# abcam

# Product datasheet

# Anti-Cathepsin B antibody ab92955



★★★★ 1 Abreviews 3 References 3 图像

概述

免疫原

产品名称 Anti-Cathepsin B抗体

描述 兔多克隆抗体to Cathepsin B

**宿主** Rabbit

 经测试应用
 适用于: ICC/IF, WB

 种属反应性
 与反应: Human

预测可用于: Orangutan 🕰

Synthetic peptide corresponding to Human Cathepsin B aa 200-300.

(Peptide available as ab103276)

阳性对照 This antibody gave a positive signal in the following lysates: Human Liver Tissue; Human Kidney

Tissue; Human Brain Tissue; Human Placenta Tissue; HepG2 Whole Cell; HEK293 Whole Cell

Lysate.

常规说明

The Life Science industry has been in the grips of a reproducibility crisis for a number of years.

Abcam is leading the way in addressing this with our range of recombinant monoclonal antibodies and knockout edited cell lines for gold-standard validation. Please check that this product meets

your needs before purchasing.

If you have any questions, special requirements or concerns, please send us an inquiry and/or contact our Support team ahead of purchase. Recommended alternatives for this product can be

found below, along with publications, customer reviews and Q&As

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 or -

80°C. Avoid freeze / thaw cycle.

**存储溶液** pH: 7.40

Preservative: 0.02% Sodium azide

Constituent: PBS

Batches of this product that have a concentration < 1mg/ml may have BSA added as a stabilising agent. If you would like information about the formulation of a specific lot, please contact our

1

scientific support team who will be happy to help.

纯**度** Immunogen affinity purified

 克隆
 多克隆

 同种型
 lqG

应用

# The Abpromise guarantee Abpromise™承诺保证使用ab92955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
ICC/IF		Use a concentration of 1 µg/ml.
WB	<b>★★★★</b> (1)	Use a concentration of 1 µg/ml. Detects a band of approximately 30, 25 kDa (predicted molecular weight: 38 kDa).

#### 靶标

功能 Thiol protease which is believed to participate in intracellular degradation and turnover of

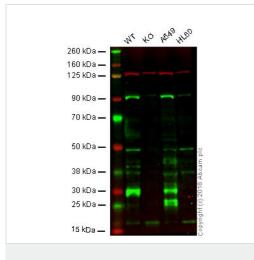
proteins. Has also been implicated in tumor invasion and metastasis.

序列相似性 Belongs to the peptidase C1 family.

细胞定位 Lysosome. Melanosome. Identified by mass spectrometry in melanosome fractions from stage I

to stage IV.

## 图片



Western blot - Anti-Cathepsin B antibody (ab92955)

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

Lane 2: Cathepsin B knockout HAP1 whole cell lysate (20 µg)

Lane 3: A549 whole cell lysate (20 µg)

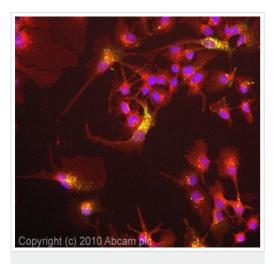
Lane 4: HL60 whole cell lysate (Negative Control) (20 µg)

**Lanes 1 - 4:** Merged signal (red and green). Green - ab92955 observed at 24-27-44 kDa. Red - loading control, <u>ab18058</u>, observed at 130 kDa.

ab92955 was shown to recognize Cathepsin B in wild-type HAP1 cells as signal was lost at the expected MW in Cathepsin B knockout cells. Additional cross-reactive bands were observed in the wild-type and knockout cells. Wild-type and Cathepsin B knockout samples were subjected to SDS-PAGE. ab92955 and ab18058 (Mouse anti-Vinculin loading control) were incubated overnight at 4°C at 1 µg/ml and 1/20000 dilution respectively. Blots were developed with Goat anti-Rabbit lgG H&L (IRDye® 800CW) preabsorbed ab216773 and Goat anti-Mouse lgG H&L (IRDye®

680RD) preabsorbed <u>ab216776</u> secondary antibodies at 1/20000 dilution for 1 hour at room temperature before imaging.

Pro-cathepsin B runs at approximately 44 kDa on SDS-PAGE. When it is proteolytically processed and glycosylated it forms a mature two-chain protein containing a heavy chain (running at 27 and 24 kDa) and a light chain (5 kDa)



Immunocytochemistry/ Immunofluorescence - Anti-Cathepsin B antibody (ab92955)

ICC/IF image of ab92955 stained HepG2 cells. The cells were 100% methanol fixed (5 min) and then incubated in 1%BSA / 10% normal goat serum / 0.3M glycine in 0.1% PBS-Tween for 1h to permeabilise the cells and block non-specific protein-protein interactions. The cells were then incubated with the antibody ab92955 at 1 $\mu$ g/ml overnight at +4°C. The secondary antibody (green) was Alexa Fluor® 488 goat anti- rabbit lgG (H+L) used at a 1/1000 dilution for 1h. Alexa Fluor® 594 WGA was used to label plasma membranes (red) at a 1/200 dilution for 1h. DAPI was used to stain the cell nuclei (blue) at a concentration of 1.43 $\mu$ M.



Western blot - Anti-Cathepsin B antibody (ab92955)

All lanes: Anti-Cathepsin B antibody (ab92955) at 1 µg/ml

Lane 1: Human liver tissue lysate - total protein (ab29889)

Lane 2: Human kidney tissue lysate - total protein (ab30203)

Lane 3: Human brain tissue lysate - total protein (ab29466)

Lane 4 : Human placenta tissue lysate - total protein (ab29745)

Lane 5 : HepG2 (Human hepatocellular liver carcinoma cell line)

Whole Cell Lysate

Lane 6: HEK293 (Human embryonic kidney cell line) Whole Cell

Lysate

Lysates/proteins at 10 µg per lane.

#### Secondary

**All lanes :** Goat Anti-Rabbit lgG H&L (HRP) preadsorbed (ab97080) at 1/5000 dilution

Developed using the ECL technique.

Performed under reducing conditions.

Predicted band size: 38 kDa

Observed band size: 25,30 kDa

Exposure time: 30 seconds

We hypothesize that the 25 and 30 kDa bands represent the heavy chain and mature form of Cathepsin B, respectively. Abcam welcomes customer feedback.

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

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