



NIH AIDS Reagent Program

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DATA SHEET

Reagent:	HIV-1 NL4-3 Gag-iGFP ΔEnv Non-Infectious Molecular Clone
Catalog Number:	12455
Lot Number:	140409
Release Category:	B
Provided:	0.1 µg of dried purified DNA stabilized in DNASTable <i>Plus</i>
Description:	This full-length molecular clone of HIV derived from pNL4-3 carries green fluorescent protein (GFP) inserted into the Gag protein between the MA and CA domains of Gag, with HIV protease cleavage sites created to flank the GFP insertion. A frame shift mutation (restriction site NdeI) was also introduced to disrupt the Env open reading frame making this clone effectively Env null. This plasmid may be used to generate fluorescently labeled HIV particles and may be pseudotyped by cotransfection with Env expression plasmids or used as a negative control for HIV Gag-iGFP
Special Characteristics:	May be used as a control or pseudotyped in assays to monitor the efficiency of virus uptake or transfer using flow cytometry, localizing virus production in infected cells using live or fixed cell fluorescence microscopy, monitoring cell-to-cell transmission of HIV, single particle imaging, single particle fusion assays Contributor provided sequence information Contributor provided plasmid map Plasmid map and sequence file lot_140409 This reagent is currently being provided as dried purified DNA stabilized in DNASTable <i>Plus</i> . 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. Benjamin Chen

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:

Hubner, W. et al. Sequence of human immunodeficiency virus type 1 (HIV-1) Gag localization and oligomerization monitored with live confocal imaging of a replication-competent, fluorescently tagged HIV-1. *J Virol* 81, 12596-12607 (2007).

Chen, P., Hubner, W., Spinelli, M.A. & Chen, B.K. Predominant mode of human immunodeficiency virus transfer between T cells is mediated by sustained Env-dependent neutralization-resistant virological synapses. *J Virol* 81, 12582-12595 (2007).

Hubner, W. et al. Quantitative 3D video microscopy of HIV transfer across T cell virological synapses. *Science* 323, 1743-1747 (2009)

NOTE:

Acknowledgment for publications should read "The following reagent was obtained through the NIH AIDS Reagent Program, Division of AIDS, NIAID, NIH: HIV Gag-iGFP delta Env from Dr. Benjamin Chen." Also include the reference cited above in any publication.

Last Updated:

June 05, 2020

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