

Product datasheet

Anti-Cathepsin B antibody [EPR21033] ab214428

Recombinant RabMAb

★★★★★ [5 Abreviews](#) [11 References](#) [7 Images](#)

Overview

Product name	Anti-Cathepsin B antibody [EPR21033]
Description	Rabbit monoclonal [EPR21033] to Cathepsin B
Host species	Rabbit
Tested applications	Suitable for: Flow Cyt (Intra), IHC-P, WB, ICC/IF
Species reactivity	Reacts with: Mouse, Rat
Immunogen	Recombinant fragment. This information is proprietary to Abcam and/or its suppliers.
Positive control	WB: Mouse kidney tissue lysate; Rat thymus and kidney tissue lysates; RAW 264.7 and PC-12 whole cell lysates. IHC-P: Mouse and rat kidney tissues. ICC/IF: RAW 264.7 and PC-12 cells. Flow Cyt (intra): RAW 264.7 cells.
General notes	<p>This product is a recombinant monoclonal antibody, which offers several advantages including:</p> <ul style="list-style-type: none">- High batch-to-batch consistency and reproducibility- Improved sensitivity and specificity- Long-term security of supply- Animal-free production <p>For more information see here.</p> <p>Our RabMAb[®] technology is a patented hybridoma-based technology for making rabbit monoclonal antibodies. For details on our patents, please refer to RabMAb[®] patents.</p>

Properties

Form	Liquid
Storage instructions	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.
Storage buffer	pH: 7.2 Preservative: 0.01% Sodium azide Constituents: PBS, 40% Glycerol (glycerin, glycerine), 0.05% BSA
Purity	Protein A purified
Clonality	Monoclonal
Clone number	EPR21033

Isotype

IgG

Applications

The Abpromise guarantee

Our **Abpromise guarantee** covers the use of ab214428 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
Flow Cyt (Intra)		1/500.
IHC-P	★★★★★ (2)	1/1000. Perform heat mediated antigen retrieval with Tris/EDTA buffer pH 9.0 before commencing with IHC staining protocol.
WB	★★★★☆ (2)	1/1000. Predicted molecular weight: 37 kDa.
ICC/IF	★★★★★ (1)	1/250.

Target

Function

Thiol protease which is believed to participate in intracellular degradation and turnover of proteins. Has also been implicated in tumor invasion and metastasis.

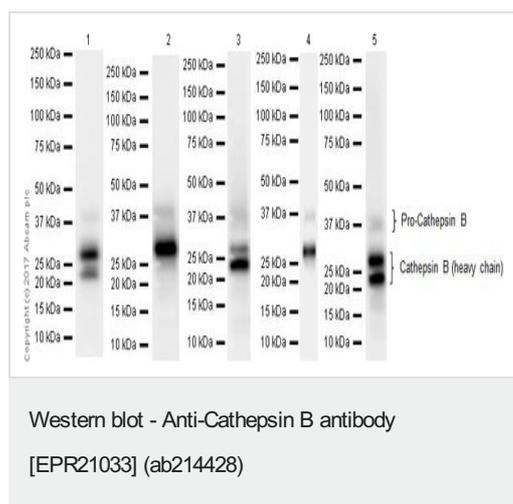
Sequence similarities

Belongs to the peptidase C1 family.

Cellular localization

Lysosome. Melanosome. Identified by mass spectrometry in melanosome fractions from stage I to stage IV.

Images



All lanes : Anti-Cathepsin B antibody [EPR21033] (ab214428) at 1/1000 dilution

Lane 1 : Mouse kidney tissue lysate

Lane 2 : RAW 264.7 (mouse macrophage cell line transformed with Abelson murine leukemia virus) whole cell lysate

Lane 3 : Rat thymus tissue lysate

Lane 4 : Rat kidney tissue lysate

Lane 5 : PC-12 (rat adrenal gland pheochromocytoma cell line) whole cell lysate

Lysates/proteins at 10 µg per lane.

Secondary

All lanes : Goat Anti-Rabbit IgG H&L (HRP) (**ab97051**) at 1/100000 dilution

Developed using the ECL technique.

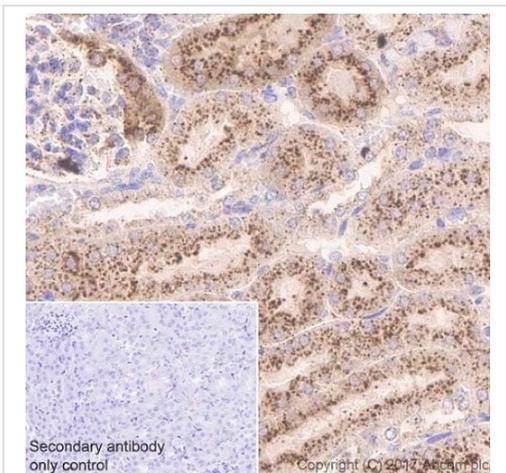
Predicted band size: 37 kDa

Observed band size: 25,31,43 kDa

Exposure times: Lanes 1,2: 23 seconds; Lane 3: 50 seconds;
Lane 4: 15 seconds; Lane 5: 2 minutes.

Blocking/Dilution buffer: 5% NFDM/TBST.

The expression profile and molecular mass is consistent with what has been described in the literature (PMID:20536394; PMID: 10447678).

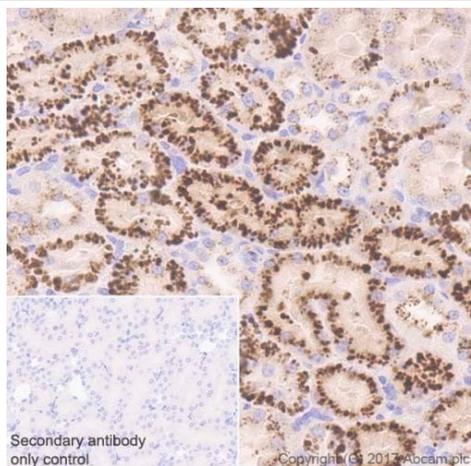


Immunohistochemical analysis of paraffin-embedded mouse kidney tissue labeling Cathepsin B with ab214428 at 1/1000 dilution, followed by secondary Goat Anti-Rabbit IgG H&L (HRP) Ready to use. Punctate cytoplasmic staining on mouse kidney (PMID: 20668705; PMID: 26831567) is observed. Counter stained with hematoxylin.

Secondary antibody only control: Used PBS instead of primary antibody, secondary antibody is Goat Anti-Rabbit IgG H&L (HRP) Ready to use.

Perform heat mediated antigen retrieval with Tris/EDTA buffer pH 9.0 before commencing with IHC staining protocol.

Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) - Anti-Cathepsin B antibody [EPR21033] (ab214428)

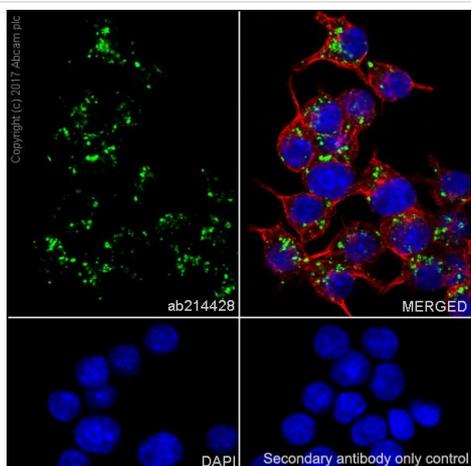


Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) - Anti-Cathepsin B antibody [EPR21033] (ab214428)

Immunohistochemical analysis of paraffin-embedded rat kidney tissue labeling Cathepsin B with ab214428 at 1/1000 dilution, followed by secondary Goat Anti-Rabbit IgG H&L (HRP) Ready to use. Punctate cytoplasmic staining on rat kidney (PMID: 20668705; PMID: 26831567) is observed. Counter stained with hematoxylin.

Secondary antibody only control: Used PBS instead of primary antibody, secondary antibody is Goat Anti-Rabbit IgG H&L (HRP) Ready to use.

Perform heat mediated antigen retrieval with Tris/EDTA buffer pH 9.0 before commencing with IHC staining protocol.

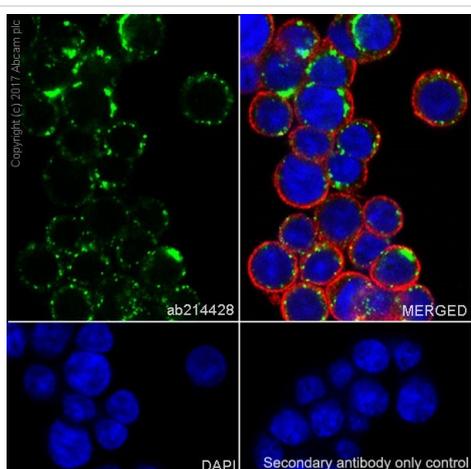


Immunocytochemistry/ Immunofluorescence - Anti-Cathepsin B antibody [EPR21033] (ab214428)

Immunofluorescent analysis of 100% methanol-fixed RAW 264.7 (mouse macrophage cell line transformed with Abelson murine leukemia virus) cells labeling Cathepsin B with ab214428 at 1/250 dilution, followed by Goat Anti-Rabbit IgG H&L (Alexa Fluor[®] 488) (**ab150077**) secondary antibody at 1/1000 dilution (green). Confocal image showing cytoplasmic staining in RAW 264.7 cells.

The nuclear counterstain is DAPI (blue). Tubulin is detected with Anti-alpha Tubulin antibody [DM1A] - Microtubule Marker (Alexa Fluor[®] 594) (**ab195889**) at 1/200 dilution (red).

Secondary antibody only control: Used PBS instead of primary antibody, followed by Goat Anti-Rabbit IgG H&L (Alexa Fluor[®] 488) (**ab150077**) secondary antibody at 1/1000 dilution.

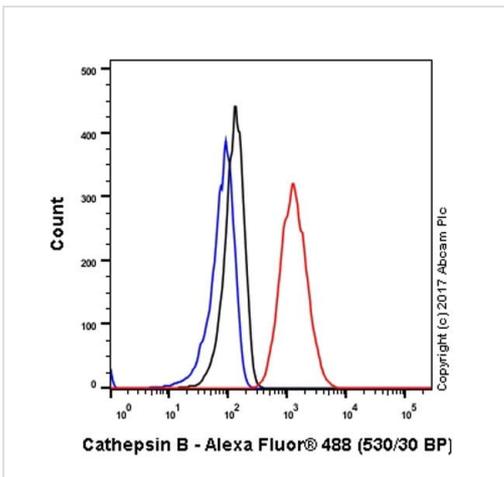


Immunocytochemistry/ Immunofluorescence - Anti-Cathepsin B antibody [EPR21033] (ab214428)

Immunofluorescent analysis of 100% methanol-fixed PC-12 (rat adrenal gland pheochromocytoma cell line) cells labeling Cathepsin B with ab214428 at 1/250 dilution, followed by Goat Anti-Rabbit IgG H&L (Alexa Fluor[®] 488) (**ab150077**) secondary antibody at 1/1000 dilution (green). Confocal image showing cytoplasmic staining on PC-12 cells.

The nuclear counterstain is DAPI (blue). Tubulin is detected with Anti-alpha Tubulin antibody [DM1A] - Microtubule Marker (Alexa Fluor[®] 594) (**ab195889**) at 1/200 dilution (red).

Secondary antibody only control: Used PBS instead of primary antibody, followed by Goat Anti-Rabbit IgG H&L (Alexa Fluor[®] 488) (**ab150077**) secondary antibody at 1/1000 dilution.



Intracellular flow cytometric analysis of 4% paraformaldehyde-fixed, 90% methanol-permeabilized RAW 264.7 (mouse macrophage cell line transformed with Abelson murine leukemia virus) cell line labeling Cathepsin B with ab214428 at 1/500 dilution (red) compared with a Rabbit IgG, monoclonal [EPR25A] - Isotype Control (**ab172730**) (black) and an unlabeled control (cells without incubation with primary antibody and secondary antibody) (blue). Goat Anti-Rabbit IgG H&L (Alexa Fluor® 488) (**ab150077**), at 1/2000 dilution was used as the secondary antibody.

Flow Cytometry (Intracellular) - Anti-Cathepsin B antibody [EPR21033] (ab214428)

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 B antibody [EPR21033] (ab214428)

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

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