

# Certificate of Analysis for HRP-20061

Simian-Human Immunodeficiency Virus Infectious Molecular Clone  
SHIV.CAP256SU.375Y.dCT

Catalog No. HRP-20061

## Product Description:

HRP-20061 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.CAP256SU.375Y.dCT is an isogenic mutant of SHIV.CAP256SU.375S.dct generated by changing wildtype CAP256SU Env375 residue (GenBank: [MT509359](#)) from Ser to Tyr. SHIV.CAP256SU.375Y.dCT showed increased infectivity and replication kinetics *in vitro* in Indian rhesus macaque CD4<sup>+</sup> 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 transformant selection through kanamycin resistance in *Escherichia coli* (*E. coli*). The resulting size of the plasmid is approximately 13,880 base pairs. The purified plasmid DNA was provided viald in TE buffer (10 mM Tris-HCl, 1 mM EDTA).

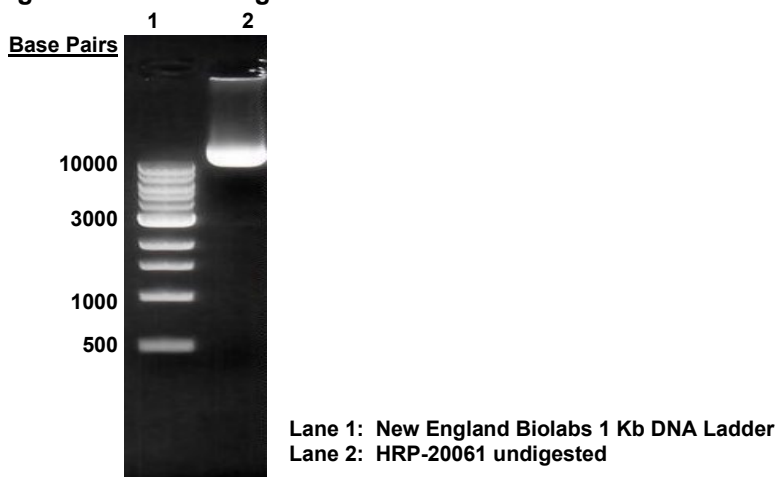
Lot: 70046704

Receipt Date: 29SEP2021

TEST	SPECIFICATIONS	RESULTS
Next-Generation DNA Sequencing	Report results	13,882 base pairs <sup>1</sup>
Genotypic Analysis Sequencing of CAP256SU.375Y insert (~10,490 base pairs)	≥ 99% sequence identity to depositor's sequence	100% sequence identity to depositor's sequence
Antibiotic Resistance Kanamycin (encoded by kanamycin gene <i>aph</i> )	<i>aph</i> sequence present	<i>aph</i> 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 (10 µg/mL)
Amount per Vial	Report results	1 µg/vial
OD <sub>260</sub> /OD <sub>280</sub> Ratio (pre-vial)	1.7 to 2.1	1.9

<sup>1</sup>The depositor's complete plasmid sequence and map are provided on the BEI Resources webpage.

Figure 1: Agarose Gel of Undigested HRP-20061



**Certificate of Analysis for HRP-20061**/Kenneth R. Crawford/Kenneth R. Crawford

15 OCT 2024

Lead Technical Writer or designee, ATCC Federal Solutions

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**HIV REAGENT  
PROGRAM**