

For Research Use Only

# Cathepsin K Polyclonal antibody

Catalog Number: 11239-1-AP

Featured Product

84 Publications



## Basic Information

### Catalog Number:

11239-1-AP

### Concentration:

450 ug/ml

### Source:

Rabbit

### Isotype:

IgG

### Immunogen Catalog Number:

AG1761

### GenBank Accession Number:

BC016058

### GeneID (NCBI):

1513

### UNIPROT ID:

P43235

### Full Name:

cathepsin K

### Calculated MW:

39 kDa

### Observed MW:

27 kDa, 38-46 kDa

### Purification Method:

Antigen affinity purification

### Recommended Dilutions:

WB 1:500-1:1000

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

IHC 1:100-1:400

IF-P 1:50-1:500

IF/ICC 1:200-1:800

## Applications

### Tested Applications:

WB, IHC, IF/ICC, IF-P, IP, ELISA

### Cited Applications:

WB, IHC, IF

### Species Specificity:

human, mouse, rat

### Cited Species:

human, mouse, rat, zebrafish

### Positive Controls:

WB : A549 cells, U-87 MG cells, ROS1728 cells

IP : ROS1728 cells,

IHC : human breast cancer tissue, human lung cancer tissue, human osteosarcoma tissue

IF-P : mouse brain tissue,

IF/ICC : ROS1728 cells,

**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

CTSK(cathepsin K), also named CTSO, CTSO2, is a recently identified lysosomal cysteine proteinase. CTSK is synthesized as a proenzyme of 38 kDa and subsequently enters acidic lysosomal compartments, in which the propeptide is cleaved and transformed into an active enzyme and it may influence adipocyte differentiation through modifying extracellular matrix components(PMID:16912123). It is revealed both the 46-kDa cathepsin-K precursor and the 30-kDa mature form in mouse bone extracts (PMID:9811821). The high CTSK protein levels are only detected in primary cultured fibroblasts derived from normal and neoplastic breast tissue, where the 37- and 25-kDa bands to be detected correspond to pro- and mature proteins through western blot (PMID:18765527). The full length protein has a signal peptides with 15 amino acids and a propeptide with 99 amino acids. CTSK may have cross reaction with the other members of cathepsin family and form a complex of 70 kDa with an unidentified subunit(PMID:1930136).

## Notable Publications

Author	Pubmed ID	Journal	Application
Yuta Fujii	31618828	Int J Mol Sci	IHC
Zhang Dongwei D	22126332	Respir Res	IHC
Cong Cai	30483128	Front Pharmacol	

## 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:

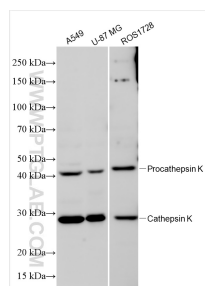
T: 4006900926

E: Proteintech-CN@ptglab.com

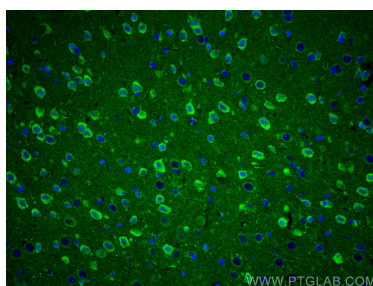
W: ptgcn.com

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

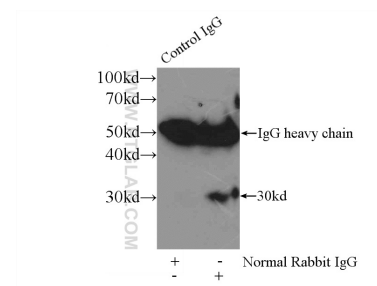
## Selected Validation Data



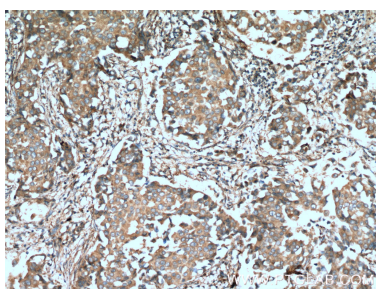
A549 cells were subjected to SDS PAGE followed by western blot with 11239-1-AP (Cathepsin K antibody) at dilution of 1:800 incubated at room temperature for 1.5 hours.



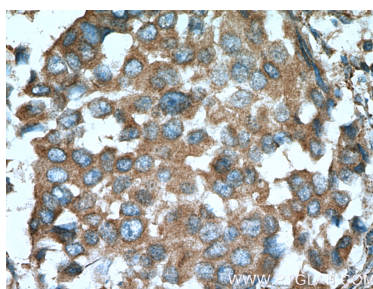
Immunofluorescent analysis of (4% PFA) fixed mouse brain tissue using Cathepsin K antibody (11239-1-AP) at dilution of 1:200 and CoraLite®488-Conjugated AffiniPure Goat Anti-Rabbit IgG(H+L).



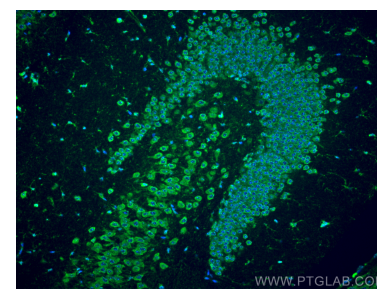
IP result of anti-Cathepsin K (IP:11239-1-AP, 3ug; Detection:11239-1-AP 1:500) with ROS1728 cells lysate 3200ug.



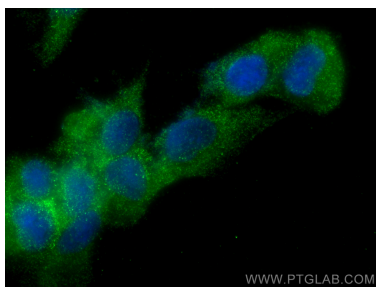
Immunohistochemical analysis of paraffin-embedded human breast cancer tissue slide using 11239-1-AP (Cathepsin K antibody at dilution of 1:200 (under 10x lens). Heat mediated antigen retrieval with Tris-EDTA buffer (pH 9.0).



Immunohistochemical analysis of paraffin-embedded human breast cancer tissue slide using 11239-1-AP (Cathepsin K antibody at dilution of 1:200 (under 40x lens). Heat mediated antigen retrieval with Tris-EDTA buffer (pH 9.0).



Immunofluorescent analysis of (4% PFA) fixed paraffin-embedded mouse brain tissue using Cathepsin K antibody (11239-1-AP) at dilution of 1:200 and CoraLite®488-Conjugated Goat Anti-Rabbit IgG(H+L) (SA00013-2). Heat mediated antigen retrieval with Tris-EDTA buffer (pH 9.0).



Immunofluorescent analysis of (-20°C Ethanol) fixed ROS1728 cells using Cathepsin K antibody (11239-1-AP) at dilution of 1:400 and CoraLite®488-Conjugated Goat Anti-Rabbit IgG(H+L) (SA00013-2).