

### Anti-Hsc70 antibody [EP1531Y] ab51052

敲除验证
重组
RabMAb

★★★★☆
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#### 概述

产品名称	Anti-Hsc70抗体[EP1531Y]
描述	兔单克隆抗体[EP1531Y] to Hsc70
宿主	Rabbit
经测试应用	适用于: IP, Flow Cyt (Intra), WB, IHC-P, ICC/IF
种属反应性	与反应: Mouse, Rat, Human
免疫原	Synthetic peptide within Human Hsc70 aa 600 to the C-terminus (C terminal). The exact sequence is proprietary.
阳性对照	WB: A431, MCF7, and HeLa cell lysates. IHC-P: Human cerebral cortex tissue. ICC/IF: MCF7 cells. Flow Cyt (intra): MCF7 cells. IP: HeLa cell lysate.
常规说明	<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>

#### 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. Avoid freeze / thaw cycle.
存储溶液	<p>pH: 7.20</p> <p>Preservative: 0.01% Sodium azide</p> <p>Constituents: 49% PBS, 50% Glycerol (glycerin, glycerine), 0.05% BSA</p>
纯度	Protein A purified
克隆	单克隆
克隆编号	EP1531Y

同种型IgG

应用

The Abpromise guarantee **Abpromise™**承诺保证使用ab51052于以下的经测试应用

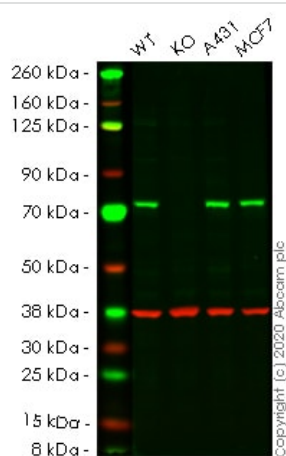
“应用说明”部分 下显示的仅为推荐的起始稀释度;实际最佳的稀释度/浓度应由使用者检定。

应用	Ab评论	说明
IP	★★★★★ (1)	1/10 - 1/20.
Flow Cyt (Intra)		1/30 - 1/70. <b>ab172730</b> - Rabbit monoclonal IgG, is suitable for use as an isotype control with this antibody.
WB		1/500 - 1/5000. Detects a band of approximately 71 kDa (predicted molecular weight: 71 kDa).
IHC-P		1/50. Perform heat mediated antigen retrieval before commencing with IHC staining protocol. See <b>IHC antigen retrieval protocols</b> .
ICC/IF	★★★★★ (1)	1/100 - 1/250.

靶标

功能	Acts as a repressor of transcriptional activation. Inhibits the transcriptional coactivator activity of CITED1 on Smad-mediated transcription. Chaperone. Isoform 2 may function as an endogenous inhibitory regulator of HSC70 by competing the co-chaperones.
组织特异性	Ubiquitous.
序列相似性	Belongs to the heat shock protein 70 family.
结构域	The N-terminal 1-386 residues constitute the ATPase domain, while residues 387-646 form the peptide-binding domain.
翻译后修饰	Phosphorylated upon DNA damage, probably by ATM or ATR. ISGylated.
细胞定位	Cytoplasm. Melanosome. Localized in cytoplasmic mRNP granules containing untranslated mRNAs. Translocates rapidly from the cytoplasm to the nuclei, and especially to the nucleoli, upon heat shock. Identified by mass spectrometry in melanosome fractions from stage I to stage IV.

图片



Western blot - Anti-Hsc70 antibody [EP1531Y]  
(ab51052)

**All lanes** : Anti-Hsc70 antibody [EP1531Y] (ab51052) at 1/500 dilution

**Lane 1** : Wild-type HeLa cell lysate

**Lane 2** : HSPA8 knockout HeLa cell lysate

**Lane 3** : A431 cell lysate

**Lane 4** : MCF7 cell lysate

Lysates/proteins at 20 µg per lane.

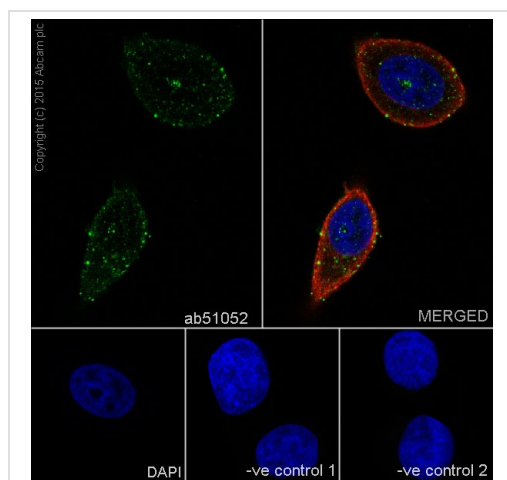
Performed under reducing conditions.

**Predicted band size:** 71 kDa

**Observed band size:** 71 kDa

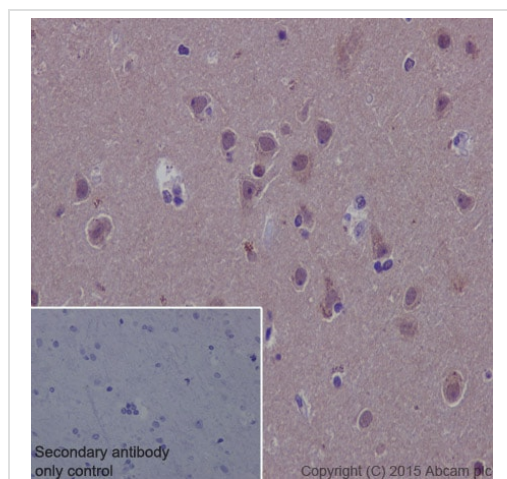
**Lanes 1- 4:** Merged signal (red and green). Green - ab51052 observed at 71 kDa. Red - Anti-GAPDH antibody [6C5] - Loading Control ([ab8245](#)) observed at 37 kDa.

ab51052 was shown to react with Hsc70 in wild-type HeLa cells in western blot. Loss of signal was observed when knockout cell line [ab265664](#) (knockout cell lysate [ab256944](#)) was used. Wild-type HeLa and HSPA8 knockout HeLa cell lysates were subjected to SDS-PAGE. Membrane was blocked for 1 hour at room temperature in 0.1% TBST with 3% non-fat dried milk. ab51052 and Anti-GAPDH antibody [6C5] - Loading Control ([ab8245](#)) overnight at 4°C at a 1 in 500 dilution and a 1 in 20000 dilution respectively. Blots were developed with Goat anti-Rabbit IgG H&L (IRDye®800CW) preadsorbed ([ab216773](#)) and Goat anti-Mouse IgG H&L (IRDye®680RD) preadsorbed ([ab216776](#)) secondary antibodies at 1 in 20000 dilution for 1 hour at room temperature before imaging.



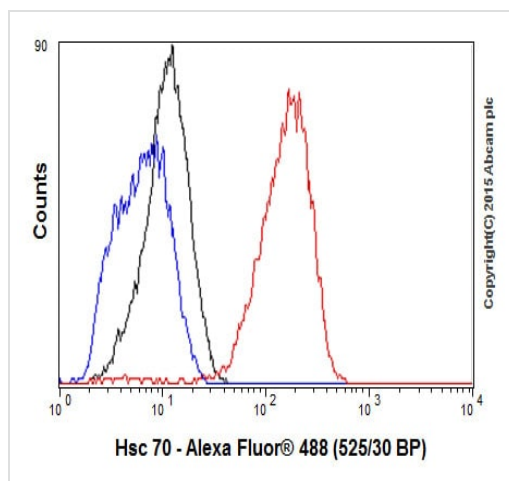
Immunocytochemistry/ Immunofluorescence - Anti-Hsc70 antibody [EP1531Y] (ab51052)

Immunofluorescence staining of MCF7 cells with purified ab51052 at a working dilution of 1/250, counter-stained with DAPI. The secondary antibody was Alexa Fluor® 488 goat anti-rabbit (**ab150077**), used at a dilution of 1/1000. **ab7291**, a mouse anti-tubulin antibody (1/1000), was used to stain tubulin along with **ab150120** (Alexa Fluor® 594 goat anti-mouse, 1/1000), shown in the top right hand panel. The cells were fixed in 4% PFA and permeabilized using 0.1% Triton X 100. The negative controls are shown in bottom middle and right hand panels - for negative control 1, purified ab51052 was used at a dilution of 1/500 followed by an Alexa Fluor® 594 goat anti-mouse antibody (**ab150120**) at a dilution of 1/500. For negative control 2, **ab7291** (mouse anti-tubulin) was used at a dilution of 1/500 followed by an Alexa Fluor® 488 goat anti-rabbit antibody (**ab150077**) at a dilution of 1/400.



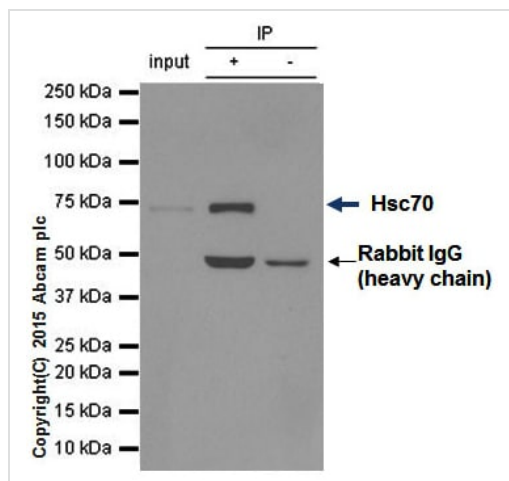
Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) - Anti-Hsc70 antibody [EP1531Y] (ab51052)

Immunohistochemical staining of paraffin embedded human cerebral cortex with purified ab51052 at a working dilution of 1/500. The secondary antibody used is HRP goat anti-rabbit IgG H&L (**ab97051**) at 1/500. The sample is counter-stained with hematoxylin. Antigen retrieval was performed using Tris-EDTA buffer, pH 9.0. PBS was used instead of the primary antibody as the negative control, and is shown in the inset.



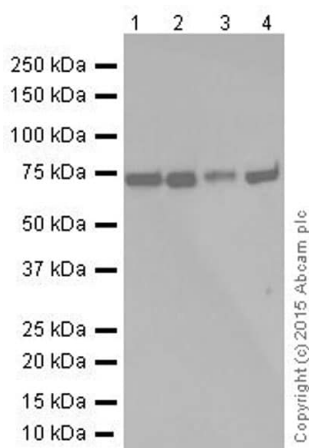
Flow Cytometry (Intracellular) - Anti-Hsc70 antibody  
[EP1531Y] (ab51052)

Overlay histogram showing MCF7 cells fixed in 4% PFA and stained with purified ab51052 at a dilution of 1 in 70 (red line). The secondary antibody used was FITC goat anti-rabbit at a dilution of 1 in 500. Rabbit monoclonal IgG was used as an isotype control (black line) and cells incubated in the absence of both primary and secondary antibody were used as a negative control (blue line).



Immunoprecipitation - Anti-Hsc70 antibody  
[EP1531Y] (ab51052)

ab51052 (purified) at 1/20 immunoprecipitating Hsc70 in 10  $\mu$ g HeLa (Lanes 1 and 2, observed at 71 kDa). Lane 3 - PBS. For western blotting, HRP Veriblot for IP Detection Reagent ([ab131366](#)) was used for detection (1/10 000). Blocking buffer and concentration: 5% NFDm/TBST Dilution buffer and concentration: 5% NFDm/TBST



Western blot - Anti-Hsc70 antibody [EP1531Y]  
(ab51052)

**All lanes** : Anti-Hsc70 antibody [EP1531Y] (ab51052) at 1/5000 dilution (purified)

**Lane 1** : C6 cell lysate

**Lane 2** : PC-12 cell lysate

**Lane 3** : Mouse heart tissue lysate

**Lane 4** : Rat heart tissue lysate

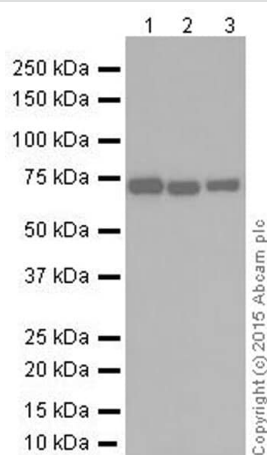
Lysates/proteins at 10 µg per lane.

#### Secondary

**All lanes** : HRP goat anti-rabbit IgG (H+L) at 1/20000 dilution

**Predicted band size:** 71 kDa

**Observed band size:** 71 kDa



Western blot - Anti-Hsc70 antibody [EP1531Y]  
(ab51052)

**All lanes** : Anti-Hsc70 antibody [EP1531Y] (ab51052) at 1/5000 dilution (purified)

**Lane 1** : human fetal brain lysate

**Lane 2** : HeLa cell lysate

**Lane 3** : HEK293 cell lysate

Lysates/proteins at 10 µg per lane.

#### Secondary

**All lanes** : HRP goat anti-rabbit IgG (H+L) at 1/20000 dilution





**Predicted band size:** 71 kDa

**Observed band size:** 71 kDa

Blocking buffer: 5% NFDM/TBST

Dilution buffer: 5% NFDm/TBST

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-Hsc70 antibody [EP1531Y] (ab51052)

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

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