



# Certificate of Analysis for HRP-20055

Simian-Human Immunodeficiency Virus Infectious Molecular Clone  
SHIV.RV217.40100.375W.dCT

Catalog No. HRP-20055

## Product Description:

HRP-20055 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.RV217.40100.375W.dCT is an isogenic mutant of SHIV.RV217.40100.375H.dCT generated by changing wildtype RV217.40100 Env375 residue (GenBank: [MW410740](#)) from His to Trp. SHIV.RV217.40100.375W.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 13,920 base pairs. The purified plasmid DNA was provided vialed in TE buffer (10 mM Tris-HCl, 1 mM EDTA).

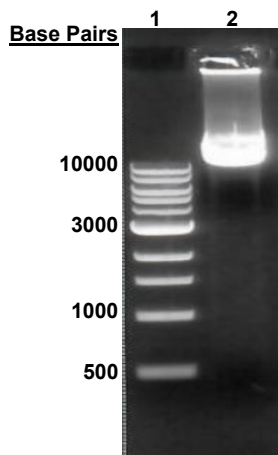
Lot: 70046698

Receipt Date: 28SEP2021

TEST	SPECIFICATIONS	RESULTS
Next-Generation DNA Sequencing	Report results	~ 13,920 base pairs <sup>1</sup>
<b>Genotypic Analysis</b> Sequencing of RV217.40100.375W insert (~ 10,520 base pairs)	≥ 99% sequence identity to depositor's sequence	100% sequence identity to depositor's sequence
<b>Antibiotic Resistance</b> Kanamycin (encoded by kanamycin gene <i>aph</i> )	<i>aph</i> sequence present	<i>aph</i> sequence present
<b>Agarose Gel Electrophoresis</b> 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 <sub>260</sub> /OD <sub>280</sub> Ratio	1.7 to 2.1	1.87

<sup>1</sup>The depositor's complete plasmid sequence and map are provided on the NIH HIV Reagent Program webpage.

Figure 1: Agarose Gel of Undigested HRP-20055



Lane 1: New England Biolabs 1 Kb DNA Ladder  
Lane 2: HRP-20055 undigested



**HIV REAGENT  
PROGRAM**

## Certificate of Analysis for HRP-20055

/Ken Crawford/

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13 JUL 2022

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**NIH HIV Reagent Program**

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