



NIH AIDS Reagent Program

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DATA SHEET

Reagent: ☒ SHIV-1157ipd3N4

Catalog Number: 11689

Lot Number: 8/03/2012

Release Category: C

Provided: 9.8×10^6 TCID₅₀/mL, p27 content of stock: 257 ng/mL.

Host Strain: Rhesus PBMC

Description: SHIV-1157ipd3N4 (1) is an infectious molecular clone of a simian-human immunodeficiency virus (SHIV) which encodes the envelope gene of an HIV clade C strain derived from a 6-month-old Zambian infant. The original construct, the infectious molecular clone SHIV-1157i (2), was adapted by serial passage in five monkeys. SHIV-1157ipd3N4 was generated by directly cloning the 3' half of a virus isolated from a monkey that developed AIDS (absolute CD4+ T cells <200 cell/ μ l). An extra NF-KB binding site was engineered into the 3' LTR of the proviral construct; this duplication is copied into the 5' LTR during the subsequent round of viral replication. The resulting SHIV-1157ipd3N4 has increased replicative capacity in the presence of tumor necrosis factor- α (TNF- α); for expanding viral stocks, the addition of TNF- α is recommended at 10 ng/ml (1).

Special Characteristics: SHIV-1157ipd3N4 is mucosally transmissible by all routes tested (intrarectal, vaginal and oral). It utilizes only CCR5 as co-receptor. The nucleotide sequence was deposited in GenBank under accession number DQ779174. Compared to the published sequence, the current stock contains 2 point mutations in the *env* gene. The first mutation is "a" to "t" (T91S), while the second mutation is silent at position 933, "c" to "a".

[Required Form: Clade C SHIV Addendum.](#)

Recommended Storage: Liquid nitrogen.

Contributor: Dr. Ruth Ruprecht

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:

1. Song RJ, Chenine AL, Rasmussen RA, Ruprecht CR, Mirshahidi S, Grisson RD, Xu W, Whitney JB, Goins LM, Ong H, Li PL, Shai-Kobiler E, Wang T, McCann CM, Zhang H, Wood C, Kankasa C, Secor WE, McClure HM, Strobert E, Else JG, Ruprecht RM. Molecularly cloned SHIV-1157ipd3N4: a highly replication-competent, mucosally transmissible R5 simian-human immunodeficiency virus encoding HIV clade C Env. *J Virol.*; **80**:8729-38.
2. Humbert M, Rasmussen RA, Song R, Ong H, Sharma P, Chenine AL, Kramer VG, Siddappa NB, Xu W, Else JG, Novembre FJ, Strobert E, O'Neil SP, Ruprecht RM. SHIV-1157i and passaged progeny viruses encoding R5 HIV-1 clade C env cause AIDS in rhesus monkeys. *Retrovirology* 2008;**5**:94

NOTE:

Acknowledgment for publications should read "The following reagent was obtained through the NIH AIDS Reagent Program, Division of AIDS, NIAID, NIH: SHIV-1157ipdN4 (cat#11689) from Dr. Ruth Ruprecht." Also include the references cited above in any publications.

PLEASE NOTE: All recipients agree to acknowledge the laboratory of Dr. Ruth Ruprecht and the Dana-Farber Cancer Institute on any and all publications referencing use of these materials. In addition, the recipient must cite the above reference on all relevant publications. The CladeC SHIV Addendum must be completed prior to release of this material.

Commercial requests should be directed to Nancy Grodin, Licensing Associate, Dana Farber Cancer Institute, Office of Research & Technology Ventures, 44 Binney Street, BP304E, Boston, MA 02215, Phone: (617) 632-5516, Fax: (617) 632-4012, Email: nancy_grodin@dfci.harvard.edu.

Last Updated:

March 03, 2016

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