Mouse Hsp90 alpha Monoclonal Antibody | anti-HSP90AA1 antibody

Hsp90 alpha Antibody: Biotin

CATALOG #	HOST	REACTIVITY	APPLICATIONS
AAA102916	**Mouse**	**Human (Alpha specific), Rat**	**Immunoprecipitation, Immunohistochemistry, ELISA, Western Blot**

PRODUCT SYNONYMS

Hsp90 alpha; Monoclonal Antibody; Hsp90 alpha Antibody: Biotin; Hsp86; Hsp89A; Hsp90A; Hsp90AA1; Hsp90Alpha; HSPC1; HSPCA; HSPCAL3; anti-HSP90AA1 antibody

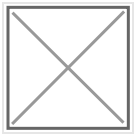
PRODUCT SPECIFICATIONS

Host	Mouse
Reactivity	Human (Alpha specific), Rat
Clonality	Monoclonal
Isotype	IgG2a
Clone Number	Hyb-K41009
Form/Format	Protein G Purified
Concentration	1mg/mL (varies by lot)
Sequence Length	854
Applicable Applications for anti-HSP90AA1 antibody	IP (Immunoprecipitation), IHC (Immunohistochemistry), ELISA, WB (Western Blot)
Conjugate	Biotin
Storage Buffer	PBS pH7.2, 50% glycerol, 0.09% sodium azide
Preparation and Storage	-20 degree C

IMAGES

IHC (Immunohistochemisry)
Immunohistochemistry analysis using Mouse Anti-Hsp90 alpha Monoclonal Antibody, Clone K41009. Tissue: inflamed colon. Species: Mouse. Fixation: Formalin. Primary Antibody: Mouse Anti-Hsp90 alpha Monoclonal Antibody at 1:5000 for 12 hours at 4 degree C. Secondary Antibody: Biotin Goat Anti-Mouse at 1:2000 for 1 hour at RT. Counterstain: Mayer Hematoxylin (purple/blue) nuclear stain at 200 ul for 2 minutes at RT. Localization: Inflammatory cells. Magnification: 40x. Inflammatory cells.

WB (Western Blot)
Western Blot analysis of Rat Lysates showing detection of Hsp90 alpha protein using Mouse Anti-Hsp90 alpha Monoclonal Antibody, Clone K41009. 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 K41009. Tissue: colon carcinoma. Species: Human. Fixation: Formalin. Primary Antibody: Mouse Anti-Hsp90 alpha Monoclonal Antibody at 1:5000 for 12 hours at 4 degree C. Secondary Antibody: Biotin Goat Anti-Mouse at 1:2000 for 1 hour at RT. Counterstain: Mayer Hematoxylin (purple/blue) nuclear stain at 200 ul for 2 minutes at RT. Localization: Inflammatory cells. Magnification: 40x.

ADDITIONAL INFORMATION

Related Product Information for anti-HSP90AA1 antibody	**Background Info:** Detects 90kDa proteins corresponding to the molecular mass of Hsp90alpha. **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 it's 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-HSP90AA1 antibody	Chaperones; Heat Shock; 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. Nemoto, T. (1997) Biochem and Mol. Bio Intl. 42 (5), 881-889. 1. Shipp, C., Watson, K., and Jones, G.L. (2011). Associations of HSP90 Client Proteins in Human Breast Cancer. Anticancer Research. 31 (6), 2095-2101. 2. Xi, C., et. al. (2012). Heat Shock Factor Hsf1 Cooperates with ErbB2 (Her2/Neu) Protein to Promote Mammary Tumorigenesis and Metastasis. J Biol Chem. 287, 35646-35657. doi: 10.1074/jbc.M112.377481

NCBI AND UNIPROT INFORMATION

NCBI GI #	153792590
NCBI GeneID	3320
NCBI Accession #	NP_001017963.2
NCBI GenBank Nucleotide #	NM_001017963.2
UniProt Accession #	P07900; Q2PP14; Q5CAQ6; Q5CAQ7; Q9BVQ5; A8K500; B3KPJ9
Molecular Weight	98,161 Da

NCBI Official Full Name	heat shock protein HSP 90-alpha isoform 1
NCBI Official Synonym Full Names	heat shock protein 90kDa alpha (cytosolic), class A member 1
NCBI Official Symbol	HSP90AA1
NCBI Official Synonym Symbols	EL52; HSPN; LAP2; HSP86; HSPC1; HSPCA; Hsp89; Hsp90; LAP-2; HSP89A; HSP90A; HSP90N; HSPCAL1; HSPCAL4
NCBI Protein Information	heat shock protein HSP 90-alpha; HSP 86; heat shock 86 kDa; LPS-associated protein 2; heat shock 90kD protein 1, alpha; heat shock 90kDa protein 1, alpha; renal carcinoma antigen NY-REN-38; heat shock 90kD protein, alpha-like 4; epididymis luminal secretory protein 52; heat shock 90kD protein 1, alpha-like 4; lipopolysaccharide-associated protein 2
UniProt Protein Name	Heat shock protein HSP 90-alpha
UniProt Gene Name	**HSP90AA1**
UniProt Synonym Gene Names	HSP90A; HSPC1; HSPCA; HSP 86; HSP86; LAP-2; LPS-associated protein 2
UniProt Entry Name	HS90A_HUMAN

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/monoclonal/hsp90-alpha-antibody-clone-hyb-k41009-immunoprecipitation-immunohistochemistry-western-blot-elisa/102916