SANTA CRUZ BIOTECHNOLOGY, INC.

HSP 90α/β (H-114): sc-7947

SANTA CRUZ BIOTECHNOLOGY

The Power to Question

BACKGROUND

The heat shock response was first described for *Drosophila* salivary gland cells and morphologically consists of a change in their polytene chromosome puffing patterns that involves *de novo* synthesis of a few proteins. Similar heat shock proteins were later discovered in bacterial chicken and mammalian cells, and have been subsequently studied in other organisms. A series of proteins including HSP 90, HSP 70, HSP 20-30 and ubiquitin are induced by insults such as temperature shock, chemicals and other environmental stres A major function of HSP 90 and other HSPs is to act as molecular chaperones. HSP 90 forms a complex with glucocorticoid receptor (GR), rendering the non ligand-bound receptor transcriptionally inactive. HSP 90 binds the GR as a heterocomplex composed of either HSP 56 or Cyclophilin D, forming an aporeceptor comiplex. HSP 90 also exists as a dimer with other proteins such as p60/sti1 and p23, forming an apo-receptor complex with estrogen and androgen receptors.

CHROMOSOMAL LOCATION

Genetic locus: HSP90AA1 (human) mapping to 14q32.31, HSP90AB1 (human) mapping to 6p21.1; Hsp90aa1 (mouse) mapping to 12 F1, Hsp90ab1 (mouse) mapping to 17 B3.

SOURCE

HSP 90α/β (H-114) is a rabbit polyclonal antibody raised against amino acids 610-723 of HSP 90β of human origin.

PRODUCT

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

Available as phycoerythrin conjugate for flow cytometry, sc-7947 PE, 100 tests.

APPLICATIONS

HSP 90α/β (H-114) is recommended for detection of HSP 90α and HSP 90β of mouse, rat and human origin by Western Blotting (starting dilution 1:200, dilution range 1:100-1:1000), immunoprecipitation [1-2 µg per 100-500 µg of total protein (1 ml of cell lysate)], immunofluorescence (starting dilution 1:50, dilution range 1:50-1:500), flow cytometry (1 µg per 1 x 10^6 cells) and solid phase ELISA (starting dilution 1:30, dilution range 1:30-1:3000).

HSP 90α/β (H-114) is also recommended for detection of HSP 90α and HSP 90β in additional species, including equine, canine, bovine, porcine and avian.

Suitable for use as control antibody for HSP 90α/β siRNA (h): sc-35608, HSP 90α/β siRNA (m): sc-35610, HSP 90α/β shRNA Plasmid (h): sc-35608-SH, HSP 90α/β shRNA Plasmid (m): sc-35610-SH, HSP 90α/β shRNA (h) Lentiviral Particles: sc-35608-V and HSP 90α/β shRNA (m) Lentiviral Particles: sc-35610-V.

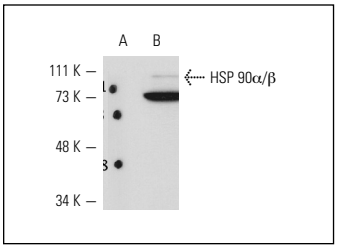
Molecular Weight of HSP 90α/β: 90 kDa.

Positive Controls: HeLa whole cell lysate: sc-2200, NIH/3T3 whole cell lysate: sc-2210 or Y79 cell lysate: sc-2240.

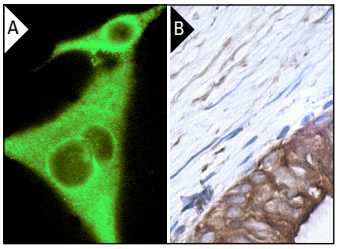
STORAGE

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

DATA



HSP 90α/β (H-114): sc-7947. Western blot analysis of HSP 90 expression in HeLa (**A**) and NIH/3T3 (**B**) whole cell lysates.



HSP 90α/β (H-114): sc-7947. Immunofluorescence staining of methanol-fixed NIH/3T3 cells showing cytoplasmic localization (**A**). Immunoperoxidase staining of formalin fixed, paraffin-embedded human testes tissue showing cytoplasmic staining of cells in seminiferus ducts (**B**).

SELECT PRODUCT CITATIONS

1. Dumitru, C.D., et al. 2000. TNFα induction by LPS is regulated posttranscriptionally via a Tpl2/ERK-dependent pathway. Cell 103: 1071-1083.
2. Burgermeister, E., et al. 2011. The Ras inhibitors caveolin-1 and docking protein 1 activate peroxisome proliferator-activated receptor γ through spatial relocalization at helix 7 of its ligand-binding domain. Mol. Cell. Biol. 31: 3497-3510.
3. Nicolini, V., et al. 2011. Interplay between Ret and Fap-1 regulates CD95-mediated apoptosis in medullary thyroid cancer cells. Biochem. Pharmacol. 82: 778-788.
4. Tramentozzi, E., et al. 2011. Crucial role of HSP90 in the Akt-dependent promotion of angiogenic-like effect of glucose-regulated protein94 (Grp94)-IgG complexes. J. Cell. Mol. Med. 15: 2768-2780.
5. Berthier, A., et al. 2012. The novel antibacterial compound walrycin A induces human PXR transcriptional activity. Toxicol. Sci. 127: 225-235.
6. Thongtan, T., et al. 2012. Characterization of putative Japanese encephalitis virus receptor molecules on microglial cells. J. Med. Virol. 84: 615-623.
7 Sun, S., et al. 2012. The ATP-P2X7 signaling axis is dispensable for obesity-associated inflammasome activation in adipose tissue. Diabetes 61: 1471-1478.

RESEARCH USE

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

MONOS Satisfaction Guaranteed

Try **HSP 90α/β (F-8): sc-13119** or **HSP 90α/β (S88): sc-59578**, our highly recommended monoclonal alternatives to HSP 90α/β (H-114). Also, for AC, HRP, FITC, PE, Alexa Fluor® 488 and Alexa Fluor® 647 conjugates, see **HSP 90α/β (F-8): sc-13119**.