

# HSP27 (Heat Shock Protein 27) Antibody - With BSA and Azide

Mouse Monoclonal Antibody [Clone HSPB1/774 ]

Catalog # AH11459

## Product Information

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<b>Application</b>	WB, IHC, IF, FC
<b>Primary Accession</b>	<a href="#">P04792</a>
<b>Other Accession</b>	<a href="#">3315</a> , <a href="#">520973</a>
<b>Reactivity</b>	Human, Mouse, Rat, Chicken, Chimpanzee, Sheep
<b>Host</b>	Mouse
<b>Clonality</b>	Monoclonal
<b>Isotype</b>	Mouse / IgG1, kappa
<b>Clone Names</b>	HSPB1/774
<b>Calculated MW</b>	22783

## Additional Information

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<b>Gene ID</b>	3315
<b>Other Names</b>	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
<b>Application Note</b>	WB~~1:1000 IHC~~1:100~500 IF~~1:50~200 FC~~1:10~50
<b>Storage</b>	Store at 2 to 8°C.Antibody is stable for 24 months.
<b>Precautions</b>	HSP27 (Heat Shock Protein 27) Antibody - With BSA and Azide is for research use only and not for use in diagnostic or therapeutic procedures.

## Protein Information

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<b>Name</b>	HSPB1
<b>Synonyms</b>	HSP27, HSP28
<b>Function</b>	<p>Small heat shock protein which functions as a molecular chaperone probably maintaining denatured proteins in a folding- competent state (PubMed:<a href="#">10383393</a>, PubMed:<a href="#">20178975</a>). Plays a role in stress resistance and actin organization (PubMed:<a href="#">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="#">23728742</a>).</p> <p>Cytoplasm. Nucleus Cytoplasm, cytoskeleton, spindle Note=Cytoplasmic in</p>

<b>Cellular Location</b>	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.
<b>Tissue Location</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.

## Background

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It recognizes a 24-27kDa estrogen-regulated protein, identified as heat shock protein 27 (hsp27). Hsp27 was recently found to be identical to the estrogen-induced  $\alpha$ 29 and  $\alpha$ 24K protein. About 50% of breast carcinomas are positive for hsp27 especially those that are also positive for estrogen and/or progesterone receptor. HSP27 has also been implicated in drug resistance in cancer cells.

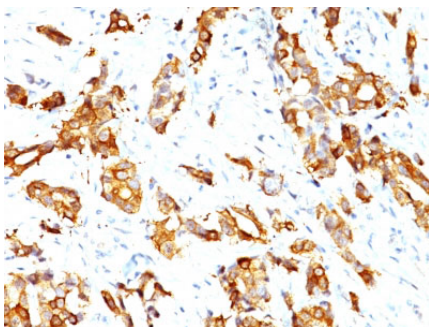
## References

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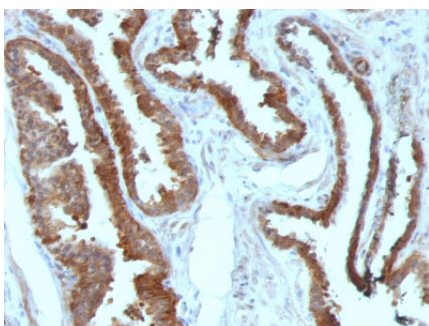
Georgopoulos, C. and Welch, W.J. 1993. Role of the major heat shock proteins as molecular chaperones. *Annu. Rev. Cell Biol.* 9: 601-634

## Images

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Formalin-fixed, paraffin-embedded human Breast Carcinoma stained with HSP27 Monoclonal Antibody (HSPB1/774)



Formalin-fixed, paraffin-embedded human Prostate Carcinoma stained with HSP27 Monoclonal Antibody (HSPB1/774)

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