

DATA SHEET

For research use only. Not for use in humans.

Reagent:	Human Immunodeficiency Virus Type 1 IIIB Tat Protein, Recombinant from <i>Escherichia coli</i>
Catalog Number:	ARP-2222
Lot Number:	170224
Provided:	Each vial of ARP-2222 contains approximately 25 µg of purified, lyophilized protein. The protein concentration before lyophilization was 1 mg/mL in ~30% acetonitrile containing 0.1% trifluoroacetic acid (TFA) and 5 mM dithiothreitol (DTT). Purity was >90% as determined by SDS-PAGE under reducing conditions, and endotoxin (LAL) was <10 EU/mL.
Description:	ARP-2222 is a full-length, biologically active recombinant protein derived from human immunodeficiency virus type 1 (HIV-1) IIIB Tat protein. This regulatory protein was produced in an <i>Escherichia coli</i> (<i>E. coli</i>) expression system and purified by heparin-Sepharose affinity chromatography, followed by reverse-phase chromatography. The <i>tat</i> -expression plasmid was provided by the Glaxo Institute for Molecular Biology, Switzerland.
Applications:	ARP-2222 is recommended for <i>in vitro</i> transcription (at approximately 0.4 µM), western blot, and protein binding assays. It is biologically active in the HLM-1 cell rescue assay.
Recommended Storage:	ARP-2222 should be stored at -80°C or colder, immediately upon arrival. Avoid freeze-thaw cycles as reagent degradation may result.
Contributor:	DAIDS, NIAID [produced by Advance BioScience Laboratories (ABL), Inc.]
References:	Ensoli, B., et al. "Release, Uptake, and Effects of Extracellular Human Immunodeficiency Virus Type 1 Tat Protein on Cell Growth and Viral Transactivation." <i>J. Virol.</i> 67 (1993): 277-287. PubMed: 8416373. Chang, H. C., et al. "HIV-1 Tat Protein Exits from Cells via a Leaderless Secretory Pathway and Binds to Extracellular Matrix-Associated Heparan Sulfate Proteoglycans through Its Basic Region." <i>AIDS</i> 11 (1997): 1421-1431. PubMed: 9342064. Bohan, C. A., et al. "Analysis of Tat Transactivation of Human Immunodeficiency Virus Transcription <i>in Vitro</i>." <i>Gene Expr.</i> 2 (1992): 391-407. PubMed: 1282057. Gutekunst, K. A., et al. "Transcription of the HIV-1 LTR is Regulated by the Density of DNA CpG Methylation." <i>J. Acquir. Immune Defic. Syndr.</i> (1988) 6 (1993): 541-549. PubMed: 8496786. Kashanchi, F., et al. "Second-Site Long Terminal Repeat (LTR) Revertants of Replication-Defective Human Immunodeficiency Virus: Effects of Revertant TATA Box Motifs on Virus Infectivity, LTR-Directed Expression, <i>in Vitro</i> RNA Synthesis, and Binding of Basal Transcription Factors TFIID and TFIIA." <i>J. Virol.</i> 68 (1994): 3298-3307. PubMed: 8151790. Kashanchi, F., et al. "Direct Interaction of Human TFIID with the HIV-1 Transactivator Tat." <i>Nature</i> 367 (1994): 295-299. PubMed: 8121496. Kashanchi, F., J. F. Duvall and J. N. Brady. "Electroporation of Viral Transactivator Proteins into Lymphocyte Suspension Cells." <i>Nucleic Acids Res.</i> 20 (1992): 4673-4674. PubMed: 1408778.
Citation:	Acknowledgment for publications should read "The following reagent was obtained through BEI Resources, NIAID, NIH: Human Immunodeficiency Virus Type 1 IIIB Tat Protein, Recombinant

from *Escherichia coli*, ARP-2222." Also include the appropriate references cited in any publications.

Biosafety Level: 1

Appropriate safety procedures should always be used with this material. Laboratory safety is discussed in the following publication: U.S. Department of Health and Human Services, Public Health Service, Centers for Disease Control and Prevention, and National Institutes of Health. Biosafety in Microbiological and Biomedical Laboratories (BMBL). Current Edition. Washington, DC: U.S. Government Printing Office.

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**HIV REAGENT
PROGRAM**

