

## Product datasheet

# Anti-Cystatin C antibody [EPR4413] ab109508

**KO VALIDATED** Recombinant RabMAB

★★★★★ [2 Abreviews](#) [24 References](#) [9 Images](#)

### Overview

<b>Product name</b>	Anti-Cystatin C antibody [EPR4413]
<b>Description</b>	Rabbit monoclonal [EPR4413] to Cystatin C
<b>Host species</b>	Rabbit
<b>Tested applications</b>	<b>Suitable for:</b> WB, IHC-P <b>Unsuitable for:</b> Flow Cyt, ICC/IF or IP
<b>Species reactivity</b>	<b>Reacts with:</b> Mouse, Rat, Human
<b>Immunogen</b>	Recombinant fragment. This information is proprietary to Abcam and/or its suppliers.
<b>Positive control</b>	WB: Human testis, Caco2, U20S, HeLa, HepG2, and U87-MG lysates, rat heart tissue lysate and mouse thymus tissue lysate. IHC-P: Human brain and kidney tissue, mouse kidney tissue and rat kidney tissue.
<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>

### Properties

<b>Form</b>	Liquid
<b>Storage instructions</b>	Shipped at 4°C. Store at -20°C. Stable for 12 months at -20°C.
<b>Storage buffer</b>	pH: 7.20 Preservative: 0.05% Sodium azide Constituents: 0.1% BSA, 40% Glycerol (glycerin, glycerine), 9.85% Tris glycine, 50% Tissue culture supernatant
<b>Purity</b>	Protein A purified
<b>Clonality</b>	Monoclonal
<b>Clone number</b>	EPR4413

Isotype

IgG

## Applications

**The Abpromise guarantee** Our **Abpromise guarantee** covers the use of ab109508 in the following tested applications. The application notes include recommended starting dilutions; optimal dilutions/concentrations should be determined by the end user.

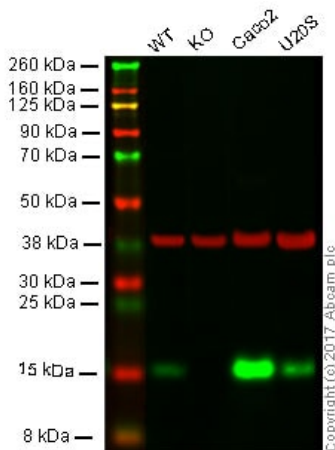
Application	Abreviews	Notes
WB	★★★★★ (1)	1/10000 - 1/50000. Detects a band of approximately 13 kDa (predicted molecular weight: 15 kDa).
IHC-P		1/250 - 1/8000. Perform heat mediated antigen retrieval with Tris/EDTA buffer pH 9.0 before commencing with IHC staining protocol.

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

## Target

<b>Function</b>	As an inhibitor of cysteine proteinases, this protein is thought to serve an important physiological role as a local regulator of this enzyme activity.
<b>Tissue specificity</b>	Expressed in submandibular and sublingual saliva but not in parotid saliva (at protein level). Expressed in various body fluids, such as the cerebrospinal fluid and plasma. Expressed in highest levels in the epididymis, vas deferens, brain, thymus, and ovary and the lowest in the submandibular gland.
<b>Involvement in disease</b>	Amyloidosis 6 Macular degeneration, age-related, 11
<b>Sequence similarities</b>	Belongs to the cystatin family.
<b>Post-translational modifications</b>	The Thr-25 variant is O-glycosylated with a core 1 or possibly core 8 glycan. The signal peptide of the O-glycosylated Thr-25 variant is cleaved between Ala-20 and Val-21.
<b>Cellular localization</b>	Secreted.

## Images



Western blot - Anti-Cystatin C antibody [EPR4413] (ab109508)

**Lane 1:** Wild type HAP1 whole cell lysate (20 µg)

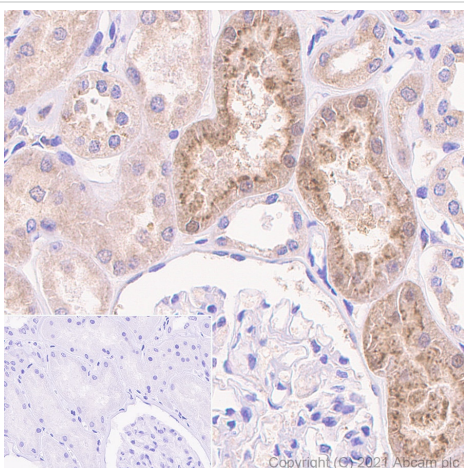
**Lane 2:** CST3 knockout HAP1 whole cell lysate (20 µg)

**Lane 3:** Caco2 whole cell lysate (20 µg)

**Lane 4:** U20S whole cell lysate (20 µg)

**Lanes 1 - 4:** Merged signal (red and green). Green - ab109508 observed at 15 kDa. Red - loading control, **ab9484**, observed at 37 kDa.

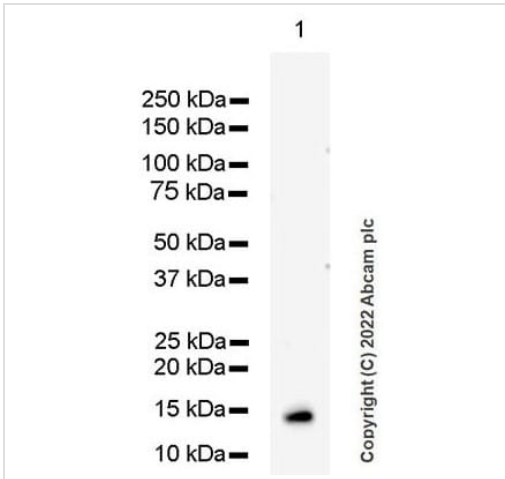
ab109508 was shown to specifically react with CST3 when CST3 knockout samples were used. Wild-type and CST3 knockout samples were subjected to SDS-PAGE. Ab109508 and **ab9484** (Mouse anti GAPDH loading control) were incubated overnight at 4°C at 10000 dilution and 1/10000 dilution respectively. Blots were developed with Goat anti-Rabbit IgG H&L (IRDye® 800CW) preabsorbed **ab216773** and Goat anti-Mouse IgG H&L (IRDye® 680RD) preabsorbed **ab216776** secondary antibodies at 1/10000 dilution for 1 hour at room temperature before imaging.



Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) - Anti-Cystatin C antibody [EPR4413] (ab109508)

Immunohistochemistry analysis of paraffin-embedded human kidney tissue sections labelling Cystatin C with ab109508 at 1/8000 dilution. The section was incubated with ab109508 for 30 mins at room temperature. Rabbit specific IHC polymer detection kit HRP/DAB (**ab209101**) was used as the secondary antibody. Sections were counterstained with Hematoxylin. Antigen retrieval was heat mediated with Tris-EDTA buffer (pH 9.0, epitope retrieval solution 2) for 20 mins.

Positive staining on human kidney tissue. The immunostaining was performed on a Leica Biosystems BOND® RX instrument.



Western blot - Anti-Cystatin C antibody [EPR4413] (ab109508)

Anti-Cystatin C antibody [EPR4413] (ab109508) at 1/10000 dilution  
+ Mouse thymus tissue lysate at 20 µg

**Secondary**

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

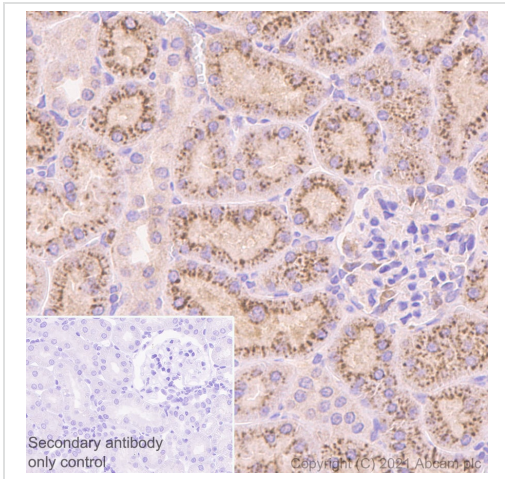
**Predicted band size:** 15 kDa

**Observed band size:** 13 kDa

**Exposure time:** 3 minutes

**Blocking buffer and concentration :** 5% NFDm/TBST

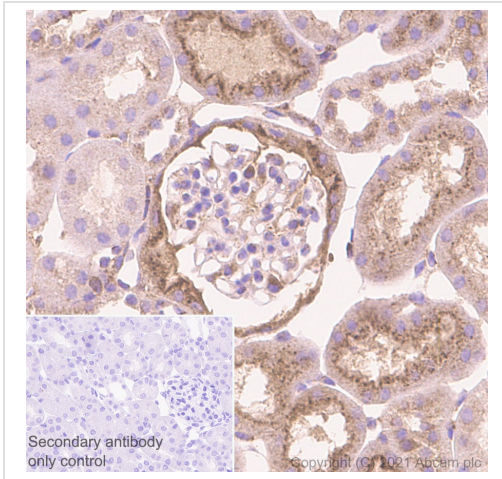
**Diluting buffer and concentration :** 5% NFDm/TBST



Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) - Anti-Cystatin C antibody [EPR4413] (ab109508)

Immunohistochemistry analysis of paraffin-embedded rat kidney tissue sections labelling Cystatin C with ab109508 at 1/8000 dilution. The section was incubated with ab109508 for 30 mins at room temperature. Rabbit specific IHC polymer detection kit HRP/DAB ([ab209101](#)) was used as the secondary antibody. Sections were counterstained with Hematoxylin. Antigen retrieval was heat mediated with Tris-EDTA buffer (pH 9.0, epitope retrieval solution 2) for 20 mins.

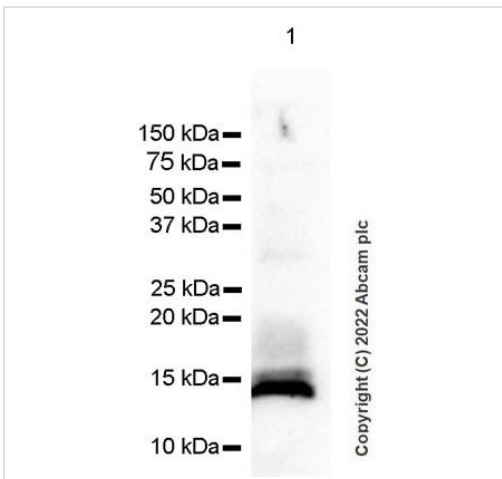
Positive staining on rat kidney tissue. The immunostaining was performed on a Leica Biosystems BOND® RX instrument.



Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) - Anti-Cystatin C antibody [EPR4413] (ab109508)

Immunohistochemistry analysis of paraffin-embedded mouse kidney tissue sections labelling Cystatin C with ab109508 at 1/8000 dilution. The section was incubated with ab109508 for 30 mins at room temperature. Rabbit specific IHC polymer detection kit HRP/DAB (**ab209101**) was used as the secondary antibody. Sections were counterstained with Hematoxylin. Antigen retrieval was heat mediated with Tris-EDTA buffer (pH 9.0, epitope retrieval solution 2) for 20 mins.

Positive staining on mouse kidney tissue. The immunostaining was performed on a Leica Biosystems BOND<sup>®</sup> RX instrument.



Western blot - Anti-Cystatin C antibody [EPR4413] (ab109508)

Anti-Cystatin C antibody [EPR4413] (ab109508) at 1/10000 dilution + Rat heart tissue lysate at 20 µg

**Secondary**

Goat Anti-Rabbit IgG (HRP) with minimal cross-reactivity with human IgG at 1/2000 dilution

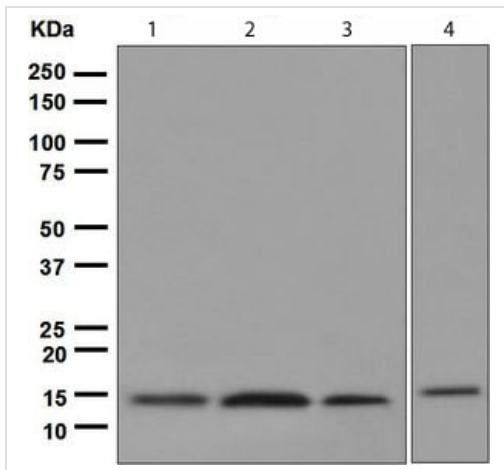
**Predicted band size:** 15 kDa

**Observed band size:** 13 kDa

**Exposure time:** 80 seconds

**Blocking buffer and concentration :** 5% NFDM/TBST

**Diluting buffer and concentration :** 5% NFDM/TBST



Western blot - Anti-Cystatin C antibody [EPR4413] (ab109508)

**All lanes :** Anti-Cystatin C antibody [EPR4413] (ab109508) at 1/10000 dilution

**Lane 1 :** Human testis lysate

**Lane 2 :** HeLa cell lysate

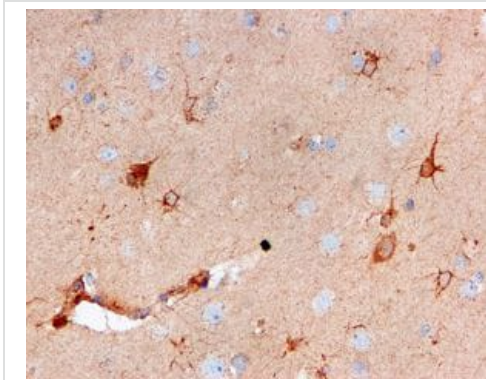
**Lane 3 :** HepG2 cell lysate

**Lane 4 :** U87-MG cell lysate

Lysates/proteins at 10 µg per lane.

**Predicted band size:** 15 kDa

**Observed band size:** 13 kDa







Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) - Anti-Cystatin C antibody [EPR4413] (ab109508)

Immunohistochemical analysis of paraffin-embedded Human brain tissue using ab109508 at dilution of 1/250.

Perform heat mediated antigen retrieval with citrate buffer pH 6 before commencing with IHC staining protocol.

### Why choose a recombinant antibody?

 <p><b>Research with confidence</b> Consistent and reproducible results</p>	 <p><b>Long-term and scalable supply</b> Recombinant technology</p>
 <p><b>Success from the first experiment</b> Confirmed specificity</p>	 <p><b>Ethical standards compliant</b> Animal-free production</p>

Anti-Cystatin C antibody [EPR4413] (ab109508)

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

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