

HIV-1 Tat-SF1 (m): 293T Lysate: sc-120810

BACKGROUND

HIV-1 Tat-SF1 (HIV-1 tat-specific factor 1) is a phosphoprotein that plays a role in the process of transcriptional elongation. It is ubiquitously expressed and localizes to the nucleus. HIV-1 Tat-SF1 interacts with Tat, P-TEF β , TFIIIF RAP 30, CA150, Spt5, Pol II and U snRNPs. It is structurally similar to CUS2 in yeast. HIV-1 Tat-SF1 contains an acidic C-terminal motif and two RNA recognition motif (RRM) domains that mediate its interaction with U snRNPs. HIV-1 Tat-SF1 forms a complex with U snRNP, thereby coupling transcription and splicing. HIV-1 Tat-SF1 expression is upregulated by the HIV-1 proteins Nef and gp120. It acts as a cofactor for the Tat-enhanced transcription of HIV-1 and is required, along with SPT5, for the activation of Tat. Overexpression of Tat-SF1 and SPT5 stimulates the transcriptional activity of Tat.

REFERENCES

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4. Fong, Y.W. and Zhou, Q. 2000. Relief of two built-in autoinhibitory mechanisms in P-TEF β is required for assembly of a multicomponent transcription elongation complex at the human immunodeficiency virus type 1 promoter. *Mol. Cell. Biol.* 20: 5897-5907.
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8. Kameoka, S., et al. 2004. p54^{nrb} associates with the 5' splice site within large transcription/splicing complexes. *EMBO J.* 23: 1782-1791.
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CHROMOSOMAL LOCATION

Genetic locus: Htatsf1 (mouse) mapping to X A5.

PRODUCT

HIV-1 Tat-SF1 (m): 293T Lysate represents a lysate of mouse HIV-1 Tat-SF1 transfected 293T cells and is provided as 100 μ g protein in 200 μ l SDS-PAGE buffer.

RESEARCH USE

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

APPLICATIONS

HIV-1 Tat-SF1 (m): 293T Lysate is suitable as a Western Blotting positive control for mouse reactive HIV-1 Tat-SF1 antibodies. Recommended use: 10-20 μ l per lane.

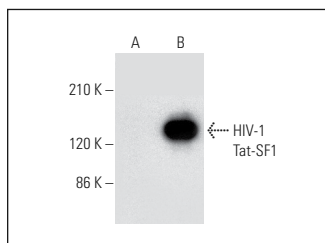
Control 293T Lysate: sc-117752 is available as a Western Blotting negative control lysate derived from non-transfected 293T cells.

HIV-1 Tat-SF1 (C-4): sc-514351 is recommended as a positive control antibody for Western Blot analysis of enhanced mouse HIV-1 Tat-SF1 expression in HIV-1 Tat-SF1 transfected 293T cells (starting dilution 1:100, dilution range 1:100-1:1,000).

RECOMMENDED SUPPORT REAGENTS

To ensure optimal results, the following support reagents are recommended:
1) 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.

DATA



HIV-1 Tat-SF1 (C-4): sc-514351. Western blot analysis of HIV-1 Tat-SF1 expression in non-transfected: sc-117752 (A) and mouse HIV-1 Tat-SF1 transfected: sc-120810 (B) 293T whole cell lysates.

STORAGE

Store at -20° C. Repeated freezing and thawing should be minimized. Sample vial should be boiled once prior to use. Non-hazardous. No MSDS required.

PROTOCOLS

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