

HspBP1 (H-179): sc-366142

BACKGROUND

Hsp70-interacting protein (HspBP1) belongs to a family of eukaryotic proteins identified as nucleotide exchange factors for Hsp70, which exhibit varying degrees of compartment and species specificity. HspBP1 interferes with the CHIP-induced degradation of immature forms of the cystic fibrosis transmembrane conductance regulator (CFTR) and stimulates CFTR maturation. HspBP1 binds to Hsp70, inhibits its activity and promotes dissociation of nucleotides from the Hsp70 ATPase domain. It is a protein mainly expressed in heart and skeletal muscle.

REFERENCES

1. Raynes, D.A. and Guerriero, V. 2000. Isolation and characterization of isoforms of HspBP1, inhibitors of HSP 70. *Biochim. Biophys. Acta* 1490: 203-207.
2. Kabani, M., et al. 2002. HspBP1, a homologue of the yeast Fes1 and SIs1 proteins, is an Hsc70 nucleotide exchange factor. *FEBS Lett.* 531: 339-342.
3. McLellan, C.A., et al. 2003. HspBP1, an HSP 70 cochaperone, has two structural domains and is capable of altering the conformation of the HSP 70 ATPase domain. *J. Biol. Chem.* 278: 19017-19022.
4. Raynes, D.A., et al. 2003. Increased expression of the Hsp70 cochaperone HspBP1 in tumors. *Tumour Biol.* 24: 281-285.
5. Tanimura, S., et al. 2004. Heat shock protein 70 binding protein 1 induces enhanced apoptotic response against anticancer drugs in tumor cells *Nippon Rinsho* 62: 1291-1296.
6. Alberti, S., et al. 2004. The cochaperone HspBP1 inhibits the CHIP ubiquitin ligase and stimulates the maturation of the cystic fibrosis transmembrane conductance regulator. *Mol. Biol. Cell* 15: 4003-4010.
7. Shomura, Y., et al. 2005. Regulation of Hsp70 function by HspBP1: structural analysis reveals an alternate mechanism for Hsp70 nucleotide exchange. *Mol. Cell* 17: 367-379.

CHROMOSOMAL LOCATION

Genetic locus: HSPBP1 (human) mapping to 19q13.42; Hsbbp1 (mouse) mapping to 7 A1.

SOURCE

HspBP1 (H-179) is a rabbit polyclonal antibody raised against amino acids 63-241 mapping within an internal region of HspBP1 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.

RESEARCH USE

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

APPLICATIONS

HspBP1 (H-179) is recommended for detection of HspBP1 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).

HspBP1 (H-179) is also recommended for detection of HspBP1 in additional species, including bovine.

Suitable for use as control antibody for HspBP1 siRNA (h): sc-45314, HspBP1 siRNA (m): sc-45315, HspBP1 shRNA Plasmid (h): sc-45314-SH, HspBP1 shRNA Plasmid (m): sc-45315-SH, HspBP1 shRNA (h) Lentiviral Particles: sc-45314-V and HspBP1 shRNA (m) Lentiviral Particles: sc-45315-V.

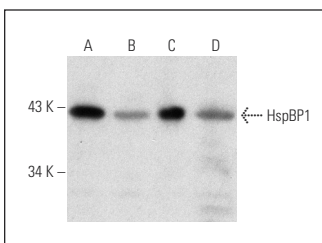
Molecular Weight of HspBP1: 45 kDa.

Positive Controls: HeLa whole cell lysate: sc-2200, Jurkat whole cell lysate: sc-2204 or A549 cell lysate: sc-2413.

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



HspBP1 (H-179): sc-366142. Western blot analysis of HspBP1 expression in HeLa (A), MCF7 (B) and Jurkat (C) whole cell lysates and mouse colon tissue extract (D).

PROTOCOLS

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