Datasheet for ABIN361823

anti-HSP90 antibody

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Overview

Quantity:	100 µL
Target:	HSP90
Reactivity:	Human
Host:	Rabbit
Clonality:	Polyclonal
Conjugate:	This HSP90 antibody is un-conjugated
Application:	Western Blotting (WB), Immunoprecipitation (IP), Immunohistochemistry (IHC), ELISA, Immunofluorescence (IF), Immunocytochemistry (ICC)

Product Details

Immunogen:	Full length protein HSP90
Specificity:	Detects ~90 kDa.
Cross-Reactivity:	Human, Mouse, Rat
Purification:	Protein A Purified

Target Details

Target:	HSP90
Alternative Name:	HSP90 (HSP90 Products)
Background:	HSP90 is a highly conserved and essential stress protein that is expressed in all eukaryotic cells. From a functional perspective, HSP90 participates in the folding, assembly, maturation, and stabilization of specific proteins as an integral component of a chaperone complex (1-4).

Target Details

	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 (5-6). 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 (7). Looking for more information on HSP90? Visit our new HSP90 Scientific Resource Guide at http://www.HSP90.ca.
Gene ID:	3326
NCBI Accession:	NP_031381
UniProt:	P08238
Pathways:	M Phase, Regulation of Cell Size, Signaling Events mediated by VEGFR1 and VEGFR2, VEGFR1 Specific Signals

Application Details

Application Notes:	• WB (1:500) • IHC (1:100) • ICC/IF (1:100) • optimal dilutions for assays should be determined by the user.
Comment:	A 1:500 dilution of ABIN361822 was sufficient for detection of 0.2 mg of purified HSP90 by ECL immunoblot analysis.
Restrictions:	For Research Use only

Handling

Format:	Liquid

Handling

Concentration:	1 mg/mL
Buffer:	PBS pH 7.4, 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:

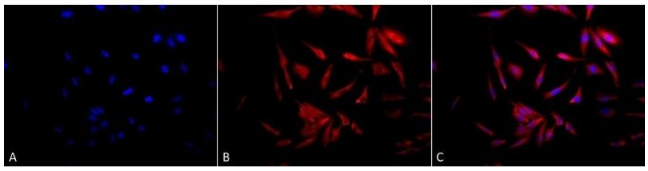
Bacci, Aiello, Ripoli, Loria, Pugliese, Pierconti, Rotili, Strigari, Pinto, Bassi, Mai, Grassi, Pontecorvi, Falcioni, Farsetti, Nanni: "H19-Dependent Transcriptional Regulation of β3 and β4 Integrins Upon Estrogen and Hypoxia Favors Metastatic Potential in Prostate Cancer." in: **International journal of molecular sciences**, Vol. 20, Issue 16, (2019) (PubMed).

Re, Colussi, Nanni, Aiello, Bacci, Grassi, Pontecorvi, Farsetti: "Nucleoporin 153 regulates estrogen-dependent nuclear translocation of endothelial nitric oxide synthase and estrogen receptor beta in prostate cancer." in: **Oncotarget**, Vol. 9, Issue 46, pp. 27985-27997, (2018) (PubMed).

Zhang, Pruitt, Tran, Du Bois, Zhang, Patel, Hoover, Simpson, Simmons, Gary, Snapper, Casellas, Mock: "B cell-specific deficiencies in mTOR limit humoral immune responses." in: **Journal of immunology (Baltimore, Md. : 1950)**, Vol. 191, Issue 4, pp. 1692-703, (2013) (PubMed).

Verheyen, Peeraer, Nuydens, Dhondt, Poesen, Pintelon, Daniels, Timmermans, Meert, Carmeliet, Lambrechts: "Systemic anti-vascular endothelial growth factor therapies induce a painful sensory neuropathy." in: **Brain : a journal of neurology**, Vol. 135, Issue Pt 9, pp. 2629-41, (2012) (PubMed).

Wagatsuma, Shiozuka, Kotake, Takayuki, Yusuke, Mabuchi, Matsuda, Yamada: " Pharmacological inhibition of HSP90 activity negatively modulates myogenic differentiation and cell survival in C2C12 cells." in: **Molecular and cellular biochemistry**, Vol. 358, Issue 1-2, pp. 265-80, (2011) (PubMed).



Immunocytochemistry

Image 1. Immunocytochemistry/Immunofluorescence analysis using Rabbit Anti-Hsp90 Polyclonal Antibody (ABIN361822 and ABIN361823). Tissue: Heat Shocked Cervical cancer cell line (HeLa). Species: Human. Fixation: 2 % Formaldehyde for 20 min at RT. Primary Antibody: Rabbit Anti-Hsp90 Polyclonal Antibody (ABIN361822 and ABIN361823) at 1:100 for 12 hours at 4 °C. Secondary Antibody: APC Goat Anti-Rabbit (red) at 1:200 for 2 hours at RT. Counterstain: DAPI (blue) nuclear stain at 1:40000 for 2 hours at RT. Localization: Cytoplasm. Magnification: 20x. (A) DAPI (blue) nuclear stain. (B) Anti-Hsp90 Antibody. (C) Composite. Heat Shocked at 42 °C for 1h.

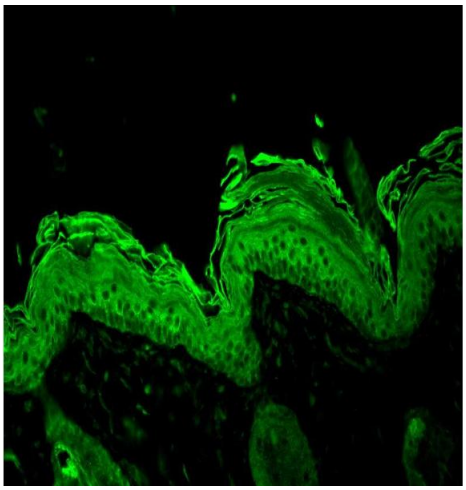
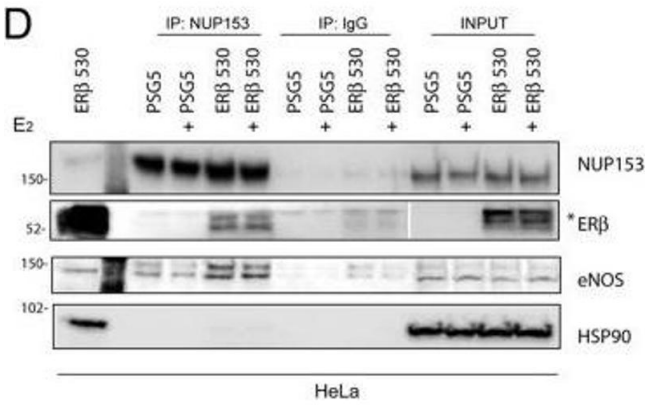


Image 2. Hsp90, Mouse backskin



Western Blotting

Image 3. Nup153 forms complexes with eNOS, ERβ and p300(A) Confocal analysis of Prostate Cancer (PCa, C27IM) and Benign Prostatic Hyperplasia (BPH, C17IM) cells stained with antibodies to Nup153 ([QE5], red) or eNOS (Type III, green). Scale bar: 20µm (Nup153, eNOS and MERGE, zoomed area is showed). (B) Analysis of Nup153 interaction with eNOS by Co-Immunoprecipitation in PCa and BPH cells in basal condition. Immunoprecipitation with IgG served as negative control. (C) Analysis of Nup153 interaction with eNOS and ERβ by Co-Immunoprecipitation

in PCa cells in basal condition or upon E2 treatment (10-7M, 24h). PCa cells were immunoprecipitated with Nup153 Antibody ([7AB], Abcam) or with ERβ (GeneTex, #110607). Immunoprecipitation with IgG served as negative control. Membranes were blotted with specific antibodies to Nup153 ([Q5], Abcam), ERβ (GeneTex, #110607) and eNOS (Type III, BD). H1 served as control. 4 µg of transfected HeLa with human ERβ short isoform (485aa) were used as positive control for Estrogen Receptor. Total proteins were resolved by SDS-PAGE using a 10 % Invitrogen precast gel (NuPage and MES buffer). (D) Analysis of Nup153 interaction with eNOS and ERβ by Co-Immunoprecipitation in HeLa cells transfected with empty vector (PSG5) or with human ERβ full-length (ERβ 530aa), before and after E2 treatment (10-7M, 24h). HeLa cells were immunoprecipitated with Nup153 Antibody ([7AB], Abcam). Immunoprecipitation with IgG served as negative control. Membranes were blotted with specific antibodies to Nup153 ([QE5], Abcam), ERβ (CWK-F12, DHSB) and eNOS (Type III, BD). Hsp90 served as control. Total cell lysates (15 µg) from HeLa transfected with human ERβ 530aa isoform were used as positive control for Estrogen Receptor. * indicates a lower exposure for INPUT and positive control, respectively. Total proteins were resolved by SDS-PAGE using a 3-8 % Invitrogen precast gel (NuPage and TA buffer). (E) Analysis of Nup153 interaction with Histone Acetyl Transferase p300 by co-immunoprecipitation in PCa cells in basal condition or upon E2 treatment (10-7M, 24h). Immunoprecipitation with IgG was used as negative control. Fibrillarin served as loading control. * indicates a lower exposure for INPUT. Densitometric analysis showing, in the right panel, the interaction of Nup153 with p300 in E2 treated samples versus NT, normalized to input loading control and expressed as fold change. Data are mean +/- SEM of 3 independent experiments. *p< 0.05 vs NT. (F)

Evaluation of HAT activity specifically associated with Nup153 in total extracts of PCa cells cultured in absence or in presence of E2 (10-7M, 24h) and subjected to immunoprecipitation with anti-Nup153 antibody ([7AB], Abcam) or normal IgG immunoglobulin as negative control. Data are expressed as mean +/-SEM of 3 independent experiments. A.U. Arbitrary Unit *p<0.05 E2 vs NT. (G) Effect of Nup153 depletion on estrogen response gene. VEGF Type2 Receptor (KDR) mRNA levels quantified by qRT-PCR in PCa cells before (scramble) and after Nup153 depletion (siNUP153 oligos mix, 60 nM), untreated or treated with E2 (10-7M, 6 and/or 24 hours). The results are plotted as Fold change vs NT, +/-SEM of 5 independent experiments.*p<0.05 E2 vs NT. - figure provided by CiteAb. Source: PMID29963256

Please check the product details page for more images. Overall 5 images are available for ABIN361823.