**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**


6. Richter, K., et al. 2003. STI1 is a non-competitive inhibitor of the Hsp90 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.


**CHROMOSOMAL LOCATION**

Genetic locus: STI1 (human) mapping to 11q13.1; Stip1 (mouse) mapping to 19A.

**SOURCE**

STI1 (D-6) is a mouse monoclonal antibody raised against amino acids 203-453 mapping near the C-terminus of STI1 of human origin.

**PRODUCT**

Each vial contains 200 µg IgG1 kappa light chain in 1.0 ml of PBS with < 0.1% sodium azide and 0.1% gelatin.

STI1 (D-6) is available conjugated to agarose (sc-390203 AC); 500 µg/0.25 ml agarose in 1 ml, for IP; to HRP (sc-390203 HRP), 200 µg/ml, for WB, IHC(P) and ELISA; to either phycocyanin (sc-390203 PE), fluorescein (sc-390203 FITC), Alexa Fluor® 488 (sc-390203 AF488), Alexa Fluor® 546 (sc-390203 AF546), Alexa Fluor® 594 (sc-390203 AF594) or Alexa Fluor® 647 (sc-390203 AF647), 200 µg/ml, for WB (RGB), IF, IHC(P) and FCM; and to either Alexa Fluor® 680 (sc-390203 AF680) or Alexa Fluor® 790 (sc-390203 AF790), 200 µg/ml, for Near-Infrared (NIR) WB, IF and FCM.

**STORAGE**

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

**APPLICATIONS**

STI1 (D-6) is recommended for detection of STI1 of mouse, rat and human origin by Western Blotting (starting dilution 1:100, 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), 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 of STI1: 63 kDa.

Positive Controls: NIH/3T3 whole cell lysate: sc-2210, A549 cell lysate: sc-2413 or Jurkat whole cell lysate: sc-2204.

**RECOMMENDED SUPPORT REAGENTS**

To ensure optimal results, the following support reagents are recommended: 1) Western Blotting: use m-IgG1 BP-HRP: sc-516102 or m-IgG1 BP-HRP (Cruz Marker). 2) Immunoprecipitation: use Protein A/G PLUS-Agarose: sc-2003 (0.5 ml agarose/2.0 ml). 3) Immunofluorescence: use m-IgG1 BP-FITC: sc-516140 or m-IgG1 BP-PE: sc-516141 (dilution range: 1:50-1:200) with UltraCruz® Blocking Reagent: sc-24941 or UltraCruz® Hard-set Mounting Medium: sc-359850. 4) Immunohistochemistry: use m-IgG1 BP-HRP: sc-516102 with DAB, 50X: sc-24982 and Immunohistochemistry: sc-45086, or Organo/Limonene Mount: sc-45087.

**DATA**

**STI1 (D-6): sc-390203. Western blot analysis of STI1 expression in NIH/3T3 (A), Jurkat (B), Hep G2 (C), PC-12 (D) and A549 (E) whole cell lysates.**

**STI1 (D-6): sc-390203. Immunoperoxidase staining of formalin fixed, paraffin-embedded human testis showing nuclear and cytoplasmic staining of cells in seminiferous ducts and cytoplasmic staining of Leydig cells.**

**SOURCE**

STI1 (D-6): sc-390203. Western blot analysis of STI1 expression in NIH/3T3 (A), Jurkat (B), Hep G2 (C), PC-12 (D) and A549 (E) whole cell lysates.

STI1 (D-6): sc-390203. Immunoperoxidase staining of formalin fixed, paraffin-embedded human testis showing nuclear and cytoplasmic staining of cells in seminiferous ducts and cytoplasmic staining of Leydig cells.

**RESEARCH USE**

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

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