abcam

Product datasheet

Anti-Cathepsin L/V/K/H antibody [EPR8011] - BSA and Azide free ab248589

Recombinant   RabMAb

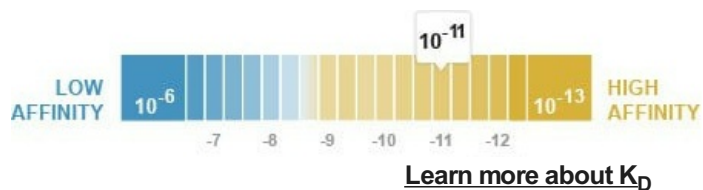## 15 Images

Overview

Product name	Anti-Cathepsin L/V/K/H antibody [EPR8011] - BSA and Azide free
Description	Rabbit monoclonal [EPR8011] to Cathepsin L/V/K/H - BSA and Azide free
Host species	Rabbit
Tested applications	**Suitable for:** ICC/IF, ELISA, IHC-P, Flow Cyt (Intra), WB
Species reactivity	**Reacts with:** Mouse, Rat, Human
Immunogen	Synthetic peptide. This information is proprietary to Abcam and/or its suppliers.
General notes	ab248589 is the carrier-free version of **ab133641**.

Our **carrier-free** antibodies are typically supplied in a PBS-only formulation, purified and free of BSA, sodium azide and glycerol. The carrier-free buffer and high concentration allow for increased conjugation efficiency.

This conjugation-ready format is designed for use with fluorochromes, metal isotopes, oligonucleotides, and enzymes, which makes them ideal for antibody labelling, functional and cell-based assays, flow-based assays (e.g. mass cytometry) and Multiplex Imaging applications.

Use our **conjugation kits** for antibody conjugates that are ready-to-use in as little as 20 minutes with <1 minute hands-on-time and 100% antibody recovery: available for fluorescent dyes, HRP, biotin and gold.

This product is compatible with the Maxpar$^®$ Antibody Labeling Kit from Fluidigm, without the need for antibody preparation. Maxpar$^®$ is a trademark of Fluidigm Canada Inc.

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 production
For more information **see here**.

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

Properties

Form	Liquid
Storage instructions	Shipped at 4°C. Store at +4°C. Do Not Freeze.
Dissociation constant (K$_D$)	K$_D$ = 4.40 x 10^{-11} M

Learn more about K$_D$

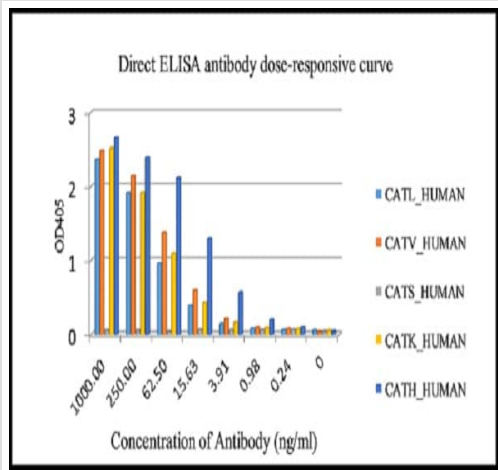|	
Storage buffer	pH: 7.2
	Constituent: PBS
Carrier free	Yes
Purity	Protein A purified
Clonality	Monoclonal
Clone number	EPR8011
Isotype	IgG

Applications

The Abpromise guarantee   Our **Abpromise guarantee** covers the use of ab248589 in the following tested applications.

The application notes include recommended starting dilutions; optimal dilutions/concentrations should be determined by the end user.

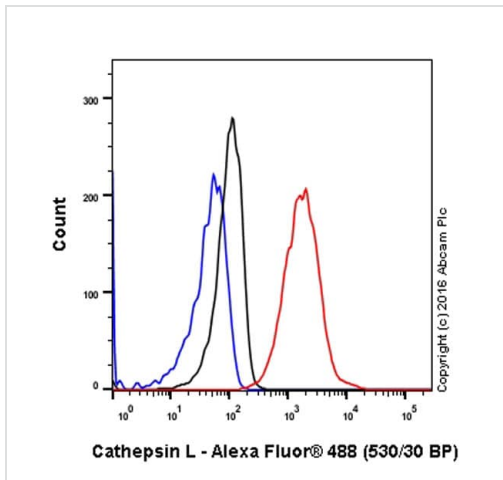| Application	Abreviews	Notes
ICC/IF		Use at an assay dependent concentration.
ELISA		Use at an assay dependent concentration.
IHC-P		Use at an assay dependent concentration. Perform heat mediated antigen retrieval with citrate buffer pH 6 before commencing with IHC staining protocol.
Flow Cyt (Intra)		Use at an assay dependent concentration.
WB		Use at an assay dependent concentration. Predicted molecular weight: 38 kDa.

Images

Direct ELISA antibody dose-responsive curve

ELISA - Anti-Cathepsin L/V/K/H antibody [EPR8011] - BSA and Azide free (ab248589)

This data was developed using **ab133641**, the same antibody clone in a different buffer formulation.

Antigen: CATL_HUMAN, CATV_HUMAN, CATS_HUMAN, CATK_HUMAN, CATH_HUMAN Antigen concentration: 1000ng/ml Primary antibody concentration range: 0~1000ng/ml Secondary antibody: Alkaline Phosphatase-conjugated AffiniPure Goat Anti-Rabbit IgG(H+L) Secondary antibody concentration: 1/2500
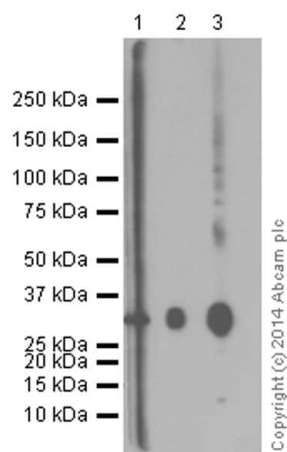

Flow Cytometry (Intracellular) - Anti-Cathepsin L/V/K/H antibody [EPR8011] - BSA and Azide free (ab248589)

This data was developed using **ab133641**, the same antibody clone in a different buffer formulation.

ab133641 staining Cathepsin L in the human cell line HepG2 (human hepatocellular carcinoma) by intracellular flow cytometry. Cells were fixed with 4% paraformaldehyde and the sample was incubated with the primary antibody at a dilution of 1/20. A goat anti rabbit IgG (Alexa Fluor® 488) at a dilution of 1/2000 was used as the secondary antibody.

Isoytype control: Rabbit monoclonal IgG (Black)

Unlabelled control: Cell without incubation with primary antibody and secondary antibody (Blue)

Western blot - Anti-Cathepsin L/V/K/H antibody [EPR8011] - BSA and Azide free (ab248589)

Lane 1 : Anti-Cathepsin L/V/K/H antibody [EPR8011] (**ab133641**) at 1/20 dilution

Lane 2 : Anti-Cathepsin L + V antibody [33/2] (**ab6314**) at 1/100 dilution

All lanes : Human Cathepsin L recombinant protein fraction

Secondary

Lanes 1 & 3 : Peroxidase conjugated Goat Anti-Rabbit IgG, (H+L) at 1/1000 dilution

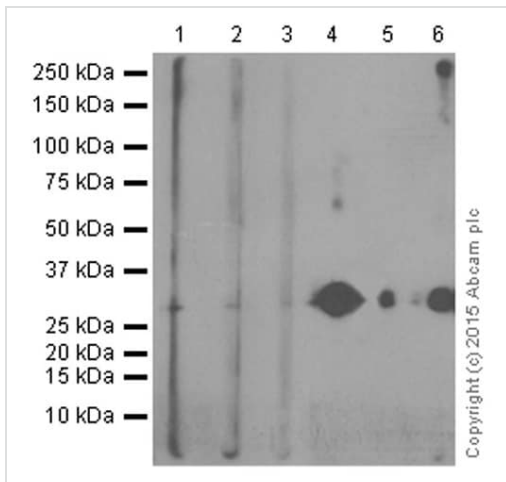**Lane 2 :** Rabbit anti-Mouse IgG at 1/2000 dilution

Predicted band size: 38 kDa

This data was developed using **ab133641**, the same antibody clone in a different buffer formulation.

Blocking and dilution buffer: 5% NFDM/TBST.

Observed MW: 30.

Exposure time: 3 minutes.

Western blot - Anti-Cathepsin L/V/K/H antibody [EPR8011] - BSA and Azide free (ab248589)

Lane 1 : Anti-Cathepsin L/V/K/H antibody [EPR8011] (**ab133641**) at 1/20 dilution

Lane 2 : Anti-Cathepsin L/V/K/H antibody [EPR8011] (**ab133641**) at 1/100 dilution

Lane 3 : Anti-Cathepsin L/V/K/H antibody [EPR8011] (**ab133641**) at 1/500 dilution

Lane 4 : Anti-Cathepsin L + V antibody [33/2] (**ab6314**) at 1/100 dilution

Lane 5 : Anti-Cathepsin L + V antibody [33/2] (**ab6314**) at 1/1000 dilution

All lanes : Human Cathepsin V recombinant protein fraction

Secondary

Lanes 1-3 : Peroxidase conjugated Goat Anti-Rabbit IgG, (H+L) at 1/1000 dilution

Lanes 4-5 : Rabbit Anti-Mouse secondary ab at 1/2000 dilution

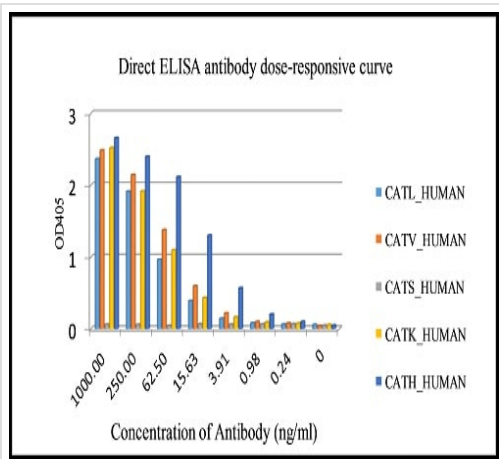**Lane 6 :** Goat Anti-Rabbit IgG, (H+L), Peroxidase conjugated at 1/1000 dilution

Predicted band size: 38 kDa

This data was developed using **ab133641**, the same antibody clone in a different buffer formulation.

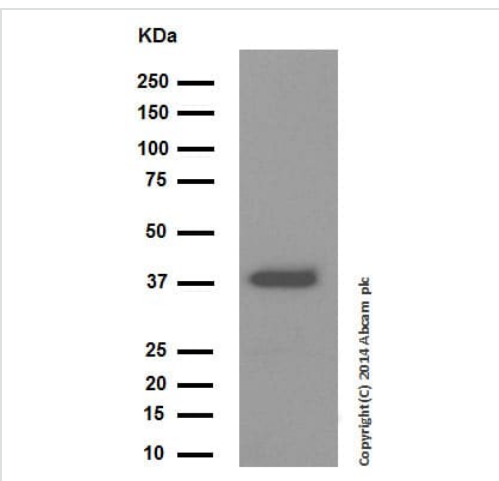**Blocking and dilution buffer:** 5% NFDM/TBST.

Observed MW: 30.

Exposure time: 3 minutes.

Direct ELISA antibody dose-responsive curve

ELISA - Anti-Cathepsin L/V/K/H antibody [EPR8011] - BSA and Azide free (ab248589)

This data was developed using **ab133641**, the same antibody clone in a different buffer formulation.

Direct ELISA antigen dose-response curve using purified **ab133641**. Antigen concentration of 1000ng/mL.Alkaline Phosphatase conjugated AffiniPure goat anti-rabbit IgG(H+L) (1/2500) was used as the secondary antibody.

Western blot - Anti-Cathepsin L/V/K/H antibody [EPR8011] - BSA and Azide free (ab248589)
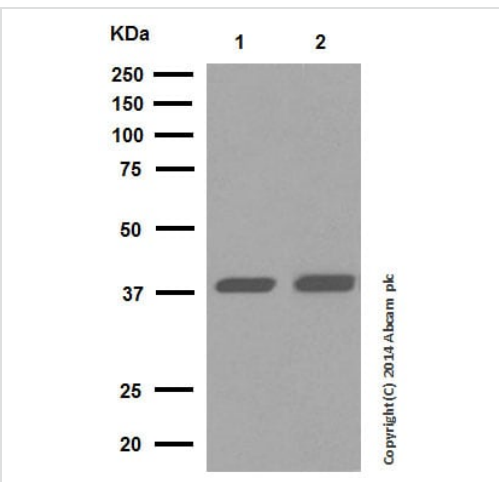
Anti-Cathepsin L/V/K/H antibody [EPR8011] (**ab133641**) at 1/20000 dilution (purified) + HepG2 cell lysate at 20 µg

Secondary
Peroxidase conjugated goat anti-rabbit IgG (H+L) at 1/1000 dilution

Predicted band size: 38 kDa
Observed band size: 38 kDa

This data was developed using **ab133641**, the same antibody clone in a different buffer formulation.

Blocking and dilution buffer: 5% NFDM/TBST.

Western blot - Anti-Cathepsin L/V/K/H antibody [EPR8011] - BSA and Azide free (ab248589)

All lanes : Anti-Cathepsin L/V/K/H antibody [EPR8011] (**ab133641**) at 1/10000 dilution (purified)

Lane 1 : HCT-116 cell lysate
Lane 2 : A549 cell lysate
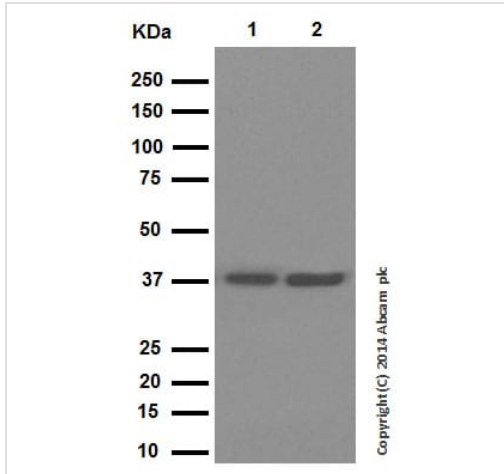
Lysates/proteins at 10 µg per lane.

Secondary
All lanes : Peroxidase conjugated goat anti-rabbit IgG (H+L) at 1/1000 dilution

Predicted band size: 38 kDa
Observed band size: 38 kDa

Western blot - Anti-Cathepsin L/V/K/H antibody [EPR8011] - BSA and Azide free (ab248589)

This data was developed using **ab133641**, the same antibody clone in a different buffer formulation.

Blocking and dilution buffer: 5% NFDM/TBST.

All lanes : Anti-Cathepsin L/V/K/H antibody [EPR8011] (**ab133641**) at 1/20000 dilution (purified)

Lane 1 : NIH/3T3 cell lysate
Lane 2 : PC-12 cell lysate
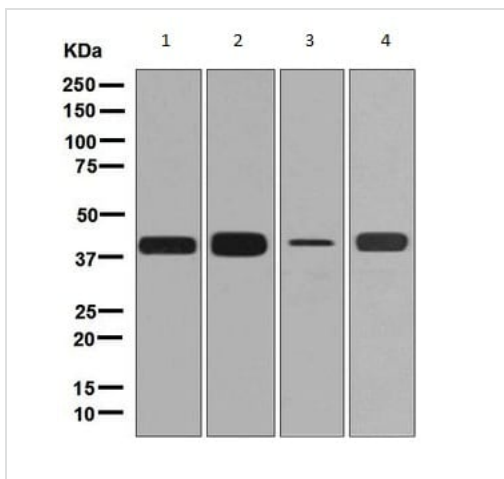
Lysates/proteins at 20 µg per lane.

Secondary
All lanes : Peroxidase conjugated goat anti-rabbit IgG (H+L) at 1/1000 dilution

Predicted band size: 38 kDa
Observed band size: 38 kDa

Western blot - Anti-Cathepsin L/V/K/H antibody [EPR8011] - BSA and Azide free (ab248589)

This data was developed using **ab133641**, the same antibody clone in a different buffer formulation.

Blocking and dilution buffer: 5% NFDM/TBST.

All lanes : Anti-Cathepsin L/V/K/H antibody [EPR8011] (**ab133641**) at 1/1000 dilution (unpurified)

Lane 1 : A549 cell lysate
Lane 2 : HCT-116 cell lysate
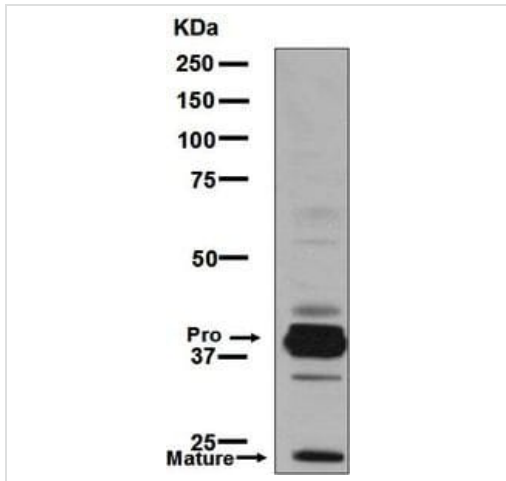**Lane 3 :** NIH/3T3 cell lysate
Lane 4 : PC-12 cell lysate

Lysates/proteins at 10 µg per lane.

Secondary
All lanes : HRP-conjugated goat anti-rabbit IgG at 1/2000 dilution

Predicted band size: 38 kDa

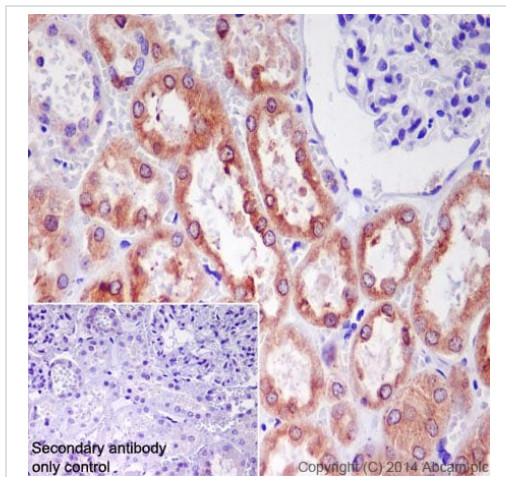This data was developed using **ab133641**, the same antibody clone in a different buffer formulation.

Anti-Cathepsin L/V/K/H antibody [EPR8011] (**ab133641**) at 1/1000 dilution (unpurified) + HepG2 cell lysate at 10 µg

Secondary
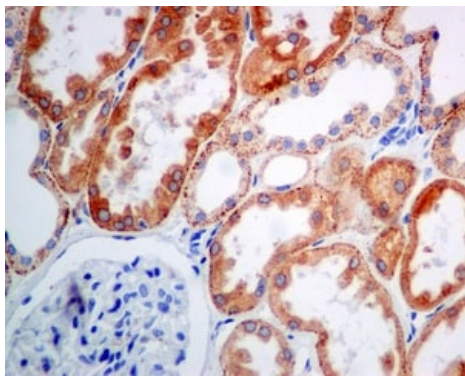HRP-conjugated goat anti-rabbit IgG at 1/2000 dilution

Predicted band size: 38 kDa

Western blot - Anti-Cathepsin L/V/K/H antibody [EPR8011] - BSA and Azide free (ab248589)

This data was developed using **ab133641**, the same antibody clone in a different buffer formulation.

This data was developed using **ab133641**, the same antibody clone in a different buffer formulation.Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) analysis of human kidney tissue labelling Cathepsin L with purified **ab133641** at 1/100. Heat mediated antigen retrieval was performed using Tris/EDTA buffer pH 9. **ab97051**, a HRP-conjugated goat anti-rabbit IgG (H+L) was used as the secondary antibody (1/500). Negative control using PBS instead of primary antibody. Counterstained with hematoxylin.

Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) - Anti-Cathepsin L/V/K/H antibody [EPR8011] - BSA and Azide free (ab248589)
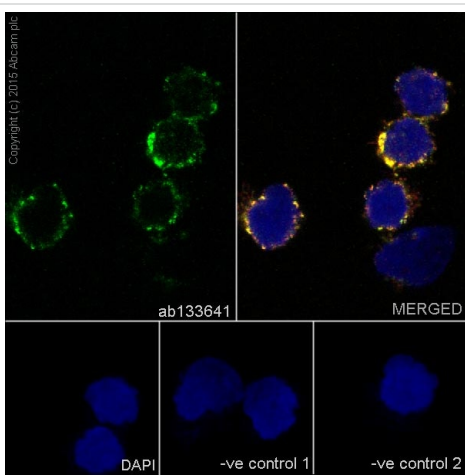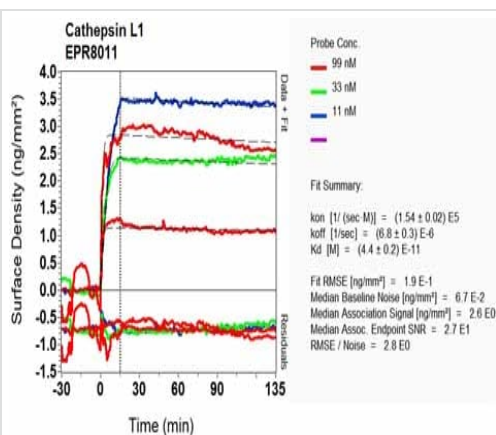
Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) - Anti-Cathepsin L/V/K/H antibody [EPR8011] - BSA and Azide free (ab248589)

This data was developed using **ab133641**, the same antibody clone in a different buffer formulation.Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) analysis of human kidney tissue labelling Cathepsin L with unpurified **ab133641** at a 1/50 dilution. Perform heat mediated antigen retrieval with citrate buffer pH 6 before commencing with IHC staining protocol.

Immunocytochemistry/ Immunofluorescence - Anti-Cathepsin L/V/K/H antibody [EPR8011] - BSA and Azide free (ab248589)

This data was developed using **ab133641**, the same antibody clone in a different buffer formulation.Immunocytochemistry/Immunofluorescence analysis of HT-29 cells labelling Cathepsin L with purified **ab133641** at 1/100. Cells were fixed with 100% methanol and permeabilized with 0.1% Triton X-100. **ab150077**, an Alexa Fluor® 488-conjugated goat anti-rabbit IgG (1/500) was used as the secondary antibody. DAPI (blue) was used as the nuclear counterstain. **ab7291**, a mouse anti-tubulin (1/500) and **ab150120**, an Alexa Fluor® 594-conjugated goat anti-mouse IgG (1/500) were also used.Control 1: primary antibody (1/100) and secondary antibody, **ab150120**, an Alexa Fluor® 594-conjugated goat anti-mouse IgG (1/500).Control 2: **ab7291** (1/1000) and secondary antibody, **ab150077**, an Alexa Fluor® 488-conjugated goat anti-rabbit IgG (1/500).

OI-RD Scanning - Anti-Cathepsin L/V/K/H antibody [EPR8011] - BSA and Azide free (ab248589)

This data was developed using **ab133641**, the same antibody clone in a different buffer formulation.Equilibrium disassociation constant (K_D)

Learn more about K_D

Click here to learn more about K_D

Why choose a recombinant antibody?

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 L/V/K/H antibody [EPR8011] - BSA and Azide free (ab248589)

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

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