G2), GM1-gangliosidosis type 3 (GM1G3) and mucopolysaccharidosis type 4B (MPS4B). GLB1 is synthesized as an 85-kDa precursor that is C-terminally processed into a 64-66 kDa mature form and the released ~20-kDa proteolytic fragment was thought to be degraded (PMID: 10744681). The MW of GLB1 after glycosylation is 100-120 kDa. GLB1 is prone to produce homodimers (220-240 kDa) and higher multimers (PMID: 3926488). GLB1 has 3 isoforms with MW of 76 kDa, 73 kDa, and 61 kDa.

Storage

Storage:
Store at -80°C.
Storage Buffer:
PBS Only

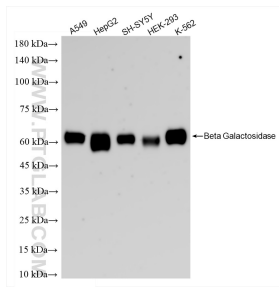
For technical support and original validation data for this product please contact:

T: 1 (888) 4PTGLAB (1-888-478-4522) (toll free in USA), or 1(312) 455-8498 (outside USA)

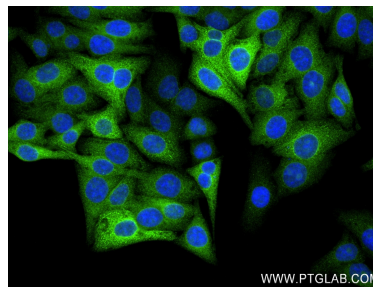
E: proteintech@ptglab.com
W: ptglab.com

This product is exclusively available under Proteintech Group brand and is not available to purchase from any other manufacturer.

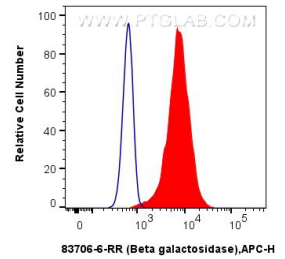
Selected Validation Data



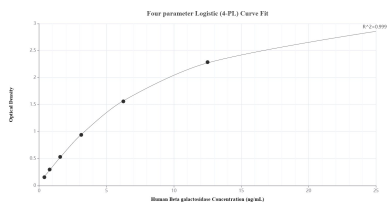
Various lysates were subjected to SDS PAGE followed by western blot with 83706-6-RR (Beta galactosidase antibody) at dilution of 1:10000 incubated at room temperature for 1.5 hours. This data was developed using the same antibody clone with 83706-6-PBS in a different storage buffer formulation.



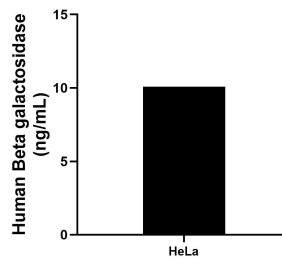
Immunofluorescent analysis of (4% PFA) fixed HepG2 cells using Beta galactosidase antibody (83706-6-RR, Clone: 240788F1) at dilution of 1:250 and CoraLite®488-Conjugated AffiniPure Goat Anti-Rabbit IgG(H+L) (SA00013-2). This data was developed using the same antibody clone with 83706-6-PBS in a different storage buffer formulation.



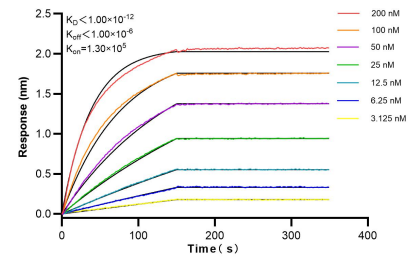
1x10⁶ A549 cells were intracellularly stained with 0.25 ug Beta galactosidase Recombinant antibody (83706-6-RR, Clone:240788F1) and APC-Conjugated AffiniPure Goat Anti-Rabbit IgG(H+L) (red), or 0.25 ug Isotype Control (blue). Cells were fixed with 4% PFA and permeabilized with Flow Cytometry Perm Buffer (PF00011-C). This data was developed using the same antibody clone with 83706-6-PBS in a different storage buffer formulation.



Sandwich ELISA standard curve of MP00647-4, Human Beta galactosidase Recombinant Matched Antibody Pair - PBS only. 83706-4-PBS was coated to a plate as the capture antibody and incubated with serial dilutions of standard Ag7792. 83706-6-PBS was HRP conjugated as the detection antibody. Range: 0.39-12.5 ng/mL.



The mean Beta galactosidase concentration was determined to be 10.08 ng/mL in HeLa cell extract based on a 2.00 mg/mL extract load.



Bilayer interferometry (BLI) kinetic assays of 83706-6-RR against Human Beta galactosidase were performed. The affinity constant is below 1 pM.