SANTA CRUZ BIOTECHNOLOGY, INC.

HSP 90α (C-20): sc-8262

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.

SOURCE

HSP 90α (C-20) is an affinity purified goat polyclonal antibody raised against a peptide mapping near the C-terminus of HSP 90α 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.

Blocking peptide available for competition studies, sc-8262 P, (100 µg peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% BSA).

Available as phycoerythrin conjugate for flow cytometry, sc-8262 PE, 100 tests.

APPLICATIONS

HSP 90α (C-20) is recommended for detection of HSP 90α and, to a lesser extent, HSP 90β of mouse, rat, human and zebrafish 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 (C-20) is also recommended for detection of HSP 90α and, to a lesser extent, HSP 90β in additional species, including equine, canine, bovine and porcine.

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: 90 kDa.

Positive Controls: HeLa whole cell lysate: sc-2200, HeLa + heat shock cell lysate: sc-2272 or NIH/3T3 whole cell lysate: sc-2210.

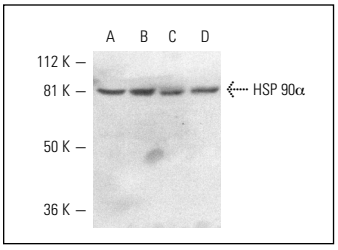
RESEARCH USE

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

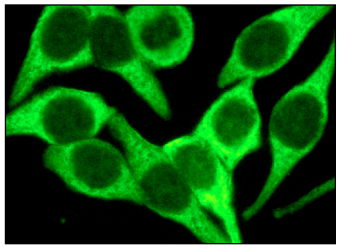
STORAGE

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

DATA



HSP 90α (C-20): sc-8262. Western blot analysis of HSP 90α expression in HeLa (**A**), heat-shocked HeLa (**B**), NIH/3T3 (**C**) and heat-shocked NIH/3T3 (**D**) whole cell lysates.



HSP 90α (C-20): sc-8262. Immunofluorescence staining of methanol-fixed HeLa cells showing cytoplasmic staining.

SELECT PRODUCT CITATIONS

1. Teng, S.C., et al. 2002. Direct activation of HSP90A transcription by c-Myc contributes to c-Myc-induced transformation. J. Biol. Chem. 279: 14649-14655.
2. Palozza, P., et al. 2008. Design, synthesis, and antioxidant potency of novel α-tocopherol analogues in isolated membranes and intact cells. Free Radic. Biol. Med. 44: 1452-1464.
3. Luo, S., et al. 2008. HSP90 β regulates rapsyn turnover and subsequent AChR cluster formation and maintenance. Neuron 60: 97-110.
4. Tsai, Y.P., et al. 2009. Interaction between HSP60 and β-catenin promotes metastasis. Carcinogenesis 30: 1049-1057.
5. Liu, K., et al. 2009. Two-dimensional blue native/SDS-PAGE analysis reveals heat shock protein chaperone machinery involved in hepatitis B virus production in HepG2.2.15 cells. Mol. Cell. Proteomics 8: 495-505.
6. Müller, L., et al. 2013. Antioxidant capacity of tomato seed oil in solution and its redox properties in cultured macrophages. J. Agric. Food Chem. 61: 346-354.
7. Catalano, A., et al. 2013. Comparative antioxidant effects of lycopene, apo-10'-lycopenoic acid and apo-14'-lycopenoic acid in human macrophages exposed to H_2O_2 and cigarette smoke extract. Food Chem. Toxicol. 51: 71-79.
8. Kliková, K., et al. 2015. Differential impact of bortezomib on HL-60 and K562 cells. Gen. Physiol. Biophys. 34: 33-42.