

Product datasheet

Anti-Hsc70 antibody [EP1531Y] α b51052

Recombinant RabMAb

★★★★☆ 3 Abreviews 9 References 9 Images

Overview

Product name	Anti-Hsc70 antibody [EP1531Y]
Description	Rabbit monoclonal [EP1531Y] to Hsc70
Host species	Rabbit
Tested applications	Suitable for: Flow Cyt, IP, WB, IHC-P, ICC/IF
Species reactivity	Reacts with: Mouse, Rat, Human
Immunogen	Synthetic peptide (the amino acid sequence is considered to be commercially sensitive) corresponding to Human Hsc70 aa 600 to the C-terminus (C terminal).
Positive control	WB: HeLa cell lysate IHC-P: Human breast carcinoma tissue ICC/IF: HeLa cells.
General notes	<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> <p>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.</p> <p>This product is a recombinant rabbit monoclonal antibody.</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. Avoid freeze / thaw cycle.
Storage buffer	PBS 49%,Sodium azide 0.01%,Glycerol 50%,BSA 0.05%
Purity	Protein A purified
Clonality	Monoclonal
Clone number	EP1531Y
Isotype	IgG

Applications

Our [Abpromise guarantee](#) covers the use of **ab51052** in the following tested applications.

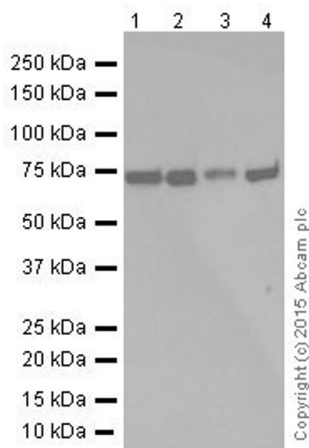
The application notes include recommended starting dilutions; optimal dilutions/concentrations should be determined by the end user.

Application	Abreviews	Notes
Flow Cyt		1/30 - 1/70. ab172730 -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 protocols (link: http://www.abcam.com/protocols/ihc-antigen-retrieval-protocol).
ICC/IF	★ ★ ★ ★ ★	1/100 - 1/250.

Target

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



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 μ g per lane.

Secondary

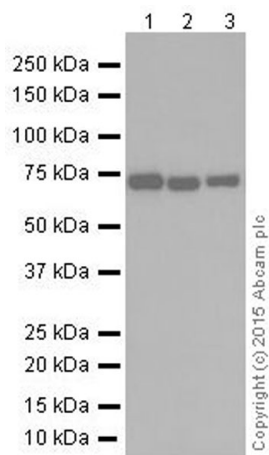
All lanes : HRP goat anti-rabbit IgG (H+L) at
1/20000 dilution

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

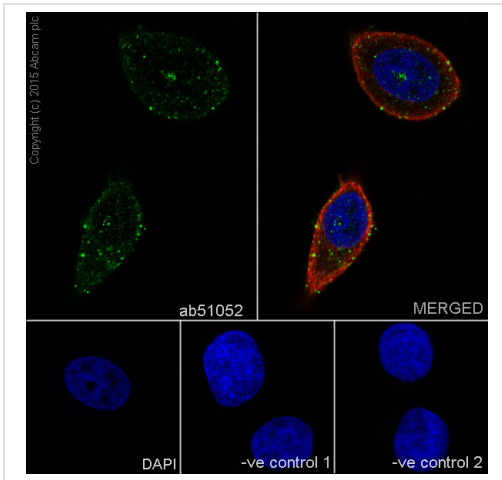
All lanes : HRP goat anti-rabbit IgG (H+L) at
1/20000 dilution

Predicted band size: 71 kDa

Observed band size: 71 kDa

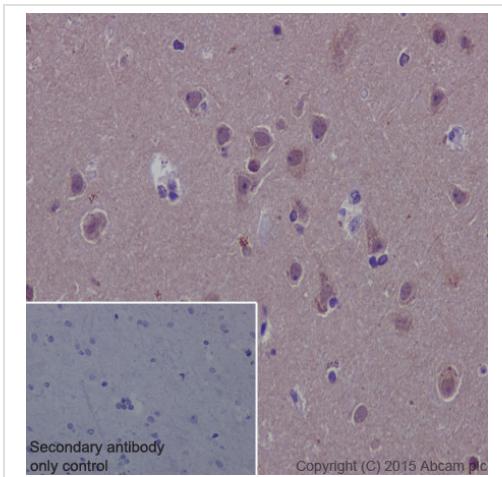
Blocking buffer: 5% NFDM/TBST

Dilution buffer: 5% NFDM/TBST



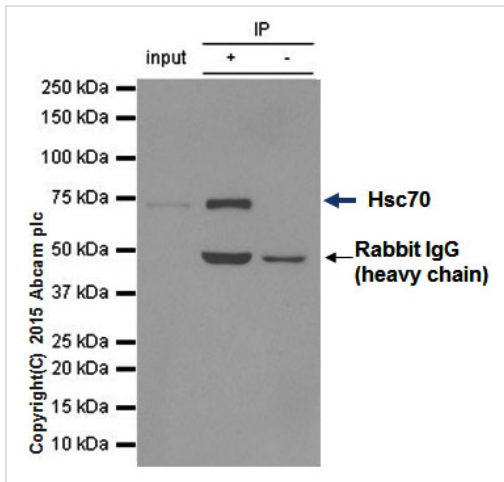
Immunocytochemistry/ Immunofluorescence - Anti-Hsc70 antibody [EP1531Y] (ab51052)

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[®] 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.



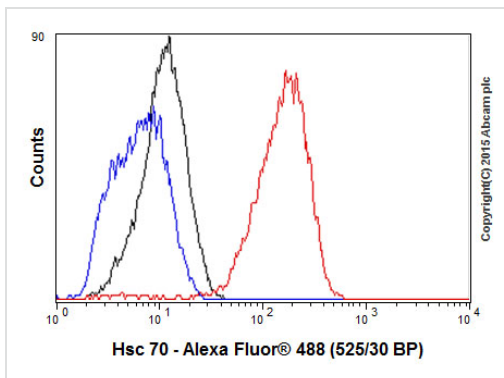
Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) - Anti-Hsc70 antibody [EP1531Y] (ab51052)

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.



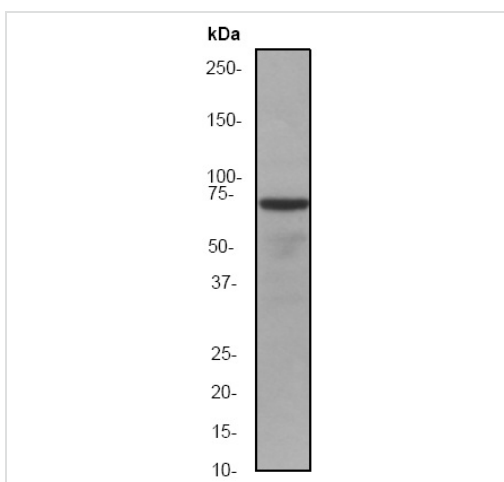
Immunoprecipitation - Anti-Hsc70 antibody
[EP1531Y] (ab51052)

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
(ab131366) was used as the secondary
antibody (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)

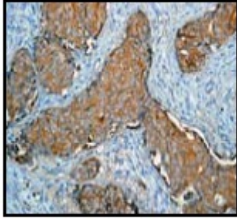
Anti-Hsc70 antibody [EP1531Y] (ab51052) at
1/500 dilution (unpurified) + HeLa cell lysate at
10 µg

Secondary

Goat anti-Rabbit HRP labeled at 1/2000
dilution

Predicted band size: 71 kDa

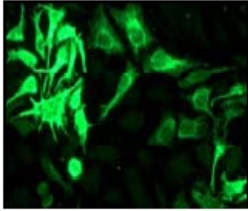
Observed band size: 71 kDa



Anti-Hsc70 antibody [EP1531Y] (ab51052)

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

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).

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