

HSP 75 (F-7): sc-390061

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., et al. 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., et al. 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., et al. 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., et al. 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., et al. 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.

SOURCE

HSP 75 (F-7) is a mouse monoclonal antibody raised against amino acids 522-644 mapping near the C-terminus of HSP 75 of human origin.

PRODUCT

Each vial contains 200 µg IgG₁ kappa light chain in 1.0 ml of PBS with < 0.1% sodium azide and 0.1% gelatin.

HSP 75 (F-7) is available conjugated to agarose (sc-390061 AC), 500 µg/0.25 ml agarose in 1 ml, for IP; to HRP (sc-390061 HRP), 200 µg/ml, for WB, IHC(P) and ELISA; to either phycoerythrin (sc-390061 PE), fluorescein (sc-390061 FITC), Alexa Fluor® 488 (sc-390061 AF488), Alexa Fluor® 546 (sc-390061 AF546), Alexa Fluor® 594 (sc-390061 AF594) or Alexa Fluor® 647 (sc-390061 AF647), 200 µg/ml, for WB (RGB), IF, IHC(P) and FCM; and to either Alexa Fluor® 680 (sc-390061 AF680) or Alexa Fluor® 790 (sc-390061 AF790), 200 µg/ml, for Near-Infrared (NIR) WB, IF and FCM.

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APPLICATIONS

HSP 75 (F-7) is recommended for detection of HSP 75 of human origin by Western Blotting (starting dilution 1:100, 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).

Suitable for use as control antibody for HSP 75 siRNA (h): sc-72191, HSP 75 shRNA Plasmid (h): sc-72191-SH and HSP 75 shRNA (h) Lentiviral Particles: sc-72191-V.

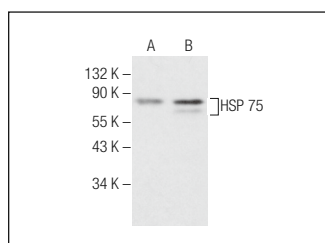
Molecular Weight of HSP 75: 75 kDa.

Positive Controls: MIA PaCa-2 cell lysate: sc-2285 or A-673 cell lysate: sc-2414.

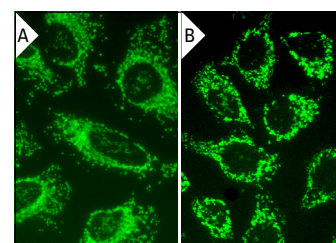
RECOMMENDED SUPPORT REAGENTS

To ensure optimal results, the following support reagents are recommended: 1) Western Blotting: use m-IgGκ BP-HRP: sc-516102 or m-IgGκ BP-HRP (Cruz Marker): sc-516102-CM (dilution range: 1:1000-1:10000), Cruz Marker™ Molecular Weight Standards: sc-2035, UltraCruz® Blocking Reagent: sc-516214 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 m-IgGκ BP-FITC: sc-516140 or m-IgGκ BP-PE: sc-516141 (dilution range: 1:50-1:200) with UltraCruz® Mounting Medium: sc-24941 or UltraCruz® Hard-set Mounting Medium: sc-359850.

DATA



HSP 75 (F-7): sc-390061. Western blot analysis of HSP 75 expression in MIA PaCa-2 (A) and A-673 (B) whole cell lysates.



HSP 75 (F-7): sc-390061. Immunofluorescence staining of methanol-fixed HeLa cells showing mitochondrial localization (A,B).

STORAGE

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

RESEARCH USE

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

PROTOCOLS

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