

## Product datasheet

# Anti-Cathepsin S antibody [EPR5128] ab134157

**KO** **VALIDATED** Recombinant RabMAB

★★★★☆ [1 Abreviews](#) [7 References](#) [5 Images](#)

### Overview

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<b>Product name</b>	Anti-Cathepsin S antibody [EPR5128]
<b>Description</b>	Rabbit monoclonal [EPR5128] to Cathepsin S
<b>Host species</b>	Rabbit
<b>Tested applications</b>	<b>Suitable for:</b> WB, IHC-P <b>Unsuitable for:</b> Flow Cyt or ICC/IF
<b>Species reactivity</b>	<b>Reacts with:</b> Human
<b>Immunogen</b>	Synthetic peptide. This information is proprietary to Abcam and/or its suppliers.
<b>Positive control</b>	IHC-P: Human kidney and liver tissue; WB: U-87 MG whole cell lysate.
<b>General notes</b>	<p>This product is a recombinant monoclonal antibody, which offers several advantages including:</p> <ul style="list-style-type: none"><li>- High batch-to-batch consistency and reproducibility</li><li>- Improved sensitivity and specificity</li><li>- Long-term security of supply</li><li>- Animal-free production</li></ul> <p>For more information <a href="#">see here</a>.</p> <p>Our RabMAB<sup>®</sup> technology is a patented hybridoma-based technology for making rabbit monoclonal antibodies. For details on our patents, please refer to <a href="#">RabMAB<sup>®</sup> patents</a>.</p> <p>Mouse, Rat: We have preliminary internal testing data to indicate this antibody may not react with these species. Please contact us for more information.</p>

### Properties

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<b>Form</b>	Liquid
<b>Storage instructions</b>	Shipped at 4°C. Store at +4°C short term (1-2 weeks). Upon delivery aliquot. Store at -20°C long term. Avoid freeze / thaw cycle.
<b>Storage buffer</b>	pH: 7.20 Preservative: 0.01% Sodium azide Constituents: 0.05% BSA, 40% Glycerol (glycerin, glycerine), 59% PBS
<b>Purity</b>	Protein A purified
<b>Clonality</b>	Monoclonal

Clone number                   EPR5128  
 Isotype                            IgG

## Applications

**The Abpromise guarantee**           Our **Abpromise guarantee** covers the use of ab134157 in the following tested applications.  
 The application notes include recommended starting dilutions; optimal dilutions/concentrations should be determined by the end user.

Application	Abreviews	Notes
WB		1/1000 - 1/10000. Predicted molecular weight: 37 kDa.
IHC-P	★★★★★ (1)	1/50 - 1/500. Perform heat mediated antigen retrieval with citrate buffer pH 6 before commencing with IHC staining protocol. See <a href="#">IHC antigen retrieval protocols</a> .

**Application notes**                    Is unsuitable for Flow Cyt or ICC/IF.

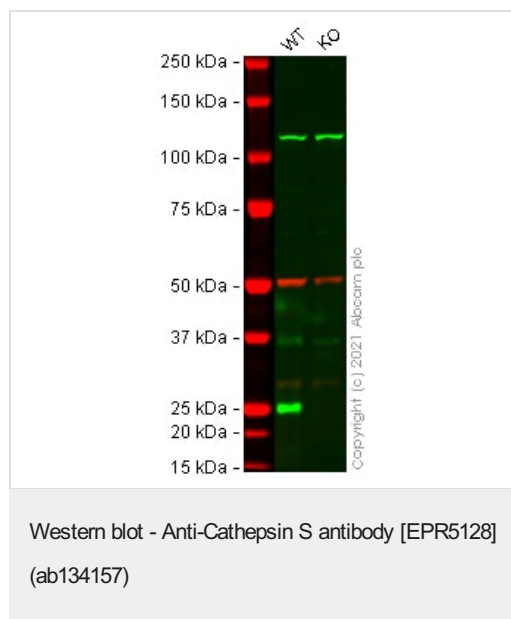
## Target

**Function**                                Thiol protease. Key protease responsible for the removal of the invariant chain from MHC class II molecules. The bond-specificity of this proteinase is in part similar to the specificities of cathepsin L and cathepsin N.

**Sequence similarities**                Belongs to the peptidase C1 family.

**Cellular localization**                Lysosome.

## Images



**All lanes :** Anti-Cathepsin S antibody [EPR5128] (ab134157) at 1/1000 dilution

**Lane 1 :** Wild-type THP-1 cell lysate

**Lane 2 :** Ctss knockout THP-1 cell lysate

Lysates/proteins at 20 µg per lane.

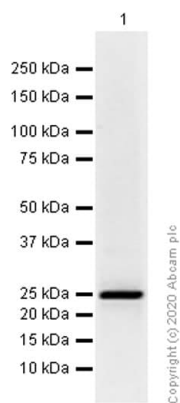
Performed under reducing conditions.

**Predicted band size:** 37 kDa

**Observed band size:** 25 kDa

False colour image of Western blot: Anti-Cathepsin S antibody [EPR5128] staining at 1/1000 dilution, shown in green; Mouse anti-

Alpha Tubulin [DM1A] ([ab7291](#)) loading control staining at 1/20000 dilution, shown in red. In Western blot, ab134157 was shown to bind specifically to Cathepsin S. A band was observed at 25 kDa in wild-type THP-1 cell lysates with no signal observed at this size in Ctss knockout cell line [ab275846](#) (knockout cell lysate [ab275820](#)). To generate this image, wild-type and Ctss knockout THP-1 cell lysates were analysed. First, samples were run on an SDS-PAGE gel then transferred onto a nitrocellulose membrane. Membranes were blocked in 3% milk in TBS-0.1 % Tween<sup>®</sup> 20 (TBS-T) before incubation with primary antibodies overnight at 4°C. Blots were washed four times in TBS-T, incubated with secondary antibodies for 1 h at room temperature, washed again four times then imaged. Secondary antibodies used were Goat anti-Rabbit IgG H&L (IRDye<sup>®</sup> 800CW) preabsorbed ([ab216773](#)) and Goat anti-Mouse IgG H&L (IRDye<sup>®</sup> 680RD) preabsorbed ([ab216776](#)) at 1/20000 dilution.



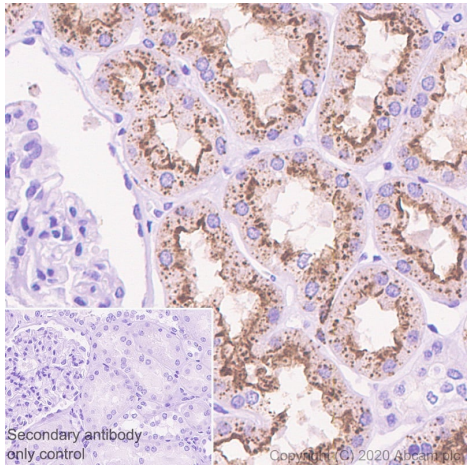
Western blot - Anti-Cathepsin S antibody [EPR5128]  
(ab134157)

Anti-Cathepsin S antibody [EPR5128] (ab134157) at 1/1000 dilution (Purified) + U-87 MG (Human glioblastoma-astrocytoma epithelial cell) whole cell lysate

### Secondary

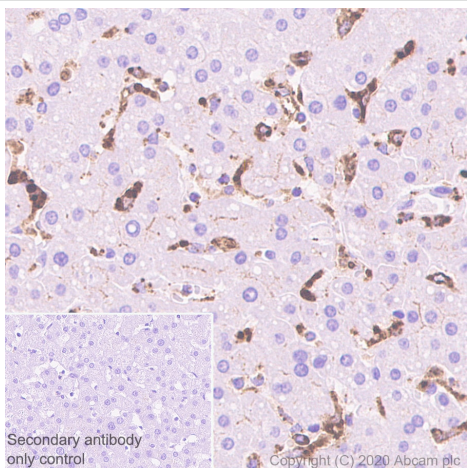
Goat Anti-Rabbit IgG H&L (HRP) ([ab97051](#)) at 1/20000 dilution

**Predicted band size:** 37 kDa



Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) - Anti-Cathepsin S antibody [EPR5128] (ab134157)


Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) analysis of human kidney tissue sections labeling Cathepsin S with purified ab134157 at 1/500 dilution (0.452 µg/mL). Heat mediated antigen retrieval was performed using Heat mediated antigen retrieval using Bond™ Epitope Retrieval Solution 2 (pH 9.0). Tissue was counterstained with Hematoxylin. Rabbit specific IHC polymer detection kit HRP/DAB (**ab209101**) secondary antibody was used at 1/0 dilution. PBS instead of the primary antibody was used as the negative control. The immunostaining was performed on a Leica Biosystems BOND® RX instrument.





Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) - Anti-Cathepsin S antibody [EPR5128] (ab134157)


Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) analysis of human liver tissue sections labeling Cathepsin S with purified ab134157 at 1/500 dilution (0.452 µg/mL). Heat mediated antigen retrieval was performed using Heat mediated antigen retrieval using Bond™ Epitope Retrieval Solution 2 (pH 9.0). Tissue was counterstained with Hematoxylin. Rabbit specific IHC polymer detection kit HRP/DAB (**ab209101**) secondary antibody was used at 1/0 dilution. PBS instead of the primary antibody was used as the negative control. The immunostaining was performed on a Leica Biosystems BOND® RX instrument.

### Why choose a recombinant antibody?

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**Research with confidence**  
Consistent and reproducible results
- 

**Long-term and scalable supply**  
Recombinant technology
- 

**Success from the first experiment**  
Confirmed specificity
- 

**Ethical standards compliant**  
Animal-free production

Anti-Cathepsin S antibody [EPR5128] (ab134157)

**Please note:** All products are "FOR RESEARCH USE ONLY. NOT FOR USE IN DIAGNOSTIC PROCEDURES"

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- Extensive multi-media technical resources to help you
- We investigate all quality concerns to ensure our products perform to the highest standards

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