Certificate of Analysis for HRP-20048

Simian-Human Immunodeficiency Virus Infectious Molecular Clone SHIV.WITO4160.375W.dCT

Catalog No. HRP-20048

Product Description:

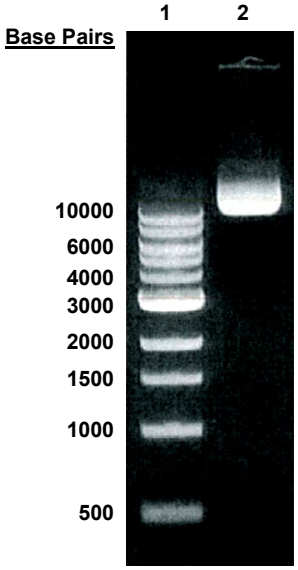
HRP-20048 is a full-length molecular clone of infectious and replication-competent simian-human immunodeficiency provirus. This clone contains an amino acid residue at Env position 375 that supports virus entry and replication in primary rhesus CD4 T cells. SHIV.WITO4160.375W.dCT is an isogenic mutant of SHIV.WITO4160.375T.dCT generated by changing wildtype WITO4160 Env375 residue (GenBank: MW410737) from Thr to Trp. SHIV.WITO4160.375W.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 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 13,890 base pairs. The purified plasmid DNA was provided vialed in TE buffer (10 mM Tris-HCl, 1 mM EDTA).

Lot: 70046691 Receipt Date: 29SEP2021

TEST	SPECIFICATIONS	RESULTS
Next-Generation DNA Sequencing	Report results	13,894 base pairs[1]
Genotypic Analysis Sequencing of WITO4160.375W insert (~ 10,500 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	1.94

[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-20048



Lane 1: New England Biolabs 1 Kb DNA Ladder
Lane 2: HRP-20048 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 12 APR 2022
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**