

Datasheet for ABIN233817
anti-HSP90AA1 antibody



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Overview

Quantity:	100 µg
Target:	HSP90AA1
Reactivity:	Human
Host:	Rabbit
Clonality:	Polyclonal
Application:	Western Blotting (WB), Immunohistochemistry (IHC), ELISA

Product Details

Purpose:	HSP90 K294 Antibody
Immunogen:	Immunogen: This affinity purified antibody was prepared from whole rabbit serum produced by repeated immunizations with a synthetic peptide corresponding to amino acids surrounding K294 of human Hsp90. Immunogen Type: Conjugated Peptide
Isotype:	IgG
Cross-Reactivity (Details):	This affinity purified antibody is directed against human Hsp90 protein acetylated at K294.
Characteristics:	Synonyms: rabbit anti-Heat Shock Protein HSP 90-alpha acetyl specific K294 antibody, rabbit anti-Heat Shock Protein HSP 90-alpha acetylated Lys294 antibody, HSP 86 antibody, Heat shock 86 kDa antibody, Renal carcinoma antigen NY REN 38 antibody, Heat shock 90 kDa protein 1 alpha antibody, Lipopolysaccharide-associated protein 2, LAP-2, HSP90A, HSPC1, HSPCA, HSP90AA1, HSP 90-α
Purification:	The product was affinity purified from monospecific antiserum by immunoaffinity

Product Details

chromatography using acetyl-peptide coupled to agarose beads followed by solid phase adsorption against non-acetyl peptide.

Sterility: Sterile filtered

Target Details

Target: HSP90AA1

Alternative Name: HSP90AA1 ([HSP90AA1 Products](#))

Background: This antibody is designed, produced, and validated as part of a collaboration with the National Cancer Institute (NCI) and is suitable for Cancer, Immunology and Nuclear Signaling research. Hsp90 is a member of the heat shock protein 90 family, the members of which are highly conserved between isoforms and species. Hsp90 functions as a molecular chaperone and has ATPase activity. Hsp90 is a cytoplasmic protein that forms a homodimer in vivo and interacts with TOM34, AHSA1, HDAC6 and SMYD3. Several signal transduction pathways depend on Hsp90 function, including pathways involving erbB2, hypoxia sensitivity (Hif1 alpha), and steroid hormone receptors (for example, androgen, progesterone, glucocorticoid, and aryl-hydrocarbon). Recent reports show that Hsp90 from tumor cells has increased sensitivity to small molecule inhibitors (for example, 17AAG). The mechanism of the differential sensitivity of Hsp90 from normal versus tumor cells is unknown, although mutation has been ruled out. One possible mechanism may be differences in post-translational modification of tumor Hsp90. K294 was found to be acetylated in purified Hsp90 from SkBr3 cells, a breast cancer cell line.

Gene ID: 3320

NCBI Accession: [NP_001017963](#)

UniProt: [P07900](#)

Pathways: [M Phase](#), [Regulation of Cell Size](#), [Signaling Events mediated by VEGFR1 and VEGFR2](#), [VEGFR1 Specific Signals](#)

Application Details

Application Notes: Immunohistochemistry Dilution: 5-10 µg/mL

Application Note: This affinity purified antibody has been tested for use in ELISA, immunohistochemistry and western blot. This antibody reacts strongly with the acetylated form of the immunizing peptide and shows minimal reactivity with the non-acetylated form

Application Details

when tested by ELISA. To date, western blotting shows equivalent staining of lysates either treated or untreated with Trichostatin A (an HDAC inhibitor). Therefore, western blotting results are not definitive for demonstrating the specificity of this reagent. Specific conditions for reactivity should be optimized by the end user. Expect a band approximately 90 kDa in size corresponding to Hsp90 protein by western blotting in the appropriate cell lysate or extract.

Western Blot Dilution: 1:500 - 1:2,500

ELISA Dilution: 1:2,500 - 1:10,000

Restrictions: For Research Use only

Handling

Format: Liquid

Concentration: 1.0 mg/mL

Buffer: Buffer: 0.02 M Potassium Phosphate, 0.15 M Sodium Chloride, pH 7.2

Stabilizer: None

Preservative: 0.01 % (w/v) Sodium Azide

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, -20 °C

Storage Comment: Store vial at -20° C prior to opening. Aliquot contents and freeze at -20° C or below for extended storage. Avoid cycles of freezing and thawing. Centrifuge product if not completely clear after standing at room temperature. This product is stable for several weeks at 4° C as an undiluted liquid. Dilute only prior to immediate use.

Expiry Date: 12 months

Publications

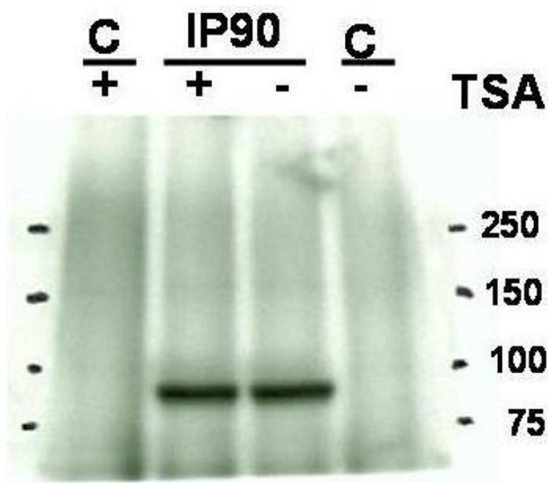
Product cited in: Manca, Frisbie, LaGrange, Casey, Riethoven, Petrosyan: "The Role of Alcohol-Induced Golgi Fragmentation for Androgen Receptor Signaling in Prostate Cancer." in: **Molecular cancer research : MCR**, Vol. 17, Issue 1, pp. 225-237, (2019) ([PubMed](#)).

Deskin, Lasky, Zhuang, Shan: "Requirement of HDAC6 for activation of Notch1 by TGF-β1." in: **Scientific reports**, Vol. 6, pp. 31086, (2018) ([PubMed](#)).

Mo, Zhao, Liu, Hu, Chen, Pham, Wei, Liu, Zhou, Burgess, Pfaff, Caskey, Wu, Bai, Yang: "Aberrant GlyRS-HDAC6 interaction linked to axonal transport deficits in Charcot-Marie-Tooth neuropathy." in: **Nature communications**, Vol. 9, Issue 1, pp. 1007, (2018) ([PubMed](#)).

Dedes, Dedes, Imesch, von Bueren, Fink, Fedier: "Acquired vorinostat resistance shows partial cross-resistance to 'second-generation' HDAC inhibitors and correlates with loss of histone acetylation and apoptosis but not with altered HDAC and HAT activities." in: **Anti-cancer drugs**, Vol. 20, Issue 5, pp. 321-33, (2009) ([PubMed](#)).

Images



Western Blotting

Image 1. Western blot using Affinity Purified anti-Hsp90 acetyl K294 antibody shows detection of a band at ~90 kDa corresponding to Hsp90 in an SkBr3 cell lysate (arrowhead) after treatment with Trichostatin A (an HDAC inhibitor). Western blotting results do not definitively demonstrate the acetyl K294 specificity of this reagent because similar staining is seen in the control lane (no treatment with TSA). Immunoprecipitation with anti-Hsp90 was performed prior to western blotting with anti-Hsp90 acetyl K294.