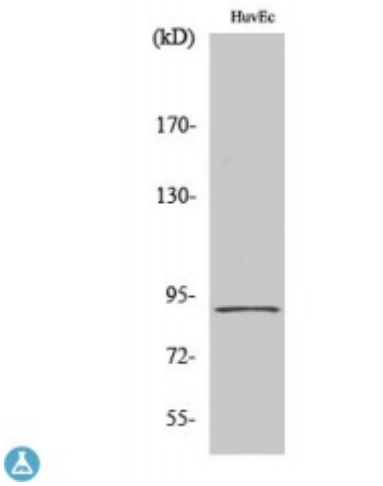
Anti-HSP9 beta antibody



Description	Rabbit polyclonal to HSP90beta.

Model	STJ93609
Host	Rabbit
Reactivity	Human, Mouse, Rat, Simian
Applications	ELISA, IF, IHC, IP, WB
Immunogen	Synthesized peptide derived from human HSP90beta around the non-phosphorylation site of S254.
Immunogen Region	200-280 aa
Gene ID	3326
Gene Symbol	HSP90AB1
Dilution range	WB 1:500-1:2000IHC 1:100-1:300IP 1:200-500IF 1:200-1:1000ELISA 1:40000
Specificity	HSP90beta Polyclonal Antibody detects endogenous levels of HSP90beta protein.
Purification	The antibody was affinity-purified from rabbit antiserum by affinity-chromatography using epitope-specific immunogen.
Note	For Research Use Only (RUO).
Protein Name	Heat shock protein HSP 90-beta HSP 90 Heat shock 84 kDa HSP 84 HSP84
Molecular Weight	96/83 kDa
Clonality	Polyclonal

Conjugation	Unconjugated
Isotype	IgG
Formulation	Liquid in PBS containing 50% glycerol, 0.5% BSA and 0.02% sodium azide.
Concentration	1 mg/ml
Storage Instruction	Store at -20°C, and avoid repeat freeze-thaw cycles.
Database Links	HGNC:5258OMIM:140572
Alternative Names	Heat shock protein HSP 90-beta HSP 90 Heat shock 84 kDa HSP 84 HSP84
Function	Molecular chaperone that promotes the maturation, structural maintenance and proper regulation of specific target proteins involved for instance in cell cycle control and signal transduction. Undergoes a functional cycle that is linked to its ATPase activity. This cycle probably induces conformational changes in the client proteins, thereby causing their activation. Interacts dynamically with various co-chaperones that modulate its substrate recognition, ATPase cycle and chaperone function . Engages with a range of client protein classes via its interaction with various co-chaperone proteins or complexes, that act as adapters, simultaneously able to interact with the specific client and the central chaperone itself. Recruitment of ATP and co-chaperone followed by client protein forms a functional chaperone. After the completion of the chaperoning process, properly folded client protein and co-chaperone leave HSP90 in an ADP-bound partially open conformation and finally, ADP is released from HSP90 which acquires an open conformation for the next cycle . Apart from its chaperone activity, it also plays a role in the regulation of the transcription machinery. HSP90 and its co-chaperones modulate transcription at least at three different levels. In the first place, they alter the steady-state levels of certain transcription factors in response to various physiological cues. Second, they modulate the activity of certain epigenetic modifiers, such as histone deacetylases or DNA methyl transferases, and thereby respond to the change in the environment. Third, they participate in the eviction of histones from the promoter region of certain genes and thereby turn on gene expression . Antagonizes STUB1-mediated inhibition of TGF-beta signaling via inhibition of STUB1-mediated SMAD3 ubiquitination and degradation . Promotes cell differentiation by chaperoning BIRC2 and thereby protecting from auto-ubiquitination and degradation by the proteasomal machinery . Main chaperone that is involved in the phosphorylation/activation of the STAT1 by chaperoning both JAK2 and PRKCE under heat shock and in turn, activates its own transcription .
Sequence and Domain Family	The TPR repeat-binding motif mediates interaction with TPR repeat-containing proteins.
Cellular Localization	Cytoplasm Melanosome Nucleus Secreted Cell membrane. Identified by mass spectrometry in melanosome fractions from stage I to stage IV . Translocates with BIRC2 from the nucleus to the cytoplasm during differentiation . Secreted when associated with TGFB1 processed form (LAP) .
Post-translational Modifications	Ubiquitinated in the presence of STUB1-UBE2D1 complex (in vitro). ISGylated. S-nitrosylated; negatively regulates the ATPase activity. Phosphorylation at Tyr-301 by SRC is induced by lipopolysaccharide . Phosphorylation at Ser-226 and Ser-255 inhibits AHR interaction . Methylated by SMYD2; facilitates dimerization and chaperone complex formation;

promotes cancer cell proliferation. Cleaved following oxidative stress resulting in HSP90AB1 protein radicals formation; disrupts the chaperoning function and the degradation of its client proteins.