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-TEFb, TFIIIF RAP 30, CA150, Sp5, 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


CHROMOSOMAL LOCATION

Genetic locus: HTATSF1 (human) mapping to Xq26.3; Htatsf1 (mouse) mapping to X A5.

SOURCE

HIV-1 Tat-SF1 (C-4) is a mouse monoclonal antibody specific for an epitope mapping between amino acids 1-23 at the N-terminus of HIV-1 Tat-SF1 of mouse origin.

PRODUCT

Each vial contains 200 µg IgG2b kappa light chain in 1.0 ml of PBS with < 0.1% sodium azide and 0.1% gelatin.

HIV-1 Tat-SF1 (C-4) is available conjugated to agarose (sc-514351 AC), 500 µg/0.25 ml agarose in 1 ml, for IP; to HRP (sc-514351 HRP), 200 µg/ml, for WB, (HICP) and ELISA; to either phycoerythrin (sc-514351 PE), fluorescein (sc-514351 FITC), Alexa Fluor® 488 (sc-514351 AF488), Alexa Fluor® 546 (sc-514351 AF546), Alexa Fluor® 594 (sc-514351 AF594) or Alexa Fluor® 647 (sc-514351 AF647), 200 µg/ml, for WB (RGB), IF, HICP) and FCM; and to either Alexa Fluor® 680 (sc-514351 AF680) or Alexa Fluor® 790 (sc-514351 AF790), 200 µg/ml, for Near-Infrared (NIR) WB, IF and FCM. Blocking peptide available for competition studies, sc-514351 P, (100 µg peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% stabilizer protein).

APPLICATIONS

HIV-1 Tat-SF1 (C-4) is recommended for detection of HIV-1 Tat-SF1 of mouse, rat and human origin by Western Blotting (starting dilution 1:100, dilution range 1:100-1:1000), immunoprecipitation [1-2 µg per 100-500 µg 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).

Recommended for use as control antibody for HIV-1 Tat-SF1 siRNA (h): sc-62468, HIV-1 Tat-SF1 siRNA (m): sc-62469, HIV-1 Tat-SF1 shRNA Plasmid (h): sc-62468-SH, HIV-1 Tat-SF1 shRNA Plasmid (m): sc-62469-SH, HIV-1 Tat-SF1 shRNA (h) Lentiviral Particles: sc-62468-V and HIV-1 Tat-SF1 shRNA (m) Lentiviral Particles: sc-62469-V.

Molecular Weight of HIV-1 Tat-SF1: 140 kDa.

Positive Controls: MCF7 whole cell lysate: sc-2206, HeLa whole cell lysate: sc-2200 or Jurkat whole cell lysate: sc-2204.

STORED AT

Store at 4°C, **DONOT FREEZE**. Stable for one year from the date of shipment. Non-hazardous. No MSDS required.

RESEARCH USE

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

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DATA

HIV-1 Tat-SF1 (C-4): sc-514351. Western blot analysis of HIV-1 Tat-SF1 expression in Jurkat A, HeLa B, HEK293 C, Hep G2 D and COFF-CEM E whole cell lysates.

HIV-1 Tat-SF1 (C-4): sc-514351. Immunofluorescence staining of formalin-fixed A-431 cells showing nuclear localization.