

Rabbit HSP90AB1 Polyclonal Antibody | anti-HSP90AB1 antibody

HSP90AB1 Antibody

CATALOG #	HOST	REACTIVITY	APPLICATIONS
AAA326013	Rabbit	Human, Mouse, Rat	ELISA, Immunocytochemistry, Immunofluorescence, Immunohistochemistry, Western Blot

PRODUCT SYNONYMS

HSP90AB1; Polyclonal Antibody; HSP90AB1 Antibody; 90 kda heat shock protein beta HSP90 beta; D6S182; FLJ26984; Heat shock 84 kDa; Heat shock 90kD protein 1; beta; Heat shock 90kDa protein 1 beta; Heat shock protein 90 alpha family class B member 1; Heat shock protein 90 kDa; Heat shock protein 90kDa alpha (cytosolic) class B member 1; Heat shock protein 90kDa alpha family class B member 1; Heat shock protein beta; Heat shock protein HSP 90 beta; Heat shock protein HSP 90-beta; HS90B_HUMAN; HSP 84; HSP 90; HSP 90 b; HSP 90b; HSP84; HSP90 BETA; hsp90ab1; HSP90B; HSPC2; HSPCB; anti-HSP90AB1 antibody

PRODUCT SPECIFICATIONS

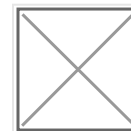
Host	Rabbit
Reactivity	Human, Mouse, Rat
Clonality	Polyclonal
Isotype	IgG
Specificity	HSP90AB1 antibody detects endogenous levels of total HSP90AB1
Purity/Purification	The antiserum was purified by peptide affinity chromatography using SulfoLink Coupling Resin.
Form/Format	Liquid Phosphate buffered saline, pH 7.4, 150mM NaCl, 0.02% sodium azide and 50% glycerol.
Concentration	1mg/ml (varies by lot)
Sequence Length	724
Applicable Applications for anti-HSP90AB1 antibody	ELISA, ICC (Immunocytochemistry), IF (Immunofluorescence), IHC (Immunohistochemistry), WB (Western Blot)
Immunogen	A synthesized peptide derived from human HSP90AB1
Subcellular Location	Cytoplasm. Melanosome. Identified by mass spectrometry in melanosome fractions from stage I to stage IV.
Tissue Specificity	By heat shock.
Conjugation	Unconjugated
Preparation and Storage	Store at -20 degree C. Stable for 12 months from date of receipt.

IMAGES



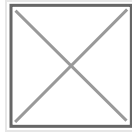
IF (Immunofluorescence)

AAA326013 staining HeLa cells 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) antibody, diluted at 1/600, was used as secondary antibody.



WB (Western Blot)

Western blot analysis of Hela whole cell lysates, using HSP90AB1 Antibody. The lane on the left is treated with the antigen-specific peptide.



IHC (Immunohistochemistry)

AAA326013 at 1/100 staining Mouse lung tissue by IHC-P. The sample was formaldehyde fixed and a heat mediated antigen retrieval step in citrate buffer was performed. The sample was then blocked and incubated with the antibody for 1.5 hours at 22 degree C. An HRP conjugated goat anti-rabbit antibody was used as the secondary.

Related Product Information for anti-HSP90AB1 antibody

Description: HSP70 and HSP90 are molecular chaperones expressed constitutively under normal conditions to maintain protein homeostasis and are induced upon environmental stress (1). Both HSP70 and HSP90 are able to interact with unfolded proteins to prevent irreversible aggregation and catalyze the refolding of their substrates in an ATP- and co-chaperone-dependent manner (1). HSP70 has a broad range of substrates including newly synthesized and denatured proteins, while HSP90 tends to have a more limited subset of substrates, most of which are signaling molecules. HSP70 and HSP90 often function collaboratively in a multi-chaperone system, which requires a minimal set of co-chaperones: HSP40, Hop, and p23 (2, 3). The co-chaperones either regulate the intrinsic ATPase activity of the chaperones or recruit chaperones to specific substrates or subcellular compartments (1, 4). When the ubiquitin ligase CHIP associates with the HSP70/HSP90 complex as a cofactor, the unfolded substrates are subjected to degradation by the proteasome (4). The biological functions of HSP70/HSP90 extend beyond their chaperone activity. They are essential for the maturation and inactivation of nuclear hormones and other signaling molecules (1, 3). They also play a role in vesicle formation and protein trafficking (2).

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 (PubMed:16478993, PubMed:19696785). 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 (PubMed:27295069, PubMed:26991466). 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 (PubMed:25973397). Antagonizes STUB1-mediated inhibition of TGF-beta signaling via inhibition of STUB1-mediated SMAD3 ubiquitination and degradation (PubMed:24613385). Promotes cell differentiation by chaperoning BIRC2 and thereby protecting from auto-ubiquitination and degradation by the proteasomal machinery (PubMed:18239673). 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 (PubMed:20353823).

Subunit Structure: Monomer (PubMed:24880080). Homodimer (PubMed:7588731, PubMed:18400751). Forms a complex with CDK6 and CDC37 (PubMed:9482106, PubMed:25486457). Interacts with UNC45A; binding to UNC45A involves 2 UNC45A monomers per HSP90AB1 dimer (PubMed:16478993). Interacts with CHORDC1 (By similarity). Interacts with DNAJC7 (PubMed:18620420). Interacts with FKBP4 (PubMed:15159550). May interact with NWD1 (PubMed:24681825). Interacts with SGTA (PubMed:16580629). Interacts with HSF1 in an ATP-dependent manner. Interacts with MET; the interaction suppresses MET kinase activity. Interacts with ERBB2 in an ATP-dependent manner; the interaction suppresses ERBB2 kinase activity. Interacts with HIF1A, KEAP1 and RHOTB2 (PubMed:26517842). Interacts with STUB1 and SMAD3 (PubMed:24613385). Interacts with XPO1 and AHS1 (PubMed:22022502, PubMed:25486457). Interacts with BIRC2 (PubMed:25486457). Interacts with KCNQ4; promotes cell surface expression of KCNQ4 (PubMed:23431407). Interacts with BIRC2; prevents auto-ubiquitination and degradation of its client protein BIRC2 (PubMed:18239673). Interacts with NOS3 (PubMed:23585225). Interacts with AHR; interaction is inhibited by HSP90AB1 phosphorylation on Ser-226 and Ser-255 (PubMed:15581363). Interacts with STIP1 and CDC37; upon SMYD2-dependent methylation (PubMed:24880080). Interacts with JAK2 and PRKCE; promotes functional activation in a heat shock-dependent manner (PubMed:20353823). Interacts with HSP90AA1; interaction is constitutive (PubMed:20353823). HSP90AB1-CDC37 chaperone complex interacts with inactive MAPK7 (via N-terminal half) in resting cells; the interaction is MAP2K5-independent and prevents from ubiquitination and proteasomal degradation (PubMed:23428871). Interacts with CDC25A; prevents heat shock-mediated CDC25A degradation and contributes to cell cycle progression (PubMed:22843495). Interacts with TP53 (via DNA binding domain); suppresses TP53 aggregation and prevents from irreversible thermal inactivation (PubMed:15358771). Interacts with TGFBI processed form (LAP); inhibits latent TGFBI activation (PubMed:20599762). Interacts with TRIM8; prevents nucleus translocation of phosphorylated STAT3 and HSP90AB1 (By similarity).

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 (PubMed:23585225). Phosphorylation at Ser-226 and Ser-255 inhibits AHR interaction (PubMed:15581363). 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.

Similarity: The TPR repeat-binding motif mediates interaction with TPR repeat-containing proteins. Belongs to the heat shock protein 90 family.

NCBI AND UNIPROT INFORMATION

NCBI GI #	431822401
NCBI GeneID	3326
NCBI Accession #	NP_001258898.1
NCBI GenBank Nucleotide #	NM_001271969.1
UniProt Accession #	P08238; Q5T9W7; Q9NQW0; Q9NTK6; B2R5P0
Molecular Weight	Observed: 83 kDa Predicted: 84 kDa
NCBI Official Full Name	heat shock protein HSP 90-beta isoform a
NCBI Official Synonym Full Names	heat shock protein 90 alpha family class B member 1
NCBI Official Symbol	HSP90AB1
NCBI Official Synonym Symbols	HSP84; HSPC2; HSPCB; D6S182; HSP90B
NCBI Protein Information	heat shock protein HSP 90-beta
UniProt Protein Name	Heat shock protein HSP 90-beta
UniProt Gene Name	HSP90AB1
UniProt Synonym Gene Names	HSP90B; HSPC2; HSPCB; HSP 90; HSP 84; HSP84

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/hsp90ab1-antibody-immunocytochemistry-immunofluorescence-immunohistochemistry-western-blot-elisa/326013>