

HSP 56 (m2): 293T Lysate: sc-110358

BACKGROUND

HSP 56 (also designated FKBP4, FK506 binding protein 4, HBI, p52, FKBP52, FKBP59 and PPlase) is a 56 kDa *cis-trans* prolyl isomerase belonging to the immunophilin protein family. The human HSP 56 gene (FKBP4) has multiple polyadenylation sites and the HSP 56 protein can undergo phosphorylation. HSP 56 influences immunoregulatory gene expression in lymphocytes, protein folding and trafficking. It can serve as a co-chaperone for steroid hormone nuclear receptors to govern appropriate hormone action in target tissues. The protein can associate with phytanoyl-CoA α -hydroxylase (PHYH) and with HSP 90 through a series of tetratricopeptide repeat (TPR) domains. HSP 56 is a TRPC ion channel accessory protein that modulates channel activation following receptor stimulation.

REFERENCES

1. Sumanasekera, W.K., et al. 2003. Heat shock protein 90 (HSP 90) acts as a repressor of peroxisome proliferator-activated receptor α (PPAR α) and PPAR β activity. *Biochemistry* 42: 10726-10735.
2. Galigniana, M.D., et al. 2004. HSP 90-binding immunophilins link p53 to Dynein during p53 transport to the nucleus. *J. Biol. Chem.* 279: 22483-22489.
3. Sanokawa-Akakura, R., et al. 2004. A novel role for the immunophilin FKBP52 in copper transport. *J. Biol. Chem.* 279: 27845-27848.
4. Sinkins, W.G., et al. 2004. Association of immunophilins with mammalian TRPC channels. *J. Biol. Chem.* 279: 34521-34529.
5. Davies, T.H., et al. 2005. FKBP52. *Int. J. Biochem. Cell Biol.* 37: 42-47.
6. Wochnik, G.M., et al. 2005. FK506-binding proteins 51 and 52 differentially regulate Dynein interaction and nuclear translocation of the glucocorticoid receptor in mammalian cells. *J. Biol. Chem.* 280: 4609-4616.
7. Prince, T., et al. 2005. Evidence for chaperone heterocomplexes containing both HSP 90 and VCP. *Biochem. Biophys. Res. Commun.* 331: 1331-1337.
8. Tranguch, S., et al. 2005. Co-chaperone immunophilin FKBP52 is critical to uterine receptivity for embryo implantation. *Proc. Natl. Acad. Sci. USA* 102: 14326-14331.

CHROMOSOMAL LOCATION

Genetic locus: Fkbp4 (mouse) mapping to 6 F3.

PRODUCT

HSP 56 (m2): 293T Lysate represents a lysate of mouse HSP 56 transfected 293T cells and is provided as 100 μ g protein in 200 μ l 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.

PROTOCOLS

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

APPLICATIONS

HSP 56 (m2): 293T Lysate is suitable as a Western Blotting positive control for mouse reactive HSP 56 antibodies. Recommended use: 10-20 μ l per lane.

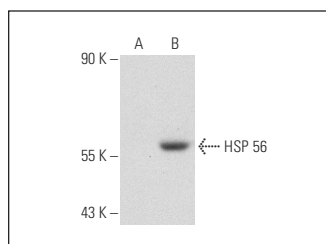
Control 293T Lysate: sc-117752 is available as a Western Blotting negative control lysate derived from non-transfected 293T cells.

HSP 56 (329.1): sc-100758 is recommended as a positive control antibody for Western Blot analysis of enhanced mouse HSP 56 expression in HSP 56 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-IgG κ BP-HRP: sc-516102 or m-IgG κ 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



HSP 56 (329.1): sc-100758. Western blot analysis of HSP 56 expression in non-transfected: sc-117752 (A) and mouse HSP 56 transfected: sc-110358 (B) 293T whole cell lysates.

RESEARCH USE

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