Tat Protein from Human Immunodeficiency Virus Type 1 (HIV-1) IIIB, Recombinant from Escherichia coli

Catalog No. HRP-2222

For research use only. Not for use in humans.

Contributor:
Division of AIDS (DAIDS), National Institute of Allergy and Infectious Diseases (NIAID)

Manufacturer:
ImmunoDX LLC, Woburn, Massachusetts, USA

Product Description:
HRP-2222 is a full-length (2 exons; 86 amino acids), biologically-active, recombinant form of the Tat protein from human immunodeficiency virus type 1 (HIV-1) IIIB, which was produced in an Escherichia coli (E. coli) expression system and purified by ion affinity and reverse phase chromatography.

Tat protein plays a key role in the life cycle of HIV by transactivating its transcription in vivo and in vitro.¹ ² ³ This Tat preparation can be used for anti-Tat drug screening, immunization and transcriptional activation and protein binding assays.

Material Provided:
Each vial of HRP-2222 contains approximately 25 µg of purified recombinant protein lyophilized in 0.2% potassium chloride (KCl), 5 mM dithiothreitol (DTT), 50 mM Tris and 2 mg/mL trehalose, pH 8.0.

Packaging/Storage:
HRP-2222 was packaged in glass serum vials. The product is provided lyophilized and should be placed in a closed, dry environment at 4°C or colder immediately upon arrival.

Functional Activity:
The Tat protein binds to murine monoclonal antibodies of defined epitope specificity and HIV-1 converted human serum polyclonal antibodies in ELISA and Western ELISA. The biological activity of Tat protein was determined by LTR-CAT in vivo and CAT activity in vitro. The protein inhibits dipetidyl peptidase 4 (DPP4) activity in vitro. The Tat protein can be diluted directly into the tissue culture medium.

Recommended concentrations for use are approximate values. A dose-dependent response assay should be performed to determine the optimal concentration for use in specific applications. Short-term cultures may be performed in the presence of antibiotics; long-term cultures should be performed with sterile-filtered HRP-2222. Tat readily oxidizes in buffer solutions which may change its LTR-dependent transcriptional activation activity.

Storage of Reconstitution Protein:
Once resuspended, working aliquots can be stored at -20°C for the short term, and at -70°C for long-term storage. The vial should be centrifuged prior to opening. Freeze-thaw cycles should be avoided.

Citation:
Acknowledgment for publications should read “The following reagent was obtained through the NIH HIV Reagent Program, NIAID, NIH: Tat Protein from Human Immunodeficiency Virus Type 1 (HIV-1) IIIB, Recombinant from Escherichia coli, HRP-2222, contributed by DAIDS, NIAID.”

Biosafety Level: 1


Disclaimers:
You are authorized to use this product for research use only. It is not intended for human use.

Use of this product is subject to the terms and conditions of the NIH HIV Reagent Program Material Transfer Agreement (MTA). The MTA is available on our Web site at www.hivreagentprogram.org.

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References:

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