



Certificate of Analysis for HRP-12455

Human Immunodeficiency Virus Type 1 (HIV-1) Non-Infectious Molecular Clone NL4-3 Gag-iGFP ΔEnv

Catalog No. HRP-12455

Product Description:

HRP-12455 is a full-length non-infectious HIV-1 NL4-3 Gag-iGFP Env-deficient molecular clone derived from HIV-1 NL4-3 infectious molecular clone pNL4-3 (available as ARP-114) in a **pUC18** backbone. HRP-12455 lot 70052772 was produced by the transformation of seed lot 140409 into One Shot™ TOP10 *E. coli* (Invitrogen™ C404003), grown in Luria-Bertani broth with ampicillin (50 µg per mL) for 1 day at 37°C in an aerobic atmosphere and extracted using a Plasmid Plus Maxi Kit (QIAGEN® 12963). The ampicillin resistance gene, *bla*, provides transformant selection through ampicillin resistance in *Escherichia coli* (*E. coli*). The resulting size of the plasmid is approximately 15,600 base pairs. The purified plasmid DNA was vialled in TE buffer (10 mM Tris-HCl, 1 mM EDTA, pH 8.0).

Lot: 70052772

Manufacturing Date: 29JUN2022

| TEST | SPECIFICATIONS | RESULTS |
|---|---|---|
| Next-Generation DNA Sequencing | Report results | 15,588 base pairs ¹ |
| Genotypic Analysis Sequencing of HRP-12455 (~ 15,600 base pairs) | ≥ 99% sequence identity to depositor's sequence | 99.8% sequence identity to depositor's sequence |
| Antibiotic Resistance Ampicillin (encoded by beta-lactamase gene <i>bla</i>) ² | <i>bla</i> sequence present | <i>bla</i> sequence present |
| Agarose Gel Electrophoresis Undigested | ~ 15 kb band | ~ 15 kb band |
| Concentration by Qubit Fluorometer® | Report results | 2.5 µg in 100 µL per vial (25 µg per mL) |
| Amount per Vial | Report results | 2.5 µg per vial |
| OD ₂₆₀ /OD ₂₈₀ Ratio | 1.7 to 2.1 | 1.91 |

¹The sequence was assembled pre-vial using the sequence for ARP-12455 lot 140409 as the reference sequence. The complete plasmid sequence and insert map are provided on the NIH HIV Reagent Program webpage.

²The antibiotic ampicillin degrades quickly during growth. Bacterial stationary phase should be minimized during plasmid expansion to avoid plasmid loss and increased antibiotic concentrations may be necessary.

/Ken Crawford/
Ken Crawford
Lead Technical Writer, ATCC Federal Solutions

14 SEP 2022

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NIH HIV Reagent Program

www.hivreagentprogram.org

E-mail: contact@HIVReagentProgram.org

Tel: 888-487-0727 | Fax: 703-365-2898

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