

Datasheet for ABIN361716

anti-HSP90 alpha/beta antibody (AA 291-304)[Go to Product page](#)**4** Images**2** Publications

Overview

Quantity:	100 µg
Target:	HSP90 alpha/beta
Binding Specificity:	AA 291-304
Reactivity:	Human
Host:	Mouse
Clonality:	Monoclonal
Conjugate:	This HSP90 alpha/beta antibody is un-conjugated
Application:	Western Blotting (WB), ELISA, Immunohistochemistry (IHC), Immunofluorescence (IF), Immunocytochemistry (ICC)

Product Details

Immunogen:	Recombinant human HSP90alpha, Specificity mapped to amino acids 291-304
Clone:	Hyb-K41220A
Isotype:	IgG2a
Specificity:	Detects 90 kDa. Will detect both alpha (inducible) and beta (constitutively-expressed) forms.
Cross-Reactivity:	Human, Mouse, Rat, Saccharomyces cerevisiae
Purification:	Protein G Purified

Target Details

Target:	HSP90 alpha/beta
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Target Details

Alternative Name: HSP90 alpha/beta ([HSP90 alpha/beta Products](#))

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: 3326, 3320

NCBI Accession: [NP_031381](#), [NP_001017963](#)

UniProt: [P08238](#), [P07900](#)

Application Details

Application Notes:

- WB (1:1000)
- IHC (1:100)
- ICC/IF (1:100)

Application Details

- optimal dilutions for assays should be determined by the user.

Comment: 1 µg/ml was sufficient for detection of HSP90αβ in 20 µg of heat shocked HeLa cell lysate by colorimetric immunoblot analysis using Goat Anti-Mouse IgG:HRP as the secondary.

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.

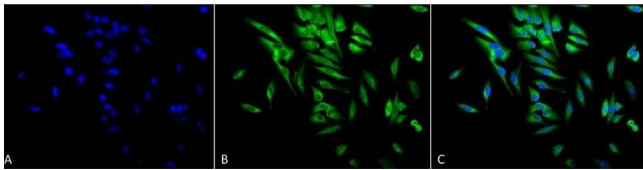
Storage: -20 °C

Storage Comment: -20°C

Publications

Product cited in: Horvat, Armstrong, Lee, Mercier, Wolmarans, Knowles, Spyrapoulos, LaPointe: "A mutation in the catalytic loop of Hsp90 specifically impairs ATPase stimulation by Aha1p, but not Hch1p." in: **Journal of molecular biology**, Vol. 426, Issue 12, pp. 2379-92, (2014) ([PubMed](#)).

Stasyk, Holzmann, Stumberger, Ebner, Hess, Bonn, Mechtler, Huber: "Proteomic analysis of endosomes from genetically modified p14/MP1 mouse embryonic fibroblasts." in: **Proteomics**, Vol. 10, Issue 22, pp. 4117-27, (2010) ([PubMed](#)).

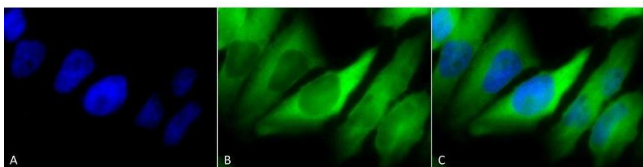


Immunocytochemistry

Image 1. Immunocytochemistry/Immunofluorescence analysis using Mouse Anti-Hsp90 alpha/beta Monoclonal Antibody, Clone K41220A (ABIN361715 and ABIN361716). Tissue: Cervical cancer cell line (HeLa). Species: Human. Fixation: 2 % Formaldehyde for 20 min at RT. Primary Antibody: Mouse Anti-Hsp90 alpha/beta Monoclonal Antibody (ABIN361715 and ABIN361716) 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.



Image 2. Hsp90 (K41220A), CellLine copy.



Immunocytochemistry

Image 3. Immunocytochemistry/Immunofluorescence analysis using Mouse Anti-Hsp90 alpha/beta Monoclonal Antibody, Clone K41220A (ABIN361715 and ABIN361716). Tissue: Cervical cancer cell line (HeLa). Species: Human. Fixation: 2 % Formaldehyde for 20 min at RT. Primary Antibody: Mouse Anti-Hsp90 alpha/beta Monoclonal Antibody (ABIN361715 and ABIN361716) 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.

Please check the [product details page](#) for more images. Overall 4 images are available for ABIN361716.