SANTA CRUZ BIOTECHNOLOGY, INC.

HspBP1 (m): 293T Lysate: sc-126981

BACKGROUND

HSP 70-interacting protein (HspBP1) belongs to a family of eukaryotic proteins identified as nucleotide exchange factors for HSP 70, 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 HSP 70, inhibits its activity and promotes dissociation of nucleotides from the HSP 70 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 Sls1 proteins, is an HSC 70 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 HSP 70 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 HSP 70 function by HspBP1: structural analysis reveals an alternate mechanism for HSP 70 nucleotide exchange. Mol. Cell 17: 367-379.
8. Papp, D., et al. 2005. Development of a sensitive assay for the measurement of antibodies against heat shock protein binding protein 1 (HspBP1): increased levels of anti-HspBP1 IgG are prevalent in HIV infected subjects. J. Med. Virol. 76: 464-469.
9. Gottwald, E., et al. 2006. Expression of the cochaperone HspBP1 is not coordinately regulated with HSP 70 expression. Cell Biol. Int. 30: 553-558.

CHROMOSOMAL LOCATION

Genetic locus: 1500019G21Rik (mouse) mapping to 7 A1.

PRODUCT

HspBP1 (m): 293T Lysate represents a lysate of mouse HspBP1 transfected 293T cells and is provided as 100 µg protein in 200 µl SDS-PAGE buffer.

STORAGE

Store at -20° C. Repeated freezing and thawing should be minimized. Sample vial should be boiled once prior to use. Non-hazardous. No MSDS required.

APPLICATIONS

HspBP1 (m): 293T Lysate is suitable as a Western Blotting positive control for mouse reactive HspBP1 antibodies. Recommended use: 10-20 µl per lane.

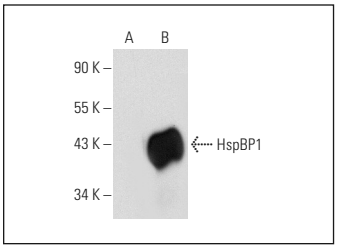
Control 293T Lysate: sc-117752 is available as a Western Blotting negative control lysate derived from non-transfected 293T cells.

HspBP1 (D-2): sc-166315 is recommended as a positive control antibody for Western Blot analysis of enhanced mouse HspBP1 expression in HspBP1 transfected 293T cells (starting dilution 1:100, dilution range 1:100-1:1,000).

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.

DATA



HspBP1 (D-2): sc-166315. Western blot analysis of HspBP1 expression in non-transfected: sc-117752 (**A**) and mouse HspBP1 transfected: sc-126981 (**B**) 293T whole cell lysates.

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.