



## NIH AIDS Reagent Program

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### DATA SHEET

**Reagent:** HIV-1 Infectious Molecular Clone (p5244)

**Catalog Number:** 12227

**Lot Number:** 130017

**Release Category:** A

**Provided:** 9.8 µg of dried purified DNA stabilized in DNASTable *Plus*

**Cloning Vector:** pNLPFB  
Ampicillin resistant

**Cloning Site:** An 871-nucleotide amplicon encompassing RT positions 23 to 313 was amplified using the thermostable Pfu DNA Polymerase (Promega, Madison, WI). Amplicons were digested with MscI and PflM1 and ligated into pNLPFB.

**GenBank:** [JQ814886](#)

**Host Strain:** 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.

**Description:** This clone is part of a panel containing several of the canonical non-nucleoside inhibitor (NNRTI)-resistance pathways in clinically derived HIV-1 clones. In contrast to site-directed mutants, the mutations are present in their naturally occurring genetic contexts, which may include known accessory drug-resistance mutations, as well as changes at positions that are not currently known to be associated with drug resistance. As the clones are also infectious and replication-competent, they can be used for in vitro susceptibility testing of new NNRTIs. NNRTIs that are active against these clones are likely to retain activity against the most clinically relevant, or possibly all, NNRTI-resistant variants. Researchers can also create their own recombinant viruses using the pNLPFB vector. A protocol is available upon request (please contact Shafer Lab)

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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 14,825 bp including the insert.

See pNL4.3 [GenBank accession AF324493.1](#) for the vector sequence. Restriction maps match those of pNL4.3. Inserts are amplified from clinically-derived viral cDNA using Pfu; Purified PCR products are digested and ligated into the vector using cycling T4 ligation, and the ligation product is grown in Stbl3 E. coli in LB+carbenicillin, then plated and sequenced. The cloned region contains the reverse transcriptase gene (AA, 23-313)

To view the other reagents in this panel as well as more data, please click [HERE](#).

[Plasmid map and sequence file lot 130017](#)

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. Robert Shafer

**References:**

Maya Balamane *et al.* Panel of Prototypical Recombinant Infectious Molecular Clones Resistant to Nevirapine, Efavirenz, Etravirine, and Rilpivirine. *Antimicrob Agents Chemother.* 2012 August; 56(8): 4522-4524. [ARTICLE](#)

**NOTE:**

Acknowledgment for publications should read "The following reagent was obtained through the NIH AIDS Reagent Program, Division of AIDS, NIAID, NIH: HIV-1 Infectious Molecular Clone (p5244) from Dr. Robert Shafer (cat# 12227)."

**Last Updated:**

July 16, 2018

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