

# Human Cathepsin L antibody

Catalog Number: ACT0905

## PRODUCT INFORMATION

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**Catalog number**

ACT0905

**Clone No.**

AT18F6

**Product type**

Monoclonal Antibody

**UnitProt No.**

P07711

**NCBI Accession No.**

NP\_001244901

**Alternative Names**

Procathepsin L, Cathepsin L1, Major excreted protein, MEP, CTSL, CTSL1

## PRODUCT SPECIFICATION

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**Antibody Host**

Mouse

**Reacts With**

Human

**Concentration**

1mg/ml (determined by BCA assay)

**Formulation**

Liquid in. Phosphate-Buffered Saline (pH 7.4) with 0.02% Sodium Azide, 10% glycerol

**Immunogen**

Recombinant human CTSL (18-333aa) purified from E. coli.

**Isotype**

IgG2a kappa

**Purification Note**

By protein-G affinity chromatography

**Application**

ELISA, WB, ICC/IF, FACS

**Usage**

The antibody has been tested by ELISA, Western blot, ICC/IF and FACS to assure specificity and reactivity. Since application varies, however, each investigation should be titrated by the reagent to obtain optimal results.

**Storage**

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Can be stored at +2C to +8C for 1 week. For long term storage, aliquot and store at -20C to -80C. Avoid repeated freezing and thawing cycles.

## BACKGROUND

### Description

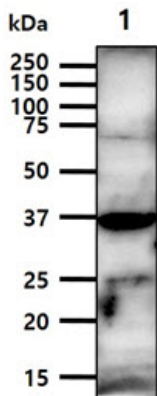
Cathepsin L, a lysosomal endopeptidase expressed in most eukaryotic cells, is a member of the papain-like family of cysteine proteinases. Cathepsin L can be induced by many different signaling events, including growth factor, secondary messenger and tumor promoters. Cathepsin L is translated as preprocathepsin L, transferred through the Golgi apparatus as procathepsin L and then stored in lysosomes as mature cathepsin L.

### General References

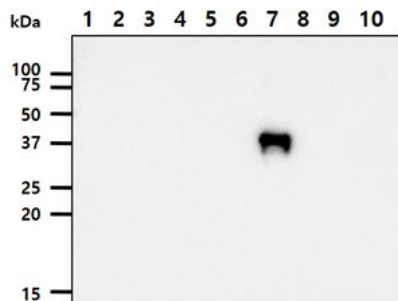
- Zheng X., et al (2009) *Am J Physiol Cell Physiol.* 296(1): 65-74.
- Reinheckel T., et al (2005) *J Cell Sci.* 118: 3387-95.
- Ishidoh K., Kominami E. (2002) *Biol chem.* 383(12): 1827-31.
- Roth W., et al (2000) *FASEB J.* 14(13): 2075-86.

## DATA

### Western blot analysis (WB)



The cell lysate (40ug) was resolved by SDS-PAGE, transferred to PVDF membrane and probed with anti-human CTSL antibody (1:1000). Proteins were visualized using a goat anti-mouse secondary antibody conjugated to HRP and an ECL detection system. Lane 1.: A549 cell lysate

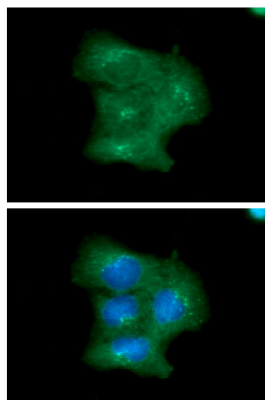


The recombinant proteins (20ng) were resolved by SDS-PAGE, transferred to PVDF membrane and probed with anti-human CTSL antibody (1:1000). Proteins were visualized using a goat anti-mouse secondary antibody conjugated to HRP and an ECL detection system. Lane 1.: CTSB recombinant protein  
Lane 2.: CTSD recombinant protein  
Lane 3.: CTSE recombinant protein  
Lane 4.: CTSF recombinant protein  
Lane 5.: CTSH recombinant protein  
Lane 6.: CTSK recombinant protein  
Lane 7.: CTSL recombinant protein  
Lane 8.: CTSS recombinant protein  
Lane 9.: CTSW recombinant protein  
Lane 10.: CTSZ recombinant protein

### Immunocytochemistry/Immunofluorescence (ICC/IF)

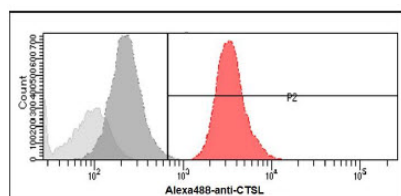
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ICC/IF analysis of CTSL in A549 cells. The cell was stained with ACT0905 (1:100). The secondary antibody (green) was used Alexa Fluor 488. DAPI was stained the cell nucleus (blue).

## Flow cytometry (FACS)



Flow cytometry analysis of CTSL in A549 cells. The cell was stained with ACT0905 at 2-5ug for  $1 \times 10^6$  cells (red). A Goat anti mouse IgG (Alexa fluor 488) was used as the secondary antibody. Mouse monoclonal IgG was used as the isotype control (dark gray), cells without incubation with primary and secondary antibody was used as the negative control (light gray).