SANTA CRUZ BIOTECHNOLOGY, INC.

SPT5 (D-10): sc-390961

BACKGROUND

SPT4 (also designated suppressor of Ty4 and p14) and SPT5 (also designated DSIF p160) are highly conserved proteins from yeast to humans. Nuclear SPT4 and SPT5 are involved in both DRB (5,6-dichloro-1-β-D-ribofuranosylbenzimidazole)-mediated transcriptional inhibition as well as the activation of transcriptional elongation by the HIV-1 protein Tat. SPT4 binds SPT5 to form the DSIF (DRB-sensitivity-inducing factor) complex, which binds RNA polymerase II and directly regulates elongation. However, SPT5 protein in mitotic HeLa cells migrates more slowly on SDS-PAGE than does SPT5 isolated from interphase cells, as a result of enhanced SPT5 phosphorylation. The C-terminal CTR1 domain of SPT5 is the substrate for P-TEFb phosphorylation, which is critical for SPT5 function as a regulator of transcriptional elongation.

CHROMOSOMAL LOCATION

Genetic locus: SUPT5H (human) mapping to 19q13.2; Supt5h (mouse) mapping to 7 A3.

SOURCE

SPT5 (D-10) is a mouse monoclonal antibody specific for an epitope mapping between amino acids 987-1010 near the C-terminus of SPT5 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. Also available as TransCruz reagent for Gel Supershift and ChIP applications, sc-390961 X, 200 µg/0.1 ml.

Blocking peptide available for competition studies, sc-390961 P, (100 µg peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% stabilizer protein).

APPLICATIONS

SPT5 (D-10) is recommended for detection of SPT5 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) and solid phase ELISA (starting dilution 1:30, dilution range 1:30-1:3000).

SPT5 (D-10) is also recommended for detection of SPT5 in additional species, including equine, canine, bovine and porcine.

Suitable for use as control antibody for SPT5 siRNA (h): sc-38440, SPT5 siRNA (m): sc-38441, SPT5 shRNA Plasmid (h): sc-38440-SH, SPT5 shRNA Plasmid (m): sc-38441-SH, SPT5 shRNA (h) Lentiviral Particles: sc-38440-V and SPT5 shRNA (m) Lentiviral Particles: sc-38441-V.

SPT5 (D-10) X TransCruz antibody is recommended for Gel Supershift and ChIP applications.

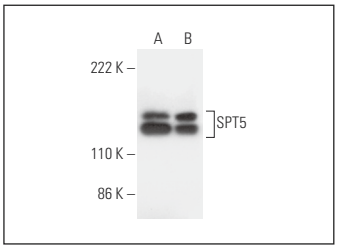
Molecular Weight of SPT5: 160 kDa.

Positive Controls: CCRF-CEM cell lysate: sc-2225, F9 cell lysate: sc-2245 or CCRF-CEM nuclear extract: sc-2146.

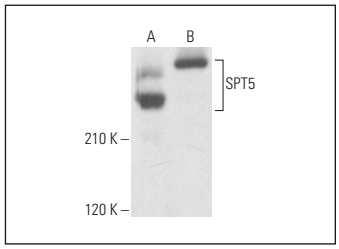
RECOMMENDED SUPPORT REAGENTS

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.

DATA



SPT5 (D-10): sc-390961. Western blot analysis of SPT5 expression in CCRF-CEM whole cell lysate (**A**) and CCRF-CEM nuclear extract (**B**).



SPT5 (D-10): sc-390961. Western blot analysis of SPT5 expression in CCRF-CEM (**A**) and F9 (**B**) whole cell lysates.

SELECT PRODUCT CITATIONS

1. Isa, N.F., et al. 2021. HSV-1 ICP22 is a selective viral repressor of cellular RNA polymerase II-mediated transcription elongation. Vaccines 9: 1054.
2. Han, J., et al. 2021. Improved lentiviral vector titers from a multi-gene knockout packaging line. Mol. Ther. Oncolytics 23: 582-592.
3. Li, X., et al. 2021. Enhanced bone regenerative properties of calcium phosphate ceramic granules in rabbit posterolateral spinal fusion through a reduction of grain size. Bioact. Mater. 11: 90-106.

STORAGE

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

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.