

STI1 (m): 293T Lysate: sc-123820

BACKGROUND

Stress-induced-phosphoprotein 1 (STI1) functions as a co-chaperone for HSP70 and HSP90 during heat shock response. STI1 exists as either a monomer or a dimer, and this conformational flexibility facilitates its function in organizing HSP70/HSP90. HSP90 acts as an ATPase, and requires the recruitment of client proteins and proper conformation to function. STI1 acts as a "scaffold" for client protein recruitment to the relaxed, ADP-bound conformation of HSP90, thus suppressing ATP turnover during the loading phase and allowing proper function.

REFERENCES

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- Siligardi, G., et al. 2002. Regulation of HSP 90 ATPase activity by the co-chaperone Cdc37p/p50Cdc37. *J. Biol. Chem.* 277: 20151-20159.
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- Zanata, S.M., et al. 2002. Stress-inducible protein 1 is a cell surface ligand for cellular prion that triggers neuroprotection. *EMBO J.* 21: 3307-3316.
- Richter, K., et al. 2003. STI1 is a non-competitive inhibitor of the HSP 90 ATPase. Binding prevents the N-terminal dimerization reaction during the ATPase cycle. *J. Biol. Chem.* 278: 10328-10333.
- Wegele, H., et al. 2003. STI1 is a novel activator of the Ssa proteins. *J. Biol. Chem.* 278: 25970-25976.
- Lee, P., et al. 2004. STI1 and Cdc37 can stabilize HSP 90 in chaperone complexes with a protein kinase. *Mol. Biol. Cell* 15: 1785-1792.
- Sakudo, A., et al. 2005. PrP cooperates with STI1 to regulate SOD activity in PrP-deficient neuronal cell line. *Biochem. Biophys. Res. Commun.* 328: 14-19.

CHROMOSOMAL LOCATION

Genetic locus: STIP1 (human) mapping to 11q13.1.

PRODUCT

STI1 (m): 293T Lysate represents a lysate of mouse STI1 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.

PROTOCOLS

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

APPLICATIONS

STI1 (m): 293T Lysate is suitable as a Western Blotting positive control for mouse reactive STI1 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.

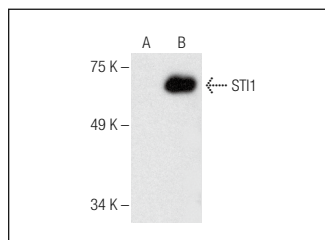
STI1 (D-6): sc-390203 is recommended as a positive control antibody for Western Blot analysis of enhanced mouse STI1 expression in STI1 transfected 293T cells (starting dilution 1:100, dilution range 1:100-1:1,000).

RECOMMENDED SUPPORT REAGENTS

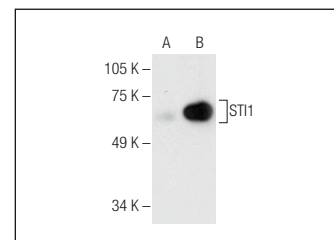
To ensure optimal results, the following support reagents are recommended:

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



STI1 (D-6): sc-390203. Western blot analysis of STI1 expression in non-transfected: sc-117752 (A) and mouse STI1 transfected: sc-123820 (B) 293T whole cell lysates.



STI1 (E-7): sc-390224. Western blot analysis of STI1 expression in non-transfected: sc-117752 (A) and mouse STI1 transfected: sc-123820 (B) 293T whole cell lysates.

RESEARCH USE

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