

HSP 90 β (D-19): sc-1057

BACKGROUND

Heat shock protein (HSP) molecular chaperones are environmental stress-inducible gene products. The human HSP 90 family includes 17 genes that fall into four classes: HSP90AA, HSP90AB, HSP90B and TRAP. HSP 90 family members guide the normal folding, intracellular disposition and proteolytic turnover of many key regulators of cell growth, differentiation and survival. HSP 90 α , also designated HSP90A, HSP 86 and LPS-associated protein 2 (LAP2), is a cytosolic enhancer of inducible nitric oxide synthase (iNOS), with chaperone activity that is important for the transcriptional activity of p53. HSP 90 β , also designated HSP90B, HSP 84 and HSPC2, is a cytosolic protein that participates in signaling pathways with PKC ϵ to protect cells from external damage, particularly in heat shock-mediated events. GRP 94, also known as tumor rejection antigen 1 (TRA1), ECGP and GP96, localizes to the ER, is highly expressed in BGC-823 human gastric carcinoma cells and is upregulated in human endothelial cells in response to hypoxia by HIF-1. TRAP1 (TNF receptor-associated protein 1), also designated HSP 75, is a mitochondrial matrix component that plays a role in the induction of apoptosis in response to reactive oxygen species.

CHROMOSOMAL LOCATION

Genetic locus: HSP90AB1 (human) mapping to 6p21.1; Hsp90ab1 (mouse) mapping to 17 B3.

SOURCE

HSP 90 β (D-19) is an affinity purified goat polyclonal antibody raised against a peptide mapping at the C-terminus of HSP 90 β of human origin.

PRODUCT

Each vial contains 200 μ g IgG in 1.0 ml of PBS with < 0.1% sodium azide and 0.1% gelatin.

Blocking peptide available for competition studies, sc-1057 P, (100 μ g peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% BSA).

Available as phycoerythrin conjugate for flow cytometry, sc-1057 PE, 100 tests.

APPLICATIONS

HSP 90 β (D-19) is recommended for detection of HSP 90 β of mouse, rat and human origin by Western Blotting (starting dilution 1:200, dilution range 1:100-1:1000), immunoprecipitation [1-2 μ g per 100-500 μ g of total protein (1 ml of cell lysate)], immunofluorescence (starting dilution 1:50, dilution range 1:50-1:500), immunohistochemistry (including paraffin-embedded sections) (starting dilution 1:50, dilution range 1:50-1:500).

HSP 90 β (D-19) is also recommended for detection of HSP 90 β in additional species, including equine, canine, bovine and porcine.

Suitable for use as control antibody for HSP 90 β siRNA (h): sc-35606, HSP 90 α/β siRNA (m): sc-35610, HSP 90 β shRNA Plasmid (h): sc-35606-SH, HSP 90 α/β shRNA Plasmid (m): sc-35610-SH, HSP 90 β shRNA (h) Lentiviral Particles: sc-35606-V and HSP 90 α/β shRNA (m) Lentiviral Particles: sc-35610-V.

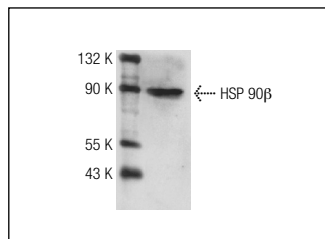
Molecular Weight of HSP 90 β : 90 kDa.

Positive Controls: HeLa whole cell lysate: sc-2200.

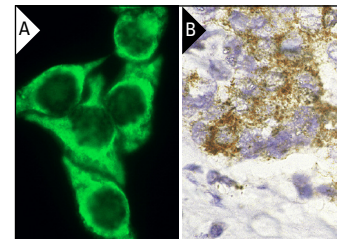
STORAGE

Store at 4° C, ****DO NOT FREEZE****. Stable for one year from the date of shipment. Non-hazardous. No MSDS required.

DATA



HSP 90 β (D-19): sc-1057. Western blot analysis of HSP 90 β expression in HeLa whole cell lysate.



HSP 90 β (D-19): sc-1057. Immunofluorescence staining of methanol-fixed HeLa cells showing cytoplasmic localization (A). Immunoperoxidase staining of formalin-fixed, paraffin-embedded human breast carcinoma tissue showing intense cytoplasmic staining of epithelia (B).

SELECT PRODUCT CITATIONS

- Hung, J.J., et al. 2002. Molecular chaperone HSP 90 is important for vaccinia virus growth in cells. *J. Virol.* 76: 1379-1390.
- Calamia, V., et al. 2011. Hsp90 β inhibition modulates nitric oxide production and nitric oxide-induced apoptosis in human chondrocytes. *BMC Musculoskelet. Disord.* 12: 237.
- Shim, H.Y., et al. 2011. Heat shock protein 90 facilitates formation of the HBV capsid via interacting with the HBV core protein dimers. *Virology* 410: 161-169.
- Loedige, I., et al. 2013. The mammalian TRIM-NHL protein TRIM71/LIN-41 is a repressor of mRNA function. *Nucleic Acids Res.* 41: 518-532.
- Wang, R., et al. 2013. The Hsp90 inhibitor SNX-2112, induces apoptosis in multidrug resistant K562/ADR cells through suppression of Akt/NF κ B and disruption of mitochondria-dependent pathways. *Chem. Biol. Interact.* 205: 1-10.
- Matassa, D.S., et al. 2013. Translational control in the stress adaptive response of cancer cells: a novel role for the heat shock protein TRAP1. *Cell Death Dis.* 4: e851.
- Kliková, K., et al. 2015. Differential impact of bortezomib on HL-60 and K562 cells. *Gen. Physiol. Biophys.* 34: 33-42.

RESEARCH USE

For research use only, not for use in diagnostic procedures.



Try **HSP 90 α/β (F-8): sc-13119** or **HSP 90 (4F10): sc-69703**, our highly recommended monoclonal alternatives to HSP 90 β (D-19). Also, for AC, HRP, FITC, PE, Alexa Fluor[®] 488 and Alexa Fluor[®] 647 conjugates, see **HSP 90 α/β (F-8): sc-13119**.