

**Anti-Hsp27 Antibody**  
Catalog # ABO11109**Specification****Anti-Hsp27 Antibody - Product Information**

Application	WB, ICC, IHC
Primary Accession	<a href="#">P04792</a>
Host	Rabbit
Reactivity	Human, Mouse, Rat
Clonality	Polyclonal
Format	Lyophilized

**Description**

Rabbit IgG polyclonal antibody for Heat shock protein beta-1(HSPB1) detection. Tested with WB, IHC-P, IHC-F, ICC in Human;Mouse;Rat.

**Reconstitution**

Add 0.2ml of distilled water will yield a concentration of 500ug/ml.

**Anti-Hsp27 Antibody - Additional Information**

**Gene ID** 3315

**Other Names**

Heat shock protein beta-1, HspB1, 28 kDa heat shock protein, Estrogen-regulated 24 kDa protein, Heat shock 27 kDa protein, HSP 27, Stress-responsive protein 27, SRP27, HSPB1, HSP27, HSP28

**Calculated MW**

22783 MW KDa

**Application Details**

Immunocytochemistry , 0.5-1 µg/ml, Human, Mouse, Rat<br>Immunohistochemistry(Frozen Section), 0.5-1 µg/ml, Rat, Human, Mouse<br>Immunohistochemistry(Paraffin-embedded Section), 0.5-1 µg/ml, Human, Mouse, Rat, By Heat<br>Western blot, 0.1-0.5 µg/ml, Human, Rat, Mouse<br>

**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.

**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. .

**Protein Name**

Heat shock protein beta-1(HspB1)

**Contents**

Each vial contains 5mg BSA, 0.9mg NaCl, 0.2mg Na<sub>2</sub>HPO<sub>4</sub>, 0.05mg Thimerosal, 0.05mg NaN<sub>3</sub>.

**Immunogen**

A synthetic peptide corresponding to a sequence in the middle region of human Hsp27(88-105aa KHEERQDEHGYISRCFTR), identical to the related rat and mouse sequences.

**Purification**

Immunogen affinity purified.

**Cross Reactivity**

No cross reactivity with other proteins

**Storage**

**At -20°C for one year. After r°Constitution, 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, HSP28

**Function**

Small heat shock protein which functions as a molecular chaperone probably maintaining denatured proteins in a folding- competent state (PubMed:<a href="http://www.uniprot.org/citations/10383393" target="\_blank">10383393</a>, PubMed:<a href="http://www.uniprot.org/citations/20178975" target="\_blank">20178975</a>). Plays a role in stress resistance and actin organization (PubMed:<a href="http://www.uniprot.org/citations/19166925" target="\_blank">19166925</a>). Through its molecular chaperone activity may regulate numerous biological processes including the phosphorylation and the axonal transport of neurofilament proteins (PubMed:<a href="http://www.uniprot.org/citations/23728742" target="\_blank">23728742</a>).

**Cellular Location**

Cytoplasm. Nucleus Cytoplasm, cytoskeleton, spindle 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.

**Tissue Location**

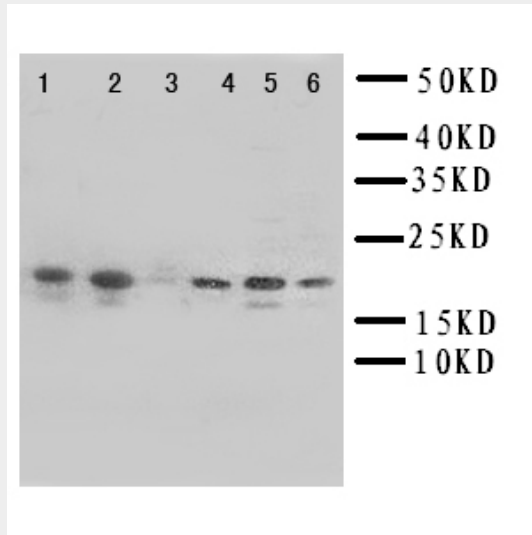
Detected in all tissues tested: skeletal muscle, heart, aorta, large intestine, small intestine, stomach, esophagus, bladder, adrenal gland, thyroid, pancreas, testis, adipose tissue, kidney, liver, spleen, cerebral cortex, blood serum and cerebrospinal fluid. Highest levels are found in the heart and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

**Anti-Hsp27 Antibody - Protocols**

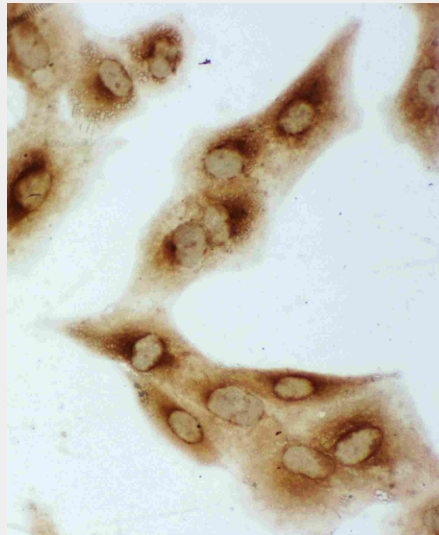
Provided below are standard protocols that you may find useful for product applications.

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

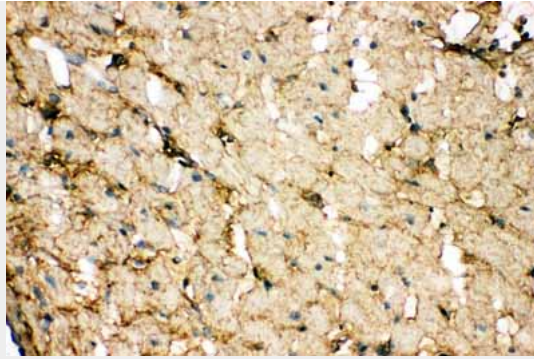
### Anti-Hsp27 Antibody - Images



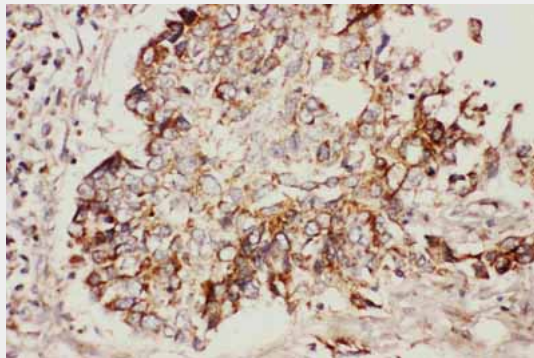
Anti-Hsp27 antibody, ABO11109, Western blotting Lane 1: Rat Liver Tissue Lysate Lane 2: HELA Cell Lysate Lane 3: MCF-7 Cell Lysate Lane 4: HT1080 Cell Lysate Lane 5: COLO320 Cell Lysate



Anti-Hsp27 antibody, ABO11109, ICCICC: A549 Cell



Anti-Hsp27 antibody, ABO11109, IHC(F)IHC(F): Rat Cardiac Muscle Tissue



Anti-Hsp27 antibody, ABO11109, IHC(P)IHC(P): Human Lung Cancer Tissue

### **Anti-Hsp27 Antibody - Background**

HSPB1 (Heat shock 27kDa protein 1), also known as HSP27, is a protein that in humans is encoded by the HSPB1 gene. Stock et al. (2003) used FISH to map the HSP27 gene to 7q11.23. The protein encoded by this gene is induced by environmental stress and developmental changes. The encoded protein is involved in stress resistance and actin organization and translocates from the cytoplasm to the nucleus upon stress induction. Defects in this gene are a cause of Charcot-Marie-Tooth disease type 2F (CMT2F) and distal hereditary motor neuropathy (dHMN).