

Mouse Hsp90 alpha Monoclonal Antibody | anti-HSP90AA1 antibody

Hsp90 alpha Antibody: HRP, Anti-HSP90 alpha Antibody: Clone 2G5.G3

CATALOG #	HOST	REACTIVITY	APPLICATIONS
AAA103199	Mouse	Human, Mouse, Rat	ELISA, Immunoprecipitation, Immunocytochemistry, Immunohistochemistry, Western Blot

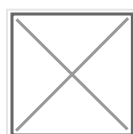
PRODUCT SYNONYMS

Hsp90 alpha; Monoclonal Antibody; Hsp90 alpha Antibody: HRP; Anti-HSP90 alpha Antibody: Clone 2G5.G3; Hsp86; Hsp89A; Hsp90AA1; Hsp90Alpha; HspC1; HSPCA; HspCAL3; anti-HSP90AA1 antibody

PRODUCT SPECIFICATIONS

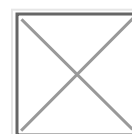
Host	Mouse
Reactivity	Human, Mouse, Rat
Clonality	Monoclonal
Isotype	IgG1 Kappa
Clone Number	IgG
Specificity	Detects ~90kDa. HSP90a-specific (>96%) a-specific by ELISA).
Form/Format	Protein G Purified
Concentration	1mg/mL (varies by lot)
Sequence Length	854
Applicable Applications for anti-HSP90AA1 antibody	ELISA, IP (Immunoprecipitation), ICC (Immunocytochemistry), IHC (Immunohistochemistry), WB (Western Blot)
Buffer	PBS pH7.2, 50% glycerol, 0.09% sodium azide
Certificate of Analysis	0.5 ug/mL was sufficient for detection of HSP90 alpha in 20 ug of heat shocked HeLa cell lysate by colorimetric immunoblot analysis using Goat anti-mouse IgG: HRP: as the secondary antibody.
Research areas	Cancer Heat Shock
Cellular localization	Cytoplasm Melanosome
Preparation and Storage	Store at -20°C for 1 year . Avoid freeze thaw cycles.

IMAGES



WB (Western Blot)

Western Blot analysis of Rat tissue lysate showing detection of Hsp90 alpha protein using Mouse Anti-Hsp90 alpha Monoclonal Antibody, Clone 2G5.G3. 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.



ICC (Immunocytochemistry)

Immunocytochemistry/Immunofluorescence analysis using Mouse Anti-Hsp90 alpha Monoclonal Antibody, Clone 2G5.G3. Tissue: HaCaT cells. Species: Human. Fixation: Cold 100% methanol for 10 minutes at -20 degree C. 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.

ADDITIONAL INFORMATION

Related Product Information for anti-HSP90AA1 antibody	<p>Background Info: Hsp90alpha-specific (>96% alpha-specific by ELISA)</p> <p>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).</p>
Product Categories/Family for anti-HSP90AA1 antibody	Chaperones; Heat Shock; Trafficking
References	<p>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.</p> <p>1. Orthwein, A. et al. (2010). Regulation of activation-induced deaminase stability and antibody gene diversification by Hsp90. JEM. 207 (12). 2751-2765. doi: 10.1084/jem.20101321</p> <p>2. Di Noia, J.M. and Orthwein, A. (2011). Modulating and/or detecting activation induced deaminase and methods of use thereof. United States Patent Application. US 20110237560 A1</p> <p>3. O'Neill, A.J. et al. (2011). Characterisation and manipulation of docetaxel resistant prostate cancer cell lines. Mol Cancer. 10 (126). doi:10.1186/1476-4598-10-126</p> <p>4. Quanz, M. et al. (2012). Heat Shock Protein 90? (Hsp90?) Is Phosphorylated in Response to DNA Damage and Accumulates in Repair Foci. J Biol Chem. 287, 8803-8815. doi:10.1074/jbc.M111.320887</p>

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
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-igg-immunoprecipitation-immunocytochemistry-immunohistochemistry-western-blot-elisa/103199>