



## 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

**Reagent:** HIV-1 NL4-3 AD8 Infectious Molecular Clone (pNL(AD8))

**Catalog Number:** 11346

**Lot Number:** 160162

**Release Category:** A

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

**Cloning Vector:** pUC19  
Ampicillin resistant

**Cloning Site:** KpnI/BsmI  
The size of the insert is 1,706 bp.

**GenBank:** [AF324493](#) (pNL4-3)  
[AF004394](#) (AD8)

**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 HIV-1 subtype B NL4-3, AD8 chimeric molecular clone. The virus produced by this molecular clone utilizes the co-receptor CCR5.

**Special Characteristics:** This construct is 14,828 bp including the insert.  
The source of this chimeric molecular clone is HIV-1 strains AD8-1 and NL4-3. This molecular clone contains the genetic backbone of pNL4-3, with AD8-1 *env*.  
This CCR5-utilizing derivative of pNL4-3 was constructed by removing a portion of pNL4-3 (nucleotides 6348 to 8051) and replacing it with a 1.7-kb fragment from pAD8.1. This 1.7 kb fragment in pAD8-1 corresponds to the region between the KpnI

---

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.

site in the gp120 coding region, and the bsm1 site in gp41. The resulting infectious molecular clone is able to utilize the co-receptor, CCR5, while the original pNL4-3 clone utilized CXCR4.

[Contributor provided map and sequence information](#)

[Plasmid map and sequence file lot 160162](#)

Alternate names include: pNL(AD8), HIV-1 AD8 Macrophage-Tropic R5

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. Eric O. Freed

**References:** Freed, E. O., Englund, G., & Martin, M. A. (1995). Role of the basic domain of human immunodeficiency virus type 1 matrix in macrophage infection. *J Virol*, 69(6), 3949-3954. [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 AD8 Infectious Molecular Clone (pNL(AD8)) from Dr. Eric O. Freed (cat# 11346)." Also include the references cited above in any publications.

**Last Updated:** April 16, 2018

---

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.