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AM03152PU-N

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## Monoclonal Antibody to HSP90AA1 / HSP90 alpha - Purified

**Alternate names:** HSP86, HSP90A, HSPC1, HSPCA, Heat shock 86 kDa, Heat shock protein HSP 90-alpha, NY-REN-38

**Catalog No.:** AM03152PU-N

**Quantity:** 0.1 mg

**Concentration:** 1.0 mg/ml

**Background:** Hsp90 is a highly conserved and essential stress protein that is expressed in all eukaryotic cells. From a functional perspective, hsp90 participates in the folding, assembly, maturation, and stabilization of specific proteins as an integral component of a chaperone complex (4-7). 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 (8-9). The number of proteins now known 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(6). 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 immune-oadsorption 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 (10).

**Uniprot ID:** [P07900](#)

**NCBI:** [NP\\_005339](#)

**GeneID:** [3320](#)

**Host / Isotype:** Mouse / IgG1

**Recommended Isotype Controls:** SM10P (for use in human samples), SM20P (for use in rat samples), AM03095PU-N

**Clone:** D7alpha

**Immunogen:** Full length protein purified from chicken brain, clone D7α

**Format:** **State:** Liquid purified Ig fraction

**Buffer System:** Mouse IgG in PBS buffer, 0.09 % sodium azide and 50 % glycerol

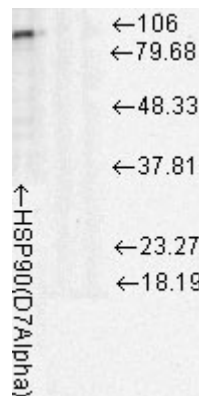
**For research and in vitro use only. Not for diagnostic or therapeutic work.**  
Material Safety Datasheets are available at [www.acris-antibodies.com](http://www.acris-antibodies.com) or on request.  
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- Applications:** Immunoprecipitation (1, 2, 3): 5 µg with 20 µl Protein A beads.  
Immunohistochemistry on frozen sections.  
Western blot: 1:500.  
Other applications not tested. Optimal dilutions are dependent on conditions and should be determined by the user.
- Specificity:** This antibody recognizes 90kDa proteins corresponding to the molecular mass of hsp90. Hsp90alpha specific for human samples.  
Can isolate complexes of hsp90, Src kinase and cdc37 (1, 2, 3).
- Species Reactivity:** **Tested:** Bovine, Chicken, Human, Mouse, Porcine (Pig), Rat, Rabbit.
- Storage:** Store the antibody at 2 - 8 °C up to one month or (in aliquots) at -20 °C for longer. Avoid repeated freezing and thawing.  
Shelf life: one year from despatch.
- General Readings:**
- Schuh S. et al. (1985) J Biol Chem. 260 (26): 14292-14296.
  - Lipsich L.A., Cutt J.R. and Brugge J.S. (1982) Mol. Cell Biol. 2(7): 875-880.
  - Brugge J.S., Yonemoto W., and Darrow D. (1983) Mol. Cell. Biol. 3(1): 9-19.
  - Arlander SJH, et al. (2003) J Biol Chem 278: 52572-52577.
  - Pearl H, et al. (2001) Adv Protein Chem 59: 157-186.
  - Neckers L, et al. (2002) Trends Mol Med 8:S55-S61.
  - Pratt W, Toft D. (2003) Exp Biol Med 228:111-133.
  - Pratt W, Toft D. (1997) Endocr Rev 18: 306-360.
  - Pratt WB. (1998) Proc Soc Exptl Biol Med 217: 420-434.
  - Whitesell L, et al. (1994) Proc Natl Acad Sci USA 91: 8324-8328.

**Pictures:** Western blot analysis of Hsp90 in rat tissue lysates using a 1:1000 dilution of the antibody



IHC staining of inflammatory cells in mouse colon tissue.

