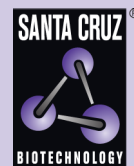


SPT3 (71-S): sc-101157



The Power to Question

BACKGROUND

The *Saccharomyces cerevisiae* SAGA complex is a multifunctional coactivator that regulates transcription by RNA polymerase II. In yeast, SPT3 is a component of the multiprotein SPT-ADA-GCN5 acetyltransferase (SAGA) complex that integrates proteins with transcription coactivator/adaptor functions, histone acetyltransferase activity, and core promoter-selective functions involving interactions with the TATA-binding protein. The human STAGA complex contains homologs of most yeast SAGA components. STAGA has acetyl coenzyme A-dependent transcriptional coactivator functions from a chromatin-assembled template *in vitro* and associates in HeLa cells with spliceosome-associated proteins. Amino acid sequence comparisons between human SPT3 and its counterparts in yeast reveal three highly conserved domains, with the most conserved 92-amino acid N-terminal domain being 25% identical with human TAFII18.

REFERENCE

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- Martinez, E., et al. 1998. A human SPT3-TAFII31-GCN5-L acetylase complex distinct from transcription factor IID. *J. Biol. Chem.* 273: 23781-23785.
- Yu, J., et al. 1998. Characterization of a human homologue of the *Saccharomyces cerevisiae* transcription factor spt3 (SUPT3H). *Genomics* 53: 90-96.
- Birck, C., et al. 1998. Human TAF(II)28 and TAF(II)18 interact through a histone fold encoded by atypical evolutionary conserved motifs also found in the SPT3 family. *Cell* 94: 239-249.
- Belotserkovskaya, R., et al. 2000. Inhibition of TATA-binding protein function by SAGA subunits SPT3 and Spt8 at Gcn4-activated promoters. *Mol. Cell. Biol.* 20: 634-647.
- Martinez, E., et al. 2001. Human STAGA complex is a chromatin-acetylating transcription coactivator that interacts with pre-mRNA splicing and DNA damage-binding factors *in vivo*. *Mol. Cell. Biol.* 21: 6782-6795.
- Wu, P.Y., et al. 2004. Molecular architecture of the *S. cerevisiae* SAGA complex. *Mol. Cell* 15: 199-208.
- Topalidou, I., et al. 2004. SPT3 and Mot1 cooperate in nucleosome remodeling independently of TBP recruitment. *EMBO J.* 23: 1943-1948.

CHROMOSOMAL LOCATION

Genetic locus: SUPT3H (human) mapping to 6p21.1.

SOURCE

SPT3 (71-S) is a mouse monoclonal antibody raised against recombinant SPT3 of human origin.

STORAGE

For immediate and continuous use, store at 4° C for up to one month. For sporadic use, freeze in working aliquots in order to avoid repeated freeze/thaw cycles. If turbidity is evident upon prolonged storage, clarify solution by centrifugation.

PRODUCT

Each vial contains 200 µl ascites containing IgM with < 0.1% sodium azide.

APPLICATIONS

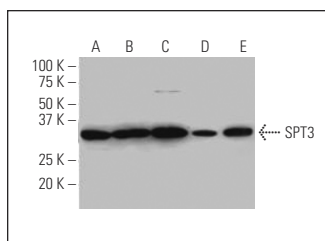
SPT3 (71-S) is recommended for detection of SPT3 of human origin by Western Blotting (starting dilution to be determined by researcher, dilution range 1:100-1:5000), immunoprecipitation [1-2 µl per 100-500 µg of total protein (1 ml of cell lysate)] and solid phase ELISA (starting dilution to be determined by researcher, dilution range 1:100-1:5000).

Suitable for use as control antibody for SPT3 siRNA (h): sc-106787, SPT3 shRNA Plasmid (h): sc-106787-SH and SPT3 shRNA (h) Lentiviral Particles: sc-106787-V.

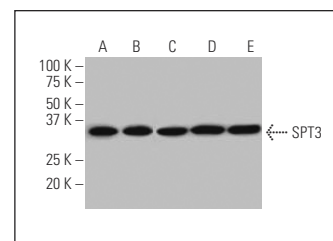
Molecular Weight of SPT3: 44/36/37 kDa.

Positive Controls: HeLa whole cell lysate: sc-2200, Jurkat whole cell lysate: sc-2204 or A-431 whole cell lysate: sc-2201.

DATA



SPT3 (71-S): sc-101157. Western blot analysis of SPT3 expression in HeLa (A), HL-60 (B), A-431 (C), Jurkat (D), MCF7 (E) whole cell lysates.



SPT3 (71-S): sc-101157. Western blot analysis of SPT3 expression in K-562 (A), Hep G2 (B), A549 (C), COLO 320HSR (D), IMR-32 (E) whole cell lysates.

SELECT PRODUCT CITATIONS

- Holmlund, T., et al. 2013. GCN5 acetylates and regulates the stability of the oncoprotein E2A-PBX1 in acute lymphoblastic leukemia. *Leukemia* 27: 578-585.

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.