



RayBiotech, Inc.

3607 Parkway Lane suite 200
Norcross, GA 30092
Tel: 770-729-2992, 1-888-494-8555
Fax: 770-206-2393
Website: www.raybiotech.com
Email: info@raybiotech.com

Certificate of Analysis and Data Sheet Recombinant HIV-1 TAT Clade-B

Catalog No.
228-10749

Source
Escherichia Coli.

Introduction

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.

Description

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.

Physical Appearance

Sterile Filtered White lyophilized (freeze-dried) powder.

Formulation

Lyophilized with 0.1% glycerol.

Solubility

It is recommended to reconstitute the lyophilized HIV-1 TAT in sterile 18MΩ-cm H₂O not less than 100μg/ml, which can then be further diluted to other aqueous solutions.

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.

Purity

Greater than 90.0% as determined by HPLC analysis and SDS-PAGE.

**The products are furnished for LABORATORY RESEARCH USE ONLY.
Not for diagnostic or therapeutic use.**



RayBiotech, Inc.

3607 Parkway Lane suite 200
Norcross, GA 30092
Tel: 770-729-2992, 1-888-494-8555
Fax: 770-206-2393
Website: www.raybiotech.com
Email: info@raybiotech.com

Amino acid sequence

MEPVDPRLEP WKHPGSQPKT ACTNCYCKKC CFHCQVCFIT KALGISYGRK
KRRQRRRPPQ GSQTHQVSLK KQPTSQSRGD PTGPKE.

Specificity

Immunoreactive with all sera of HIV-1 infected individuals.

Applications

Recognized by anti-Tat (HIV-1) polyclonal antibody.

Reacts with anti-Tat antibodies from human, monkey, rabbit and mouse serum.

**The products are furnished for LABORATORY RESEARCH USE ONLY.
Not for diagnostic or therapeutic use.**