

Centre For AIDS Reagents

Data Sheet

NAME: HIV-gpt.

REPOSITORY REFERENCE: ARP238

CLONING VECTOR: Bluescript pBS KS +/-.

HOST: HB101. Other bacterial strains should also be successful.

SOURCE OF PROVIRUS: HIV-1 plasmid pHXB2gpt (Dr A Fisher and Dr F Wong-Staal) and pSV2gpt (Dr M Mulligan).

DESCRIPTION: 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 rev and tat genes. Replication-defective.

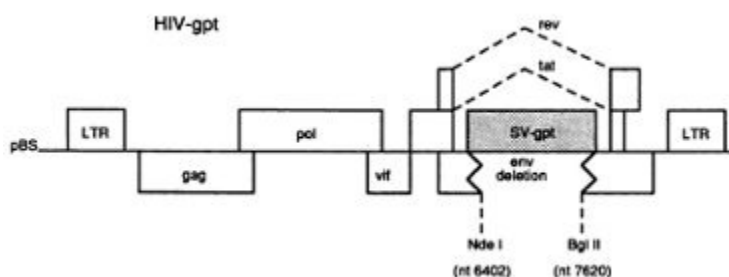


Image of vector from reference cited on this page.

DESCRIPTION OF CLONE: Contains intact HIV-1_{HXB2} rev and tat genes. Deletion of sequences encoding gp160 has rendered HIV-gpt replication-defective. The pvuII-DraI SV2gpt fragment contains the SV40 origin of replication and coding sequences for the gpt gene.

SPECIAL CHARACTERISTICS: 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.

Cloning Strategy: An *XbaI* - *HpaI* fragment from pHXB2gpt containing HIV-1 proviral and flanking cellular sequences was cloned into the *HincII* - *XbaI* site of pBS. A 1.2 kb *NdeI* - *BglIII* fragment (nt 6402-7620) was deleted from *env* gene, and the 1.1 kb *PvuII* - *DraI* SV2gpt fragment was inserted at the *env* deletion site.

PRESENTATION: 5 µg purified plasmid DNA, 1 µg/µl.

RECOMMENDED STORAGE: -70C

SOURCE: Dr Kathleen Page and Dr Dan Littman (courtesy of the NIH AIDS Research and Reference Reagent Program).

REFERENCES: Page KA et al (1990), J Virol **64**:5270-5276.

ACKNOWLEDGEMENTS: Publications should acknowledge the donor of the reagent and the Centre for AIDS Reagents. Suggested wording can be found on our website in the “Acknowledgement” section at:-

www.nibsc.org/science_and_research/virology/centre_for_aids_reagents.aspx

Please also ensure that you send us a copy of any papers resulting from work using reagents acquired through CFAR, this can be by e-mail or printed copy