



## NIH AIDS Reagent Program

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### DATA SHEET

**Reagent:** HIV-1 HXB2  $\Delta$ Tat Non-infectious Molecular Clone (pMTat30)

**Catalog Number:** 2087

**Lot Number:** 09/08/93

**Release Category:** C

**Provided:** 1 ml ampicillin-resistant transformed HB101 bacteria.

**Cloning Vector:** pHXB2gpt, an infectious molecular clone of HIV-1<sub>IIIB</sub>.

**Description:** Site-directed mutagenesis was used to introduce a Cys→Gly substitution within the *tat* cysteine cluster. The mutant produces missense Tat. This clone is representative of several structurally/functionally defective HIV-1 *tat* mutants (see references below). Additional *tat* mutants are available from the contributor upon request.

**Special Characteristics:** Insertion of the *tat* gene derived from pMtat30 into an expression vector containing a heterologous promoter, followed by transfection, results in the production of defective Tat protein. Levels of viral transcripts produced by the clone are barely detectable. Cotransfection of COS-1 cells with the mutant pMtat30 and a *tat* cDNA clone restores the normal transcription pattern, producing non-infectious HIV-1. Source of Pro Virus: HIV-1HXB2 viral DNA from HIV-1<sub>IIIB</sub> (Catalog #398, from Dr. Robert Gallo.)

[Image](#)

**Recommended Storage:** -70°C.

**Contributor:** Dr. Reza Sadaie.

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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.

**References:** Sadaie MR, Rappaport J, Benter T, Josephs SF, Willis R, Wong-Staal F. Missense mutations in an infectious human immunodeficiency viral genome: functional mapping of tat and identification of the rev splice acceptor. *Proc Natl Acad Sci USA* **85**:9224-9228, 1988. Sadaie MR, Mukopadhyaya R, Benaissa ZN, Pavlakis GN, Wong-Staal F. Conservative mutations in the putative metal-binding region of human immunodeficiency virus Tat disrupt virus replication. *AIDS Res Hum Retroviruses* **6**:1257-1263, 1990.

**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 ΔTat Non-infectious Molecular Clone (pMTat30) from Dr. Reza Sadaie (cat# 2087)." Also include the reference cited above in any publications.

**Last Updated:** November 08, 2018

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