



NIH AIDS Reagent Program

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DATA SHEET

Reagent: HIV-1 NL4-3 4434 Infectious Molecular Clone (p52534-2)

Catalog Number: 7406

Lot Number: 021739

Release Category: A

Provided: Part of panel of 12 prototypical infectious multidrug resistant HIV-1 reverse transcriptase (RT) nucleoside/nucleotide RT inhibitor (NRTI) clones. The panel includes clones with each of the published nucleoside analog RT mutations in the combinations that occur most frequently in HIV-infected individuals. 1.0 ml of glycerol stock.

Cloning Vector: The cloning vector is named pNLPFB.

Cloning Site: The insert (871 bp) is cloned into the *MscI* and *PflmI* sites in the forward direction.

Host Strain: Top 10 Cells.

Description: The insert was amplified by RT-PCR from viral RT RNA isolated from patient plasma. A reverse primer was then used to create a *PflmI* restriction site in the insert. The insert was then cut with *MscI* and *PflmI* and ligated into the vector. The vector contains the entire HIV genome of the NL4-3 virus. The wild-type RT has been replaced with a mutant RT from patient and contains multiple drug resistance mutations. Clones are ampicillin resistant. Nucleic acid sequence data of the RT as well as phenotype susceptibility results for each clone is available from the Stanford HIV Drug Resistance Database (<http://hivdb.stanford.edu>)

[Multidrug resistant HIV-1 Reverse Transcriptase Panel](#)

Special Characteristics: The panel includes clones with each of the published nucleoside analog RT mutations in the combinations that occur most frequently in HIV-infected individuals. The panel can be used for the following purposes:

- 1) Screening and testing new compounds designed to be effective against the most commonly isolated multidrug resistant variants.
- 2) Biochemical and biological studies that require a representative set of drug resistant

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.

2) Biochemical and biophysical studies that require a representative set of drug-resistant variants.

Recommended Storage: -70°C.

Contributor: Dr. Robert W. Shafer.

References: Dupnik, K.M., Gonzales, M.J., and Shafer, R.W. Most Multidrug-resistant HIV-1 reverse transcriptase clones in plasma encode functional reverse transcriptase enzymes. *Antiviral Therapy* **6** (Supplement 1): 42, 2001.

NOTE: Acknowledgment for publications should read "The following reagent was obtained through the NIH AIDS Reagent Program, Division of AIDS, NIAID, NIH: HIV-1 NL4-3 4434 Infectious Molecular Clone (p52534-2) from Dr. Robert W. Shafer." Also include the reference cited above in any publications.

Research Chart:

Multidrug Resistant HIV-1 Reverse Transcriptase Panel	
CLONE	CAT. #
HIV-1 p7324-1	7396
HIV-1 p7324-4	7397
HIV-1 p10076-4	7398
HIV-1 p7295-1	7399
HIV-1 p4755-5	7400
HIV-1 p6463-13	7401
HIV-1 p7303-3	7402
HIV-1 p1617-1	7403
HIV-1 p35764-2	7404
HIV-1 p29129-2	7405
HIV-1 p52534-2	7406
HIV-1 p56252-1	7407

Last Updated: August 02, 2018

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