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)

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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, HSP90α exists predominantly as a homodimer while HSP90β 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 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). 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 µg/ml of ABIN361663 was sufficient for detection of HSP90alpha in 20 µg of heat shocked

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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:	Ortega, Calvillo, Luna, Pérez-Severiano, Rubio-Osornio, Guevara, Limón: "17-AAG improves cognitive process and increases heat shock protein response in a model lesion with A?25-35." in: **Neuropeptides**, Vol. 48, Issue 4, pp. 221-32, (2014) (PubMed). Hunter, OHagan, Kenyon, Dhanani, Prinsloo, Edkins: "Hsp90 binds directly to fibronectin (FN) and inhibition reduces the extracellular fibronectin matrix in breast cancer cells." in: **PLoS ONE**, Vol. 9, Issue 1, pp. e86842, (2014) (PubMed).

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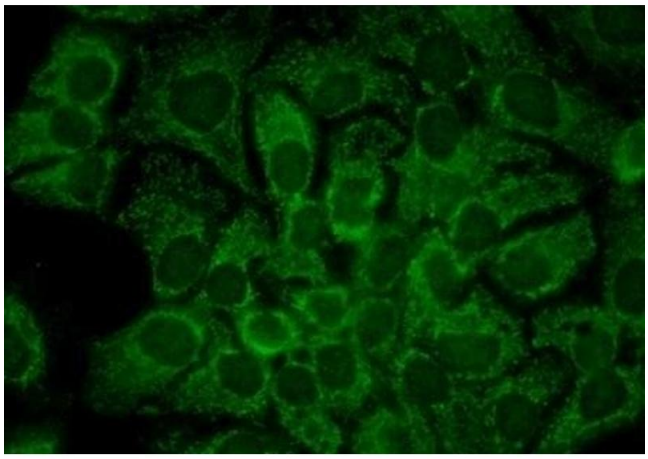
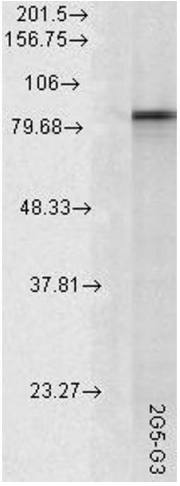


Immunocytochemistry

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 Hsp90lpha RatTissue 10ug 1 in 1000 copy.