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

Mouse Monoclonal Antibody [Clone SPM252]
Catalog # AH10484

Product Information

Application	WB, IF, FC, IHC-P
Primary Accession	P04792
Other Accession	3315, 520973
Reactivity	Human, Mouse, Rat, Chicken, Chimpanzee, Sheep
Host	Mouse
Clonality	Monoclonal
Isotype	Mouse / IgG1, kappa
Clone Names	SPM252
Calculated MW	22783

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
Application Note	WB~~1:1000 IF~~1:50~200 FC~~1:10~50 IHC-P~~N/A
Format	200ug/ml of Ab purified from Bioreactor Concentrate by Protein A/G. Prepared in 10mM PBS with 0.05% BSA & 0.05% azide. Also available WITHOUT BSA at 1.0mg/ml.
Storage	Store at 2 to 8°C.Antibody is stable for 24 months.
Precautions	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

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:10383393, PubMed:20178975). Plays a role in stress resistance and actin organization (PubMed:19166925). Through its molecular chaperone activity may regulate numerous biological processes including the

	phosphorylation and the axonal transport of neurofilament proteins (PubMed:23728742).
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.

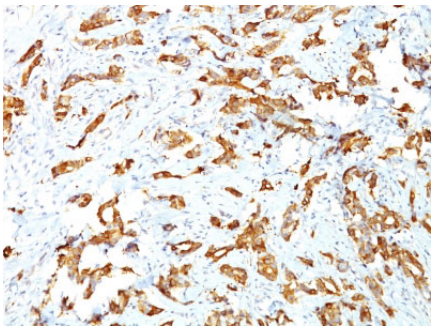
Background

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 'p29' and '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.

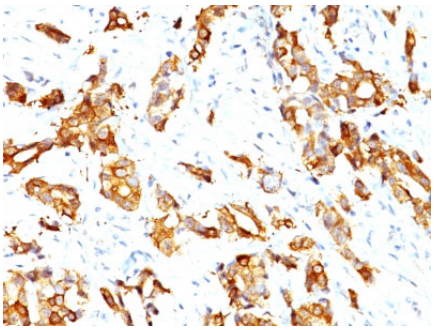
References

Edwards DP et. al. Biochem Biophys Research Commun, 93:804-812, 1980. | Ciocca DR et. al. Breast Cancer Research and Treatment, 20:33-42, 1991

Images



Formalin-fixed, paraffin-embedded human Breast Carcinoma stained with HSP27 Monoclonal Antibody (SPM252)



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