

Mouse Hsp90 alpha/beta Monoclonal Antibody | anti-HSP90AB1 antibody

Hsp90 alpha/beta Antibody: ATTO 488

CATALOG #	HOST	REACTIVITY	APPLICATIONS
AAA102910	Mouse	Human, Rat, <i>S. cerevisiae</i> , <i>S. pombe</i> . Limited or no reactivity to mice or <i>P. caudatum</i>	Immunohistochemistry, ELISA, Western Blot

PRODUCT SYNONYMS

Hsp90 alpha/beta; Monoclonal Antibody; Hsp90 alpha/beta Antibody: ATTO 488; Hsp86; Hsp89A; Hsp90AA1; Hsp90Alpha; HspC1; HSPCA; HspCAL3; Hsp84; Hsp90B; HspC2; HspCB; D6S182; FLJ26985; anti-HSP90AB1 antibody

PRODUCT SPECIFICATIONS

Host	Mouse
Reactivity	Human, Rat, <i>S. cerevisiae</i> , <i>S. pombe</i> . Limited or no reactivity to mice or <i>P. caudatum</i>
Clonality	Monoclonal
Isotype	IgG2a
Clone Number	Hyb-K41220A
Form/Format	Protein G Purified
Concentration	1mg/mL (varies by lot)
Sequence Length	724
Applicable Applications for anti-HSP90AB1 antibody	IHC (Immunohistochemistry), ELISA, WB (Western Blot)
Conjugate	ATTO 488
Storage Buffer	PBS pH7.2, 50% glycerol, 0.09% sodium azide
Preparation and Storage	-20 degree C

IMAGES



WB (Western Blot)

Western Blot analysis of Human Cell lysates showing detection of Hsp90 alpha protein using Mouse Anti-Hsp90 alpha Monoclonal Antibody, Clone K41220A. Load: 15 ug. Block: 1.5% BSA for 30 minutes at RT. Primary Antibody: Mouse Anti-Hsp90 alpha Monoclonal Antibody at 1:1000 for 2 hours at RT. Secondary Antibody: Sheep Anti-Mouse IgG: HRP for 1 hour at RT.



IHC (Immunohistochemistry)

Immunohistochemistry analysis using Mouse Anti-Hsp90 alpha Monoclonal Antibody, Clone K41220A. Tissue: backskin. Species: Mouse. Fixation: Bouin's Fixative and paraffin-embedded. Primary Antibody: Mouse Anti-Hsp90 alpha Monoclonal Antibody at 1:100 for 1 hour at RT. Secondary Antibody: FITC Goat Anti-Mouse (green) at 1:50 for 1 hour at RT. Localization: Epidermis.

ADDITIONAL INFORMATION

Related Product Information for anti-HSP90AB1 antibody	Background Info: Detects 90kD proteins corresponding to the molecular mass of hsp90 alpha or beta. Scientific Background: HSP90 is an abundantly and ubiquitously expressed heat shock protein. It is understood to exist in two principal forms alpha and beta, which share 85% sequence amino acid homology. The two isoforms of Hsp90 are expressed in the cytosolic compartment (1). Despite the similarities, HSP90alpha exists predominantly as a homodimer while HSP90beta exists mainly as a monomer.(2) From a functional perspective, hsp90 participates in the folding, assembly, maturation, and stabilization of specific proteins as an integral component of a chaperone complex. (3-6) Furthermore, Hsp90 is highly conserved between species; having 60% and 78% amino acid similarity between mammalian and the corresponding yeast and Drosophila proteins, respectively. Hsp90 is a highly conserved and essential stress protein that is expressed in all eukaryotic cells. Despite its label of being a heat-shock protein, hsp90 is one of the most highly expressed proteins in unstressed cells (1-2% of cytosolic protein). It carries out a number of housekeeping functions - including controlling the activity, turnover, and trafficking of a variety of proteins. Most of the hsp90-regulated proteins that have been discovered to date are involved in cell signaling (7-8). The number of proteins now know to interact with Hsp90 is about 100. Target proteins include the kinases v-Src, Wee1, and c-Raf, transcriptional regulators such as p53 and steroid receptors, and the polymerases of the hepatitis B virus and telomerase.5 When bound to ATP, Hsp90 interacts with co-chaperones Cdc37, p23, and an assortment of immunophilin-like proteins, forming a complex that stabilizes and protects target proteins from proteasomal degradation. In most cases, hsp90-interacting proteins have been shown to co-precipitate with hsp90 when carrying out immunoadsorption studies, and to exist in cytosolic heterocomplexes with it. In a number of cases, variations in hsp90 expression or hsp90 mutation has been shown to degrade signaling function via the protein or to impair a specific function of the protein (such as steroid binding, kinase activity) in vivo. Ansamycin antibiotics, such as geldanamycin and radicicol, inhibit hsp90 function (9).
Product Categories/Family for anti-HSP90AB1 antibody	Chaperones; Heat Shock; Organelle Markers; Trafficking
References	1. Nemoto, T. et al. (1997) J.Biol Chem. 272, 26179-26187. 2. Minami, Y, et al. (1991), J.Biol Chem. 266, 10099-10103. 3. Arlander SJH, et al. (2003) J Biol Chem 278, 52572-52577. 4. Pearl H, et al. (2001) Adv Protein Chem 59,157-186. 5. Neckers L, et al. (2002) Trends Mol Med 8:S55-S61. 6. Pratt W, Toft D. (2003) Exp Biol Med 228:111-133. 7. Pratt W, Toft D. (1997) Endocr Rev 18,306-360. 8. Pratt WB. (1998) Proc Soc Exptl Biol Med 217, 420-434. 9. Whitesell L, et al. (1994) Proc Natl Acad Sci USA 91, 8324-8328. 10. Kishimoto J, et al. (2005). Cell Stress and Chaperones. 10 (4), 296-311. 1. Horvat, N. K., et al. (2014). A mutation in the catalytic loop of Hsp90 specifically impairs ATPase stimulation by Aha1p, but not Hch1p. J Mol Biol. pii: S0022-2836(14)00176-4. doi: 10.1016/j.jmb.2014.04.002

NCBI AND UNIPROT INFORMATION

NCBI GI #	20149594
NCBI GeneID	3326
NCBI Accession #	NP_031381.2; NP_001017963.2
NCBI GenBank Nucleotide #	NM_007355.3
UniProt Accession #	P08238; Q5T9W7; Q9NQW0; Q9NTK6; B2R5P0
Molecular Weight	83,264 Da
NCBI Official Full Name	heat shock protein HSP 90-beta isoform a
NCBI Official Synonym Full Names	heat shock protein 90kDa alpha (cytosolic), 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; HSP90-beta; heat shock 84 kDa; heat shock 90kD protein 1, 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.

AAA Biotech | Tel: +1 (619) 604-9440 | Fax: +1 (619) 604-9441 | contact@aaabiotech.com

Online datasheet: <https://stage.aaabiotech.com/monoclonal/hsp90-alpha-beta-antibody-clone-hyb-k41220a-immunohistochemistry-western-blot-elisa/102910>