

Rabbit anti-Human HSP27 Polyclonal Antibody | anti-HSP27 antibody

Phospho-HSP27 (Ser78) Antibody

CATALOG #	HOST	REACTIVITY	APPLICATIONS
AAA321470	Rabbit	Human	ELISA, Immunocytochemistry, Immunofluorescence, Western Blot

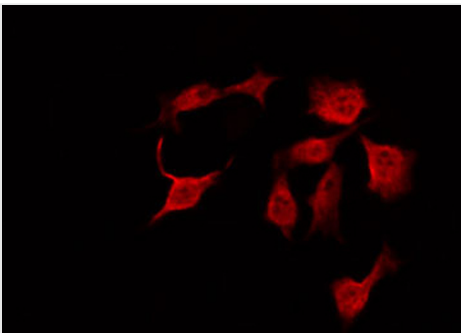
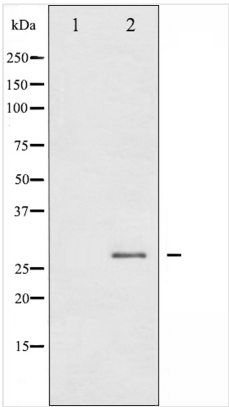
PRODUCT SYNONYMS

HSP27; Polyclonal Antibody; Phospho-HSP27 (Ser78) Antibody; Heat shock 27kDa protein; 28 kDa heat shock protein; CMT2F; DKFZp586P1322; epididymis secretory protein Li 102; Estrogen regulated 24 kDa protein; Estrogen-regulated 24 kDa protein; Heat shock 25kDa protein 1; Heat shock 27 kDa protein; Heat shock 27kD protein 1; Heat shock 27kDa protein 1; Heat shock 28kDa protein 1; Heat Shock Protein 27; Heat shock protein beta 1; Heat shock protein beta-1; heat shock protein family B (small) member 1; HEL-S-102; HMN2B; HS.76067; Hsp 25; HSP 27; Hsp 28; Hsp B1; Hsp25; Hsp28; HspB1; HSPB1_HUMAN; SRP27; Stress responsive protein 27; Stress-responsive protein 27; anti-HSP27 antibody

PRODUCT SPECIFICATIONS

Host	Rabbit
Reactivity	Human
Clonality	Polyclonal
Isotype	IgG
Specificity	Phospho-HSP27 (Ser78) antibody detects endogenous levels of HSP27 only when phosphorylated at Serine 78
Purity/Purification	From purified rabbit serum by affinity purification via sequential chromatography on phospho-and non-phospho-peptide affinity columns.
Form/Format	Liquid Phosphate buffered saline, pH 7.4, 150mM NaCl, 0.02% sodium azide and 50% glycerol.
Concentration	1mg/ml (varies by lot)
Sequence Length	205
Applicable Applications for anti-HSP27 antibody	ELISA, ICC (Immunocytochemistry), IF (Immunofluorescence), WB (Western Blot)
Immunogen	A synthesized peptide derived from human HSP27 around the phosphorylation site of Serine 78
Subcellular Location	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.
Conjugation	Unconjugated
Epitope	Phospho Ser78
Preparation and Storage	Store at -20 degree C. Stable for 12 months from date of receipt.

IMAGES



IF (Immunofluorescence)
AAA321470 staining HeLa by IF/ICC. The sample were fixed with PFA and permeabilized in 0.1% Triton X-100, then blocked in 10% serum for 45 minutes at 25 degree C. The primary antibody was diluted at 1/200 and incubated with the sample for 1 hour at 37 degree C. An Alexa Fluor 594 conjugated goat anti-rabbit IgG (H+L) Ab, diluted at 1/600, was used as the secondary antibody.

WB (Western Blot)
Western blot analysis of HSP27 phosphorylation expression in Ca²⁺ treated HeLa whole cell lysates, The lane on the left is treated with the antigen-specific peptide.

ADDITIONAL INFORMATION

Related Product Information for anti-HSP27 antibody

Description: HSP27 is a small heat shock protein that is regulated both transcriptionally and posttranslationally. Modulates actin polymerization and reorganization.

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).

Subunit Structure: Homooligomer (PubMed:10383393). Homodimer; becomes monomeric upon activation (PubMed:20178975). Heterooligomer; with HSPB6 (PubMed:23948568). Associates with alpha-and beta-tubulin (PubMed:10777697). Interacts with TGFB1I1 (By similarity). Interacts with CRYAB (PubMed:1560006). Interacts with HSPB8 (PubMed:11342557). Interacts with HSPBAP1 (PubMed:10751411).

Post-translational Modifications: Phosphorylated upon exposure to protein kinase C activators and heat shock (PubMed:8325890). Phosphorylation by MAPKAPK2 and MAPKAPK3 in response to stress dissociates HSPB1 from large small heat-shock protein (sHsps) oligomers and impairs its chaperone activity and ability to protect against oxidative stress effectively. Phosphorylation by MAPKAPK5 in response to PKA stimulation induces F-actin rearrangement (PubMed:1332886, PubMed:8093612, PubMed:19166925).

Similarity: Belongs to the small heat shock protein (HSP20) family.

NCBI AND UNIPROT INFORMATION

NCBI GI #	4504517
NCBI GeneID	3315
NCBI Accession #	NP_001531.1
NCBI GenBank Nucleotide #	NM_001540.4
UniProt Accession #	P04792; Q6FI47; Q96C20; Q96EI7; Q9UC31; Q9UC34; Q9UC35; Q9UC36; B2R4N8
Molecular Weight	Observed: 27 kDa Predicted: 23 kDa
NCBI Official Full Name	heat shock protein beta-1
NCBI Official Synonym Full Names	heat shock protein family B (small) member 1
NCBI Official Symbol	HSPB1
NCBI Official Synonym Symbols	CMT2F; HMN2B; HSP27; HSP28; Hsp25; SRP27; HS.76067; HEL-S-102
NCBI Protein Information	heat shock protein beta-1
UniProt Protein Name	Heat shock protein beta-1

UniProt Gene Name	HSPB1
UniProt Synonym Gene Names	HSP27; HSP28; HspB1; HSP 27; SRP27

For Research Use Only. Not for use in diagnostic or therapeutic procedures. Small volumes of product may become entrapped in the seal of the vial during shipment and storage; if necessary, briefly centrifuge the vial on a tabletop centrifuge to dislodge any liquid in the cap.

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Online datasheet: <https://stage.aaabiotech.com/polyclonal/hsp27-antibody-immunocytochemistry-immunofluorescence-western-blot-elisa/321470>