



## NIH AIDS Reagent Program

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### DATA SHEET

<b>Reagent:</b>	HIV-gpt
<b>Catalog Number:</b>	1067
<b>Lot Number:</b>	100009
<b>Release Category:</b>	A
<b>Provided:</b>	5 µg of dried purified DNA stabilized in DNASTable PLUS
<b>Cloning Vector:</b>	Bluescript pBS KS +/-.
<b>Description of Clone:</b>	Contains intact HIV-1 <sub>HXB2</sub> <i>rev</i> and <i>tat</i> genes. Deletion of sequences encoding gp160 has rendered HIV-gpt replication-defective. The <i>Pvu</i> II - <i>Dra</i> I SV2gpt fragment contains the SV40 origin of replication and coding sequences for the <i>gpt</i> gene.
<b>Description:</b>	An XbaI-HpaI pHXB2gpt fragment (Drs. A. Fisher and F. Wong-Staal) containing proviral and flanking cellular sequences was cloned into the HincII-XbaI site of pBS KS (+/-). A 1.2 KB NdeI-BglII fragment (nt 6402-7620) was deleted from env gene, and the 1.1 kb PvuII-DraI SV2gpt fragment (Dr. M. Mulligan) was inserted at the env deletion site. Contains intact HXB2 <i>rev</i> and <i>tat</i> genes. Replication-defective.

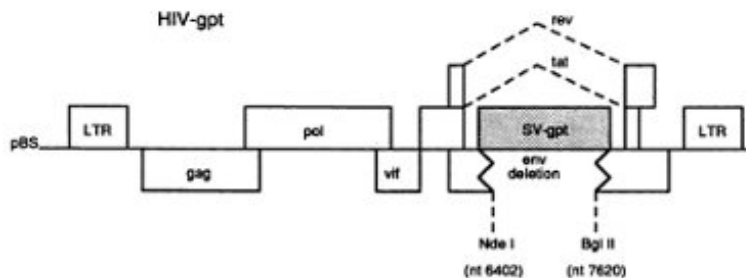


Image of vector from reference cited on this page.

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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.

**Special  
Characteristics:**

This construct is 14,294 bp.

By itself, HIV-gpt produces non-infectious HIV-1 particles. Co-transfection of HIV-gpt with an envelope expression vector into COS cells results in the packaging of the replication-defective genome into infectious virions (virus is transiently produced). HIV or other retroviral env genes can be used to complement HIV-gpt to yield virus with the host range of the complementing gene. The *gpt* gene provides a convenient selection marker, since each successful infection leads to the growth of a drug-resistant (mycophenolic acid) colony.

Bacterial Host: HB101. Other bacterial strains should also be successful.

Cloning Strategy: An *Xba*I - *Hpa*I fragment from pHXB2gpt containing HIV-1 proviral and flanking cellular sequences was cloned into the *Hinc*II - *Xba*I site of pBS. A 1.2 kb *Nde*I - *Bgl*II fragment (nt 6402-7620) was deleted from *env* gene, and the 1.1 kb *Pvu*II - *Dra*I SV2gpt fragment was inserted at the *env* deletion site.

Source Of Pro Virus: HIV-1 plasmid pHXB2gpt (Dr. A. Fisher and Dr. F. Wong-Staal) and pSV2gpt (Dr. M. Mulligan).

[Plasmid map and sequence file lot 100009](#)

This reagent is currently being provided as dried purified DNA stabilized in DNastable *PLUS*. Please see the notice for additional information and the protocol for reconstitution of dried DNA reagents. [Dried DNA Notice](#)

**Recommended  
Storage:**

Keep the reagent at room temperature in a dry storage cabinet or in a moisture barrier bag.

**Contributor:**

Dr. Kathleen Page and Dr. Dan Littman.

**References:**

Page KA, Landau NR, Littman DR. Construction and use of a Human immunodeficiency virus vector for analysis of virus infectivity. *J Virol* **64**:5270-5276, 1990.

**NOTE:**

Acknowledgment for publications should read "The following reagent was obtained through the NIH AIDS Reagent Program, Division of AIDS, NIAID, NIH: HIV-gpt from Dr. Kathleen Page and Dr. Dan Littman." Also include the reference cited above in any publications.

**Last Updated**

June 13, 2017

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