

**HSP90 alpha/beta Antibody**  
**Llama Anti-Human HSP90 alpha/beta Polyclonal**  
**Catalog # ASM10594****Specification**

---

**HSP90 alpha/beta Antibody - Product Information**

Application	<b>E</b>
Primary Accession	<a href="#">Alpha: P07900. Beta: P08238.</a>
Other Accession	<a href="#">Alpha: NP_001017963.2. Beta: NP_001258898.1.</a>
Host	<b>Llama</b>
Reactivity	<b>Rat</b>
Clonality	<b>Polyclonal</b>
<b>Target/Specificity</b>	
HSP90 alpha/beta	

**Other Names**

Heat shock 84 kDa antibody, Heat shock 86 kDa antibody, Heat shock protein HSP 90-alpha antibody, Heat shock protein HSP 90-beta antibody, HSP 84 antibody, HSP 86 antibody, HSP 90 antibody, HSP84 antibody, HSP86 antibody, HSP90A antibody, HSP90AA1 antibody, HSP90AB1 antibody, HSP90B antibody, HSPC1 antibody, HSPC2 antibody, HSPCA antibody, HSPCB antibody, LAP-2 antibody, Lipopolysaccharide-associated protein 2 antibody, LPS-associated protein 2 antibody, Renal carcinoma antigen NY-REN-38 antibody

**Immunogen**

Synthetic human HSP90 alpha full length protein

**Purification**

Peptide Affinity 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 SPC-745 was sufficient for detection of HSP90 alpha/beta in 10 µg of human HeLa cell lysates by ECL immunoblot analysis using goat anti-llama IgG:HRP as the secondary antibody.

**Cellular Localization**

Cytoplasm | Melanosome | Nucleus | Secreted | Cell Membrane

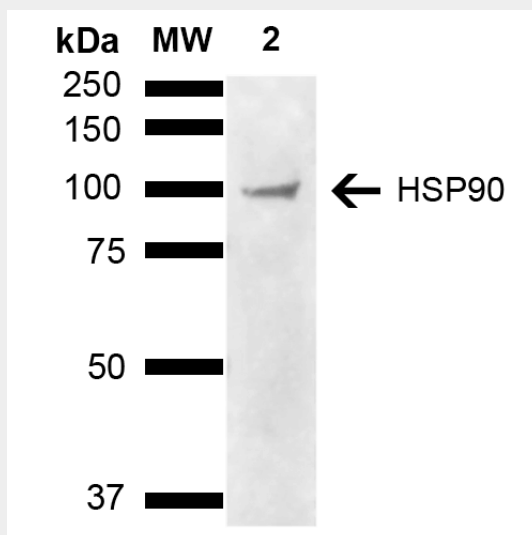
**HSP90 alpha/beta Antibody - Protocols**

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/beta Antibody - Images



Western blot analysis of Human Cervical cancer cell line (HeLa) lysate showing detection of ~90 kDa HSP90 alpha/beta protein using Llama Anti-HSP90 alpha/beta Polyclonal Antibody (SPC-745). Lane 1: Molecular Weight Ladder (MW). Lane 2: Cervical Cancer cell line (HeLa) lysate. Load: 10 µg. Block: 5% Skim Milk in 1X TBST. Primary Antibody: Llama Anti-HSP90 alpha/beta Polyclonal Antibody (SPC-745) at 1:1000 for 2 hours at RT. Secondary Antibody: Goat Anti-Llama HRP:IgG at 1:3000 for 1 hour at RT. Color Development: ECL solution for 5 min at RT. Predicted/Observed Size: ~90 kDa.

### HSP90 alpha/beta 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/beta 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. Kishimoto J, et al. (2005). Cell Stress and Chaperones. 10 (4): 296-311.