abcam

Product datasheet

Anti-Cathepsin D antibody [EPR3056Y] ab75811

敲除验证 重组 RabMAb

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概述

产品名称	Anti-Cathepsin D抗体[EPR3056Y]
描述	兔单克隆抗体[EPR3056Y] to Cathepsin D
宿主	Rabbit
经测试应用	**适用于:** Flow Cyt (Intra), ICC/IF, WB, IHC-P
种属反应性	**与反应:** Human
免疫原	Synthetic peptide within Human Cathepsin D aa 50-150 (N terminal). The exact sequence is proprietary.
阳性对照	WB: A431, HepG2 and MCF7 whole cell lysate. MCF7 (Human breast adenocarcinoma epithelial cell) whole cell lysate. IHC-P: Human thyroid cancer tissue. ICC/IF: MCF-7 cells. Flow Cyt (intra): MCF-7 cells.
常规说明	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**. Mouse, Rat: We have preliminary internal testing data to indicate this antibody may not react with these species. Please contact us for more information.

性能

形式	Liquid
存放说明	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.
存储溶液	pH: 7.20 Preservative: 0.01% Sodium azide Constituents: 0.05% BSA, 40% Glycerol (glycerin, glycerine), 59% PBS
纯度	Protein A purified

克隆	单克隆
克隆编号	EPR3056Y
同种型	IgG

应用

The Abpromise guarantee Abpromise™承诺保证使用ab75811于以下的经测试应用

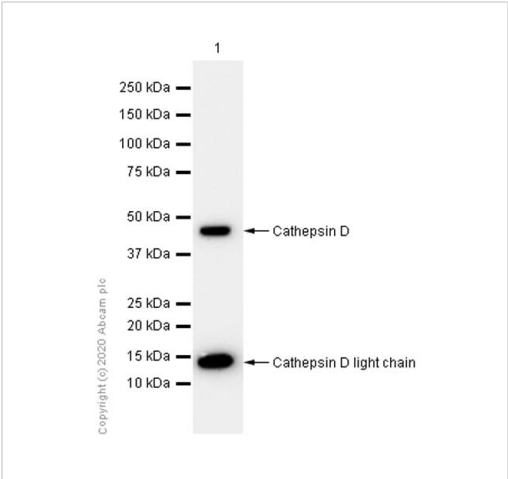
"应用说明"部分 下显示的仅为推荐的起始稀释度;实际最佳的稀释度/浓度应由使用者检定。

应用	Ab评论	说明
Flow Cyt (Intra)		1/20.
ICC/IF		1/50. **For unpurified use at 1/100 - 1/250.**
WB		1/1000. Detects a band of approximately 44 kDa (predicted molecular weight: 44 kDa). **For unpurified use at 1/1000 - 1/2000.**
IHC-P	★★★★☆ (1)	1/100. Perform heat mediated antigen retrieval with citrate buffer pH 6 before commencing with IHC staining protocol. See **IHC antigen retrieval protocols**. **For unpurified use at 1/500.**

靶标

功能	Acid protease active in intracellular protein breakdown. Involved in the pathogenesis of several diseases such as breast cancer and possibly Alzheimer disease.
组织特异性	Expressed in the aorta extrcellular space (at protein level).
疾病相关	Ceroid lipofuscinosis, neuronal, 10
序列相似性	Belongs to the peptidase A1 family. Contains 1 peptidase A1 domain.
翻译后修饰	N- and O-glycosylated.
细胞定位	Lysosome. Melanosome. Secreted, extracellular space. Identified by mass spectrometry in melanosome fractions from stage I to stage IV. In aortic samples, detected as an extracellular protein loosely bound to the matrix (PubMed:20551380).

图片

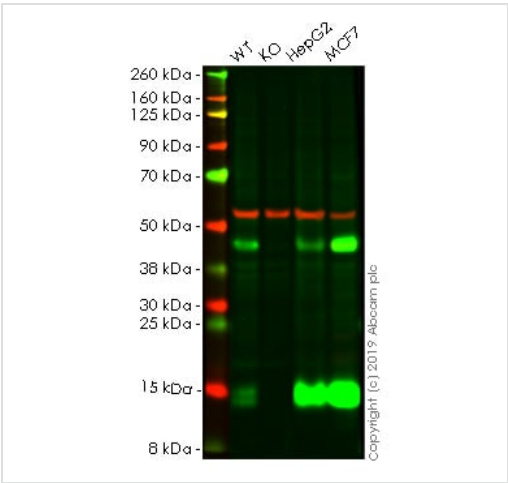


Western blot - Anti-Cathepsin D antibody [EPR3056Y] (ab75811)

Anti-Cathepsin D antibody [EPR3056Y] (ab75811) at 1/1000 dilution + MCF7 (Human breast adenocarcinoma epithelial cell) whole cell lysate at 15 µg

Secondary
Goat Anti-Rabbit IgG, (H+L), Peroxidase conjugated at 1/20000 dilution

Predicted band size: 44 kDa
Observed band size: 14,44 kDa



Western blot - Anti-Cathepsin D antibody [EPR3056Y] (ab75811)

All lanes : Anti-Cathepsin D antibody [EPR3056Y] (ab75811) at 1/1000 dilution (Unpurified)

Lane 1 : Wild-type A-431 (Human epidermoid carcinoma cell line) whole cell lysate
Lane 2 : CTSD knockout A-431 (Human epidermoid carcinoma cell line) whole cell lysate
Lane 3 : Hep G2 (Human liver hepatocellular carcinoma cell line) whole cell lysate
Lane 4 : MCF7 (Human breast adenocarcinoma cell line) whole cell lysate

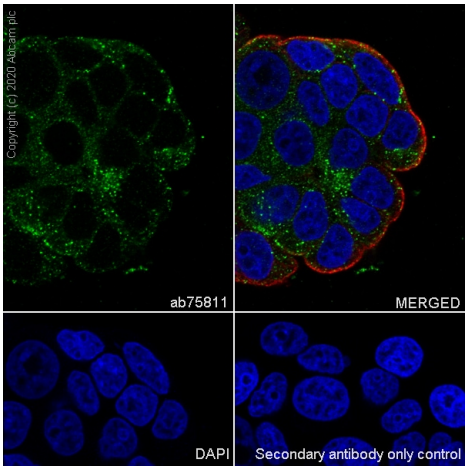
Lysates/proteins at 40 µg per lane.

Performed under reducing conditions.

Predicted band size: 44 kDa
Observed band size: 44 kDa

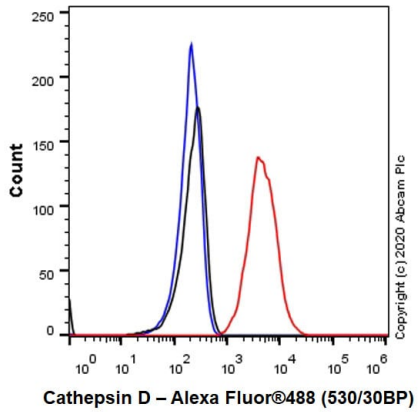
Lanes 1 - 4: Merged signal (red and green). Green - ab75811 observed at 44 kDa. Red - loading control, **ab7291**, observed at 55 kDa.

ab75811 was shown to specifically react with in wild-type A431 cells as signal was lost in CTSD knockout cells. Wild-type and CTSD knockout samples were subjected to SDS-PAGE. The membrane was blocked with 3% NF Milk. Ab75811 and **ab7291** (Mouse anti Tubulin loading control) were incubated overnight at 4°C at 1/1000 dilution and 1/20000 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 1/20000 dilution for 1 hour at room temperature before imaging.



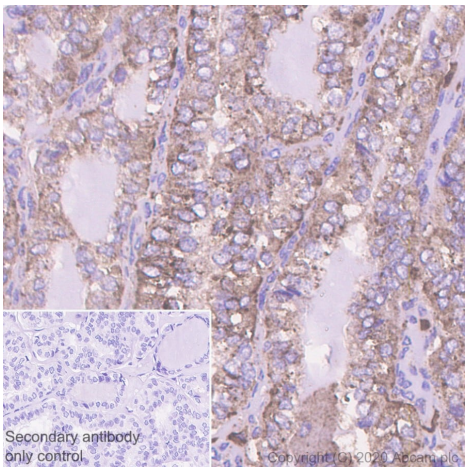
Immunocytochemistry/ Immunofluorescence - Anti-Cathepsin D antibody [EPR3056Y] (ab75811)

Immunocytochemistry analysis of MCF7 (Human breast adenocarcinoma epithelial cell) cells labeling Cathepsin D with purified ab75811 at 1/50 dilution (1.88 µg/mL). Cells were fixed in 4% Paraformaldehyde and permeabilized with 0.1% tritonX-100. Cells were counterstained with Ab195889 Anti-alpha Tubulin antibody [DM1A] - Microtubule Marker (Alexa Fluor® 594) 1/200 (2.5 µg/mL). Goat anti rabbit IgG (Alexa Fluor® 488, **ab150077**) was used as the secondary antibody at 1/1000 (2 µg/mL) dilution. DAPI (blue) was used as nuclear counterstain. PBS instead of the primary antibody was used as the secondary antibody only control.



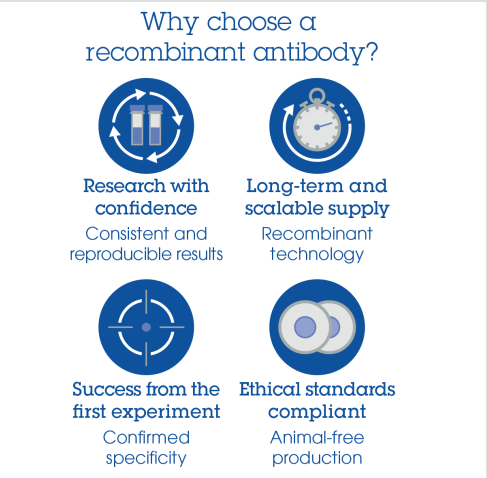
Flow Cytometry (Intracellular) - Anti-Cathepsin D antibody [EPR3056Y] (ab75811)

Intracellular Flow Cytometry analysis of MCF7 (Human breast adenocarcinoma epithelial cell) cells labeling Cathepsin D with purified ab75811 at 1/20 dilution (10 µg/mL) (Red). Cells were fixed with 4% Paraformaldehyde and permeabilised with 90% Methanol. A Goat anti rabbit IgG (Alexa Fluor® 488, **ab150077**) secondary antibody was used at 1/2000. Isotype control - Rabbit monoclonal IgG (Black). Unlabeled control - Cell without incubation with primary antibody and secondary antibody (Blue).



Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) - Anti-Cathepsin D antibody [EPR3056Y] (ab75811)

Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) analysis of human thyroid cancer tissue sections labeling Cathepsin D with purified ab75811 at 1/100 dilution (0.94 µg/mL). Heat mediated antigen retrieval using Bond™ Epitope Retrieval Solution 1 (pH 6.0). Rabbit specific IHC polymer detection kit HRP/DAB (**ab209101**) was used as the secondary antibody. Negative control: PBS instead of the primary antibody. Hematoxylin was used as a counterstain.



Anti-Cathepsin D antibody [EPR3056Y] (ab75811)

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