

For Research Use Only

Cathepsin B Polyclonal antibody

Catalog Number: 12216-1-AP

Featured Product

91 Publications



Basic Information

Catalog Number:

12216-1-AP

Size:

150ul, Concentration: 600 ug/ml by Nanodrop;

Source:

Rabbit

Isotype:

IgG

Immunogen Catalog Number:

AG2898

GenBank Accession Number:

BC010240

GeneID (NCBI):

1508

UNIPROT ID:

P07858

Full Name:

cathepsin B

Calculated MW:

339 aa, 38 kDa

Observed MW:

25 kDa, 31 kDa, 43 kDa

Purification Method:

Antigen affinity purification

Recommended Dilutions:

WB: 1:1000-1:4000

IP: 0.5-4.0 ug for 1.0-3.0 mg of total protein lysate

IHC: 1:50-1:500

IF/ICC: 1:200-1:800

FC (Intra): 0.20 ug per 10⁶ cells in a 100 µl suspension

Applications

Tested Applications:

WB, IHC, IF/ICC, FC (Intra), IP, ELISA

Cited Applications:

WB, IHC, IF

Species Specificity:

human

Cited Species:

human, mouse, rat, pig, zebrafish, bovine, frog

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

Positive Controls:

WB: A375 cells, HepG2 cells, HT-1080 cells

IP: HepG2 cells,

IHC: human ovary tumor tissue, human breast cancer tissue

IF/ICC: A375 cells,

FC (Intra): MCF-7 cells,

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 44.5-46 kDa (unglycosylated=39 kDa) (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, pH7.3

Aliquoting is unnecessary for -20°C storage

*** 20ul sizes contain 0.1% BSA

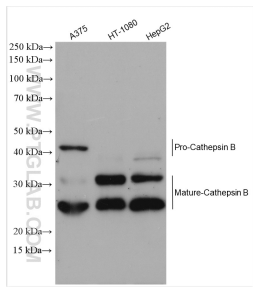
For technical support and original validation data for this product please contact:

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

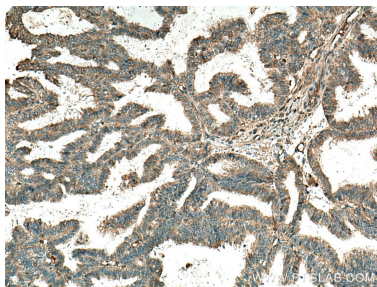
E: proteintech@ptglab.com
W: ptglab.com

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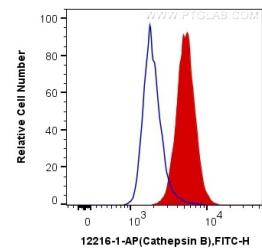
Selected Validation Data



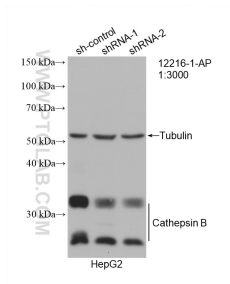
Various lysates were subjected to SDS PAGE followed by western blot with 12216-1-AP (Cathepsin B antibody) at dilution of 1:2000 incubated at room temperature for 1.5 hours.



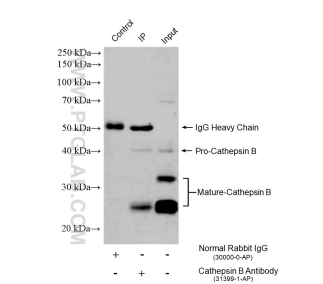
Immunohistochemical analysis of paraffin-embedded human ovary tumor tissue slide using 12216-1-AP (Cathepsin B antibody) at dilution of 1:200 (under 10x lens). Heat mediated antigen retrieval with Tris-EDTA buffer (pH 9.0).



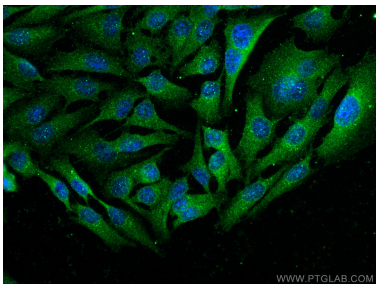
1X10⁶ MCF-7 cells were intracellularly stained with 0.2 ug Anti-Human Cathepsin B (12216-1-AP) and CoraLite®488-Conjugated AffiniPure Goat Anti-Rabbit IgG(H+L) at dilution 1:1000 (red), or 0.2 ug Control Antibody. Cells were fixed with 4% PFA and permeabilized with Flow Cytometry Perm Buffer.



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.



IP result of anti-Cathepsin B (IP:12216-1-AP, 4ug; Detection:12216-1-AP 1:3000) with HepG2 cells lysate 2000 ug.



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).