

SPT4 (3079C1a): sc-81384

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-ribofuranosyl-benzimidazole)-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-TEF β phosphorylation, which is critical for SPT5 function as a regulator of transcriptional elongation.

REFERENCES

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- Xiao, Y., et al. 2005. Analysis of a splice array experiment elucidates roles of chromatin elongation factor SPT4-5 in splicing. *PLoS Comput. Biol.* 1: E39.
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CHROMOSOMAL LOCATION

Genetic locus: SUPT4H1 (human) mapping to 17q22.

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.

SOURCE

SPT4 (3079C1a) is a mouse monoclonal antibody raised against a recombinant protein corresponding to a region near the C-terminus of SPT4 of human origin.

PRODUCT

Each vial contains 100 μ g IgG_{2b} in 1.0 ml of PBS with < 0.1% sodium azide and 1.0% stabilizer protein.

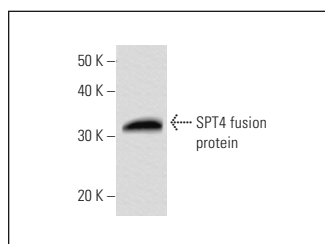
APPLICATIONS

SPT4 (3079C1a) is recommended for detection of SPT4 of human origin by Western Blotting (starting dilution 1:200, dilution range 1:100-1:1000) and immunoprecipitation [1-2 μ g per 100-500 μ g of total protein (1 ml of cell lysate)].

Suitable for use as control antibody for SPT4 siRNA (h): sc-38438, SPT4 shRNA Plasmid (h): sc-38438-SH and SPT4 shRNA (h) Lentiviral Particles: sc-38438-V.

Molecular Weight of SPT4: 14 kDa.

DATA



SPT4 (3079C1a): sc-81384. Western Blot analysis of human recombinant SPT4 fusion protein.

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.