

## Product datasheet

# Anti-Hsc70 antibody [EP1531Y] $\alpha$ b51052

Recombinant RabMAb

★★★★☆ 3 Abreviews 14 References 9 Images

### Overview

<b>Product name</b>	Anti-Hsc70 antibody [EP1531Y]
<b>Description</b>	Rabbit monoclonal [EP1531Y] to Hsc70
<b>Host species</b>	Rabbit
<b>Tested applications</b>	<b>Suitable for:</b> Flow Cyt, IP, WB, IHC-P, ICC/IF
<b>Species reactivity</b>	<b>Reacts with:</b> Mouse, Rat, Human
<b>Immunogen</b>	Synthetic peptide within Human Hsc70 aa 600 to the C-terminus (C terminal). The exact sequence is proprietary.
<b>Positive control</b>	WB: HeLa cell lysate IHC-P: Human breast carcinoma tissue ICC/IF: HeLa cells.
<b>General notes</b>	<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> <p><b>We are constantly working hard to ensure we provide our customers with best in class antibodies. As a result of this work we are pleased to now offer this antibody in purified format. We are in the process of updating our datasheets. The purified format is designated 'PUR' on our product labels. If you have any questions regarding this update, please contact our Scientific Support team.</b></p> <p>This product is a recombinant rabbit monoclonal antibody.</p>

### Properties

<b>Form</b>	Liquid
<b>Storage instructions</b>	Shipped at 4°C. Store at +4°C short term (1-2 weeks). Upon delivery aliquot. Store at -20°C. Avoid freeze / thaw cycle.
<b>Storage buffer</b>	pH: 7.20 Preservative: 0.01% Sodium azide Constituents: 49% PBS, 50% Glycerol, 0.05% BSA
<b>Purity</b>	Protein A purified
<b>Clonality</b>	Monoclonal
<b>Clone number</b>	EP1531Y
<b>Isotype</b>	IgG

## Applications

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Our [Abpromise guarantee](#) covers the use of **ab51052** 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		1/30 - 1/70. <a href="#">ab172730</a> - Rabbit monoclonal IgG, is suitable for use as an isotype control with this antibody.
IP	★★★★☆	1/10 - 1/20.
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 <a href="#">IHC antigen retrieval protocols</a> .
ICC/IF	★★★★☆	1/100 - 1/250.

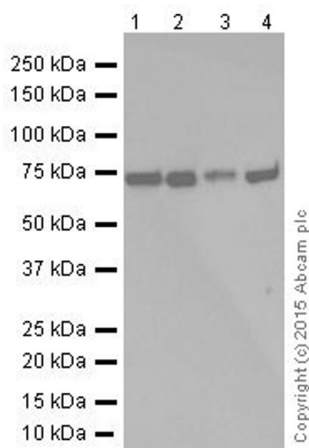
## Target

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<b>Function</b>	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.
<b>Tissue specificity</b>	Ubiquitous.
<b>Sequence similarities</b>	Belongs to the heat shock protein 70 family.
<b>Domain</b>	The N-terminal 1-386 residues constitute the ATPase domain, while residues 387-646 form the peptide-binding domain.
<b>Post-translational modifications</b>	Phosphorylated upon DNA damage, probably by ATM or ATR. ISGylated.
<b>Cellular localization</b>	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.

## Images

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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 lysate

**Lane 4 :** rat heart lysate

Lysates/proteins at 10 µg per lane.

#### Secondary

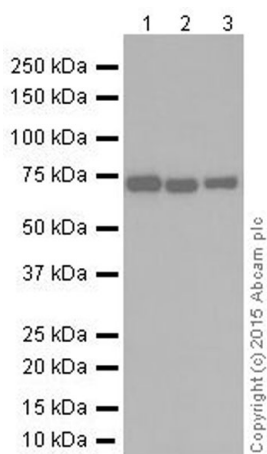
**All lanes :** HRP goat anti-rabbit IgG (H+L) at 1/20000 dilution

**Predicted band size:** 71 kDa

**Observed band size:** 71 kDa

Blocking buffer: 5% NFDm/TBST

Dilution buffer: 5% NFDm/TBST



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

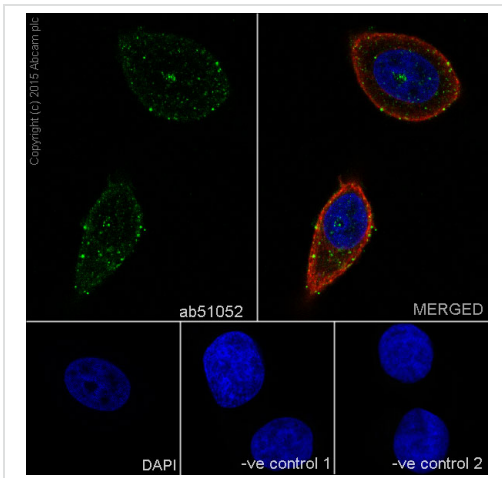
**All lanes :** HRP goat anti-rabbit IgG (H+L) at 1/20000 dilution

**Predicted band size:** 71 kDa

**Observed band size:** 71 kDa

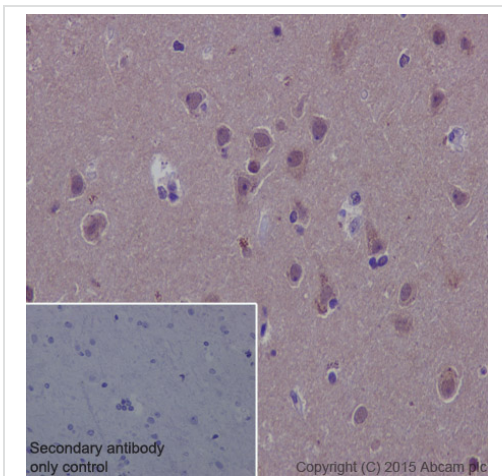
Blocking buffer: 5% NFDm/TBST

Dilution buffer: 5% NFDm/TBST



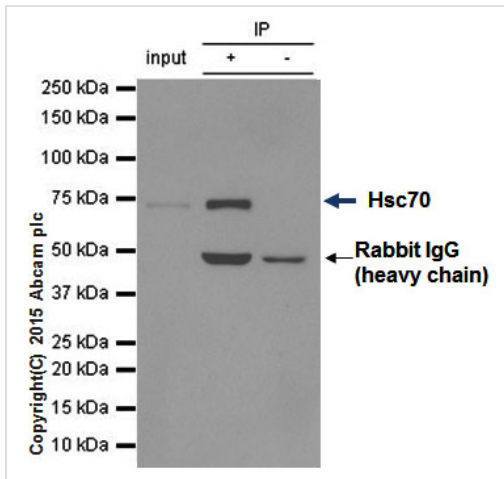
Immunocytochemistry/ Immunofluorescence - Anti-Hsc70 antibody [EP1531Y] (ab51052)

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<sup>®</sup> 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<sup>®</sup> 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<sup>®</sup> 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<sup>®</sup> 488 goat anti-rabbit antibody (ab150077) at a dilution of 1/400.



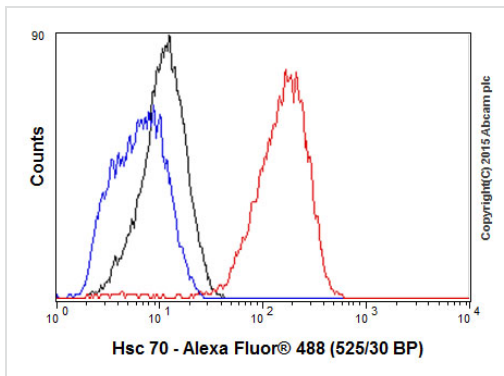
Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) - Anti-Hsc70 antibody [EP1531Y] (ab51052)

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.



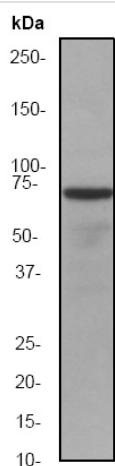
Immunoprecipitation - Anti-Hsc70 antibody  
[EP1531Y] (ab51052)

ab51052 (purified) at 1/20 immunoprecipitating Hsc70 in 10 µg 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



Flow Cytometry - 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).



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

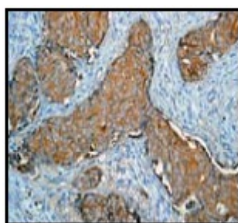
Anti-Hsc70 antibody [EP1531Y] (ab51052) at 1/500 dilution (unpurified) + HeLa cell lysate at 10  $\mu$ g

**Secondary**

Goat anti-Rabbit HRP labeled at 1/2000 dilution

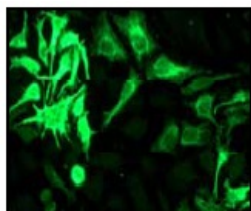
**Predicted band size:** 71 kDa

**Observed band size:** 71 kDa



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

Unpurified ab51052 (1/250) staining Hsc70 in paraffin embedded human breast carcinoma tissue by Immunohistochemistry.



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

Immunofluorescent staining of HeLa cells using unpurified ab51052 (1/100).

**Please note:** All products are "FOR RESEARCH USE ONLY AND ARE NOT INTENDED FOR DIAGNOSTIC OR THERAPEUTIC USE"

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