

SPT6 (C-16): sc-109433

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

- Segre, J.A., et al. 1995. Positional cloning of the nude locus: genetic, physical, and transcription maps of the region and mutations in the mouse and rat. *Genomics* 28: 549-559.
- 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.
- Online Mendelian Inheritance in Man, OMIM™. 2002. Johns Hopkins University, Baltimore, MD. MIM Number: 601333. World Wide Web URL: <http://www.ncbi.nlm.nih.gov/omim/>
- Kaplan, C.D., et al. 2003. Transcription elongation factors repress transcription initiation from cryptic sites. *Science* 301: 1096-1099.
- Endoh, M., et al. 2004. Human SPT6 stimulates transcription elongation by RNA polymerase II *in vitro*. *Mol. Cell. Biol.* 24: 3324-3336.
- Yoh, S.M., et al. 2007. The SPT6 SH2 domain binds Ser2-P RNAPII to direct lws1-dependent mRNA splicing and export. *Genes Dev.* 21: 160-174.

CHROMOSOMAL LOCATION

Genetic locus: SUPT6H (human) mapping to 17q11.2; Supt6h (mouse) mapping to 11 B5.

SOURCE

SPT6 (C-16) is an affinity purified goat polyclonal antibody raised against a peptide mapping at the C-terminus of SPT6 of human origin.

STORAGE

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

PRODUCT

Each vial contains 200 µg IgG in 1.0 ml of PBS with < 0.1% sodium azide and 0.1% gelatin.

Blocking peptide available for competition studies, sc-109433 P, (100 µg peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% BSA).

APPLICATIONS

SPT6 (C-16) is recommended for detection of SPT6 of mouse, rat and human origin by Western Blotting (starting dilution 1:200, dilution range 1:100-1:1000), 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); non cross-reactive with other SPT family members.

SPT6 (C-16) is also recommended for detection of SPT6 in additional species, including equine, canine, bovine, porcine and avian.

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.

RECOMMENDED SECONDARY REAGENTS

To ensure optimal results, the following support (secondary) reagents are recommended: 1) Western Blotting: use donkey anti-goat IgG-HRP: sc-2020 (dilution range: 1:2000-1:100,000) or Cruz Marker™ compatible donkey anti-goat IgG-HRP: sc-2033 (dilution range: 1:2000-1:5000), Cruz Marker™ Molecular Weight Standards: sc-2035, TBS Blotto A Blocking Reagent: sc-2333 and Western Blotting Luminol Reagent: sc-2048. 2) Immunofluorescence: use donkey anti-goat IgG-FITC: sc-2024 (dilution range: 1:100-1:400) or donkey anti-goat IgG-TR: sc-2783 (dilution range: 1:100-1:400) with UltraCruz™ Mounting Medium: sc-24941.

RESEARCH USE

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

PROTOCOLS

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


 MONOS
Satisfaction
Guaranteed

Try **SPT6 (E-4): sc-393920** or **SPT6 (C-6): sc-393938**, our highly recommended monoclonal alternatives to SPT6 (C-16).