



NIH AIDS Reagent Program

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DATA SHEET

Reagent: pNLdelta67+GRINFQ

Catalog Number: 6203

Lot Number: 011026

Release Category: A

Provided: 0.5 ml glycerol stocks.

Cloning Vector: Cloning vector is pUC18. The plasmid size is ~15 Kbp.

Host Strain: TOP10F', Ampicillin resistance.

Description: Full-length HIV-1 reverse transcriptase mutant. Mutations [deletion at codon 67 (delta67)+T69G/K70R/L74I/K103N/T215F/K219Q] in the RT have originally been identified in a clinical isolate derived from a patient who had failed a combination therapy using Zidovudine+Didanosine+Delavirdine. The mutations were induced using site mutagenesis in a shuttle vector (pCR2.1) containing the RT gene derived from pNL4.3, then exchanged in the pNL4.3PFB (Apa-PfIM1 site). The total plasmid size is ~15 Kbp. Transfection of this clone into permissive cells yields infectious virus.

Special Characteristics: This mutant leads multiple drug resistance to a number of reverse transcriptase inhibitors and replicates as efficiently as wild type HIV-1.

Recommended Storage: -70°C.

Contributor: Dr. Tomozumi Imamichi and Dr. H. Clifford Lane.

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: 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. 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.

NOTE: Acknowledgment for publications should read "The following reagent was obtained through the NIH AIDS Reagent Program, NIAID, NIH: pNLdelta67+GRINFQ from Dr. Tomozumi Imamichi and Dr. H. Clifford Lane." Also include the references cited above in any publications.

Last Updated: September 10, 2015

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