

For Research Use Only

Cathepsin D Recombinant antibody, PBS Only (Detector)

Catalog Number: 83743-2-PBS



Basic Information

Catalog Number: 83743-2-PBS	GenBank Accession Number: NM_001909.5	Purification Method: Protein A purification
Size: 100ug, Concentration: 1 mg/ml by Nanodrop;	GeneID (NCBI): 1509	CloneNo.: 240775E7
Source: Rabbit	UNIPROT ID: P07339	
Isotype: IgG	Full Name: cathepsin D	
	Calculated MW: 45kDa	
	Observed MW: 32 kDa, 48 kDa, 52 kDa	

Applications

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

Species Specificity:
human

Product Information

83743-2-PBS targets Cathepsin D as part of a matched antibody pair:

MP00695-1: 83743-1-PBS capture and 83743-2-PBS detection (validated in Cytometric bead array)

MP00695-4: 83743-6-PBS capture and 83743-2-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

CTSD (Cathepsin D) also named CPSD, belongs to the peptidase A1 family. It is ubiquitously expressed and is involved in proteolytic degradation, cell invasion, and apoptosis. Human CTSD is synthesized as a 52-kDa precursor that is converted into an active 48-kDa single-chain intermediate in the endosomes, and then into a fully active mature form, composed of a 34-kDa heavy chain and a 14-kDa light chain, in the lysosomes. It is a lysosomal acid protease found in neutrophils and monocytes and involved in the pathogenesis of several diseases such as breast cancer and possibly Alzheimer disease (PMID: 27114232, PMID: 30717773, PMID: 30051532).

Storage

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

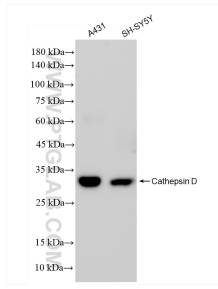
For technical support and original validation data for this product please contact:

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

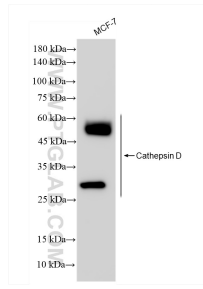
E: proteintech@ptglab.com
W: ptglab.com

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

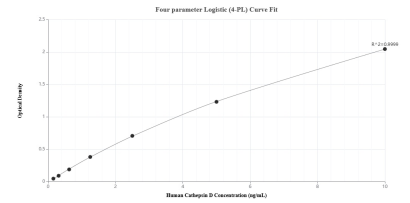
Selected Validation Data



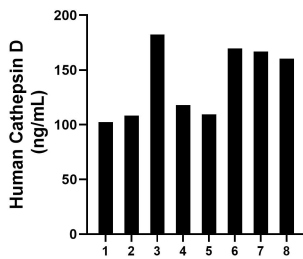
Various lysates were subjected to SDS PAGE followed by western blot with 83743-2-RR (Cathepsin D antibody) at dilution of 1:10000 incubated at room temperature for 1.5 hours. This data was developed using the same antibody clone with 83743-2-PBS in a different storage buffer formulation.



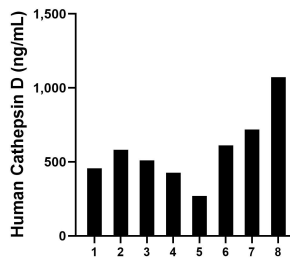
MCF-7 cells were subjected to SDS PAGE followed by western blot with 83743-2-RR (Cathepsin D antibody) at dilution of 1:10000 incubated at room temperature for 1.5 hours. This data was developed using the same antibody clone with 83743-2-PBS in a different storage buffer formulation.



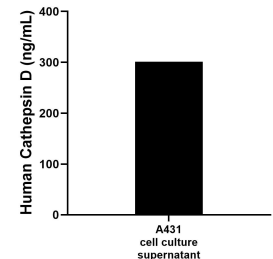
Sandwich ELISA standard curve of MP00695-4, Human Cathepsin D Recombinant Matched Antibody Pair - PBS only. 83743-6-PBS was coated to a plate as the capture antibody and incubated with serial dilutions of standard Eg1053. 83743-2-PBS was HRP conjugated as the detection antibody. Range: 0.156-10 ng/mL



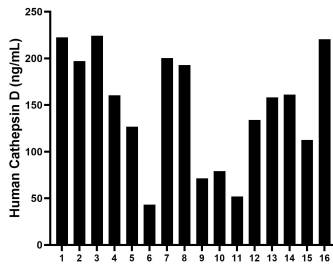
Saliva of eight individual healthy human donors was measured. The human Cathepsin D concentration of detected samples was determined to be 139.6 ng/mL with a range of 102.4 - 182.3 ng/mL.



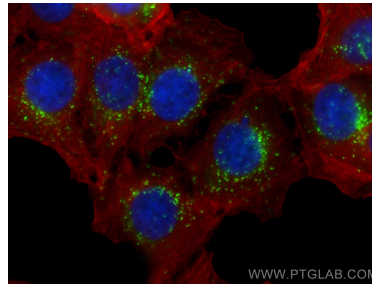
Human milk of eight individual healthy human donors was measured. The human Cathepsin D concentration of detected samples was determined to be 580.4 ng/mL with a range of 270 - 1,071.8 ng/mL.



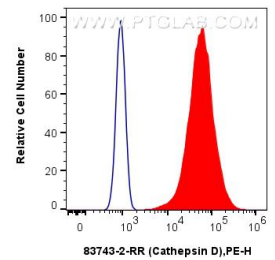
For the A431 supernatant, the mean human Cathepsin D concentration was determined to be 301.05 ng/mL.



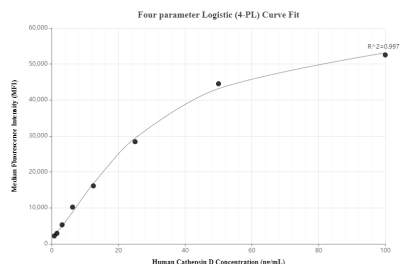
Serum of sixteen individual healthy human donors was measured. The human Cathepsin D concentration of detected samples was determined to be 147.3 ng/mL with a range of 43.2 - 224.2 ng/mL.



Immunofluorescent analysis of (-20°C Methanol) fixed MCF-7 cells using Cathepsin D antibody (83743-2-RR, Clone: 240775E7) at dilution of 1:500 and CoraLite®488-Conjugated Goat Anti-Rabbit IgG(H+L) (SA00013-2), FLNA antibody (67133-1-Ig, Clone: 1G4H3, red). This data was developed using the same antibody clone with 83743-2-PBS in a different storage buffer formulation.



1x10⁶ MCF-7 cells were intracellularly stained with 0.25 ug Cathepsin D Recombinant antibody (83743-2-RR, Clone:240775E7) and PE-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 83743-2-PBS in a different storage buffer formulation.



Cytometric bead array standard curve of MP00695-1, Cathepsin D Recombinant Matched Antibody Pair, PBS Only. Capture antibody: 83743-1-PBS. Detection antibody: 83743-2-PBS. Standard: Eg1053. Range: 0.78-100 ng/mL.