

**Hsp90 alpha Antibody**  
**Hsp90 alpha Antibody, Clone M10E3R**  
**Catalog # ASM10679****Specification**

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**Hsp90 alpha Antibody - Product Information**

Primary Accession [P07900](#)  
Other Accession [NP\\_001017963.2](#)  
Host **Mouse**  
Clonality **Recombinant Monoclonal**  
**Target/Specificity**  
Hsp90 alpha

**Other Names**

HSP86 Antibody, HSP89A Antibody, HSP90A Antibody, HSP90AA1 Antibody, HSP90Alpha Antibody, HSPC1 Antibody, HSPCA Antibody, HSPCAL3 Antibody

**Immunogen**

Purified Human HSP90

**Purification**

Protein A Purified

Storage **-20°C**

**Storage Buffer**

PBS pH 7.4, 50% glycerol, 0.09% Sodium azide \*Storage buffer may change when conjugated

Shipping Temperature

**Blue Ice or 4°C**

**Certificate of Analysis**

A 1:1000 dilution of SMC-554 was sufficient for detection of HSP90a in 10 µg of HeLa by ECL immunoblot analysis using goat anti-mouse IgG:HRP as the secondary antibody.

**Cellular Localization**

Cytoplasm | Melanosome

**Hsp90 alpha Antibody - Protocols**

Provided below are standard protocols that you may find useful for product applications.

- [Western Blot](#)
- [Blocking Peptides](#)
- [Dot Blot](#)
- [Immunohistochemistry](#)
- [Immunofluorescence](#)
- [Immunoprecipitation](#)
- [Flow Cytometry](#)
- [Cell Culture](#)

**Hsp90 alpha Antibody - Images**

## Hsp90 alpha Antibody - 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, HSP90 $\alpha$  exists predominantly as a homodimer while HSP90 $\beta$  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 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 (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). For more information visit our HSP90 Scientific Resource Guide at <http://www.HSP90.ca>.

## Hsp90 alpha Antibody - 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.