Protein Tat (tat) Simian Immunodeficiency Virus Recombinant Protein

PRODUCT OVERVIEW

Product Name	Protein Tat (tat), Recombinant Protein
Full Product Name	Recombinant Simian immunodeficiency virus Protein Tat (tat)
Product Gene Name	tat recombinant protein
Product Synonym Gene Name	tat
Product Synonym Names	Recombinant Protein Tat (tat); Protein Tat; Transactivating regulatory protein
Sequence	RLIPNRTRHC QPEKAKKETV EKAVATAPGL GR
Host	E Coli or Yeast or Baculovirus or Mammalian Cell
Form/Format	Lyophilized or liquid (Format to be determined during the manufacturing process)
Purity/Purification	Greater or equal to 85% purity as determined by SDS-PAGE. (lot specific)
Preparation and Storage	Store at -20 degree C. For extended storage, store at -20 or -80 degree C.
Molecular Weight	3,556 Da
Sequence Positions	1-32aa; full length protein
Tag Information	This protein contains an N-terminal tag and may also contain a C-terminal tag. Tag types are determined by various factors including tag-protein stability, please inquire for tag information.
Sterility	Sterile filter available upon request.
Endotoxin	Low endotoxin available upon request.
3D Structure	ModBase 3D Structure for P05912
Species	Simian immunodeficiency virus (isolate Mm251) (SIV-mac) (Simian immunodeficiency virus rhesus monkey)
ISO Certification	Manufactured in an ISO 9001:2015 Certified Laboratory.
Related Product Information for tat recombinant protein	MBS1238226 is a recombinant protein targeting tat. Also known as Recombinant Simian immunodeficiency virus Protein Tat (tat). Host: E Coli or Yeast or Baculovirus or Mammalian Cell.
Other Notes	Small volumes of tat recombinant protein vial(s) may occasionally become entrapped in the seal of the product vial during shipment and storage. If necessary, briefly centrifuge the vial on a tabletop centrifuge to dislodge any liquid in the container`s cap. Certain products may require to ship with dry ice and additional dry ice fee may apply.

ADDITIONAL DETAILS

NCBI/Uniprot data below describe general gene information for tat. It may not necessarily be applicable to this product.

NCBI GI #	135375
NCBI Accession #	P05912.1
UniProt Primary Accession #	P05912
NCBI Official Full Name	Protein Tat
UniProt Protein Name	Protein Tat
UniProt Synonym Protein Names	Transactivating regulatory protein
Protein Family	Protein

UniProt Gene Name	tat
UniProt Entry Name	TAT_SIVM2
UniProt Comments for tat	Function: Nuclear transcriptional activator of viral gene expression, that is essential for viral transcription from the LTR promoter and replication. Acts as a sequence-specific molecular adapter, directing components of the cellular transcription machinery to the viral RNA to promote processive transcription elongation by the RNA polymerase II (RNA pol II) complex, thereby increasing the level of full-length transcripts. In the absence of Tat, the RNA Pol II generates short or non-processive transcripts that terminate at approximately 60 bp from the initiation site. Tat associates with the CCNT1/cyclin-T1 component of the P-TEFb complex (CDK9 and CCNT1), which promotes RNA chain elongation. This binding increases Tat's affinity for a hairpin structure at the 5'-end of all nascent viral mRNAs referred to as the transactivation responsive RNA element (TAR RNA) and allows Tat/P-TEFb complex to bind cooperatively to TAR RNA. The CDK9 component of P-TEFb and other Tat-activated kinases hyperphosphorylate the C-terminus of RNA Pol II that becomes stabilized and much more processive By similarity.Extracellular circulating Tat can be endocytosed by surrounding uninfected cells via the binding to several surface receptors. Endosomal low pH allows Tat to cross the endosome membrane to enter the cytosol and eventually further translocate into the nucleus, thereby inducing severe cell dysfunctions ranging from cell activation to cell death. Through By similarity. Subunit structure: Interacts with host CCNT1. Associates with the P-TEFb complex composed at least of Tat, P-TEFb (CDK9 and CCNT1), TAR RNA, RNA Pol II. Interacts with CCNT2; the resulting complex is unable to bind to TAR RNA By similarity. Subcellular location: Host nucleus › host nucleolus By similarity. Sequence similarities: Belongs to the lentiviruses Tat family.
Precautions	All of MyBioSource's Products are for scientific laboratory research purposes and are not for diagnostic, therapeutics, prophylactic or in vivo use. Through your purchase, you expressly represent and warrant to MyBioSource that you will properly test and use any Products purchased from MyBioSource in accordance with industry standards. MyBioSource and its authorized distributors reserve the right to refuse to process any order where we reasonably believe that the intended use will fall outside of our acceptable guidelines.
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