

For Research Use Only

# Cathepsin D Polyclonal antibody

Catalog Number: 31516-1-AP



## Basic Information

<b>Catalog Number:</b> 31516-1-AP	<b>GenBank Accession Number:</b> NM_001909.5	<b>Purification Method:</b> Antigen affinity Purification
<b>Size:</b> 500 ug/ml	<b>GeneID (NCBI):</b> 1509	<b>Recommended Dilutions:</b> WB 1:1000-1:4000 IHC 1:50-1:500 IF/ICC 1:50-1:500
<b>Source:</b> Rabbit	<b>UNIPROT ID:</b> P07339	
<b>Isotype:</b> IgG	<b>Full Name:</b> cathepsin D	
	<b>Calculated MW:</b> 45kDa	
	<b>Observed MW:</b> 32 kDa, 48 kDa, 52 kDa	

## Applications

**Tested Applications:**  
WB, IHC, IF/ICC, ELISA

**Species Specificity:**  
human

**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 :** A431 cells, HepG2 cells, HuH-7 cells, MCF-7 cells

**IHC :** human ovary cancer tissue,

**IF/ICC :** A431 cells, MCF-7 cells

## Background Information

CTSD (cathepsin D) is a lysosomal aspartic protease in the pepsin superfamily ubiquitous to all cell types but particularly abundant in the central nervous system (CNS). The signal peptide of the pre-proCTSD (52 kDa) is cleaved in the endoplasmic reticulum (ER), forming the pro-CTSD (48 kDa), finally processed to form the mature CTSD (32 kDa) in the lysosome (PMID: 31282275,15126630). The major role of the m-CTSD is the digestion of internalized waste cell proteins and peptides in the lysosome, which maintains cell health (PMID: 32324083). CTSD is a well-established aspartyl protease that functions intracellularly in lysosomes and extracellularly in several forms of cancer.

## 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

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

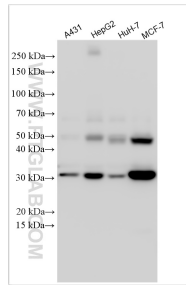
T: 4006900926

E: Proteintech-CN@ptglab.com

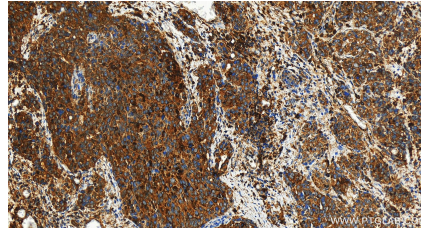
W: ptgcn.com

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

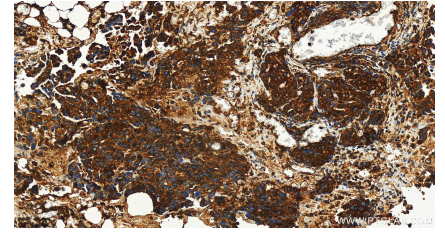
## Selected Validation Data



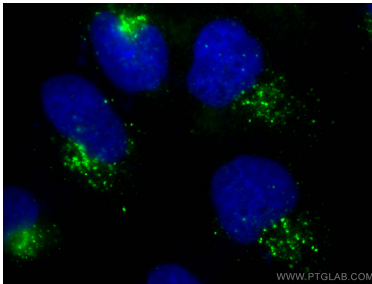
Various lysates were subjected to SDS PAGE followed by western blot with 31516-1-AP (Cathepsin D antibody) at dilution of 1:2000 incubated at room temperature for 1.5 hours.



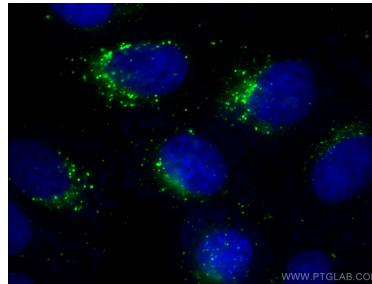
Immunohistochemical analysis of paraffin-embedded human ovary cancer tissue slide using 31516-1-AP (Cathepsin D antibody) at dilution of 1:200 (under 20x lens). Heat mediated antigen retrieval with Tris-EDTA buffer (pH 9.0).



Immunohistochemical analysis of paraffin-embedded human ovary cancer tissue slide using 31516-1-AP (Cathepsin D antibody) at dilution of 1:200 (under 20x lens). Heat mediated antigen retrieval with Tris-EDTA buffer (pH 9.0).



Immunofluorescent analysis of (-20°C Methanol) fixed A431 cells using Cathepsin D antibody (31516-1-AP) at dilution of 1:200 and Multi-rAb CoraLite® Plus 488-Goat Anti-Rabbit Recombinant Secondary Antibody (H+L) (RGAR002).



Immunofluorescent analysis of (-20°C Methanol) fixed MCF-7 cells using Cathepsin D antibody (31516-1-AP) at dilution of 1:200 and Multi-rAb CoraLite® Plus 488-Goat Anti-Rabbit Recombinant Secondary Antibody (H+L) (RGAR002).