

Anti-HSP27 Antibody

Catalog # ABO10437

Product Information

Application	WB, IHC-P, IHC-F, ICC
Primary Accession	P42930
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.

Additional Information

Other Names	Heat shock protein beta-1, HspB1, Heat shock 27 kDa protein, HSP 27, Hspb1, Hsp27
Calculated MW	22893
Application Details	Immunohistochemistry(Paraffin-embedded Section), 1-2 μ g/ml, Human, mouse, rabbit, rat, By Heat Immunocytochemistry , 1 μ g/ml, Human, mouse, rabbit, rat, - Immunohistochemistry(Frozen Section), 1-2 μ g/ml, Human, mouse, rabbit, rat, - Western blot, 0.5-2 μ g/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. .
Source	Eukaryota
Protein Name	Heat shock protein beta-1
Contents	Mouse ascites fluid, 1.2% sodium acetate, 2mg BSA, with 0.01mg NaN3 as

preservative.

Clone Names	IAP-9
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 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.

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}
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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 protein1also knows 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.

Please note: All products are 'FOR RESEARCH USE ONLY. NOT FOR USE IN DIAGNOSTIC OR THERAPEUTIC PROCEDURES'.