SANTA CRUZ BIOTECHNOLOGY, INC.

HSP 75 (H-123): sc-366084

SANTA CRUZ BIOTECHNOLOGY

The Power to Question

BACKGROUND

The heat shock proteins (HSPs) comprise a group of highly conserved, abundantly expressed proteins with diverse functions, including the assembly and sequestering of multiprotein complexes, transportation of nascent polypeptide chains across cellular membranes and regulation of protein folding. Heat shock protein 75 mitochondrial precursor (HSP 75), also called tumor necrosis factor type 1 receptor-associated protein (TRAP-1), is a 704 amino acid member of the heat shock protein 90 family. HSP 75 localizes to the mitochondrion. HSP 75 is expressed in a variety of tissues including skeletal muscle, liver, heart, brain, pancreas, lung and placenta and functions as a chaperone that expresses an ATPase activity.

REFERENCES

1. Heinen, R.C., Diniz-Mendes, L., Silva, J.T. and Paschoalin, V.M. 2006. Identification of the divergent calmodulin binding motif in yeast Ssb1/HSP 75 protein and in other HSP70 family members. Braz. J. Med. Biol. Res. 39: 1399-1408.
2. Blank, M., Bastrop, R. and Jürss, K. 2006. Stress protein response in two sibling species of *Marenzelleria (Polychaeta: Spionidae):* is there an influence of acclimation salinity? Comp. Biochem. Physiol. B, Biochem. Mol. Biol. 144: 451-462.
3. Im, C.N., Lee, J.S., Zheng, Y. and Seo, J.S. 2007. Iron chelation study in a normal human hepatocyte cell line suggests that tumor necrosis factor receptor-associated protein 1 (TRAP1) regulates production of reactive oxygen species. J. Cell. Biochem. 100: 474-486.
4. Tokalov, S.V., Pieck, S. and Gutzeit, H.O. 2007. Varying responses of human cells with discrepant p53 activity to ionizing radiation and heat shock exposure. Cell Prolif. 40: 24-37.
5. Stasyk, T., Schiefermeier, N., Skvortsov, S., Zwierzina, H., Peränen, J., Bonn, G.K. and Huber, L.A. 2007. Identification of endosomal epidermal growth factor receptor signaling targets by functional organelle proteomics. Mol. Cell. Proteomics 6: 908-922.

CHROMOSOMAL LOCATION

Genetic locus: TRAP1 (human) mapping to 16p13.3; Trap1 (mouse) mapping to 16 A1.

SOURCE

HSP 75 (H-123) is a rabbit polyclonal antibody raised against amino acids 522-644 mapping near the C-terminus of HSP 75 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.

STORAGE

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

APPLICATIONS

HSP 75 (H-123) is recommended for detection of HSP 75 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) and solid phase ELISA (starting dilution 1:30, dilution range 1:30-1:3000).

HSP 75 (H-123) is also recommended for detection of HSP 75 in additional species, including equine, bovine, porcine and avian.

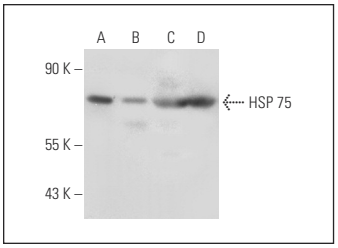
Molecular Weight of HSP 75: 75 kDa.

Positive Controls: Jurkat whole cell lysate: sc-2204, HeLa whole cell lysate: sc-2200 or HL-60 whole cell lysate: sc-2209.

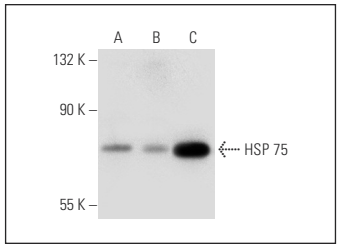
RECOMMENDED SECONDARY REAGENTS

To ensure optimal results, the following support (secondary) reagents are recommended: 1) Western Blotting: use goat anti-rabbit IgG-HRP: sc-2004 (dilution range: 1:2000-1:100,000) or Cruz Marker™ compatible goat anti-rabbit IgG-HRP: sc-2030 (dilution range: 1:2000-1:5000), Cruz Marker™ Molecular Weight Standards: sc-2035, TBS Blotto A Blocking Reagent: sc-2333 and Western Blotting Luminol Reagent: sc-2048. 2) Immunoprecipitation: use Protein A/G PLUS-Agarose: sc-2003 (0.5 ml agarose/2.0 ml). 3) Immunofluorescence: use goat anti-rabbit IgG-FITC: sc-2012 (dilution range: 1:100-1:400) or goat anti-rabbit IgG-TR: sc-2780 (dilution range: 1:100-1:400) with UltraCruz™ Mounting Medium: sc-24941.

DATA



HSP 75 (H-123): sc-366084. Western blot analysis of HSP 75 expression in Hep G2 (**A**), HeLa (**B**), HL-60 (**C**) and K-562 (**D**) whole cell lysates.



HSP 75 (H-123): sc-366084. Western blot analysis of HSP 75 expression in Jurkat (**A**), MOLT-4 (**B**) and NCI-H460 (**C**) whole cell lysates.

RESEARCH USE

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

PROTOCOLS

See our web site at www.scbt.com or our catalog for detailed protocols and support products.

MONOS Satisfaction Guaranteed

Try **HSP 75 (F-7): sc-390061** or **HSP 75 (30): sc-136421**, our highly recommended monoclonal alternatives to HSP 75 (H-123).