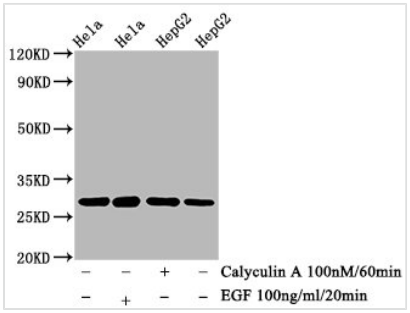
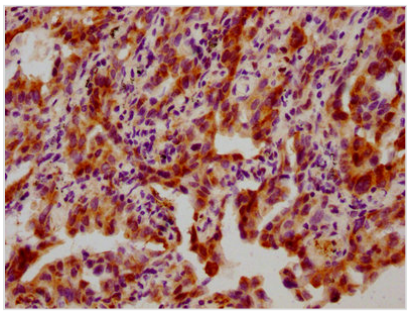
Phospho-HSPB1 (S82) Recombinant Monoclonal Antibody

Product Code	CSB-RA010833A82phHU
Abbreviation	Heat shock protein beta-1
Storage	Upon receipt, store at -20°C or -80°C. Avoid repeated freeze.
Uniprot No.	P04792
Immunogen	A synthesized peptide derived from Human Phospho-HSPB1 (S82)
Species Reactivity	Human
Tested Applications	ELISA, WB, IHC; Recommended dilution: WB:1:500-1:5000, IHC:1:50-1:200
Relevance	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).
Form	Liquid
Conjugate	Non-conjugated
Storage Buffer	Rabbit IgG in phosphate buffered saline , pH 7.4, 150mM NaCl, 0.02% sodium azide and 50% glycerol.
Purification Method	Affinity-chromatography
Isotype	Rabbit IgG
Clonality	Monoclonal
Alias	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
Immunogen Species	Homo sapiens (Human)
Research Area	Signal Transduction
Gene Names	HSPB1
Clone No.	2E8
Image	



Western Blot
Positive WB detected in Hela whole cell lysate, HepG2 whole cell lysate(treated with Calyculin A or EGF)
All lanes Phospho-HSPB1 antibody at 0.73μg/ml
Secondary
Goat polyclonal to rabbit IgG at 1/50000 dilution
Predicted band size: 27 KDa
Observed band size: 27 KDa



IHC image of CSB-RA010833A82phHU diluted at 1:100 and staining in paraffin-embedded human lung cancer performed on a Leica BondTM system. After dewaxing and hydration, antigen retrieval was mediated by high pressure in a citrate buffer (pH 6.0). Section was blocked with 10% normal goat serum 30min at RT. Then primary antibody (1% BSA) was incubated at 4? overnight. The primary is detected by a biotinylated secondary antibody and visualized using an HRP conjugated SP system.

Description

The DNA sequence coding for the pS82-HSPB1 monoclonal antibody produced from the animals with the phosphopeptide corresponding to the resides surrounding the Ser 82 of human HSPB1 immunization was cloned into the expression vector, which was further transfected into a cell line for in vitro expression. The product is the recombinant phospho-HSPB1-S82 monoclonal antibody. It specifically targets the human HSPB1 phosphorylated at Ser 82 residue. It belongs to the rabbit IgG. The affinity-chromatography purification method was used to purify this phosphorylated HSPB1 antibody. ELISA, WB, and IHC have been tested for this HSPB1 antibody.

HSPB1, an abundant molecular chaperone, is found in striated muscle and is phosphorylated in response to several stimuli, including mechanical stress. In response to stretch, HSPB1 is phosphorylated in cells and tissues, causing translocation to the Z-discs and to locations of elevated traction force within the cytoskeleton, implying that phosphorylation may initiate or regulate its interactions with mechanosensitive clients like FLNC at these sites. MAPKAPK2/3 phosphorylates HSPB1 at serine sites 15, 78, and 82 in the N-terminal region of the protein, outside of the alpha-crystallin domain.