HSP27 (Phospho Ser78) Rabbit pAb

CatalogNo: YP0135 Orthogonal Validated

Key Features

Host Species
- Rabbit

Reactivity
- Human,Mouse,Rat

Applications
- WB,IHC,IF,ELISA

MW
- 27kD (Observed)

Isotype
- IgG

Storage

Storage*	-15°C to -25°C/1 year (Do not lower than -25°C)
Formulation	Liquid in PBS containing 50% glycerol, 0.5% BSA and 0.02% sodium azide.

Recommended Dilution Ratios

WB 1:500-1:2000
IHC 1:100-1:300
ELISA 1:20000
IF 1:50-200

Basic Information

Clonality	Polyclonal

Immunogen Information

Immunogen	The antiserum was produced against synthesized peptide derived from human HSP27 around the phosphorylation site of Ser78. AA range:45-94

Specificity Phospho-HSP27 (S78) Polyclonal Antibody detects endogenous levels of HSP27 protein only when phosphorylated at S78.The name of modified sites may be influenced by many factors, such as species (the modified site was not originally found in human samples) and the change of protein sequence (the previous protein sequence is incomplete, and the protein sequence may be prolonged with the development of protein sequencing technology). When naming, we will use the "numbers" in historical reference to keep the sites consistent with the reports. The antibody binds to the following modification sequence (lowercase letters are modification sites):ALsRQ

Target Information

Gene name HSPB1 HSP27 HSP28

Protein Name Heat shock protein beta-1

Organism	Gene ID	UniProt ID
Human	3315;	P04792;
Mouse	15507;	P14602;
Rat	24471;	P42930;

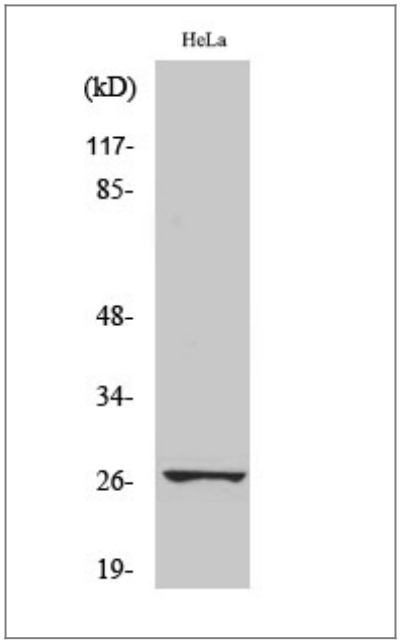
Cellular Localization Cytoplasm . Nucleus . Cytoplasm , cytoskeleton , spindle . Cytoplasmic in interphase cells. Colocalizes with mitotic spindles in mitotic cells. Translocates to the nucleus during heat shock and resides in sub-nuclear structures known as SC35 speckles or nuclear splicing speckles. .

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.

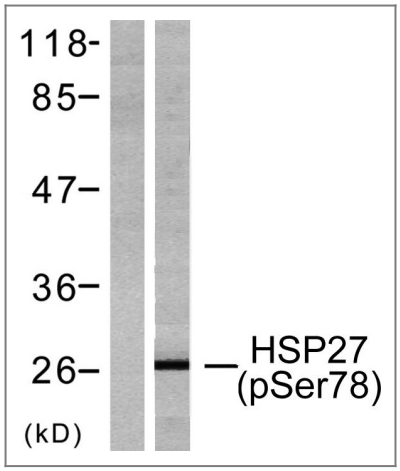
Function

Disease: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. ,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. ,Function:Involved in stress resistance and actin organization. ,induction:Expressed in response to environmental stresses such as heat shock , or estrogen stimulation in MCF-7 cells. ,PTM:Phosphorylated in MCF-7 cells on exposure to protein kinase C activators and heat shock. ,similarity:Belongs to the small heat shock protein (HSP20) family. ,subcellular location:Cytoplasmic in interphase cells. Colocalizes with mitotic spindles in mitotic cells. Translocates to the nucleus during heat shock. ,subunit:Interacts with TGFB1I1 (By similarity) . Associates with alpha- and beta-tubulin , microtubules and CRYAB. Interacts with HSPB8 and HSPBAP1. ,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. ,

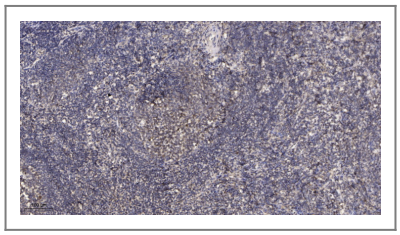
Validation Data



Western Blot analysis of various cells using Phospho-HSP27 (S78) Polyclonal Antibody



Western blot analysis of lysates from HeLa cells treated with Ca2+, using HSP27 (Phospho-Ser78) Antibody. The lane on the left is blocked with the phospho peptide.



Immunohistochemical analysis of paraffin-embedded human tonsil. 1, Antibody was diluted at 1:200 (4℃ overnight). 2, Tris-EDTA,pH9.0 was used for antigen retrieval. 3,Secondary antibody was diluted at 1:200 (room temperature, 45min).

Contact information

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Please scan the QR code to access additional product information:
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