

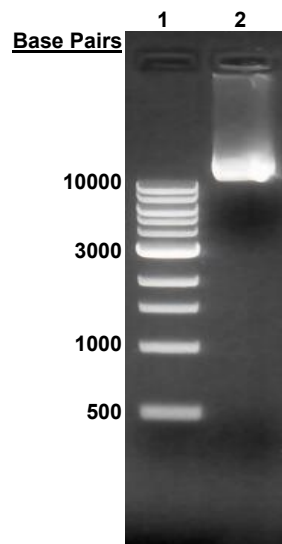
Simian-Human Immunodeficiency Virus Infectious Molecular Clone SHIV.1086.375W.dCT
Catalog No. HRP-20053
Product Description:

HRP-20053 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.1086.375W.dCT is an isogenic mutant of SHIV.1086.375S.dCT generated by changing wildtype 1086 Env375 residue (GenBank: [MW410739](#)) from Ser to Trp. SHIV.1086.375W.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 [pBR322](#) backbone. The beta-lactamase gene, *bla*, provides transformant selection through ampicillin resistance in *Escherichia coli* (*E. coli*). *Escherichia coli* (*E. coli*). The resulting size of the plasmid is 14,890 base pairs. The purified plasmid DNA was provided vial in TE buffer (10 mM Tris-HCl, 1 mM EDTA).

Lot: 70046696
Receipt Date: 28SEP2021

TEST	SPECIFICATIONS	RESULTS
Next-Generation DNA Sequencing	Report results	14,890 base pairs ¹
Genotypic Analysis Sequencing of 1086.375W insert (~ 10,500 base pairs)	≥ 99% sequence identity to depositor's sequence	100% sequence identity to depositor's sequence
Antibiotic Resistance Ampicillin (encoded by beta-lactamase gene <i>bla</i>)	<i>bla</i> sequence present	<i>bla</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 (0.01 mg per mL)
Amount per Vial	Report results	1 µg per vial
OD₂₆₀/OD₂₈₀ Ratio	1.7 to 2.1	1.98

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

Figure 1: Agarose Gel of Undigested HRP-20053


Lane 1: New England Biolabs 1 Kb DNA Ladder
Lane 2: HRP-20053 undigested



**HIV REAGENT
PROGRAM**

Certificate of Analysis for HRP-20053

/Ken Crawford/
Ken Crawford

Lead Technical Writer, ATCC Federal Solutions

29 APR 2022

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.

ATCC® is a trademark of the American Type Culture Collection.

You are authorized to use this product for research use only. It is not intended for human use.



NIH HIV Reagent Program

www.hivreagentprogram.org

E-mail: contact@HIVReagentProgram.org

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

© 2022 American Type Culture Collection (ATCC)

All rights reserved.

HRP-20053_70046696_29APR2022

Page 2 of 2