## SANTA CRUZ BIOTECHNOLOGY, INC.

# STI1 (J-32): sc-100865



The Power to Question

#### BACKGROUND

Stress-induced-phosphoprotein 1 (STI1) functions as a co-chaperone for HSP 70 and HSP 90 during heat shock response. STI1 exists as either a monomer or a dimer, and this conformational flexibility facilitates its function in organizing HSP 70/HSP 90. HSP 90 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 HSP 90, 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 cochaperone Cdc37p/p50Cdc37. J. Biol. Chem. 277: 20151-20159.
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- 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.
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- 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; Stip1 (mouse) mapping to 19 A.

### SOURCE

STI1 (J-32) is a mouse monoclonal antibody raised against recombinant STI1 of human origin.

## PRODUCT

Each vial contains 100  $\mu g~lg G_{2a}$  in 1.0 ml of PBS with < 0.1% sodium azide and 0.1% gelatin.

#### **RESEARCH USE**

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

#### APPLICATIONS

STI1 (J-32) is recommended for detection of STI1 of mouse, rat and human origin by Western Blotting (starting dilution 1:200, dilution range 1:100-1:1000), immunoprecipitation [1-2  $\mu$ g per 100-500  $\mu$ g of total protein (1 ml of cell lysate)], immunofluorescence (starting dilution 1:50, dilution range 1:50-1:500), immunohistochemistry (including paraffin-embedded sections) (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 STI1 siRNA (h): sc-106905, STI1 siRNA (m): sc-153893, STI1 shRNA Plasmid (h): sc-106905-SH, STI1 shRNA Plasmid (m): sc-153893-SH, STI1 shRNA (h) Lentiviral Particles: sc-106905-V and STI1 shRNA (m) Lentiviral Particles: sc-153893-V.

Molecular Weight STI1: 63 kDa.

Positive Controls: HeLa whole cell lysate: sc-2200.

## **RECOMMENDED SECONDARY REAGENTS**

To ensure optimal results, the following support (secondary) reagents are recommended: 1) Western Blotting: use goat anti-mouse IgG-HRP: sc-2005 (dilution range: 1:2000-1:32,000) or Cruz Marker<sup>™</sup> compatible goat anti-mouse IgG-HRP: sc-2031 (dilution range: 1:2000-1:5000), Cruz Marker<sup>™</sup> 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-mouse IgG-FITC: sc-2010 (dilution range: 1:100-1:400) or goat anti-mouse IgG-TR: sc-2781 (dilution range: 1:100-1:400) with UltraCruz<sup>™</sup> Mounting Medium: sc-2017 mouse IgG Staining Systems.

#### **STORAGE**

Store at 4° C, \*\*D0 NOT FREEZE\*\*. Stable for one year from the date of shipment. Non-hazardous. No MSDS required.

#### PROTOCOLS

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