



## NIH AIDS Reagent Program

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### DATA SHEET

**Reagent:** HIV-1 YU2 Infectious Molecular Clone

**Catalog Number:** 1350

**Lot Number:** 130394

**Release Category:** C

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

**Cloning Vector:** pTZ19R (United States Biochemical)  
Ampicillin resistant

**Cloning Site:** SphI/SalI cloning site

**GenBank:** [M93258](#)

**Host Strain:** JM109

**Description:** *SalI-EcoRI* (5') and *EcoRI-SphI* (3') fragments were ligated and cloned into the *SphI-SalI* site of pTZ19R to produce the full length, nonpermuted clone pYU2.

**Special Characteristics:** This construct is 13,994 bp including the insert.

This is the first full length proviral HIV-1 clone derived directly from uncultured material. pYU2 is a replication competent, infectious molecular clone. Virus derived from this clone productively infects primary lymphocytes, primary monocytes and macrophages, and Molt-4 clone 8 cells, but does not replicate in Sup-T1 or CEMx174 cells. Growth of the bacteria at 30°C is less likely to cause deletions than growth at higher temperatures. Source of Pro Virus: Proviral DNA was cloned directly from human brain tissue without extensive cell culture from a patient who died of AIDS dementia complex.

[Plasmid map and sequence file lot 130394](#). Please note: this plasmid has undergone recombination outside of both LTRs - the unexpected sequences are highlighted in orange in the sequence file.

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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 purified DNA stabilized in DNastable *PLUS* and dried. Please see the notice for additional information and the protocol for reconstitution of dried DNA reagents. [Dried DNA Notice](#)

Alternate names include: pYU2

**Recommended Storage:** Keep the reagent at room temperature in a dry storage cabinet or in a moisture barrier bag.

**Contributor:** Dr. Beatrice Hahn and Dr. George M. Shaw.

**References:** Li Y, Hui H, Burgess CJ, Price RW, Sharp PM, Hahn BH, Shaw GM. Complete nucleotide sequence, genome organization, and biological properties of human immunodeficiency virus type 1 in vivo: evidence for limited defectiveness and complementation. *J Virol* **66**:6587-6600, 1992.

Li Y, Kappes JC, Conway JA, Price RW, Shaw GM, Hahn BH. Molecular characterization of human immunodeficiency virus type 1 cloned directly from uncultured human brain tissue: identification of replication-competent and -defective viral genomes. *J Virol* **65**:3973-3985, 1991.

**NOTE:** Acknowledgment for publications should read "The following reagent was obtained through the NIH AIDS Reagent Program, Division of AIDS, NIAID, NIH: HIV-1 YU2 Infectious Molecular Clone from Dr. Beatrice Hahn and Dr. George Shaw (cat# 1350)." Also include the references cited above in any publications.

**Last Updated:** July 11, 2018

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