**NIH AIDS Reagent Program**
20301 Century Boulevard
Building 6, Suite 200
Germantown, MD 20874
USA

Phone: 240 686 4740
Fax: 301 515 4015
aidsreagent.org

# DATA SHEET

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| **Reagent:** | HIV-1 NL4-3 CA138767 Infectious Molecular Clone (p8070/M1380133.1) |
| **Catalog Number:** | 11847 |
| **Lot Number:** | 100073 |
| **Release Category:** | A |
| **Provided:** | 10 µg of dried purified DNA stabilized in DNAstable *Plus* |
| **Cloning Vector:** | pNL4.3ΔIN<br>Ampicillin resistant |
| **Cloning Site:** | PacI/EcoRI cloning site<br>The size of the insert is 1617 bp. |
| **GenBank:** | pNL4-3: AF324493<br>int from CA138767 clone 1: GU076511 |
| **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:** | A full length replication competent, infectious, raltegravir-resistant HIV-1 NL4-3 and CA138767 chimeric molecular clone. |
| **Special Characteristics:** | This construct is 14,825 bp including the insert.<br>The source of this chimeric molecular clone is a clinical plasma sample from an HIV-1 positive individual who had developed virological failure while receiving raltegravir. Sequencing confirmed the presence of established raltegravir mutations.<br>A 1,661 bp region was amplified from the viral cDNA and cloned into pNL4.3ΔIN. A linearized IN deletion clone can be created by double digestion with PacI/EcoRI. |

The inserted region contains the entire integrase open reading frame. The flanking regions cloned along with integrase include *vif*, the 5' end of *vpr*, and the 3' end of RNaseH.

This clone can be used for in vitro susceptibility testing of new integrase inhibitors (INIs). INIs that are active against these clones are likely to retain activity against the most clinically relevant, or possibly all, raltegravir-resistant variants.

Contributor provided sequence information

Plasmid map and sequence file lot 100073

This clone is part of a group of molecular clones that each contain one of the canonical raltegravir-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. Please click here for additional information regarding this clone.

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 and Elizabeth Reuman, M.S.

**References:**

E. C. Reuman, M. H. Bachmann, V. Varghese, W. J. Fessel and R. W. Shafer. (2010). Panel of prototypical raltegravir-resistant infectious molecular clones in a novel integrase-deleted cloning vector. Antimicrob Agents Chemother, 54(2), 934-6. doi:10.1128/AAC.01345-09 PUBMED

**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 CA138767 Infectious Molecular Clone (p8070/M1380133.1) from Dr. Robert Shafer and Elizabeth Reuman, M.S." Also include the references cited above in any publications.

**Last Updated:** January 30, 2018