

### Anti-Hsp27 antibody [D2] ab239499

9 Images

#### Overview

<b>Product name</b>	Anti-Hsp27 antibody [D2]
<b>Description</b>	Mouse monoclonal [D2] to Hsp27
<b>Host species</b>	Mouse
<b>Tested applications</b>	<b>Suitable for:</b> WB, IHC-P
<b>Species reactivity</b>	<b>Reacts with:</b> Human, Pig
<b>Immunogen</b>	Recombinant fragment (His-tag) corresponding to Human Hsp27 aa 1 to the C-terminus. (Expressed in E.coli). Database link: <a href="#">P04792</a>
	<a href="#">Run BLAST with</a> <a href="#">Run BLAST with</a>
<b>Positive control</b>	IHC-P: Human breast cancer, glioma, brain, stomach and kidney tissues. WB: Human lung lysate; Pig muscle and heart lysates; Recombinant human Hsp27 protein.
<b>General notes</b>	<p>The Life Science industry has been in the grips of a reproducibility crisis for a number of years. Abcam is leading the way in addressing this with our range of recombinant monoclonal antibodies and knockout edited cell lines for gold-standard validation. Please check that this product meets your needs before purchasing.</p> <p>If you have any questions, special requirements or concerns, please send us an inquiry and/or contact our Support team ahead of purchase. Recommended alternatives for this product can be found below, along with publications, customer reviews and Q&amp;As</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 long term. Avoid freeze / thaw cycle.
<b>Storage buffer</b>	pH: 7.40 Preservative: 0.011% Proclin 300 Constituents: 55.77% Glycerol (glycerin, glycerine), 44.219% PBS
<b>Purity</b>	Protein A/G purified
<b>Purification notes</b>	Purified from TCS.
<b>Clonality</b>	Monoclonal
<b>Clone number</b>	D2

<b>Isotype</b>	IgG2b
<b>Light chain type</b>	kappa

## Applications

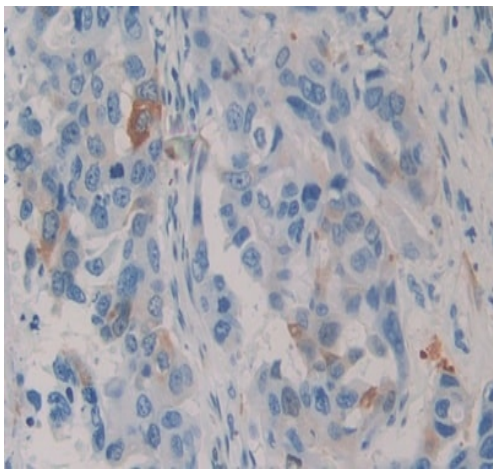
**The Abpromise guarantee** Our **Abpromise guarantee** covers the use of ab239499 in the following tested applications. The application notes include recommended starting dilutions; optimal dilutions/concentrations should be determined by the end user.

Application	Abreviews	Notes
<b>WB</b>		Use a concentration of 0.5 - 5 µg/ml. Predicted molecular weight: 23 kDa.
<b>IHC-P</b>		Use a concentration of 5 - 30 µg/ml.

## Target

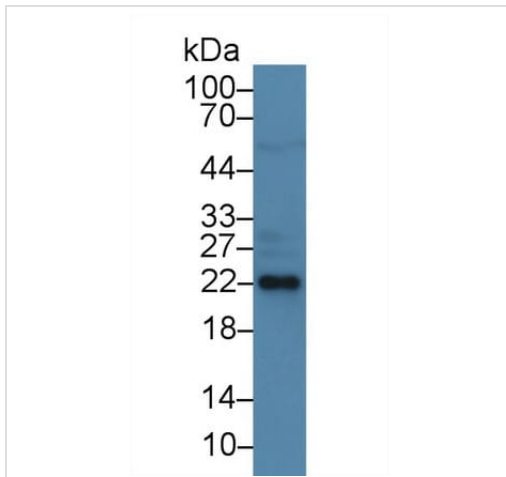
<b>Function</b>	Involved in stress resistance and actin organization.
<b>Tissue specificity</b>	Detected in all tissues tested: skeletal muscle, heart, aorta, large intestine, small intestine, stomach, esophagus, bladder, adrenal gland, thyroid, pancreas, testis, adipose tissue, kidney, liver, spleen, cerebral cortex, blood serum and cerebrospinal fluid. Highest levels are found in the heart and in tissues composed of striated and smooth muscle.
<b>Involvement in disease</b>	<p>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.</p> <p>Defects in HSPB1 are a cause of distal hereditary motor neuronopathy type 2B (HMN2B) [MIM:608634]. Distal hereditary motor neuropathies 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.</p>
<b>Sequence similarities</b>	Belongs to the small heat shock protein (HSP20) family.
<b>Post-translational modifications</b>	Phosphorylated in MCF-7 cells on exposure to protein kinase C activators and heat shock.
<b>Cellular localization</b>	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



Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) - Anti-Hsp27 antibody [D2] (ab239499)

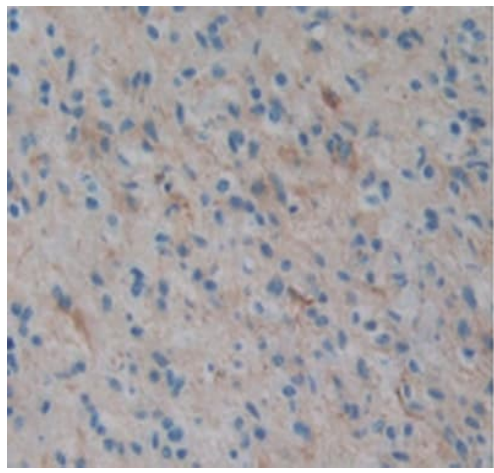
Paraffin-embedded human breast cancer tissue stained for Hsp27 using ab239499 at 30  $\mu\text{g/ml}$  in immunohistochemical analysis. DAB staining.



Western blot - Anti-Hsp27 antibody [D2] (ab239499)

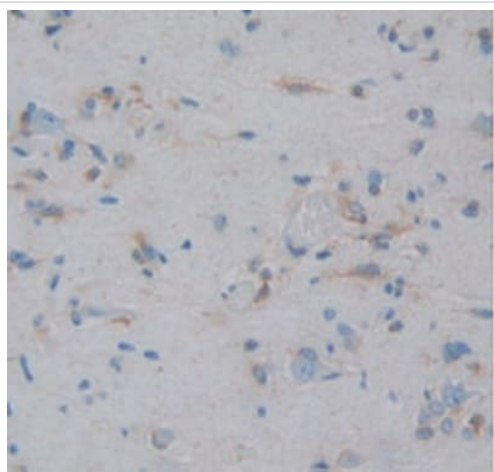
Anti-Hsp27 antibody [D2] (ab239499) at 2  $\mu\text{g/ml}$  + Pig skeletal muscle lysate

**Predicted band size: 23 kDa**



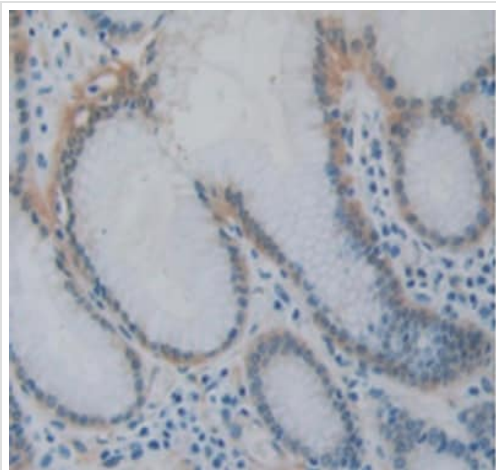
Paraffin-embedded human glioma tissue stained for Hsp27 using ab239499 at 30  $\mu\text{g/ml}$  in immunohistochemical analysis. DAB staining.

Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) - Anti-Hsp27 antibody [D2] (ab239499)



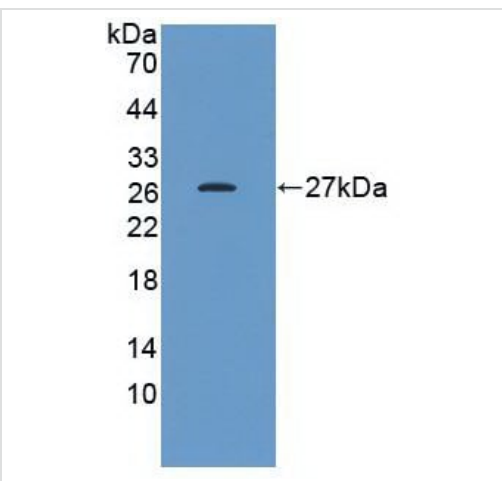
Paraffin-embedded human brain tissue stained for Hsp27 using ab239499 at 30  $\mu\text{g/ml}$  in immunohistochemical analysis. DAB staining.

Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) - Anti-Hsp27 antibody [D2] (ab239499)



Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) - Anti-Hsp27 antibody [D2] (ab239499)

Paraffin-embedded human stomach tissue stained for Hsp27 using ab239499 at 30 µg/ml in immunohistochemical analysis. DAB staining.



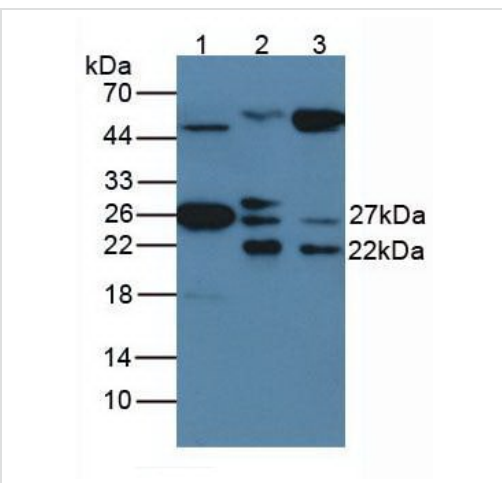
Western blot - Anti-Hsp27 antibody [D2] (ab239499)

Anti-Hsp27 antibody [D2] (ab239499) at 5 µg/ml + Recombinant human Hsp27 protein

**Secondary**

HRP-Linked Rabbit Anti-Mouse IgG at 1/5000 dilution

**Predicted band size:** 23 kDa



Western blot - Anti-Hsp27 antibody [D2] (ab239499)

**All lanes :** Anti-Hsp27 antibody [D2] (ab239499) at 5 µg/ml

**Lane 1 :** Human lung lysate

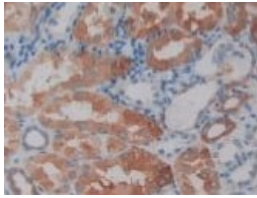
**Lane 2 :** Pig muscle lysate

**Lane 3 :** Pig heart lysate

**Secondary**

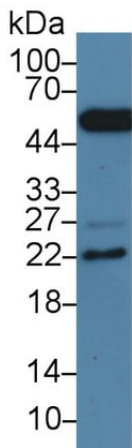
**All lanes :** HRP-Linked Rabbit Anti-Mouse IgG at 1/5000 dilution

**Predicted band size:** 23 kDa



Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) - Anti-Hsp27 antibody [D2] (ab239499)

Paraffin-embedded human kidney tissue stained for Hsp27 using ab239499 at 30 µg/ml in immunohistochemical analysis. DAB staining.



Western blot - Anti-Hsp27 antibody [D2] (ab239499)

Anti-Hsp27 antibody [D2] (ab239499) at 2 µg/ml + Pig heart lysate

**Predicted band size:** 23 kDa

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