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Datasheet for ABIN2481325

anti-HSP90AA2 antibody (AA 604-731) (Atto 390)

3 Images

Overview

Quantity:	100 µg
Target:	HSP90AA2
Binding Specificity:	AA 604-731
Reactivity:	Human
Host:	Mouse
Clonality:	Monoclonal
Conjugate:	This HSP90AA2 antibody is conjugated to Atto 390
Application:	Western Blotting (WB), ELISA, Immunohistochemistry (IHC)

Product Details

Immunogen:	Recombinant human HSP90alpha, Specificity mapped to amino acids 604-731
Clone:	Hyb-K41009
Isotype:	IgG2a
Specificity:	Detects 90 kDa. This is an alpha-specific product.
Cross-Reactivity:	Human, Mouse, Rat
Purification:	Protein G Purified

Target Details

Target:	HSP90AA2
Alternative Name:	HSP90 alpha (HSP90AA2 Products)

Target Details

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, HSP90 α exists predominantly as a homodimer while HSP90 β 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 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). For more information visit our HSP90 Scientific Resource Guide at <http://www.HSP90.ca>.

Gene ID: 3320

NCBI Accession: [NP_001017963](#)

UniProt: [P07900](#)

Application Details

Application Notes:

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

Comment: 1 μ g/ml of ABIN2481325 was sufficient for detection of HSP90 α in 20 μ g of heat shocked

Application Details

HeLa cell lysate by colorimetric immunoblot analysis using Goat anti-mouse IgG:HRP as the secondary antibody.

Restrictions: For Research Use only

Handling

Format: Liquid

Concentration: 1 mg/mL

Buffer: PBS pH 7.2, 50 % glycerol, 0.09 % sodium azide, Storage buffer may change when conjugated

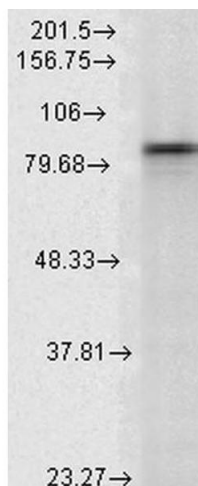
Preservative: Sodium azide

Precaution of Use: This product contains Sodium azide: a POISONOUS AND HAZARDOUS SUBSTANCE which should be handled by trained staff only.

Storage: 4 °C

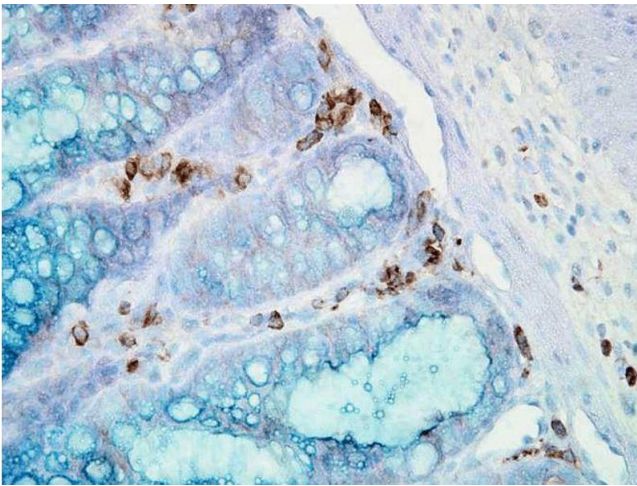
Storage Comment: Conjugated antibodies should be stored at 4°C

Images



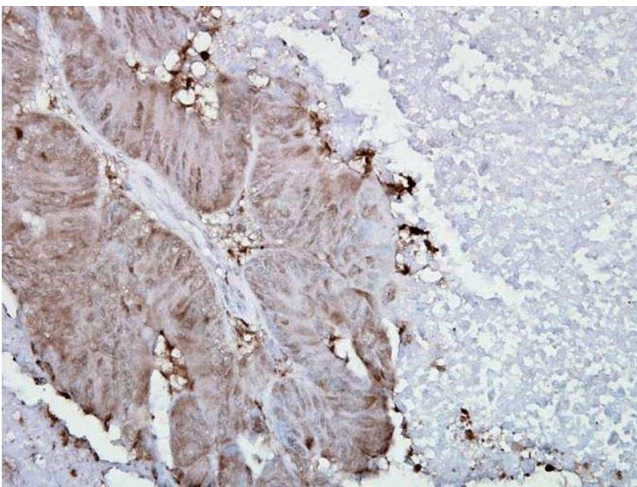
Western Blotting

Image 1. Western Blot analysis of Rat Lysates showing detection of Hsp90 alpha protein using Mouse Anti-Hsp90 alpha Monoclonal Antibody, Clone K41009 . Load: 15 µg. Block: 1.5% BSA for 30 minutes at RT. Primary Antibody: Mouse Anti-Hsp90 alpha Monoclonal Antibody at 1:1000 for 2 hours at RT. Secondary Antibody: Sheep Anti-Mouse IgG: HRP for 1 hour at RT.



Immunohistochemistry

Image 2. Immunohistochemistry analysis using Mouse Anti-Hsp90 alpha Monoclonal Antibody, Clone K41009 . Tissue: inflamed colon. Species: Mouse. Fixation: Formalin. Primary Antibody: Mouse Anti-Hsp90 alpha Monoclonal Antibody 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 μ l for 2 minutes at RT. Localization: Inflammatory cells. Magnification: 40x.



Immunohistochemistry

Image 3. Immunohistochemistry analysis using Mouse Anti-Hsp90 alpha Monoclonal Antibody, Clone K41009 . Tissue: colon carcinoma. Species: Human. Fixation: Formalin. Primary Antibody: Mouse Anti-Hsp90 alpha Monoclonal Antibody 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 μ l for 2 minutes at RT. Localization: Inflammatory cells. Magnification: 40x.