Certificate of Analysis for HRP-7406

Human Immunodeficiency Virus (HIV-1) NL4-3 4434 Infectious Molecular Clone (p52534-2)

Catalog No. HRP-7406

Product Description:

HRP-7406 is a full-length replication competent, infectious human immunodeficiency virus type 1 (HIV-1) chimeric molecular clone. The plasmid contains the entire HIV-1 NL4-3 genome where the wild-type reverse transcriptase (RT) has been replaced with an RT from a patient that contains multiple drug resistance mutations. The beta-lactamase gene, *bla*, provides transformant selection through ampicillin resistance in *Escherichia coli (E. coli)*. The deposited plasmid was transformed into MAX Efficiency™ Stbl2™ *E. coli* (Invitrogen™ 10268019), grown in Luria-Bertani broth with ampicillin (50 µg/mL) for 1 day at 37°C in an aerobic atmosphere, extracted using a Plasmid *Plus* Maxi Kit (QIAGEN® 12963) and vialed in TE buffer (10 mM Tris-HCl, 1 mM EDTA, pH 8.0).

Lot: 70062371 **Manufacturing Date: 27JUL2023**

TEST	SPECIFICATIONS	RESULTS
Next Generation DNA Sequencing	~ 14830 base pairs	14831 base pairs[1]
Genotypic Analysis Sequencing of reverse transcriptase (pol) gene (~ 940 base pairs)	≥ 99% sequence identity to depositor's sequence	99.3% sequence identity to depositor's sequence[1]
Antibiotic Resistance Ampicillin (encoded by beta-lactamase gene *bla*)	*bla* sequence present	*bla* sequence present
Concentration by Qubit Fluorometer®	Report results	2.6 µg in 100 µL (26 µg/mL)
Amount per Vial	Report results	2.6 µg/vial
OD_{260}/OD_{280} Ratio (pre-vial)	1.7 to 2.1	1.9
Effective Bacterial Transformation Invitrogen™ MAX Efficiency™ Stbl2™ *E. coli*	Report results	154 colonies/ng

[1]The sequence was assembled *de novo*. Alignment with depositor-provided pol gene sequence (GenBank: AY351729) indicated the same insertion of six nucleotides [201_202insAGTTCT (S69_K70insSS)] and deletion [919_921delG (no change in amino acid)] as seen in ARP-7406 lot 100108. The complete plasmid sequence is provided on the NIH HIV Reagent Program webpage.

/Ken Crawford/
Ken Crawford 04 DEC 2023
Lead Technical Writer, ATCC Federal Solutions

ATCC®, on behalf of the NIH HIV Reagent Program, hereby represents and warrants that the material provided under this certificate has been subjected, by ATCC® and the contributor, to the tests and procedures specified and that the results described, along with any other data provided in this certificate, are true and accurate to the best of ATCC®'s knowledge.

Support Provided by NIAID

NIH HIV Reagent Program
www.hivreagentprogram.org
E-mail: contact@HIVReagentProgram.org
Tel: **888-487-0727** | Fax: **703-365-2898**