SANTA CRUZ BIOTECHNOLOGY, INC.

STI1 (D-6): sc-390203

SANTA CRUZ BIOTECHNOLOGY

The Power to Question

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.

CHROMOSOMAL LOCATION

Genetic locus: STIP1 (human) mapping to 11q13.1; Stip1 (mouse) mapping to 19 A.

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 IgG_1 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 phycoerythrin (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.

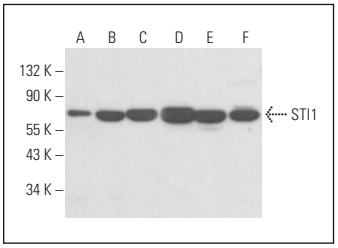
Molecular Weight of STI1: 63 kDa.

Positive Controls: MOLT-4 cell lysate: sc-2233, CCRF-CEM cell lysate: sc-2225 or BYDP whole cell lysate: sc-364368.

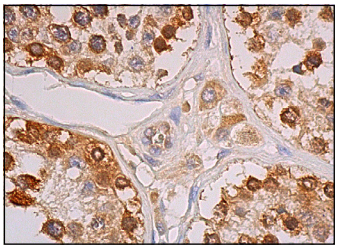
RECOMMENDED SUPPORT REAGENTS

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. 2) Immunoprecipitation: use Protein A/G PLUS-Agarose: sc-2003 (0.5 ml agarose/2.0 ml). 3) Immunofluorescence: use m-IgGκ BP-FITC: sc-516140 or m-IgGκ BP-PE: sc-516141 (dilution range: 1:50-1:200) with UltraCruz® Mounting Medium: sc-24941 or UltraCruz® Hard-set Mounting Medium: sc-359850. 4) Immunohistochemistry: use m-IgGκ BP-HRP: sc-516102 with DAB, 50X: sc-24982 and Immunohistomount: sc-45086, or Organo/Limonene Mount: sc-45087.

DATA



STI1 (D-6): sc-390203. Western blot analysis of STI1 expression in MOLT-4 (**A**), CCRF-CEM (**B**), ALL-SIL (**C**), BYDP (**D**), C6 (**E**) and 3T3-L1 (**F**) whole cell lysates.



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

SELECT PRODUCT CITATIONS

1. Serlidaki, D., et al. 2020. Functional diversity between HSP70 paralogs due to variable interactions with specific co-chaperones. J. Biol. Chem. 295: 7301-7316.
2. Di Luca, A., et al. 2022. Label-free quantitative proteomics and stress responses in pigs-the case of short or long road transportation. PLoS ONE 17: e0277950.

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.