abcam

Product datasheet

Anti-Hsp27 (phospho S15) antibody [EP2293Y] ab76313

Recombinant RabMAb

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Overview

Product name	Anti-Hsp27 (phospho S15) antibody [EP2293Y]
Description	Rabbit monoclonal [EP2293Y] to Hsp27 (phospho S15)
Host species	Rabbit
Tested applications	**Suitable for:** WB, ICC/IF **Unsuitable for:** IHC-P
Species reactivity	**Reacts with:** Human
Immunogen	Synthetic peptide. This information is proprietary to Abcam and/or its suppliers.
Positive control	HeLa cells, HeLa cell lysate heat treated at 44°C.
General notes	This product is a recombinant monoclonal antibody, which offers several advantages including: - High batch-to-batch consistency and reproducibility - Improved sensitivity and specificity - Long-term security of supply - Animal-free production For more information **see here**. Our RabMAb® technology is a patented hybridoma-based technology for making rabbit monoclonal antibodies. For details on our patents, please refer to **RabMAb® patents**. Mouse, Rat: We have preliminary internal testing data to indicate this antibody may not react with these species. Please contact us for more information.

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	pH: 7.20 Preservative: 0.01% Sodium azide Constituents: 59% PBS, 40% Glycerol (glycerin, glycerine), 0.13% BSA
Purity	Protein A purified
Clonality	Monoclonal

Clone number	EP2293Y
Isotype	IgG

Applications

The Abpromise guarantee Our **Abpromise guarantee** covers the use of ab76313 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
WB	★★★★☆ **(1)**	1/2000 - 1/5000. Predicted molecular weight: 23 kDa.
ICC/IF		1/100 - 1/250.

Application notes Is unsuitable for IHC-P.

Target

Function Involved in stress resistance and actin organization.

Tissue specificity Detected in all tissues tested: skeletal muscle, heart, aorta, large intestine, small intestine, stomach, esophagus, bladder, adrenal gland, thyroid, pancreas, testis, adipose tissue, kidney, liver, spleen, cerebral cortex, blood serum and cerebrospinal fluid. Highest levels are found in the heart and in tissues composed of striated and smooth muscle.

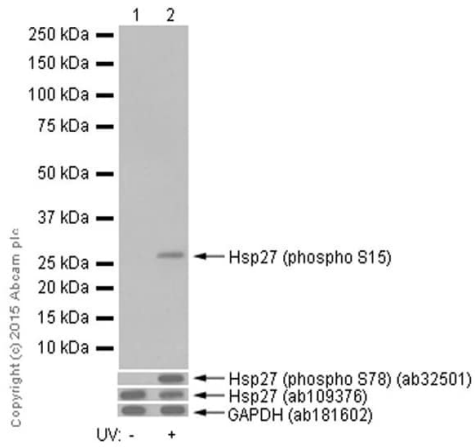
Involvement in disease Defects in HSPB1 are the cause of Charcot-Marie-Tooth disease type 2F (CMT2F) [MIM:606595]. CMT2F is a form of Charcot-Marie-Tooth disease, the most common inherited disorder of the peripheral nervous system. Charcot-Marie-Tooth disease is classified in two main groups on the basis of electrophysiologic properties and histopathology: primary peripheral demyelinating neuropathy or CMT1, and primary peripheral axonal neuropathy or CMT2. Neuropathies of the CMT2 group are characterized by signs of axonal regeneration in the absence of obvious myelin alterations, normal or slightly reduced nerve conduction velocities, and progressive distal muscle weakness and atrophy. Nerve conduction velocities are normal or slightly reduced. CMT2F onset is between 15 and 25 years with muscle weakness and atrophy usually beginning in feet and legs (peroneal distribution). Upper limb involvement occurs later. CMT2F inheritance is autosomal dominant.
Defects in HSPB1 are a cause of distal hereditary motor neuronopathy type 2B (HMN2B) [MIM:608634]. Distal hereditary motor neuronopathies constitute a heterogeneous group of neuromuscular disorders caused by selective impairment of motor neurons in the anterior horn of the spinal cord, without sensory deficit in the posterior horn. The overall clinical picture consists of a classical distal muscular atrophy syndrome in the legs without clinical sensory loss. The disease starts with weakness and wasting of distal muscles of the anterior tibial and peroneal compartments of the legs. Later on, weakness and atrophy may expand to the proximal muscles of the lower limbs and/or to the distal upper limbs.

Sequence similarities Belongs to the small heat shock protein (HSP20) family.

Post-translational modifications Phosphorylated in MCF-7 cells on exposure to protein kinase C activators and heat shock.

Cellular localization Cytoplasm. Nucleus. Cytoplasm > cytoskeleton > spindle. Cytoplasmic in interphase cells. Colocalizes with mitotic spindles in mitotic cells. Translocates to the nucleus during heat shock and resides in sub-nuclear structures known as SC35 speckles or nuclear splicing speckles.

Images



Western blot - Anti-Hsp27 (phospho S15) antibody [EP2293Y] (ab76313)

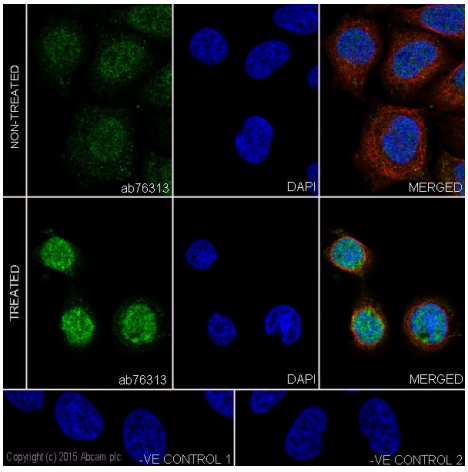
All lanes : Anti-Hsp27 (phospho S15) antibody [EP2293Y] (ab76313) at 1/2500 dilution

Lane 1 : Untreated HeLa (Human cervix adenocarcinoma epithelial cell) whole cell lysate
Lane 2 : UV treated HeLa (Human cervix adenocarcinoma epithelial cell) whole cell lysate

Lysates/proteins at 10 µg per lane.

Secondary
All lanes : Goat Anti-Rabbit IgG H&L (HRP) (**ab97051**) at 1/20000 dilution

Predicted band size: 23 kDa
Additional bands at: 27 kDa. We are unsure as to the identity of these extra bands.



Immunocytochemistry/ Immunofluorescence - Anti-Hsp27 (phospho S15) antibody [EP2293Y] (ab76313)

ab76313 staining Hsp27 (phospho S15) in HeLa (human cervix adenocarcinoma) cells with heat treatment at 44°C. by ICC/IF (Immunocytochemistry/immunofluorescence). Cells were fixed with 4% Paraformaldehyde and permeabilized with 0.1% Triton X-100. Samples were incubated with primary antibody at a dilution of 1/150. A goat anti rabbit IgG (Alexa Fluor® 488) (**ab150077**) was used as the secondary antibody at a dilution of 1/1000. **ab7291** and **ab150120** were used as counterstains for primary antibody ab76313 (1/1000) and secondary antibody **ab150077** (1/1000) respectively and DAPI was used as a nuclear counterstain.

Negative control 1: Rabbit primary antibody and anti-mouse secondary antibody (**ab150120**)
Negative control 2: Mouse primary antibody (**ab7291**) and anti-rabbit secondary antibody (**ab150077**)

Anti-Hsp27 (phospho S15) antibody [EP2293Y]

(ab76313)

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