



NIH AIDS Reagent Program

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DATA SHEET

Reagent: pNLΔ67+GRINFQ

Catalog Number: 6203

Lot Number: 150269

Release Category: A

Provided: 5 µg of dried purified DNA stabilized in DNastable *Plus*

Cloning Vector: pUC18
Ampicillin resistant

Cloning Site: ApaI/Pflm1 (sensitive to methylation)

Host Strain: Plasmids can be propagated in STBL2 cells and grown at 37°C. Larger plasmids may benefit from growth at 30°C.

Description: Full-length HIV-1 reverse transcriptase (RT) mutant. The mutations in RT of this clone lead to resistance to a number of reverse transcriptase inhibitors. The clone replicates as efficiently as wild type HIV-1.

Special Characteristics: This construct is 14,822 bp including the insert.
Mutations [deletion at codon 67 (delta67)+T69G/K70R/L74I/K103N/T215F/K219Q] in RT were identified in a clinical isolate derived from a patient who had failed a combination therapy using Zidovudine, Didanosine, and Delavirdine. These mutations were recreated in this clone by using site mutagenesis in a shuttle vector (pCR2.1) containing the RT gene derived from pNLPFB (a modified pNL4.3), then exchanged in the pNL4.3PFB (Apa/PfIM1 site). Transfection of this clone into permissive cells yields infectious virus.

[Contributor provided sequence information](#)

[Plasmid map and sequence file lot 150269](#)

This reagent is currently being provided as dried purified DNA stabilized in DNastable *Plus*

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.

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. Tomozumi Imamichi and Dr. H. Clifford Lane.

References: Imamichi T, Sinha T, Imamichi H, Zhang YM, Metcalf JA, Falloon J, Lane HC. High-level resistance to 3'-azido-3'-deoxythymidine due to a deletion in the reverse transcriptase gene of human immunodeficiency virus type 1. *J Virol* **74**:1023-1028, 2000. [Abstract](#)

Imamichi T, Berg SC, Imamichi H, Lopez JC, Metcalf JA, Falloon J, Lane HC. Relative replication fitness of a high-level 3'-azido-3'-deoxythymidine-resistant variant of human immunodeficiency virus type 1 possessing an amino acid deletion at codon 67 and a novel substitution (Thr>Gly) at codon 69. *J Virol* **74**:10958-10964, 2000. [Abstract](#)

NOTE: Acknowledgment for publications should read "The following reagent was obtained through the NIH AIDS Reagent Program, NIAID, NIH: pNLΔ67+GRINFQ from Dr. Tomozumi Imamichi and Dr. H. Clifford Lane." Also include the references cited above in any publications.

Last Updated: January 16, 2018

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