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siehe unsere Liefer- und Versandbedingungen

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- Mindermengenzuschlag
- Trockeneiszuschlag
- Gefahrgutzuschlag
- Expressversand

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Anti-HSP90 Alpha Antibody [Hyb-K41009]

Mouse Anti-Human HSP90 alpha Monoclonal IgG2a
Catalog No. SMC-108

StressMarq Biosciences INC.
Discovery through partnership | Excellence through quality

Overview

Product Name

HSP90 alpha Antibody

Description

Mouse Anti-Human HSP90 alpha Monoclonal IgG2a

Species Reactivity

Human, Mouse, Rat

Applications

WB, IHC, ELISA

Antibody Dilution

WB (1:1000), IHC (1:5000); optimal dilutions for assays should be determined by the user.

Host Species

Mouse

Immunogen Species

Human

Immunogen

Recombinant human HSP90alpha; Specificity mapped to amino acids 604-731

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

Storage Buffer

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

Storage Temperature

-20ºC

Shipping Temperature

Blue Ice or 4ºC

Purification

Protein G Purified

Clonality

Monoclonal

Clone Number

Hyb-K41009

Isotype

IgG2a

Specificity

Detects 90kDa. This is an alpha-specific product.

Cite This Product

Mouse Anti-Human HSP90 alpha Monoclonal, Clone Hyb-K41009 (StressMarq Biosciences Inc., Victoria BC CANADA, Catalog # SMC-108)

Certificate Of Analysis

1 µg/ml of SMC-108 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.

Biological Description

Alternative Names

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

Research Areas

Cancer, Heat Shock

Cellular Localization

Cytoplasm, Melanosome

Accession Number

NP_001017963.2

Gene ID

3320

Swiss Prot

P07900

Scientific Background

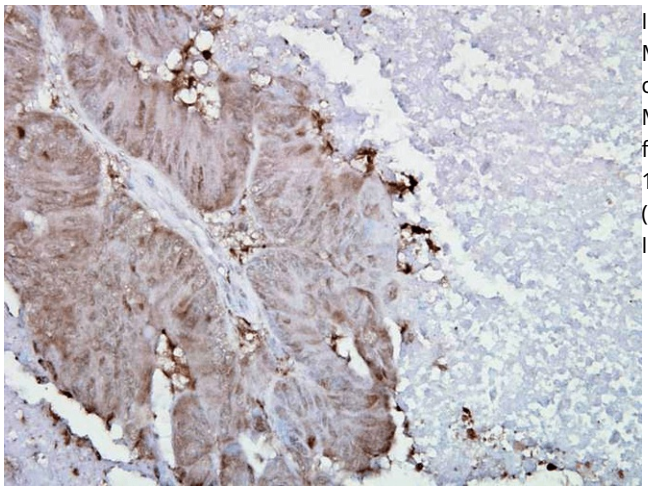
HSP90 is an abundantly and ubiquitously expressed heat shock protein. It is understood to exist in two principal forms ? and ?, which share 85% sequence amino acid homology. The two isoforms of HSP90, are expressed in the cytosolic compartment (1). Despite the similarities, HSP90? exists predominantly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

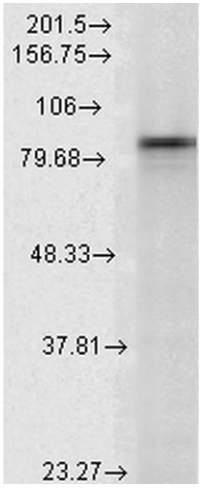
References

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. Nemoto, T. (1997) Biochem and Mol. Bio Intl. 42 (5): 881-889.

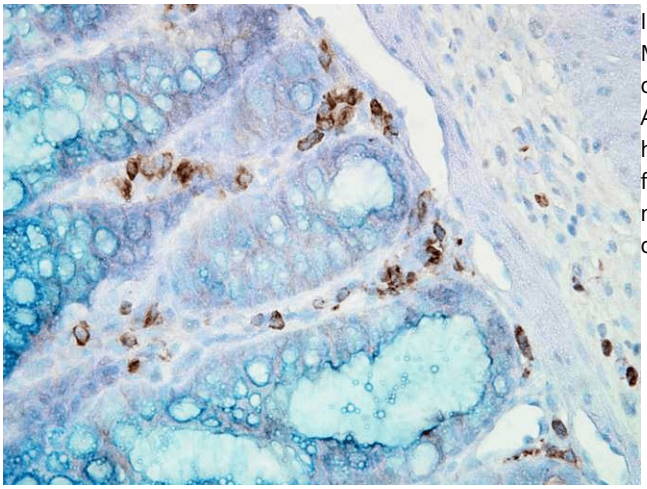
Product Images



Immunohistochemistry analysis using Mouse Anti-Hsp90 alpha Monoclonal Antibody, Clone K41009 (SMC-108). Tissue: colon carcinoma. Species: Human. Fixation: Formalin. Primary Antibody: Mouse Anti-Hsp90 alpha Monoclonal Antibody (SMC-108) at 1:5000 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 Blot analysis of Rat Lysates showing detection of Hsp90 alpha protein using Mouse Anti-Hsp90 alpha Monoclonal Antibody, Clone K41009 (SMC-108). Load: 15 µg protein. Block: 1.5% BSA for 30 minutes at RT. Primary Antibody: Mouse Anti-Hsp90 alpha Monoclonal Antibody (SMC-108) at 1:1000 for 2 hours at RT. Secondary Antibody: Sheep Anti-Mouse IgG: HRP for 1 hour at RT.



Immunohistochemistry analysis using Mouse Anti-Hsp90 alpha Monoclonal Antibody, Clone K41009 (SMC-108). Tissue: inflamed colon. Species: Mouse. Fixation: Formalin. Primary Antibody: Mouse Anti-Hsp90 alpha Monoclonal Antibody (SMC-108) at 1:5000 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.

Product Citations (6)

Western Blot

Effects of Long-Term Exposure to 60 GHz Millimeter-Wavelength Radiation on the Genotoxicity and Heat Shock Protein (Hsp) Expression of Cells Derived from Human Eye.

Koyama, S. et al. (2016) Int J Environ Res Public Health. 13(8). pii: E802.

PubMed ID: 27509516 **Reactivity:** Human **Applications:** Western Blot

Twenty Four-Hour Exposure to a 0.12 THz Electromagnetic Field Does Not Affect the Genotoxicity, Morphological Changes, or Expression of Heat Shock Protein in HCE-T Cells.

Koyama, S. et al. (2016) Int J Environ Res Public Health. 13(8). pii: E802.

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

Heat-induced expression of the immediate-early gene IER5 and its involvement in the proliferation of heat-shocked cells.

Ishikawa, Y. and Sakurai, H. (2014) FEBS J. 282(2):332-40.

PubMed ID: 25355627 **Reactivity:** Human **Applications:** Western Blot

Heat Shock Factor Hsf1 Cooperates with ErbB2 (Her2/Neu) Protein to Promote Mammary Tumorigenesis and Metastasis.

Xi, C., Hu, Y., Buckhaults, P., Moskophidis, D. and Mivechi, N.F. (2012) J Biol Chem. 287, 35646-35657.

PubMed ID: 22847003 **Reactivity:** Human **Applications:** Western Blot

Heat Shock Protein 90? (Hsp90?) Is Phosphorylated in Response to DNA Damage and Accumulates in Repair Foci.

Quanz, M. et al. (2012) J Biol Chem. 287, 8803-8815.

PubMed ID: 22270370 **Reactivity:** Human **Applications:** Western Blot

Immunoprecipitation

Associations of HSP90 Client Proteins in Human Breast Cancer.

Shipp, C., Watson, K., and Jones, G.L. (2011) Anticancer Research. 31 (6): 2095-2101.

PubMed ID: 21737627 **Reactivity:** Human **Applications:** Immunoprecipitation

Reviews

Based on validation through cited publications. ★★★★★

StressMarq Biosciences
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