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Anti-HSP90 Alpha/Beta Antibody [Hyb-K41220A]

Mouse Anti-Human HSP90 alpha/beta Monoclonal IgG2a
Catalog No. SMC-135



Discovery through partnership | Excellence through quality

Overview

Product Name

HSP90 alpha/beta Antibody

Description

Mouse Anti-Human HSP90 alpha/beta Monoclonal IgG2a

Species Reactivity

Human, Mouse, Rat, Fission Yeast (*Schizosaccharomyces pombe*), Yeast, Yeast (*Saccharomyces cerevisiae*)

Applications

WB, IHC, ICC/IF, ELISA

Antibody Dilution

WB (1:1000), 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 HSP90alpha; Specificity mapped to amino acids 291-304

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

-20°C

Shipping Temperature

Blue Ice or 4°C

Purification

Protein G Purified

Clonality

Monoclonal

Clone Number

Hyb-K41220A

Isotype

IgG2a

Specificity

Detects 90kDa. Will detect both alpha (inducible) and beta (constitutively-expressed) forms.

Cite This Product

Mouse Anti-Human HSP90 alpha/Beta Monoclonal, Clone Hyb-K41220A (StressMarq Biosciences Inc., Victoria BC CANADA, Catalog # SMC-135)

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.

Biological Description

Alternative Names

HSP86 Antibody, HSP89A Antibody, HSP90AA1 Antibody, HSP90Alpha Antibody, HSPC1 Antibody, HSPCA Antibody, HSPCAL3 Antibody, HSP84 Antibody, HSP90B Antibody, HSPC2 Antibody, HSPCB Antibody, D6S182 Antibody, FLJ26984 Antibody

Research Areas

Cancer, Heat Shock

Cellular Localization

Cytoplasm, Melanosome

Accession Number

NP_031381.2, NP_001017963.2

Gene ID

3326, 3320

Swiss Prot

P08238, 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-

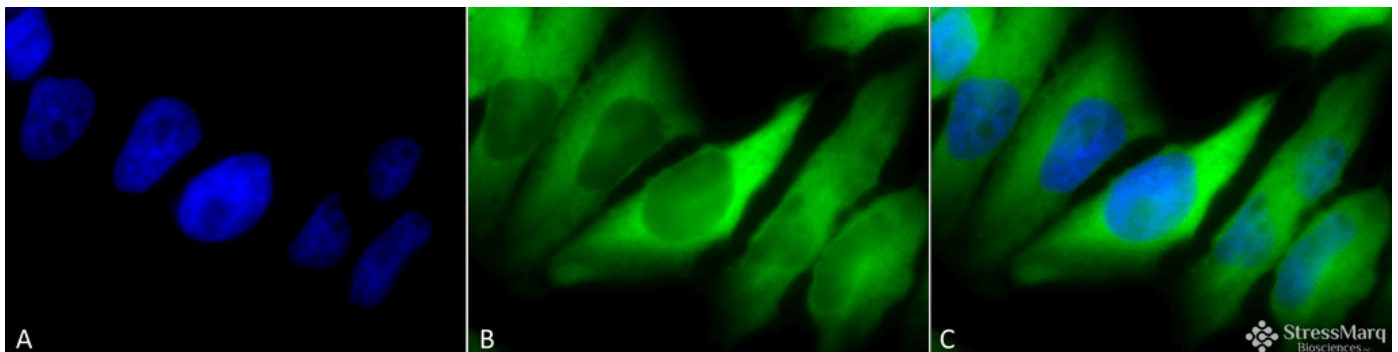
shock protein, HSP90 is one of the most highly expressed proteins in unstressed cells (12% of cytosolic protein). It carries out a number of housekeeping functions including controlling the activity, turnover, and trafficking of a variety of proteins. Most of the HSP90-regulated proteins that have been discovered to date are involved in cell signaling (7-8). The number of proteins now 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). Looking for more information on HSP90? Visit our new HSP90 Scientific Resource Guide at <http://www.HSP90.ca>.

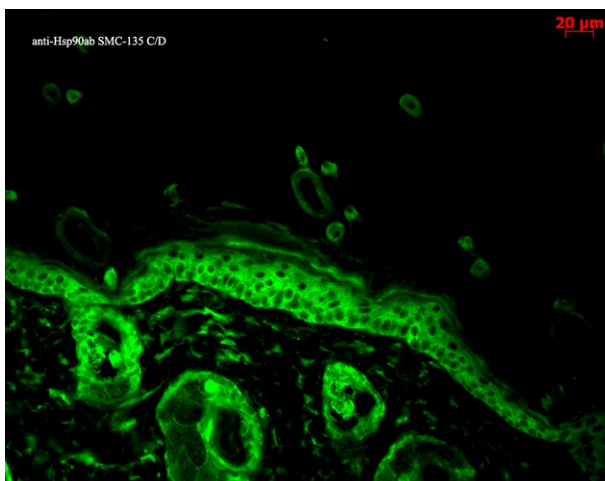
References

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: 306-360.
8. Pratt WB. (1998) *Proc Soc Exptl Biol Med* 217: 420-434.
9. Whitesell L, et al. (1994) *Proc Natl Acad Sci USA* 91: 8324-8328.
10. Kishimoto J, et al. (2005). *Cell Stress and Chaperones*. 10 (4): 296-311.

Product Images

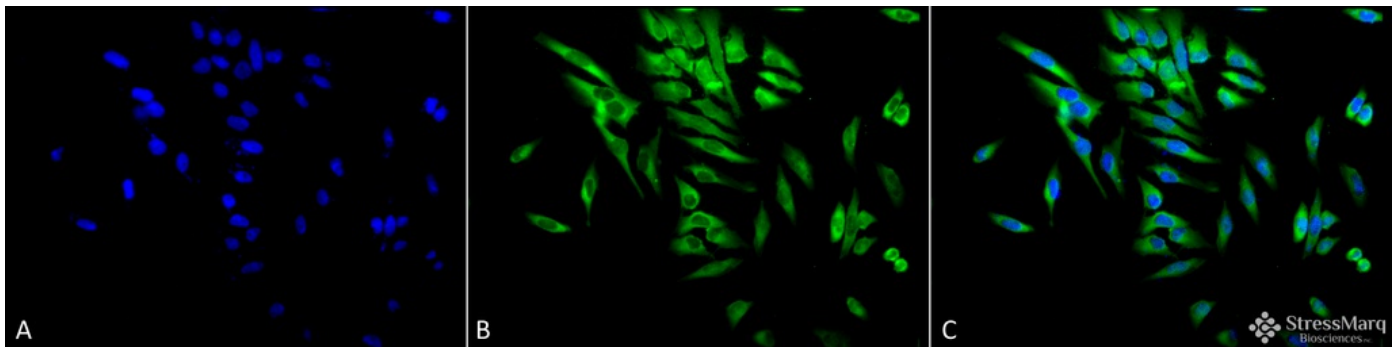
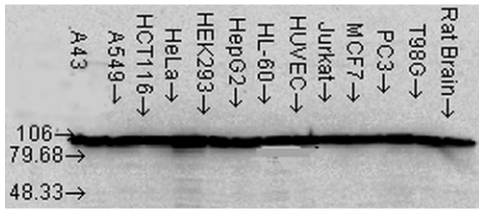


Immunocytochemistry/Immunofluorescence analysis using Mouse Anti-Hsp90 alpha/beta Monoclonal Antibody, Clone K41220A (SMC-135). Tissue: HeLa Cells. Species: Human. Fixation: 2% Formaldehyde for 20 min at RT. Primary Antibody: Mouse Anti-Hsp90 alpha/beta Monoclonal Antibody (SMC-135) at 1:100 for 12 hours at 4°C. Secondary Antibody: FITC Goat Anti-Mouse (green) at 1:200 for 2 hours at RT. Counterstain: DAPI (blue) nuclear stain at 1:40000 for 2 hours at RT. Localization: Cytoplasm. Melanosome. Magnification: 100x. (A) DAPI (blue) nuclear stain. (B) Anti-Hsp90 alpha/beta Antibody. (C) Composite.



Immunohistochemistry analysis using Mouse Anti-Hsp90 alpha Monoclonal Antibody, Clone K41220A (SMC-135). Tissue: backskin. Species: Mouse. Fixation: Bouin's Fixative and paraffin-embedded. Primary Antibody: Mouse Anti-Hsp90 alpha Monoclonal Antibody (SMC-135) at 1:100 for 1 hour at RT. Secondary Antibody: FITC Goat Anti-Mouse (green) at 1:50 for 1 hour at RT. Localization: Epidermis.

Western Blot analysis of Human Cell lysates showing detection of Hsp90 alpha protein using Mouse Anti-Hsp90 alpha Monoclonal Antibody, Clone K41220A (SMC-135). Load: 15 µg protein. Block: 1.5% BSA for 30 minutes at RT. Primary Antibody: Mouse Anti-Hsp90 alpha Monoclonal Antibody (SMC-135) at 1:1000 for 2 hours at RT. Secondary Antibody: Sheep Anti-Mouse IgG: HRP for 1 hour at RT.



Immunocytochemistry/Immunofluorescence analysis using Mouse Anti-Hsp90 alpha/beta Monoclonal Antibody, Clone K41220A (SMC-135). Tissue: HeLa Cells. Species: Human. Fixation: 2% Formaldehyde for 20 min at RT. Primary Antibody: Mouse Anti-Hsp90 alpha/beta Monoclonal Antibody (SMC-135) at 1:100 for 12 hours at 4°C. Secondary Antibody: FITC Goat Anti-Mouse (green) at 1:200 for 2 hours at RT. Counterstain: DAPI (blue) nuclear stain at 1:40000 for 2 hours at RT. Localization: Cytoplasm. Melanosome. Magnification: 20x. (A) DAPI (blue) nuclear stain. (B) Anti-Hsp90 alpha/beta Antibody. (C) Composite.

Product Citations (3)

Western Blot

Crosstalk between cellular compartments protects against proteotoxicity and extends lifespan.

Peric, M. et al. (2016) Sci Rep. 6:28751

PubMed ID: 27346163 **Reactivity:** Yeast **Applications:** Western Blot

A mutation in the catalytic loop of Hsp90 specifically impairs ATPase stimulation by Aha1p, but not Hch1p.

Horvat, N. K., et al. (2014) J Mol Biol. pii: S0022-2836(14)00176-4.

PubMed ID: 24726918 **Reactivity:** Yeast **Applications:** Western Blot

Proteomic analysis of endosomes from genetically modified p14/MP1 mouse embryonic fibroblasts.

Stasyk, T. et al. (2010) Proteomics. 10 (22): 4117-4127.

PubMed ID: 21080497 **Reactivity:** Mouse **Applications:** Western Blot

Reviews

Based on validation through cited publications.



StressMarq Biosciences

