Certificate of Analysis for HRP-20054

Simian-Human Immunodeficiency Virus Infectious Molecular Clone SHIV.CH0694.375Y.dCT

Catalog No. HRP-20054

Product Description:

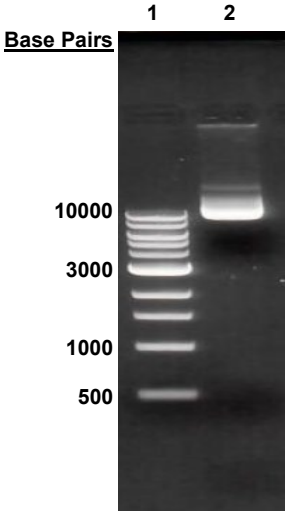
HRP-20054 is a full-length molecular clone of infectious and replication-competent simian-human immunodeficiency provirus. This clone contains an amino acid residue at Env position 375 that supports virus entry and replication in primary rhesus CD4 T cells. SHIV.CH0694.375Y.dCT is an isogenic mutant of SHIV.CH0694.375T.dCT generated by changing wildtype CH0694 Env375 residue (GenBank: MW410741) from Thr to Tyr. SHIV.CH0694.375Y.dCT showed increased infectivity and replication kinetics *in vitro* in Indian rhesus macaque $CD4^+$ T cells and *in vivo* in Indian rhesus macaques. The plasmid encodes full-length, replication-competent SHIV in a pCR-XL-TOPO backbone. The kanamycin resistance gene, *aph*, provides trans formant selection through kanamycin resistance in *Escherichia coli (E. coli)*. The resulting size of the plasmid is approximately 13,840 base pairs. The purified plasmid DNA was provided vialed in TE buffer (10 mM Tris-HCl, 1 mM EDTA).

Lot: 70046697 Receipt Date: 15SEP2021

TEST	SPECIFICATIONS	RESULTS
Next-Generation DNA Sequencing	Report results	~ 13,840 base pairs[1]
Genotypic Analysis Sequencing of CH0694.375Y insert (~ 10,440 base pairs)	≥ 99% sequence identity to depositor's sequence	100% sequence identity to depositor's sequence
Antibiotic Resistance Kanamycin (encoded by kanamycin gene *aph*)	*aph* sequence present	*aph* sequence present
Agarose Gel Electrophoresis Undigested	~ 10 kb band	~ 10 kb band (Figure 1)
Concentration by NanoDrop® Measurement	Report results	1 µg in 100 µL per vial (0.01 mg per mL)
Amount per Vial	Report results	1 µg per vial
OD_{260}/OD_{280} Ratio	1.7 to 2.1	1.93

[1]The depositor's complete plasmid sequence and map are provided on the NIH HIV Reagent Program webpage.

Figure 1: Agarose Gel of Undigested HRP-20054



Lane 1: New England Biolabs 1 Kb DNA Ladder
Lane 2: HRP-20054 undigested

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

/Ken Crawford/
Ken Crawford 04 MAY 2022
Lead Technical Writer, ATCC Federal Solutions

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