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Anti-HSP27 (Phospho-S15) Antibody

Catalog # AP59582

Product Information

Application	WB, IHC, IF/IC
Primary Accession	P04792
Reactivity	Human, Bovine, Mk
Host	Rabbit
Clonality	Polyclonal
Calculated MW	22783

Additional Information

Gene ID	3315
Other Names	HSP27; HSP28; 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
Target/Specificity	KLH-conjugated synthetic phosphopeptide corresponding to residues surrounding S15 of human HSP27 protein. The exact sequence is proprietary.
Dilution	WB~~WB (1/500 - 1/1000), IHC (1/100 - 1/200), IP (1/10 - 1/100) IHC~~WB (1/500 - 1/1000), IHC (1/100 - 1/200), IP (1/10 - 1/100) IF/IC~~N/A
Format	Liquid in 0.42% Potassium phosphate, 0.87% Sodium chloride, pH 7.3, 30% glycerol, and 0.01% sodium azide.
Storage	Store at -20 °C.Stable for 12 months from date of receipt

Protein Information

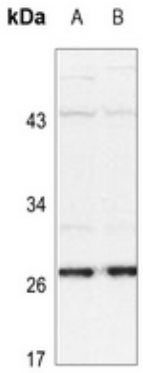
Name	HSPB1
Synonyms	HSP27, HSP28
Function	Small heat shock protein which functions as a molecular chaperone probably maintaining denatured proteins in a folding- competent state (PubMed:10383393, PubMed:20178975). Plays a role in stress resistance and actin organization (PubMed:19166925). Through its 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.

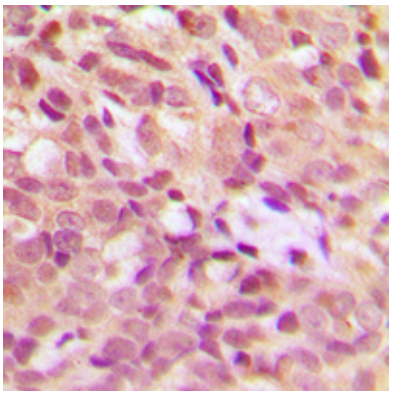
Tissue Location

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.

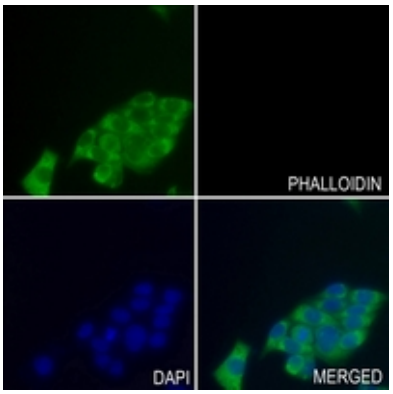
Images



Western blot analysis of HSP27 (Phospho-S15) expression in MCF7 (A), EC9706 (B) whole cell lysates. (Predicted band size: 22 kD; Observed band size: 27 kD)

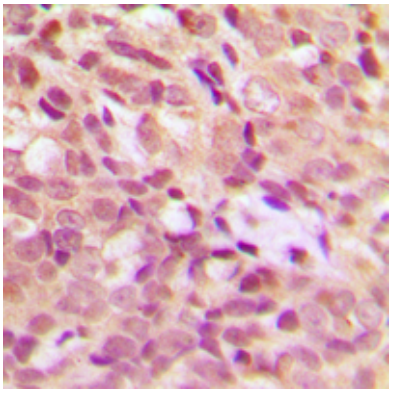


Immunohistochemical analysis of HSP27 (Phospho-S15) staining in human breast cancer formalin fixed paraffin embedded tissue section. The section was pre-treated using heat mediated antigen retrieval with sodium citrate buffer (pH 6.0). The section was then incubated with the antibody at room temperature and detected using an HRP conjugated compact polymer system. DAB was used as the chromogen. The section was then counterstained with haematoxylin and mounted with DPX.



Immunofluorescent analysis of HSP27 (Phospho-S15) staining in MCF7 cells. Formalin-fixed cells were permeabilized with 0.1% Triton X-100 in TBS for 5-10 minutes and blocked with 3% BSA-PBS for 30 minutes at room temperature. Cells were probed with the primary antibody in 3% BSA-PBS and incubated overnight at 4 °C in a hidified chamber. Cells were washed with PBST and incubated with a AF488-conjugated secondary antibody (green) in PBS at room temperature in the dark. Phalloidin - AF594 was used to stain Actin filaments (red). DAPI was used to stain the cell nuclei (blue).

Immunohistochemical analysis of HSP27 (pS15) staining in human breast cancer formalin fixed paraffin embedded tissue section. The section was pre-treated using heat mediated antigen retrieval with sodium citrate buffer (pH 6.0). The section was then incubated with the antibody at room temperature and detected using an HRP conjugated compact polymer system. DAB was used as the chromogen. The section was then counterstained with haematoxylin and mounted with DPX.



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