

Datasheet for ABIN2481301  
**anti-HSP90 antibody (Biotin)**



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5 Images

## Overview

Quantity:	200 µg
Target:	HSP90
Reactivity:	Human
Host:	Mouse
Clonality:	Monoclonal
Conjugate:	This HSP90 antibody is conjugated to Biotin
Application:	Western Blotting (WB), Immunoprecipitation (IP), Immunohistochemistry (IHC), ELISA, Immunofluorescence (IF), Immunocytochemistry (ICC)

## Product Details

Immunogen:	Recombinant Human HSP90 purified from E.coli
Clone:	4F3-E8
Isotype:	IgG2a
Specificity:	Detects ~90 kDa. This antibody detects both $\alpha$ and $\beta$ forms of HSP90 equally well.
Cross-Reactivity:	Human, Mouse, Plant, Rat
Purification:	Protein G Purified

## Target Details

Target:	HSP90
Alternative Name:	HSP90 ( <a href="#">HSP90 Products</a> )

## Target Details

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**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>.

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Gene ID: 3320

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NCBI Accession: [NP\\_001017963](#)

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UniProt: [P07900](#)

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Pathways: [M Phase, Regulation of Cell Size, Signaling Events mediated by VEGFR1 and VEGFR2, VEGFR1 Specific Signals](#)

## Application Details

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Application Notes:

- WB (1:2000)
- IHC (1:100)

## Application Details

- ICC/IF (1:100)
- optimal dilutions for assays should be determined by the user.

**Comment:** 0.5 µg/ml of ABIN2481301 was sufficient for detection of HSP90alpha in 20 µg of heat shocked HeLa cell lysate by colorimetric immunoblot analysis using Goat anti-mouse IgG:HRP as the secondary antibody.

**Restrictions:** For Research Use only

## Handling

**Format:** Liquid

**Concentration:** 1 mg/mL

**Buffer:** PBS pH 7.2, 50 % glycerol, 0.09 % sodium azide, Storage buffer may change when conjugated

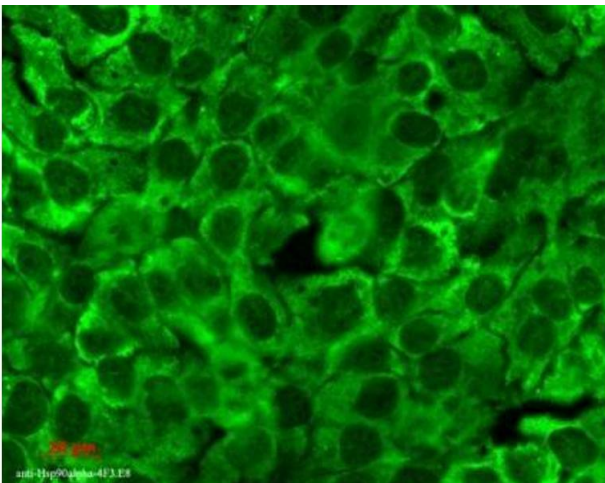
**Preservative:** Sodium azide

**Precaution of Use:** This product contains Sodium azide: a POISONOUS AND HAZARDOUS SUBSTANCE which should be handled by trained staff only.

**Storage:** 4 °C

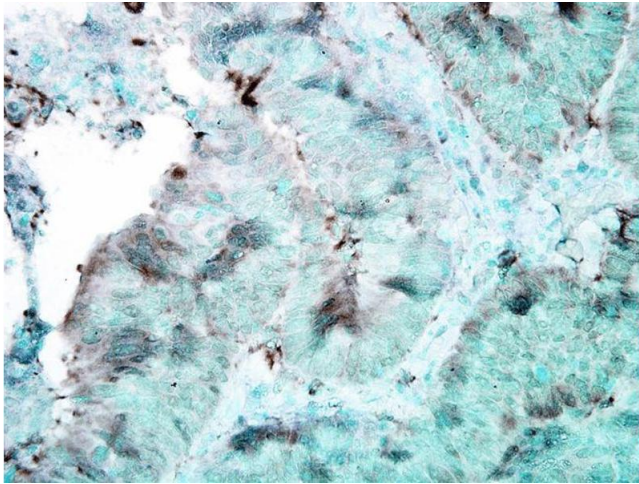
**Storage Comment:** Conjugated antibodies should be stored at 4°C

## Images



### Immunofluorescence (fixed cells)

**Image 1.** Immunocytochemistry/Immunofluorescence analysis using Mouse Anti-Hsp90 Monoclonal Antibody, Clone 4F3.E8 . Tissue: HaCaT cells. Species: Human. Fixation: Cold 100% methanol for 10 minutes at -20°C. Primary Antibody: Mouse Anti-Hsp90 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.



### Immunohistochemistry

**Image 2.** Immunohistochemistry analysis using Mouse Anti-Hsp90 Monoclonal Antibody, Clone 4F3.E8 . Tissue: colon carcinoma. Species: Human. Fixation: Formalin. Primary Antibody: Mouse Anti-Hsp90 Monoclonal Antibody at 1:100000 for 12 hours at 4°C. Secondary Antibody: Biotin Goat Anti-Mouse at 1:2000 for 1 hour at RT. Counterstain: Mayer Hematoxylin (purple/blue) nuclear stain at 200 µl for 2 minutes at RT. Localization: Inflammatory cells. Magnification: 40x.



### Western Blotting

**Image 3.** Western Blot analysis of Rat tissue lysate showing detection of Hsp90 protein using Mouse Anti-Hsp90 Monoclonal Antibody, Clone 4F3.E8 . Load: 15 µg. Block: 1.5% BSA for 30 minutes at RT. Primary Antibody: Mouse Anti-Hsp90 Monoclonal Antibody at 1:1000 for 2 hours at RT. Secondary Antibody: Sheep Anti-Mouse IgG: HRP for 1 hour at RT.

Please check the [product details page](#) for more images. Overall 5 images are available for ABIN2481301.