

## Product datasheet

### Anti-Hsp27 (phospho S82) antibody [EPR7278] $\alpha$ b155987

Recombinant RabMAb

[5 References](#) [10 Images](#)

#### Overview

<b>Product name</b>	Anti-Hsp27 (phospho S82) antibody [EPR7278]
<b>Description</b>	Rabbit monoclonal [EPR7278] to Hsp27 (phospho S82)
<b>Host species</b>	Rabbit
<b>Tested applications</b>	<b>Suitable for:</b> WB, IP, Dot blot <b>Unsuitable for:</b> Flow Cyt, ICC/IF or IHC-P
<b>Species reactivity</b>	<b>Reacts with:</b> Mouse, Rat, Human
<b>Immunogen</b>	Synthetic peptide. This information is proprietary to Abcam and/or its suppliers.
<b>Positive control</b>	HeLa cell lysate treated with heat shock (44°C); Human skeletal muscle and urinary bladder transitional carcinoma tissues.
<b>General notes</b>	This product is a recombinant monoclonal antibody, which offers several advantages including: <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> For more information <a href="#">see here</a> . 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> .

#### Properties

<b>Form</b>	Liquid
<b>Storage instructions</b>	Shipped at 4°C. Store at -20°C.
<b>Storage buffer</b>	Preservative: 0.01% Sodium azide Constituents: 40% Glycerol (glycerin, glycerine), 0.05% BSA, 59% PBS
<b>Purity</b>	Protein A purified
<b>Clonality</b>	Monoclonal
<b>Clone number</b>	EPR7278
<b>Isotype</b>	IgG

## Applications

### The Abpromise guarantee

Our **Abpromise guarantee** covers the use of ab155987 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		1/1000 - 1/2000. Predicted molecular weight: 23 kDa. <b>For unpurified, use 1/200.</b>
IP		1/75. <b>For unpurified, use 1/10.</b>
Dot blot		1/1000.

### Application notes

Is unsuitable for Flow Cyt, ICC/IF or 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

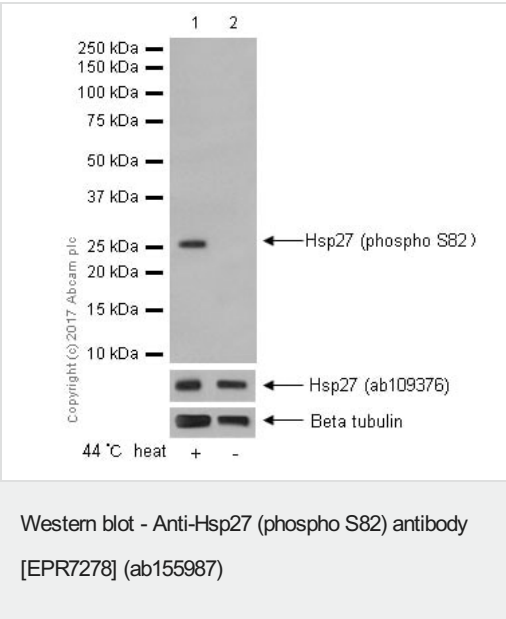
Belongs to the small heat shock protein (HSP20) family.

### 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.



**All lanes :** Anti-Hsp27 (phospho S82) antibody [EPR7278] (ab155987) at 1/1000 dilution

**Lane 1 :** HeLa (Human cervix adenocarcinoma epithelial cell) with 44°C heat shock whole cell lysates

**Lane 2 :** HeLa (Human cervix adenocarcinoma epithelial cell) whole cell lysates

Lysates/proteins at 20 µg per lane.

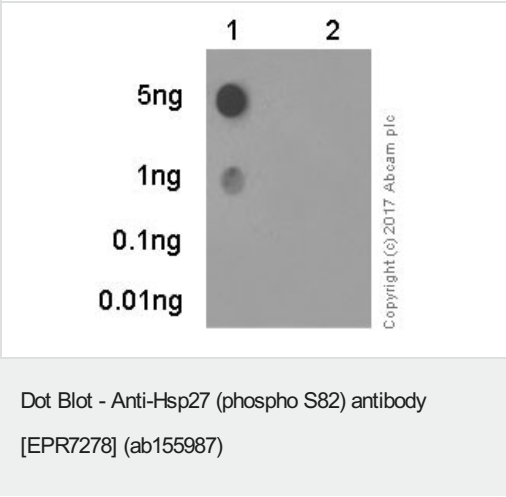
**Secondary**

**All lanes :** Goat Anti-Rabbit IgG, (H+L), Peroxidase conjugated at 1/20000 dilution

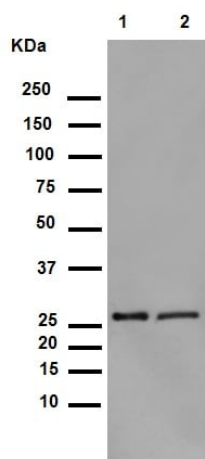
**Predicted band size:** 23 kDa  
**Observed band size:** 27 kDa

**Exposure time:** 1 minute

Blocking and diluting buffer: 5% NFDm/TBST.



Dot blot analysis of Lane 1: Hsp27 (pS82) phospho peptide and Lane 2: Hsp27 non-phospho peptide, labeling Hsp27 (phospho S82) with ab155987 at 1/1000 dilution. 5% NFDm/TBST was used as the blocking and diluting buffer. [ab97051](#), a Goat Anti-Rabbit IgG, (H+L), Peroxidase conjugated secondary antibody was used at 1/100000 dilution. Exposure time: 10 seconds.



Western blot - Anti-Hsp27 (phospho S82) antibody [EPR7278] (ab155987)

**All lanes :** Anti-Hsp27 (phospho S82) antibody [EPR7278] (ab155987) at 1/1500 dilution (purified)

**Lane 1 :** Mouse heart

**Lane 2 :** Rat heart

Lysates/proteins at 10 µg per lane.

#### Secondary

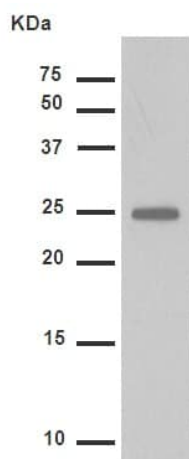
**All lanes :** HRP goat anti-rabbit (H+L) at 1/1000 dilution

**Predicted band size:** 23 kDa

**Observed band size:** 27 kDa

Blocking buffer: 5% NFDM/TBST

Dilution buffer: 5% NFDM/TBST



Western blot - Anti-Hsp27 (phospho S82) antibody [EPR7278] (ab155987)

Anti-Hsp27 (phospho S82) antibody [EPR7278] (ab155987) at 1/1500 dilution (purified) + HeLa cell lysate treated with heat shock (44°C) at 10 µg

#### Secondary

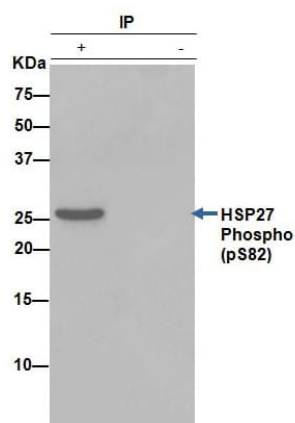
HRP goat anti-rabbit (H+L) at 1/1000 dilution

**Predicted band size:** 23 kDa

**Observed band size:** 27 kDa

Blocking buffer: 5% NFDM/TBST

Dilution buffer: 5% NFDM/TBST

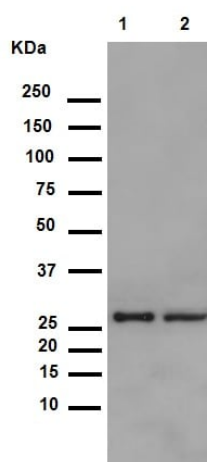


Immunoprecipitation - Anti-Hsp27 (phospho S82) antibody [EPR7278] (ab155987)

ab155987 (purified) at 1/75 immunoprecipitating Hsp27 (phospho S82) in HeLa cell lysate treated with heat shock (44°C) (Lane 1). Lane 2 - PBS. For western blotting, a HRP-conjugated anti-rabbit IgG, specific to the non-reduced form of IgG was used as the secondary antibody (1/1500).

Blocking buffer and concentration: 5% NFDM/TBST.

Diluting buffer and concentration: 5% NFDM /TBST.



Western blot - Anti-Hsp27 (phospho S82) antibody [EPR7278] (ab155987)

**All lanes :** Anti-Hsp27 (phospho S82) antibody [EPR7278] (ab155987) at 1/200 dilution (unpurified)

**Lane 1 :** Mouse heart

**Lane 2 :** Rat heart

Lysates/proteins at 10 µg per lane.

**Secondary**

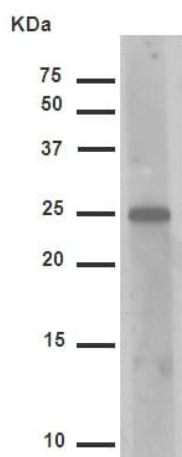
**All lanes :** HRP goat anti-rabbit (H+L) at 1/1000 dilution

**Predicted band size:** 23 kDa

**Observed band size:** 27 kDa

Blocking buffer: 5% NFDM/TBST

Dilution buffer: 5% NFDM/TBST



Western blot - Anti-Hsp27 (phospho S82) antibody [EPR7278] (ab155987)

Anti-Hsp27 (phospho S82) antibody [EPR7278] (ab155987) at 1/200 dilution (unpurified) + HeLa cells treated with heat shock (44°C) at 10 µg

#### Secondary

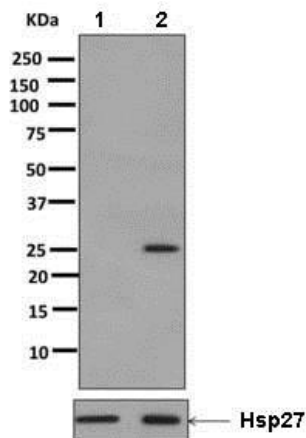
HRP goat anti-rabbit (H+L) at 1/1000 dilution

**Predicted band size:** 23 kDa

**Observed band size:** 27 kDa

Blocking buffer: 5% NFDM/TBST

Dilution buffer: 5% NFDM/TBST



Western blot - Anti-Hsp27 (phospho S82) antibody [EPR7278] (ab155987)

**All lanes :** Anti-Hsp27 (phospho S82) antibody [EPR7278] (ab155987) at 1/1000 dilution (unpurified)

**Lane 1 :** Untreated HeLa cell lysate

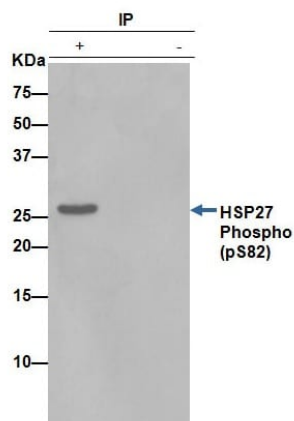
**Lane 2 :** HeLa cell lysate treated with heat shock (44°C)

Lysates/proteins at 10 µg per lane.

#### Secondary

**All lanes :** Goat anti-rabbit HRP at 1/2000 dilution

**Predicted band size:** 23 kDa



Immunoprecipitation - Anti-Hsp27 (phospho S82)  
antibody [EPR7278] (ab155987)

ab155987 (unpurified) at 1/75 immunoprecipitating Hsp27 (phospho S82) in HeLa cell lysate treated with heat shock (44°C) (Lane 1). Lane 2 - PBS. For western blotting, a HRP-conjugated anti-rabbit IgG, specific to the non-reduced form of IgG was used as the secondary antibody (1/1500).

Blocking buffer and concentration: 5% NFDM/TBST.

Diluting buffer and concentration: 5% NFDM /TBST.

#### 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-Hsp27 (phospho S82) antibody [EPR7278]  
(ab155987)

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

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- Response to your inquiry within 24 hours

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