



NIH AIDS Reagent Program

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DATA SHEET

Reagent: HIV-1 BH10 Integrase Expression Vector (pLJS10 Integrase)

Catalog Number: 1820

Lot Number: 1/20/93

Release Category: C

Provided: 1 vial of ampicillin-resistant transformed bacteria

Cloning Site: BamHI

Cloning Vector: pET-8C

Description: The HXB2 integrase coding sequence from p22K56 was amplified by PCR, introducing ATG and GGG codons 5' to the integrase region. KpnI and NcoI sites were inserted 5' to the integrase fragment, and a BamHI site was inserted at the 3' end. The resultant DNA fragment was inserted into the KpnI-BamHI site of pUC18. The NcoI-BamHI fragment was then isolated and inserted into pET-8C.

[Plasmid Map](#)

Special Characteristics: HIV-1 integrase can be produced by transformation of this plasmid into E. coli BL21(DE3)pLysS bacteria and IPTG induction. Active integrase can be purified from this material. The integrase contains additional N-terminal Met and Gly amino acids. Under optimal conditions, 20% of the total protein produced is integrase. Store protein at -80°C; protein activity is stable for 1 year when stored at -80°C in 50 mM Tris (pH 7.5), 1 mM DTT, 50 mM NaCl, 10% glycerol. The protein is unstable after 1 week of storage at 4°C. Expressed integrase should be solubilized in 50 mM Tris (pH 7.5), 1 mM DTT, 50 mM NaCl, 10 mM MnCl₂ for use in assays.

Recommended Storage: -80°C.

Contributor: Dr. James M. Groarke, Dr. Joseph V. Hughes, and Dr. Frank J. Dutko.

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: Hong T, Murphy E, Groarke J, Drilca K. Human immunodeficiency virus type 1 DNA integration: fine structure target analysis using synthetic oligonucleotides. *J Virol* **67**:1127-1131, 1993.

Sioud M, Drilca K. Prevention of human immunodeficiency virus type 1 integrase expression in *Escherichia coli* by a ribozyme. *Proc Natl Acad Sci USA* **88**:7303-7307, 1991.

NOTE: Acknowledgment for publications should read "The following reagent was obtained through the NIH AIDS Reagent Program, Division of AIDS, NIAID, NIH: HIV-1 BH10 Integrase Expression Vector (pLJS10 Integrase) from Drs. JM Groarke, JV Hughes, and FJ Dutko (cat# 1820)." Also include the references cited above in any publications.

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