

**Anti-HSP27 Antibody**  
**Catalog # ABO10437****Specification**

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**Anti-HSP27 Antibody - Product Information**

Application	WB, IHC-P, IHC-F, ICC
Primary Accession	<a href="#">P42930</a>
Host	Mouse
Isotype	Mouse IgG1
Reactivity	Human, Mouse, Rat
Clonality	Monoclonal
Format	Lyophilized

**Description**

Mouse IgG monoclonal antibody for HSP25, heat shock 27kDa protein 1 (HSPB1) detection. Tested with WB, IHC-P, IHC-F, ICC in Human;mouse;rat;rabbit. No cross reactivity with other proteins.

**Reconstitution**

Add 1ml of PBS buffer will yield a concentration of 100ug/ml.

**Anti-HSP27 Antibody - Additional Information****Other Names**

Heat shock protein beta-1, HspB1, Heat shock 27 kDa protein, HSP 27, Hspb1, Hsp27

**Calculated MW**

22893 MW KDa

**Application Details**

Immunohistochemistry(Paraffin-embedded Section), 1-2 µg/ml, Human, mouse, rabbit, rat, By Heat  
Immunocytochemistry , 1 µg/ml, Human, mouse, rabbit, rat,  
Immunohistochemistry(Frozen Section), 1-2 µg/ml, Human, mouse, rabbit, rat,  
Western blot, 0.5-2 µg/ml, Human, mouse, rabbit, rat

**Subcellular 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 (By similarity). .

**Tissue Specificity**

Expressed in a variety of tissues. High levels in lung, adrenal, xiphoid, adipose tissue, heart and striated and smooth muscle, lower levels in the CNS. Adult levels are much higher in the slow-twitch soleus muscle than in the fast-twitch rectus femoris and extensor digitorum muscles. .

**Protein Name**

Heat shock protein beta-1

**Contents**

Mouse ascites fluid, 1.2% sodium acetate, 2mg BSA, with 0.01mg NaN3 as preservative.

**Immunogen**

Partially purified inhibitor of actin polymerization(IAP) protein from turkey gizzard smooth muscle.

**Purification**

Ascites

**Cross Reactivity**

No cross reactivity with other proteins

**Storage**

**At -20°C for one year. After reconstitution, at 4°C for one month. It can also be aliquotted and stored frozen at -20°C for a longer time. Avoid repeated freezing and thawing.**

**Sequence Similarities**

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

**Anti-HSP27 Antibody - Protein Information**

**Name** Hspb1

**Synonyms** Hsp27

**Function**

Small heat shock protein which functions as a molecular chaperone probably maintaining denatured proteins in a folding- competent state. Plays a role in stress resistance and actin organization. Through its molecular chaperone activity may regulate numerous biological processes including the phosphorylation and the axonal transport of neurofilament proteins.

**Cellular Location**

Cytoplasm {ECO:0000250|UniProtKB:P04792}. Nucleus {ECO:0000250|UniProtKB:P04792}. Cytoplasm, cytoskeleton, spindle {ECO:0000250|UniProtKB:P04792}. Note=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 {ECO:0000250|UniProtKB:P04792}

**Tissue Location**

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**Anti-HSP27 Antibody - Protocols**

Provided below are standard protocols that you may find useful for product applications.

- [Western Blot](#)
- [Blocking Peptides](#)
- [Dot Blot](#)
- [Immunohistochemistry](#)
- [Immunofluorescence](#)
- [Immunoprecipitation](#)
- [Flow Cytometry](#)
- [Cell Culture](#)

**Anti-HSP27 Antibody - Images****Anti-HSP27 Antibody - Background**

The heat-shock proteins(HSPs) belong to a larger group of polypeptides, the stress proteins, that are induced in various combinations in response to environmental challenges and developmental transitions. Heat-shock 27-kD protein also known as HSPB. Synthesis of the small(27-kD) HSP has been shown to be correlated with the acquisition of thermotolerance. HSP27 gene is mapped to 7q11.23. Mutant small heat-shock protein 27 causes axonal Charcot-Marie-Tooth disease and distal hereditary motor neuropathy. Heat shock protein 27 prevents cellular polyglutamine toxicity and suppresses the increase of reactive oxygen species caused by huntingtin.