abcam

ab166894

Anti-Cathepsin V antibody [EPR10723(B)]

Recombinant | RabMAb

Key facts

Isotype	IgG
Host species	Rabbit
Storage buffer	pH: 7.2 - 7.4 Preservative: 0.01% Sodium azide Constituents: PBS, 40% Glycerol (glycerin, glycerine), 0.05% BSA
Form	Liquid
Clonality	Monoclonal
Immunogen	The exact immunogen used to generate this antibody is proprietary information.
Clone number	EPR10723(B)
Purification technique	Affinity purification Protein A
Concentration	0.516 mg/mL The concentration of this product may be batch-dependent Batch concentration finder →

Reactivity data

IP

Tested

Species	Human
Dilution info	1/10 - 1/100
Notes	-

Predicted

Species	Mouse, Rat
Dilution info	-
Notes	-

WB

Tested

Species	Human
Dilution info	1/1000 - 1/10000
Notes	-

Predicted

Species	Mouse, Rat
Dilution info	-
Notes	-

IHC-P

Not recommended

Species	Human, Mouse, Rat
Dilution info	-
Notes	-

ICC/IF

Tested

Species	Human
Dilution info	1/250 - 1/500
Notes	-

Predicted

Species	Mouse, Rat
Dilution info	-
Notes	-

Flow Cyt (Intra)

Tested

Species	Human
Dilution info	1/10 - 1/100
Notes	ab172730 - Rabbit monoclonal IgG, is suitable for use as an isotype control with this antibody.

Predicted

Species	Mouse, Rat
Dilution info	-
Notes	-

Target data

See full target information CTSV

Function	Cysteine protease. May have an important role in corneal physiology.

Storage

Shipped at conditions	Conditional Ambient
Appropriate short-term storage conditions	+4°C
Appropriate long-term storage conditions	-20°C
Aliquoting information	Upon delivery aliquot
Storage information	Avoid freeze / thaw cycle

Notes

Patented technology
Our RabMAb® technology is a patented hybridoma-based technology for making rabbit monoclonal antibodies. For details on our patents, please refer to RabMAb® patents.

What are the advantages of a recombinant monoclonal antibody?
This product is a recombinant monoclonal antibody, which offers several advantages including:

- High batch-to-batch consistency and reproducibility
- Improved sensitivity and specificity
- Long-term security of supply
- Animal-free batch production

For more information, read more on recombinant antibodies.

Supplementary info

This supplementary information is collated from multiple sources and compiled automatically.

Activity summary	Cathepsin V also known as cathepsin L2 is a cysteine protease enzyme involved in protein degradation. This enzyme has a molecular mass of approximately 37 kDa. Cathepsin V predominantly resides in lysosomes cellular organelles known for breaking down waste materials. It is highly expressed in thymus cornea and testis suggesting its significant role in tissues that require extensive protein turnover.
Biological function summary	Cathepsin V plays essential roles in the degradation of intracellular proteins by cleaving peptide bonds. Although not part of a complex its activity helps regulate immune responses and processing of antigens keeping cellular functions normal. Cathepsin V shows high proteolytic activity which is suited for tissues where high protein breakdown and recycling are necessary.
Pathways	Cathepsin V participates in pathways linked to protein catabolism and immune system regulation. It takes part in the antigen processing and presentation pathway contributing to immune surveillance. Within these pathways its activity can interact with other proteases like cathepsin S showing functional redundancy or specificity depending on tissue type and conditions.
Associated diseases and disorders	Cathepsin V is associated with cancer and autoimmune diseases. In some cancers its overexpression may facilitate tumor progression by degrading extracellular matrix components aiding metastasis. This upregulation can involve interaction with proteins such as cathepsin B which also modifies extracellular environments. In autoimmune disorders altered regulation of cathepsin V affects antigen processing possibly leading to abnormal immune responses.

Product promise

Tested

We have tested this species and application combination and it works. It is covered by our product promise.

Expected

We have not tested this specific species and application combination in-house, but expect it will work. It is covered by our product promise.

Predicted

This species and application combination has not been tested, but we predict it will work based on strong homology. However, this combination is not covered by our product promise.

Not recommended

We do not recommend this combination. It is not covered by our product promise.

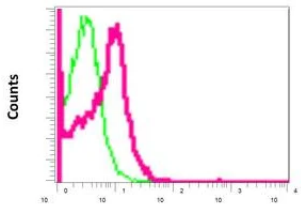
We are dedicated to supporting your work with high quality reagents and we are here for you every step of the way should you need us.

In the unlikely event of one of our products not working as expected, you are covered by our product promise.

Full details and terms and conditions can be found here:
Terms & Conditions.

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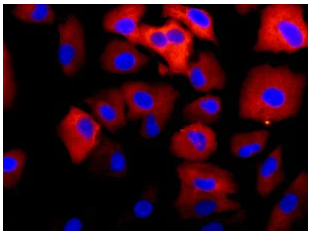
4 product images



Flow Cytometry (Intracellular) - Anti-Cathepsin V antibody [EPR10723(B)] (ab166894)

Cathepsin V Flow Cytometry (Intracellular) staining using rabbit Anti-Cathepsin V antibody

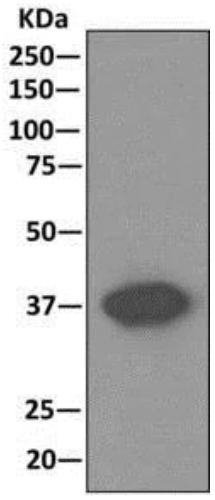
Intracellular flow cytometric analysis of permeabilized HeLa using ab166894 at 1/10 dilution (red) or a rabbit IgG (negative) (green).



Immunocytochemistry/ Immunofluorescence - Anti-Cathepsin V antibody [EPR10723(B)] (ab166894)

Cathepsin V Immunocytochemistry/ Immunofluorescence staining using rabbit Anti-Cathepsin V antibody

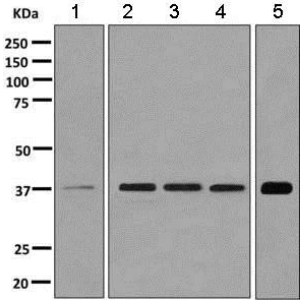
Immunofluorescent analysis of A549 cells labeling Cathepsin V with ab166894 at 1/250 dilution.



Immunoprecipitation - Anti-Cathepsin V antibody [EPR10723(B)] (ab166894)

Western blot analysis on immunoprecipitation pellet from Human small intestine lysate, using ab166894 at 1/1000 and HRP-conjugated anti-rabbit IgG, preferentially detecting the non-reduced form of rabbit IgG.
All lanes:
Immunoprecipitation - Anti-Cathepsin V antibody [EPR10723(B)] (ab166894)

Predicted band size: 37 kDa



Western blot - Anti-Cathepsin V antibody [EPR10723(B)] (ab166894)

All lanes:
Western blot - Anti-Cathepsin V antibody [EPR10723(B)] (ab166894) at 1/1000 dilution

Lane 1:
A549 cell lysate at 10 µg

Lane 2:
HeLa cell lysate at 10 µg

Lane 3:
SW480 cell lysate at 10 µg

Lane 4:
Fetal kidney tissue lysate at 10 µg

Lane 5:
Human small intestine tissue lysate at 10 µg

Secondary

All lanes:
HRP labelled goat anti-rabbit at 1/2000 dilution

Predicted band size: 37 kDa

Please note: All products are 'FOR RESEARCH USE ONLY. NOT FOR USE IN DIAGNOSTIC OR THERAPEUTIC PROCEDURES'.