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## Produktinformation



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Diagnostik & molekulare Diagnostik



Laborgeräte & Service

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siehe unsere [Liefer- und Versandbedingungen](#)

### Zuschläge

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- Trockeneiszuschlag
- Gefahrgutzuschlag
- Expressversand

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# Anti-HSP90 Beta Antibody [Hyb-K3701]

Mouse Anti-Human HSP90 beta Monoclonal IgM  
Catalog No. SMC-136



Discovery through partnership | Excellence through quality

## Overview

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### Product Name

HSP90 beta Antibody

### Description

Mouse Anti-Human HSP90 beta Monoclonal IgM

### Species Reactivity

Human, Mouse

### Applications

WB, IHC, ELISA

### Antibody Dilution

WB (1:1000), IHC (1:3000); optimal dilutions for assays should be determined by the user.

### Host Species

Mouse

### Immunogen Species

Human

### Immunogen

Recombinant human HSP90beta; Specificity mapped to amino acids 185-335

### Concentration

1 mg/ml

### Conjugates

Alkaline Phosphatase, APC, ATTO 390, ATTO 488, ATTO 565, ATTO 594, ATTO 633, ATTO 655, ATTO 680, ATTO 700, Biotin, FITC, HRP, PE/ATTO 594, PerCP, RPE, Streptavidin, Unconjugated

## Properties

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### Storage Buffer

PBS pH7.2, 50% glycerol, 0.09% sodium azide

### Storage Temperature

-20°C

### Shipping Temperature

Blue Ice or 4°C

### Purification

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Protein G Purified

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**Clonality**

Monoclonal

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**Clone Number**

Hyb-K3701

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**Isotype**

IgM

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**Specificity**

Detects 90kDa. This is a beta specific product, does not cross-react with alpha isoforms.

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**Cite This Product**

Mouse Anti-Human HSP90 beta Monoclonal, Clone Hyb-K3701 (StressMarq Biosciences Inc., Victoria BC CANADA, Catalog # SMC-136)

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**Certificate Of Analysis**

1 µg/ml was sufficient for detection of HSP90? in 20 µg of heat shocked HeLa cell lysate by colorimetric immunoblot analysis using Goat Anti-Mouse IgG:HRP as the secondary.

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**Biological Description**

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**Alternative Names**

HSP84 Antibody, HSP90B Antibody, HSPC2 Antibody, HSPCB Antibody, D6S182 Antibody, FLJ26984 Antibody

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**Research Areas**

Cancer, Heat Shock

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**Cellular Localization**

Cytoplasm, Melanosome

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**Accession Number**

NP\_031381.2

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**Gene ID**

3326

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**Swiss Prot**

P08238

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**Scientific Background**

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HSP90 is an abundantly and ubiquitously expressed heat shock protein. It is understood to exist in two principal forms ? and ?, which share 85% sequence amino acid homology. The two isoforms of HSP90 are expressed in the cytosolic compartment (1). Despite the similarities, HSP90? exists predominantly as a homodimer while HSP90? 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 (12% 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.<sup>5</sup> 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). Looking for more information on HSP90? Visit our new HSP90 Scientific Resource Guide at <http://www.HSP90.ca>.

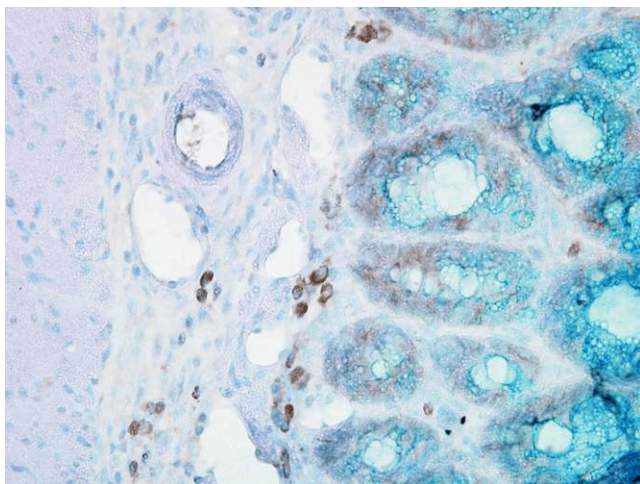
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## References

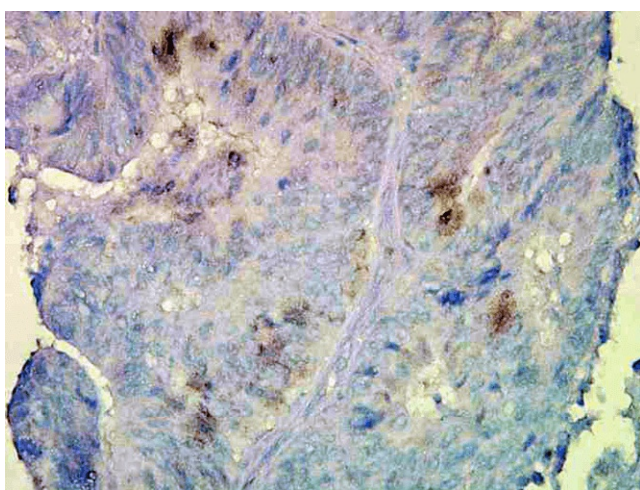
1. Nemoto, T. et al. (1997) *J. Biol. Chem.* 272: 26179-26187.
  2. Minami Y, et al. (1991), *J. Biol. Chem.* 266: 10099-10103.
  3. Arlander SJH, et al. (2003) *J Biol Chem* 278: 52572-52577.
  4. Pearl H, et al. (2001) *Adv Protein Chem* 59: 157-186.
  5. Neckers L, et al. (2002) *Trends Mol Med* 8: S55-S61.
  6. Pratt W, Toft D. (2003) *Exp Biol Med* 228: 111-133.
  7. Pratt W, Toft D. (1997) *Endocr Rev* 18: 306360.
  8. Pratt WB. (1998) *Proc Soc Exptl Biol Med* 217: 420434.
  9. Whitesell L, et al. (1994) *Proc Natl Acad Sci USA* 91: 83248328.
  10. Kishimoto J, et al. (2005). *Cell Stress and Chaperones*. 10 (4): 296-311.
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## Product Images

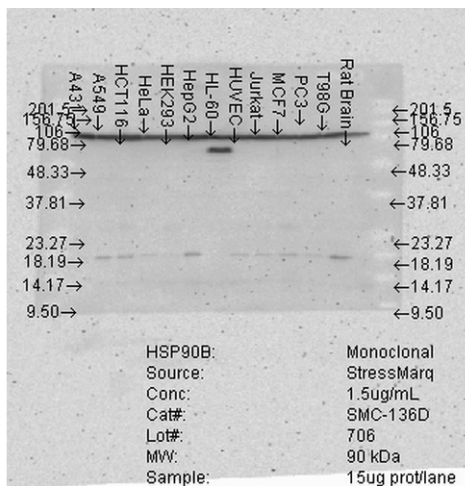
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Immunohistochemistry analysis using Mouse Anti-Hsp90 beta Monoclonal Antibody, Clone K3701 (SMC-136). Tissue: inflamed colon. Species: Mouse. Fixation: Formalin. Primary Antibody: Mouse Anti-Hsp90 beta Monoclonal Antibody (SMC-136) at 1:3000 for 12 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. Magnification: 40x.



Immunohistochemistry analysis using Mouse Anti-Hsp90 beta Monoclonal Antibody, Clone K3701 (SMC-136). Tissue: colon carcinoma. Species: Human. Fixation: Formalin. Primary Antibody: Mouse Anti-Hsp90 beta Monoclonal Antibody (SMC-136) at 1:3000 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. Magnification: 40x.



Western Blot analysis of Human Cell lysates showing detection of Hsp90 beta protein using Mouse Anti-Hsp90 beta Monoclonal Antibody, Clone K3701 (SMC-136). Load: 15 µg protein. Block: 1.5% BSA for 30 minutes at RT. Primary Antibody: Mouse Anti-Hsp90 beta Monoclonal Antibody (SMC-136) at 1.5 µg/mL for 2 hours at RT. Secondary Antibody: Sheep Anti-Mouse IgG: HRP for 1 hour at RT.

## Product Citations (2)

### Western Blot

#### Moderate Alcohol Induces Stress Proteins HSF1 and hsp70 and Inhibits Proinflammatory Cytokines Resulting in Endotoxin Tolerance.

Muralidharan, S. et al. (2014) J Immunol. 193(4):1975-87.

**PubMed ID:** 25024384 **Reactivity:** Human **Applications:** Western Blot

#### Extensive Gene-Specific Translational Reprogramming in a Model of B Cell Differentiation and Abl-Dependent Transformation.

Bates, J.G. et al. (2012) PLoS ONE. 7 (5): e37108.

**PubMed ID:** 22693568 **Reactivity:** Human **Applications:** Western Blot

## Reviews

Based on validation through cited publications.



**StressMarq Biosciences**

June 14, 2016: