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Datasheet for ABIN361664
anti-HSP90AA2 antibody

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Overview

Quantity:	200 µg
Target:	HSP90AA2
Reactivity:	Human
Host:	Mouse
Clonality:	Monoclonal
Conjugate:	This HSP90AA2 antibody is un-conjugated
Application:	Western Blotting (WB), ELISA, Immunohistochemistry (IHC), Immunoprecipitation (IP), Immunofluorescence (IF), Immunocytochemistry (ICC)

Product Details

Immunogen:	Recombinant Full Length Human HSP90alpha Protein
Clone:	2G5-G3
Isotype:	IgG1
Specificity:	Detects ~90 kDa. HSP90α-specific (>96 % α-specific by ELISA)
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 (1:2000)
- ICC/IF (1:100)
- optimal dilutions for assays should be determined by the user.

Comment: 0.5 μ g/ml of ABIN361663 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.

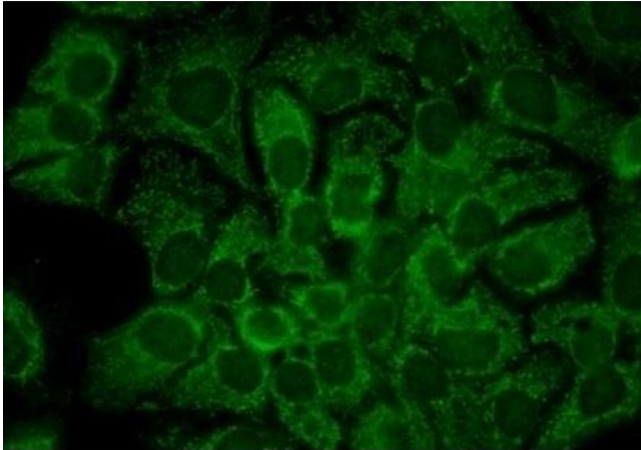
Storage: -20 °C

Storage Comment: -20°C

Publications

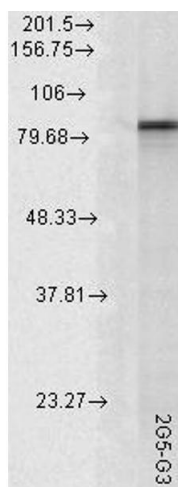
Product cited in: Sun, Wei, Xiong, Wang, Xie, Wang, Yang, Wang, Lu, Liu, Wang: "Synaptic released zinc promotes tau hyperphosphorylation by inhibition of protein phosphatase 2A (PP2A)." in: **The Journal of biological chemistry**, Vol. 287, Issue 14, pp. 11174-82, (2012) ([PubMed](#)).

Chen, Xiong, Kong, Qu, Wang, Chen, Wang, Zhu: "Neuroglobin attenuates Alzheimer-like tau hyperphosphorylation by activating Akt signaling." in: **Journal of neurochemistry**, Vol. 120, Issue 1, pp. 157-64, (2011) ([PubMed](#)).



Immunocytochemistry

Image 1. Immunocytochemistry/Immunofluorescence analysis using Mouse Anti-Hsp90 alpha Monoclonal Antibody, Clone 2G5.G3 (ABIN361663 and ABIN361664). Tissue: HaCaT cells. Species: Human. Fixation: Cold 100 % methanol for 10 minutes at -20 °C. Primary Antibody: Mouse Anti-Hsp90 alpha Monoclonal Antibody (ABIN361663 and ABIN361664) at 1:100 for 1 hour at RT. Secondary Antibody: FITC Goat Anti-Mouse (green) at 1:50 for 1 hour at RT.



Western Blotting

Image 2. Western Blotting Hsp90alpha RatTissue 10ug 1 in 1000 copy.