


Product datasheet

Anti-Hsp70 antibody [EP1007Y] α b45133

Recombinant RabMAb

[22 References](#) [6 Images](#)

Overview

Product name	Anti-Hsp70 antibody [EP1007Y]
Description	Rabbit monoclonal [EP1007Y] to Hsp70
Host species	Rabbit
Tested applications	Suitable for: ICC/IF, Flow Cyt (Intra), WB, IHC-P
Species reactivity	Reacts with: Human Predicted to work with: Mouse, Rat 
Immunogen	Synthetic peptide within Human Hsp70 aa 600-700 (C terminal). The exact sequence is proprietary.
Positive control	HeLa whole cell lysate (ab150035), human prostate carcinoma.
General notes	<p>This product is a recombinant monoclonal antibody, which offers several advantages including:</p> <ul style="list-style-type: none"> - High batch-to-batch consistency and reproducibility - Improved sensitivity and specificity - Long-term security of supply - Animal-free production <p>For more information see here.</p> <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>

Properties

Form	Liquid
Storage instructions	Shipped at 4°C. Store at -20°C.
Storage buffer	pH: 7.20 Preservative: 0.01% Sodium azide Constituents: 59% PBS, 40% Glycerol (glycerin, glycerine), 0.05% BSA
Purity	Protein A purified
Clonality	Monoclonal
Clone number	EP1007Y
Isotype	IgG

Applications

The Abpromise guarantee

Our **Abpromise guarantee** covers the use of ab45133 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
ICC/IF		1/400 - 1/1000.
Flow Cyt (Intra)		1/20. <u>ab172730</u> - Rabbit monoclonal IgG, is suitable for use as an isotype control with this antibody.
WB		1/1000 - 1/10000. Predicted molecular weight: 70 kDa.
IHC-P		1/400. Perform heat mediated antigen retrieval before commencing with IHC staining protocol. See <u>IHC antigen retrieval protocols</u> .

Target

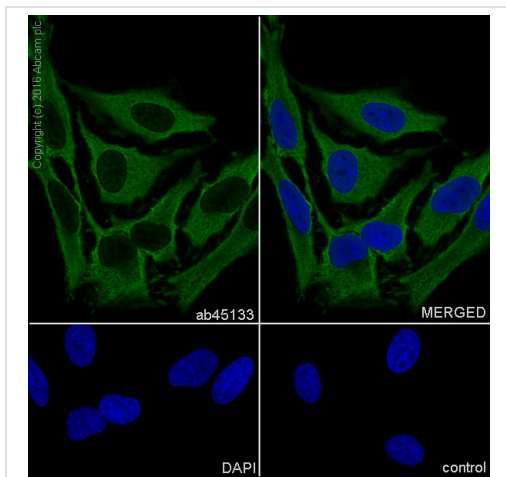
Relevance

Function: In cooperation with other chaperones, the Hsp70 family stabilize preexistent proteins against aggregation and mediate the folding of newly translated polypeptides in the cytosol as well as within organelles. These chaperones participate in all these processes through their ability to recognize nonnative conformations of other proteins. They bind extended peptide segments with a net hydrophobic character exposed by polypeptides during translation and membrane translocation, or following stress-induced damage. In case of rotavirus A infection, serves as a post-attachment receptor for the virus to facilitate entry into the cell. Tissue specificity: HSPA1B is testis-specific.

Cellular localization

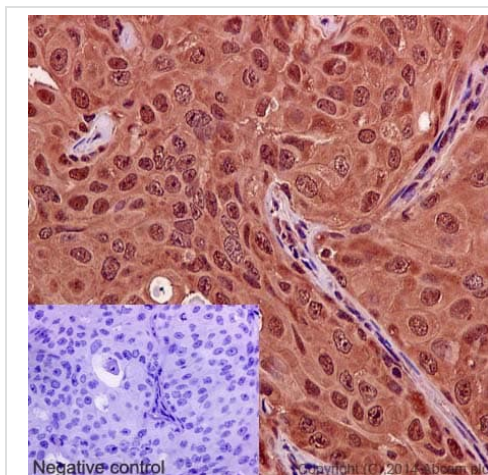
Cytoplasm. Localized in cytoplasmic mRNP granules containing untranslated mRNAs.

Images



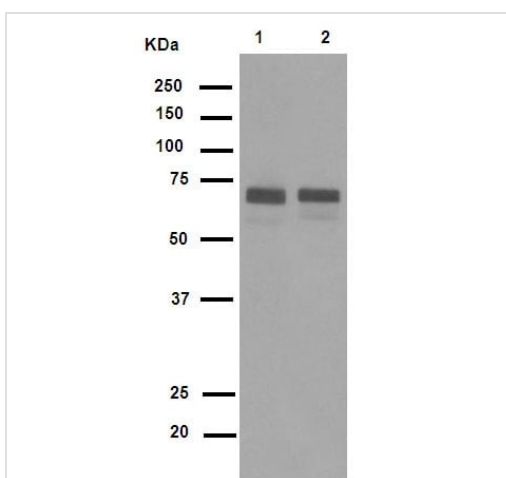
Immunocytochemistry/ Immunofluorescence - Anti-Hsp70 antibody [EP1007Y] (ab45133)

Immunocytochemistry/Immunofluorescence analysis of HeLa (Human epithelial cell line from cervix adenocarcinoma) labelling Hsp70 with purified ab45133 at 1/1000. Cells were fixed with 100% methanol and permeabilized with 0.1% triton X-100. **ab150077** Goat anti rabbit IgG (Alexa Fluor® 488) at 1/1000 was used as the secondary antibody. Nuclei were counterstained with DAPI. PBS was used instead of the primary antibody as the negative control.



Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) - Anti-Hsp70 antibody [EP1007Y] (ab45133)

Immunohistochemical staining of paraffin embedded human breast carcinoma with purified ab45133 at a working dilution of 1 in 400. The secondary antibody used is a HRP polymer for rabbit IgG. 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.



Western blot - Anti-Hsp70 antibody [EP1007Y] (ab45133)

All lanes : Anti-Hsp70 antibody [EP1007Y] (ab45133) at 1/10000 dilution (purified)

Lane 1 : A431 cell lysate

Lane 2 : K562 cell lysate

Lysates/proteins at 10 µg per lane.

Secondary

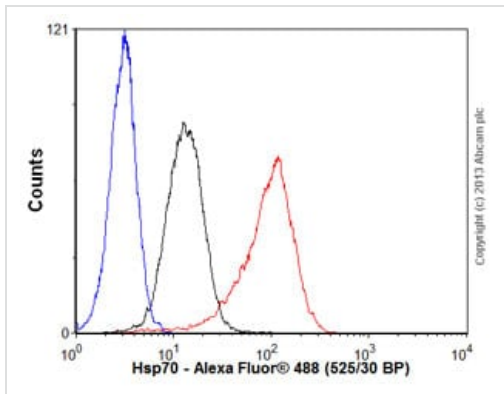
All lanes : HRP goat anti-rabbit (H+L) at 1/1000 dilution

Predicted band size: 70 kDa

Observed band size: 70 kDa

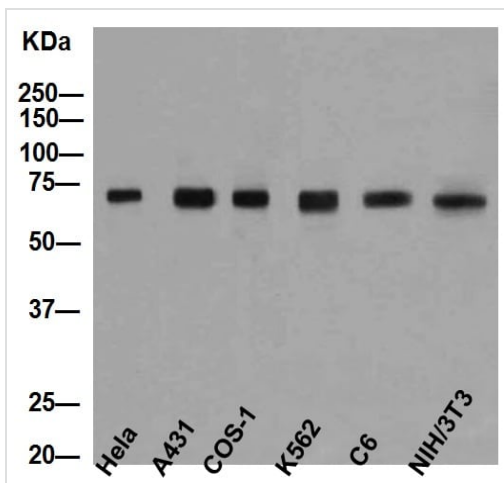
Blocking buffer: 5% NFDM/TBST

Dilution buffer: 5% NFDM/TBST



Flow Cytometry (Intracellular) - Anti-Hsp70 antibody
[EP1007Y] (ab45133)

Overlay histogram showing Jurkat cells stained with unpurified ab45133 (red line). The cells were fixed with 4% paraformaldehyde (10 min) and then permeabilized with 0.1% PBS-Tween for 20 min. The cells were then incubated in 1x PBS / 10% normal goat serum / 0.3M glycine to block non-specific protein-protein interactions followed by the antibody (ab45133, 1/100 dilution) for 30 min at 22°C. The secondary antibody used was Alexa Fluor® 488 goat anti-rabbit IgG (H+L) (**ab150077**) at 1/2000 dilution for 30 min at 22°C. Isotype control antibody (black line) was rabbit IgG (monoclonal) (1µg/1x10⁶ cells) used under the same conditions. Unlabelled sample (blue line) was also used as a control. Acquisition of >5,000 events were collected using a 20mW Argon ion laser (488nm) and 525/30 bandpass filter. This antibody gave a positive signal in Jurkat cells fixed with 80% methanol (5 min)/permeabilized with 0.1% PBS-Tween for 20 min used under the same conditions.



Western blot - Anti-Hsp70 antibody [EP1007Y]
(ab45133)

Unpurified ab45133.

Why choose a recombinant antibody?



Research with confidence
Consistent and reproducible results



Long-term and scalable supply
Recombinant technology



Success from the first experiment
Confirmed specificity



Ethical standards compliant
Animal-free production

Anti-Hsp70 antibody [EP1007Y] (ab45133)

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

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