

SPT6 (C-6): sc-393938



The Power to Question

BACKGROUND

SPT6 (suppressor of Ty6 homolog), also known as SUPT6H, SPT6H, Tat-CT2 (Tat-cotransactivator 2 protein) or emb-5 in *C. elegans*, is a 1,726 amino acid protein that is highly conserved from yeast to humans. Expressed ubiquitously, SPT6 localizes to the nucleus and contains one SH2 domain and one S1 domain. SPT6 participates in both DRB (5,6-dichloro-1- β -D-ribofuranosylbenzimidazole)-mediated transcriptional inhibition as well as the enhancement of transcriptional elongation by the RNA polymerase II (Pol II). SPT6 interacts with the nuclear proteins SPT4 and SPT5, which comprise the DSIF (DRB-sensitivity-inducing factor) complex that binds RNA polymerase II, and directly regulates elongation. Via its C-terminus, SPT6 can also interact with Histone H3. Due to alternative splicing events, three isoforms exist for SPT6.

REFERENCES

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- Chiang, P.W., et al. 1996. Identification and analysis of the human and murine putative chromatin structure regulator SUPT6H and Supt6h. *Genomics* 34: 328-333.
- Chiang, P.W., et al. 1996. Isolation, sequencing, and mapping of the human homologue of the yeast transcription factor, SPT5. *Genomics* 38: 421-424.
- Riva, P., et al. 2000. NF1 microdeletion syndrome: refined FISH characterization of sporadic and familial deletions with locus-specific probes. *Am. J. Hum. Genet.* 66: 100-109.
- Andrulis, E.D., et al. 2002. The RNA processing exosome is linked to elongating RNA polymerase II in *Drosophila*. *Nature* 420: 837-841.
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- Kaplan, C.D., et al. 2003. Transcription elongation factors repress transcription initiation from cryptic sites. *Science* 301: 1096-1099.

CHROMOSOMAL LOCATION

Genetic locus: SUPT6H (human) mapping to 17q11.2; Supt6 (mouse) mapping to 11 B5.

SOURCE

SPT6 (C-6) is a mouse monoclonal antibody raised against amino acids 1001-1227 mapping within an internal region of SPT6 of human origin.

PRODUCT

Each vial contains 200 μ g IgG_{2a} kappa light chain in 1.0 ml of PBS with < 0.1% sodium azide and 0.1% gelatin.

STORAGE

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

APPLICATIONS

SPT6 (C-6) is recommended for detection of SPT6 of mouse, rat and human origin by Western Blotting (starting dilution 1:100, dilution range 1:100-1:1000), immunoprecipitation [1-2 μ g per 100-500 μ g 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).

SPT6 (C-6) is also recommended for detection of SPT6 in additional species, including equine, canine and bovine.

Suitable for use as control antibody for SPT6 siRNA (h): sc-93909, SPT6 siRNA (m): sc-153802, SPT6 shRNA Plasmid (h): sc-93909-SH, SPT6 shRNA Plasmid (m): sc-153802-SH, SPT6 shRNA (h) Lentiviral Particles: sc-93909-V and SPT6 shRNA (m) Lentiviral Particles: sc-153802-V.

Molecular Weight of SPT6: 199 kDa.

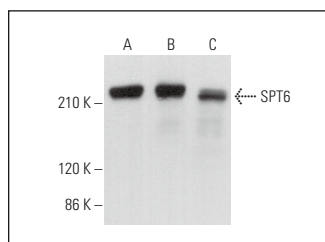
Positive Controls: Jurkat whole cell lysate: sc-2204, Hep G2 cell lysate: sc-2227 or HeLa nuclear extract: sc-2120.

RECOMMENDED SUPPORT REAGENTS

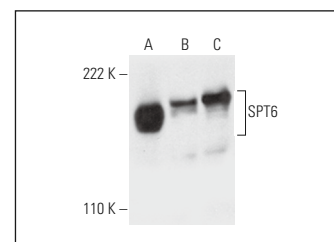
To ensure optimal results, the following support reagents are recommended:

- Western Blotting: use m-IgG κ BP-HRP: sc-516102 or m-IgG κ 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.
- Immunoprecipitation: use Protein A/G PLUS-Agarose: sc-2003 (0.5 ml agarose/2.0 ml).
- Immunofluorescence: use m-IgG κ BP-FITC: sc-516140 or m-IgG κ 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



SPT6 (C-6): sc-393938. Western blot analysis of SPT6 expression in A-431 (A), SK-BR-3 (B) and NIH/3T3 (C) whole cell lysates.



SPT6 (C-6): sc-393938. Western blot analysis of SPT6 expression in Jurkat (A) and Hep G2 (B) whole cell lysates and HeLa nuclear extract (C).

SELECT PRODUCT CITATIONS

- Diao, C., et al. 2021. SPT6 recruits SND1 to co-activate human telomerase reverse transcriptase to promote colon cancer progression. *Mol. Oncol.* 15: 1180-1202.

RESEARCH USE

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