

For Research Use Only

# Cathepsin B Polyclonal antibody

Catalog Number: 12216-1-AP

Featured Product

52 Publications



## Basic Information

<b>Catalog Number:</b> 12216-1-AP	<b>GenBank Accession Number:</b> BC010240	<b>Purification Method:</b> Antigen affinity purification
<b>Size:</b> 150ul , Concentration: 400 µg/ml by Nanodrop;	<b>GeneID (NCBI):</b> 1508	<b>Recommended Dilutions:</b> WB 1:1000-1:4000 IHC 1:50-1:500 IF 1:200-1:800
<b>Source:</b> Rabbit	<b>UNIPROT ID:</b> P07858	
<b>Isotype:</b> IgG	<b>Full Name:</b> cathepsin B	
<b>Immunogen Catalog Number:</b> AG2898	<b>Calculated MW:</b> 339 aa, 38 kDa	
	<b>Observed MW:</b> 38 kDa, 44 kDa	

## Applications

<b>Tested Applications:</b> WB, IF, FC, IHC, ELISA	<b>Positive Controls:</b> WB : A375 cells, HepG2 cells, HT-1080 cells
<b>Cited Applications:</b> WB, IF, IHC	<b>IHC :</b> human ovary tumor tissue, human breast cancer tissue
<b>Species Specificity:</b> human	<b>IF :</b> A375 cells,
<b>Cited Species:</b> human, rat, mouse, pig, frog	

**Note-IHC: suggested antigen retrieval with TE buffer pH 9.0; (\*) Alternatively, antigen retrieval may be performed with citrate buffer pH 6.0**

## Background Information

CTSB(Cathepsin B) is also named as CPSB and belongs to the peptidase C1 family. It participates in intracellular degradation and turnover of proteins. Cathepsin B precursors found in human malignant ascites fluid do not possess mannose-rich carbohydrates suggesting that a defect in the post translational processing of carbohydrate moieties on tumor. Cathepsin B exists as both glycosylated and unglycosylated forms(PMID:1637335). In rat macrophages and hepatocytes pro- cathepsin B is 39 kDa (unglycosylated =35 kDa), whereas in human fibroblasts procathepsin B is 44.5-46kDa (unglycosylated=39kDa)(PMID:2097084). It can be detected the 43 kDa form of pro-CTSB, 31 kDa and 25 kDa mature forms in mouse brain by western blot(PMID:20616152).

## Notable Publications

Author	Pubmed ID	Journal	Application
Yong Fan	34560177	Food Chem Toxicol	WB
Haiyu Zhang	36114804	Phytother Res	WB
Ling Liu	35999725	J Hazard Mater	IF

## Storage

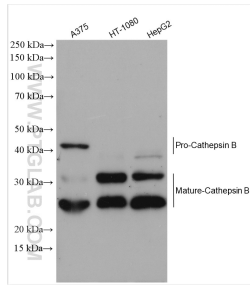
**Storage:**  
Store at -20°C. Stable for one year after shipment.  
**Storage Buffer:**  
PBS with 0.02% sodium azide and 50% glycerol pH 7.3.  
Aliquoting is unnecessary for -20°C storage

\*\*\* 20ul sizes contain 0.1%BSA

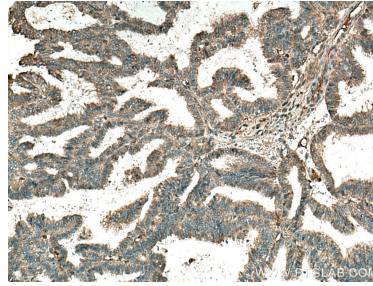
For technical support and original validation data for this product please contact:  
T: 1 (888) 4PTGLAB (1-888-478-4522) (toll free in USA), or 1(312) 455-8498 (outside USA)  
E: proteintech@ptglab.com  
W: ptglab.com

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

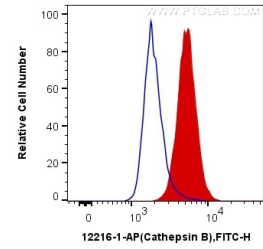
## Selected Validation Data



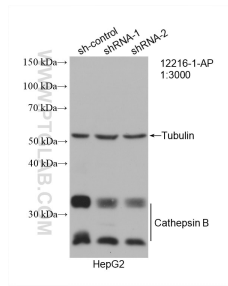
Various lysates were subjected to SDS PAGE followed by western blot with 12216-1-AP (Cathepsin B antibody) at dilution of 1:2000 incubated at room temperature for 1.5 hours.



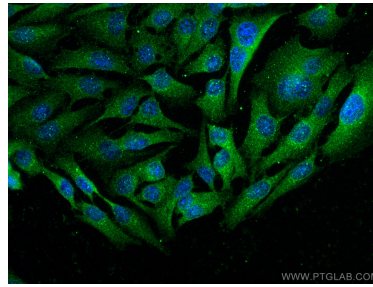
Immunohistochemical analysis of paraffin-embedded human ovary tumor tissue slide using 12216-1-AP (Cathepsin B antibody) at dilution of 1:200 (under 10x lens). Heat mediated antigen retrieval with Tris-EDTA buffer (pH 9.0).



$1 \times 10^6$  MCF-7 cells were intracellularly stained with 0.2 ug Anti-Human Cathepsin B (12216-1-AP) and CoraLite®488-Conjugated AffiniPure Goat Anti-Rabbit IgG(H+L) at dilution 1:1000 (red), or 0.2 ug Control Antibody. Cells were fixed with 4% PFA and permeabilized with Flow Cytometry Perm Buffer (PF00011-C).



WB result of Cathepsin B antibody (12216-1-AP; 1:3000; incubated at room temperature for 1.5 hours) with sh-Control and sh-Cathepsin B transfected HepG2 cells.



Immunofluorescent analysis of (-20°C Ethanol) fixed A375 cells using Cathepsin B antibody (12216-1-AP) at dilution of 1:400 and CoraLite®488-Conjugated AffiniPure Goat Anti-Rabbit IgG(H+L).