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- Diagnostik & molekulare Diagnostik
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Lieferung & Zahlungsart

siehe unsere Liefer- und Versandbedingungen

Zuschläge

- Mindermengenzuschlag
- Trockeneiszuschlag
- Gefahrgutzuschlag
- Expressversand

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Anti-HSP90 (Total) Antibody [4F3.E8]

Mouse Anti-Human HSP90 (total) Monoclonal IgG2a
Catalog No. SMC-149

StressMarq Biosciences INC.
Discovery through partnership | Excellence through quality

Overview

Product Name

HSP90 (total) Antibody

Description

Mouse Anti-Human HSP90 (total) Monoclonal IgG2a

Species Reactivity

Human, Mouse, Rat, Plant, Wheat (Triticum spp.)

Applications

WB, IHC, ICC/IF, IP, ELISA

Antibody Dilution

WB (1:2000), IHC (1:100), ICC/IF (1:100); optimal dilutions for assays should be determined by the user.

Host Species

Mouse

Immunogen Species

Human

Immunogen

Recombinant Human HSP90 purified from E.coli

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

4F3.E8

Isotype

IgG2a

Specificity

Detects ~90kDa. This antibody detects both ? and ? forms of HSP90 equally well.

Cite This Product

Mouse Anti-Human HSP90 Monoclonal, Clone 4F3.E8 (StressMarq Biosciences Inc., Victoria BC CANADA, Catalog # SMC-149)

Certificate Of Analysis

0.5 µg/ml of SMC-149 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

HSP84 Antibody, HSP86 Antibody, HSP90A Antibody, HSP90AA1 Antibody, HSP90AB1 Antibody, HSP90B Antibody, HSPC1 Antibody, HSPC2 Antibody, HSPCAL1 Antibody, HSPCAL4 Antibody

Research Areas

Cancer, Heat Shock

Cellular Localization

Cytoplasm, Melanosome

Accession Number

NP_001017963.2

Gene ID

3320

Swiss Prot

P07900

Scientific Background

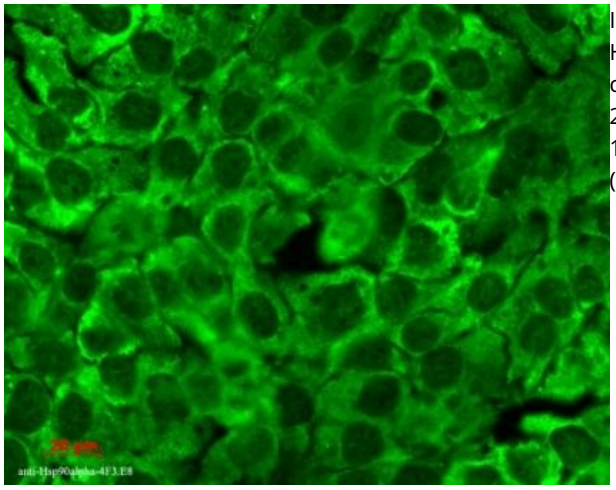
HSP90 is an abundantly and ubiquitously expressed heat shock protein. It is understood to exist in two principal forms ? and ?, which share 85% sequence amino acid homology. The two isoforms of HSP90 are expressed in the cytosolic compartment (1). Despite the similarities, HSP90? exists predominantly 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.

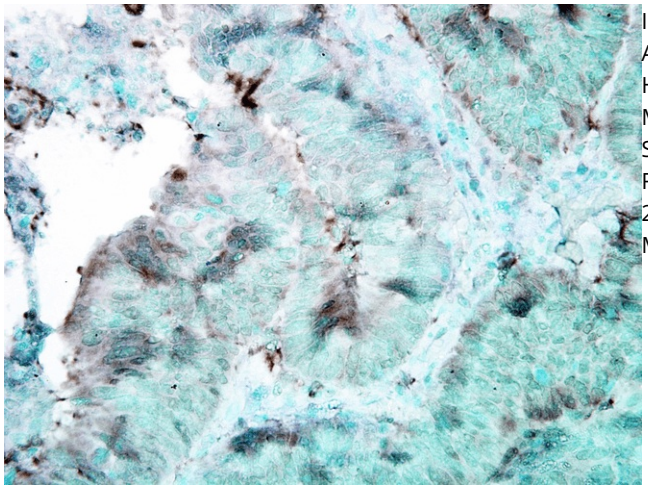
References

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.

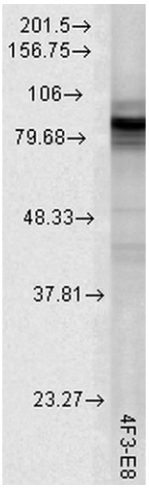
Product Images



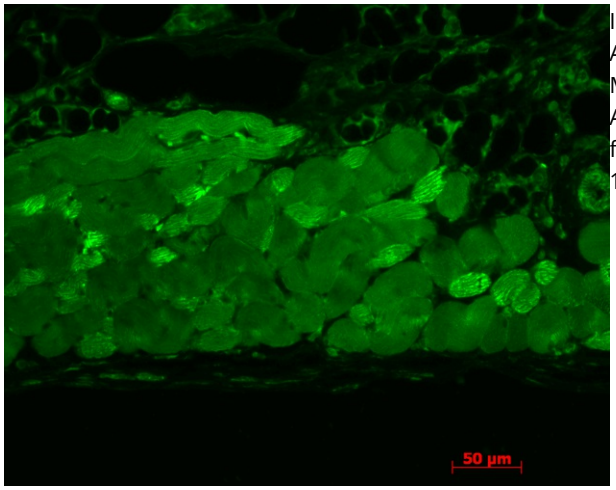
Immunocytochemistry/Immunofluorescence analysis using Mouse Anti-Hsp90 Monoclonal Antibody, Clone 4F3.E8 (SMC-149). Tissue: HaCaT cells. Species: Human. Fixation: Cold 100% methanol for 10 minutes at -20°C. Primary Antibody: Mouse Anti-Hsp90 Monoclonal Antibody (SMC-149) at 1:100 for 1 hour at RT. Secondary Antibody: FITC Goat Anti-Mouse (green) at 1:50 for 1 hour at RT.



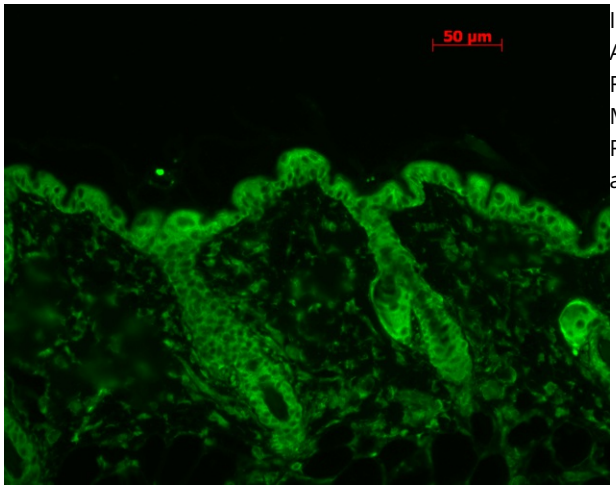
Immunohistochemistry analysis using Mouse Anti-Hsp90 Monoclonal Antibody, Clone 4F3.E8 (SMC-149). Tissue: colon carcinoma. Species: Human. Fixation: Formalin. Primary Antibody: Mouse Anti-Hsp90 Monoclonal Antibody (SMC-149) at 1:100000 for 12 hours at 4°C. Secondary Antibody: Biotin Goat Anti-Mouse at 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 Blot analysis of Rat tissue lysate showing detection of Hsp90 protein using Mouse Anti-Hsp90 Monoclonal Antibody, Clone 4F3.E8 (SMC-149). Load: 15 µg protein. Block: 1.5% BSA for 30 minutes at RT. Primary Antibody: Mouse Anti-Hsp90 Monoclonal Antibody (SMC-149) 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 Monoclonal Antibody, Clone 4F3.E8 (SMC-149). Tissue: muscle tissue. Species: Mouse. Fixation: Bouin's Fixative and paraffin-embedded. Primary Antibody: Mouse Anti-Hsp90 Monoclonal Antibody (SMC-149) at 1:1000 for 1 hour at RT. Secondary Antibody: FITC Goat Anti-Mouse (green) at 1:50 for 1 hour at RT.



Immunohistochemistry analysis using Mouse Anti-Hsp90 Monoclonal Antibody, Clone 4F3.E8 (SMC-149). Tissue: backskin. Species: Mouse. Fixation: Bouin's Fixative and paraffin-embedded. Primary Antibody: Mouse Anti-Hsp90 Monoclonal Antibody (SMC-149) at 1:100 for 1 hour at RT. Secondary Antibody: FITC Goat Anti-Mouse (green) at 1:50 for 1 hour at RT.

Product Citations (6)

Western Blot

Active release of pneumolysin prepores and pores by mammalian cells undergoing a Streptococcus pneumoniae attack.

Wolfmeier, H. et al. (2016) Biochim Biophys Acta. [Epub ahead of print].

PubMed ID: 27481675 **Reactivity:** Human **Applications:** Western Blot

miR-134 in extracellular vesicles reduces triple-negative breast cancer aggression and increases drug sensitivity.

O'Brien, K. et al. (2015) Oncotarget. 6(32):32774-89.

PubMed ID: 26416415 **Reactivity:** Human **Applications:** Western Blot

Expression of Heat Shock Proteins in Human Fibroblast Cells under Magnetic Resonant Coupling Wireless Power Transfer.

Mizuno, K., Shinohara, N. and Miyakoshi, J. (2015) Energise. 8(10): 12020-12028.

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

Immunoprecipitation

Post-translational Preprotein Targeting to Plant Organelles.

Schweiger, R. (2013) Ludwig-Maximilians-University of Munich. Dissertation

PubMed ID: **Reactivity:** Wheat germ **Applications:** Immunoprecipitation

Cytosolic HSP90 Cochaperones HOP and FKBP Interact with Freshly Synthesized Chloroplast Preproteins of Arabidopsis.

Fellerer, C., Schweiger, R., Schongruber, K., Soll, J. and Schwenkert, S. (2011) Mol Plant. 4 (6): 1133-1145.

PubMed ID: 21596689 **Reactivity:** Wheat germ **Applications:** Immunoprecipitation

Immunohistochemistry

Immunohistochemistry on decalcified rat nasal cavity: trials and successes.

Harris, N., Carter, C.A., Misra, M. and Maronpot, R. (2013) J Histotech. 36 (3): 92-99.

PubMed ID: **Reactivity:** Rat **Applications:** Immunohistochemistry

Reviews

Based on validation through cited publications.

★★★★★

StressMarq Biosciences
June 14, 2016: