



NIH AIDS Reagent Program

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DATA SHEET

Reagent: HIV-1 HXB2 GST-Tat Expression Vector (GST-Tat 1 48D TK)

Catalog Number: 2344

Lot Number: 032600

Release Category: B

Provided: 1 vial of ampicillin-resistant, transformed BL21 cells

Cloning Site: The size of the insert is approximately 144 bp.

Cloning Vector: pGEX2TK
Ampicillin resistant

Description: An expression vector which produces GST fused with HIV-1 HXB2 Tat protein that has been truncated after aa 48. The wildtype Tat activation domain is expressed.

Special Characteristics: This construct is approximately 5113 bp including the insert.

This plasmid contains a thrombin proteolytic site between the Schistosoma japonicum glutathione S-transferase (GST) sequence and the Tat sequence. Tat is expressed as a GST fusion protein and can be cleaved and purified by thrombin proteolytic digestion.

This construct contains the phosphorylation site for the catalytic subunit of camp-dependent heart muscle kinase. GST-Tat fusions in this vector can thus be labeled directly in vitro to high specific activities with (g32P)ATP and commercially available kinase.

[Contributor provided sequence file](#)

Additional HIV-1 and HIV-2 GST-Tat expression vectors are also available. [GST-Tat Expression Vectors](#)

Plasmids can be propagated in STBL2 cells and grown at 37°C. Larger plasmids may benefit from growth at 30°C. This construct may also be grown in other competent cells.

ALL RECIPIENTS OF THIS MATERIAL MUST COMPLY WITH ALL APPLICABLE BIOLOGICAL, CHEMICAL, AND/OR RADIOCHEMICAL SAFETY STANDARDS INCLUDING SPECIAL PRACTICES, EQUIPMENT, FACILITIES, AND REGULATIONS. NOT FOR USE IN HUMANS.

Recommended Storage: Keep the reagent at -80°C or lower. Avoid freeze-thaw cycles as reagent degradation may result.

Contributor: Dr. Andrew Rice

References:

Herrmann, C. H. and Rice, A. P. (1993). Specific interaction of the human immunodeficiency virus Tat proteins with a cellular protein kinase. *Virology*, 197(2), 601-8. doi: 10.1006/viro.1993.1634 [PUBMED](#)

Herrmann, C. H. and Rice, A. P. (1995). Lentivirus Tat proteins specifically associate with a cellular protein kinase, TAK, that hyperphosphorylates the carboxyl-terminal domain of the large subunit of RNA polymerase II: candidate for a Tat cofactor. *J Virol*, 69(3), 1612-20. [PUBMED](#)

Rhim, H., Echetebe, C. O., Herrmann, C. H. and Rice, A. P. (1994). Wild-type and mutant HIV-1 and HIV-2 Tat proteins expressed in *Escherichia coli* as fusions with glutathione S-transferase. *J Acquir Immune Defic Syndr*, 7(11), 1116-21. [PUBMED](#)

NOTE: Acknowledgment for publications should read "The following reagent was obtained through the NIH AIDS Reagent Program, Division of AIDS, NIAID, NIH: HIV-1 HXB2 GST-Tat Expression Vector (GST-Tat 1 48D TK) from Dr. Andrew Rice (cat# 2344)." Also include the references cited above in any publications.

Scientists at for-profit institutions or who intend commercial use of this reagent must contact the Baylor College of Medicine at the following email addresses: mta@bcm.edu and blg@bcm.edu, before the reagent can be released.

Last Updated: July 10, 2018

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