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HSP90 beta Antibody
HSP90 beta Antibody, Clone Hyb-K3701
Catalog # ASM10050

Specification

HSP90 beta Antibody - Product Information

Application	**WB, IHC, E**
Primary Accession	P08238
Other Accession	NP_031381.2
Host	**Mouse**
Isotype	**IgM**
Reactivity	**Human, Mouse**
Clonality	**Monoclonal**

Description
Mouse Anti-Human HSP90 beta Monoclonal IgM

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

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

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

Purification
Protein G Purified

Storage	**-20ºC**

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

Shipping Temperature	**Blue Ice or 4ºC**

Certificate of Analysis
1 µg/ml was sufficient for detection of HSP90β in 20 µg of heat shocked HeLa cell lysate by colorimetric immunoblot analysis using Goat Anti-Mouse IgG:HRP as the secondary.

Cellular Localization
Cytoplasm | Melanosome

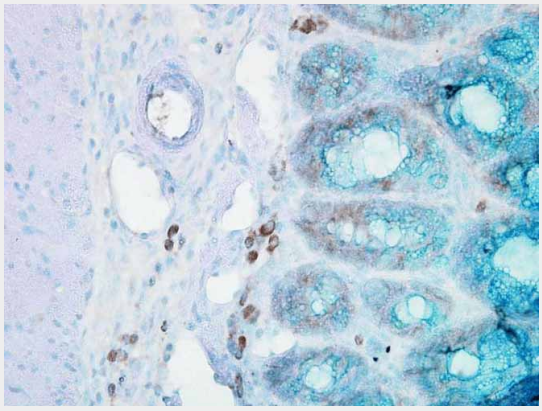
HSP90 beta Antibody - Protocols

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

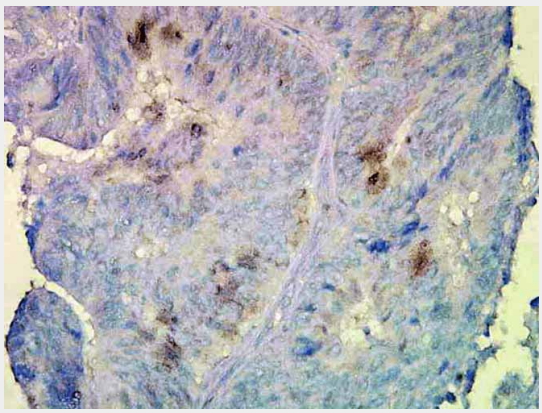
- Western Blot
- Blocking Peptides
- Dot Blot
- Immunohistochemistry

- Immunofluorescence
- Immunoprecipitation
- Flow Cytomety
- Cell Culture

HSP90 beta Antibody - Images



Immunohistochemistry analysis using Mouse Anti-Hsp90 beta Monoclonal Antibody, Clone K3701 (ASM10050). Tissue: inflamed colon. Species: Mouse. Fixation: Formalin. Primary Antibody: Mouse Anti-Hsp90 beta Monoclonal Antibody (ASM10050) 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 (ASM10050). Tissue: colon carcinoma. Species: Human. Fixation: Formalin. Primary Antibody: Mouse Anti-Hsp90 beta Monoclonal Antibody (ASM10050) 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.

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Western Blot analysis of Human Cell lysates showing detection of Hsp90 beta protein using Mouse Anti-Hsp90 beta Monoclonal Antibody, Clone K3701 (ASM10050). Load: 15 µg. Block: 1.5% BSA for 30 minutes at RT. Primary Antibody: Mouse Anti-Hsp90 beta Monoclonal Antibody (ASM10050) at 1.5 µg/mL for 2 hours at RT. Secondary Antibody: Sheep Anti-Mouse IgG: HRP for 1 hour at RT.

HSP90 beta Antibody - Background

HSP90 is an abundantly and ubiquitously expressed heat shock protein. It is understood to exist in two principal forms α and β, which share 85% sequence amino acid homology. The two isoforms of HSP90 are expressed in the cytosolic compartment (1). Despite the similarities, HSP90α exists predominantly as a homodimer while HSP90β 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 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 (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 beta Antibody - References

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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.
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