

Recombinant HIV tat protein Clade-B

Cat. No. tat-189H **Lot. No.** (See product label)

SPECIFICATION

Product Overview HIV-1 TAT Recombinant produced in E.coli is a single, non-glycosylated, polypeptide chain containing 86 amino acids encoded by two exons and having chain having a molecular mass of 14kDa.

Species HIV

Source E.coli

ProteinLength 86 amino acids

Description

Human immunodeficiency virus type-1 (HIV-1) regulatory Tat protein plays an essential role in viral replication (Jones KA, 1994) and infectivity (Arya SK, 1985; Fisher AG, 1986). In addition, during acute infection, Tat is released extracellularly by infected cells (Chang HC, 1997; Ensoli B, 1990) and is taken up by neighboring cells where it transactivates viral replication (Ensoli B, 1993) and increases virus infectivity.

HIV-1 Tat activates transcription of HIV-1 viral genes by inducing phosphorylation of the C-terminal domain (CTD) of RNA polymerase II (RNAPII). Tat can also disturb cellular metabolism by inhibiting proliferation of antigen-specific T lymphocytes and by inducing cellular apoptosis. Tat-induced apoptosis of T-cells is attributed, in part, to the distortion of microtubules polymerization. LIS1 is a microtubule-associated protein that facilitates microtubule polymerization.

Form Sterile Filtered and lyophilized, though might appear as a solution as a result of the

 Tel: 1-631-559-9269 1-516-512-3133

 Email: info@creative-biomart.com  Fax: 1-631-938-8127

 45-1 Ramsey Road, Shirley, NY 11967, USA

	glycerol content. Lyophilized with 0.1% glycerol.
Molecular Mass	14kDa
AA sequence	MEPVDPRLPEWKHPGSQPKTACTNCYCKKCCFHCQVCFITKALGISYGRKKRRQR RRPPQGSQTHQVLSLKQPTSQSRGDPTGPKE.
Purity	Greater than 90.0% as determined by SDS-PAGE.
Usage	The products are furnished for LABORATORY RESEARCH USE ONLY. The product may not be used as drugs, agricultural or pesticidal products, food additives or household chemicals.
Stability	Lyophilized HIV-1 TAT although stable at room temperature for 1 week, should be stored desiccated below -18°C. Upon reconstitution HIV-1 TAT should be stored at 4°C between 2-7 days and for future use below -18°C. For long-term storage it is recommended to add a carrier protein (0.1% HSA or BSA). Please prevent freeze-thaw cycles.
Specificity	Immunoreactive with all sera of HIV-1 infected individuals.
Solubility	It is recommended to reconstitute the lyophilized HIV-1 TAT in sterile 18MΩ-cm H ₂ O not less than 100g/ml, which can then be further diluted to other aqueous solutions.

GENE INFORMATION

Gene Name	tat p14 [Human immunodeficiency virus 1]
Official Symbol	tat
Synonyms	tat; p14

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Gene ID 155871

Protein Refseq NP_057853.1

UniProt ID P04608

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