Simian Immunodeficiency Virus Infectious Molecular Clone pSIVsm804E-CL757 Gag-S37 S98 P146

Catalog No. HRP-20099

This reagent is the tangible property of the U.S. Government.

For research use only. Not for use in humans.

Contributor and Manufacturer:

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Product Description:

Note: The label on the vial is incorrect; the correct plasmid description is pSIVsm804E-CL757 Gag-S37 S98 P146.

HRP-20099 is a full-length, neurovirulent, chimeric, infectious molecular clone of the simian immunodeficiency virus (SIV), SIVsm804E-CL757 Gag-S37 S98 P146, which is available through NIH HIV Reagent Program (HRP-20126).[1,2] HRP-20099 is a variant of HRP-20098, with amino acid substitutions engineered in Gag to confer resistance to TRIM5 α, resulting in improved replication in rhesus macaques *(Macaca mulatta)* compared to the parental clone and could be used in rhesus macaques to study neuroAIDS and reservoirs in the CNS without the need for TRIM genotyping and selection.[1,2,3] The plasmid encodes full-length, replication-competent virus in a pUC19 vector backbone. The ampicillin resistance gene, *bla*, provides transformant selection through ampicillin resistance in *Escherichia coli (E. coli)*. The pSIVsm804E-CL757 Gag-S37 S98 P146 insert is approximately 11,160 base pairs and the resulting size of the plasmid is approximately 13,000 base pairs. The insert sequence is provided on the NIH HIV Reagent Program webpage.

Material Provided:

Each vial contains plasmid DNA in TE buffer (10 mM Tris-HCl, 1 mM EDTA). The DNA concentration and volume provided are shown on the Certificate of Analysis. The vial should be centrifuged prior to opening. Note: The contents of the vial should be used to transform the plasmid in *E. coli* prior to mammalian expression.

Packaging/Storage:

HRP-20099 was packaged aseptically in screw-capped plastic cryovials. The product is provided frozen and should be stored at -80°C or colder immediately upon arrival. Freeze-thaw cycles should be avoided.

Citation:

Acknowledgment for publications should read "The following reagent was obtained through the NIH HIV Reagent Program, NIAID, NIH: Simian Immunodeficiency Virus Infectious Molecular Clone pSIVsm804E-CL757 Gag-S37 S98 P146, HRP-20099, contributed by Dr. Vanessa M. Hirsch."

Biosafety Level: 1

Appropriate safety procedures should always be used with this material. Laboratory safety is discussed in the following publication: U.S. Department of Health and Human Services, Public Health Service, Centers for Disease Control and Prevention, and National Institutes of Health. Biosafety in Microbiological and Biomedical Laboratories (BMBL). 6th ed. Washington, DC: U.S. Government Printing Office, 2020.

Disclaimers:

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

Use of this product is subject to the terms and conditions of the NIH HIV Reagent Program Material Transfer Agreement (MTA). The MTA is available on our Web site at www.hivreagentprogram.org.

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NIH HIV Reagent Program
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Tel: **888-487-0727** | Fax: **703-365-2898**

References:

1. Hirsch V. M., Personal Communication.
2. Lee, C. A. and V. M. Hirsch. “Mutation in the Disordered Linker Region of Capsid Disrupts Viral Kinetics of a Neuropathogenic SIV in Rhesus Macaques.” Microbiol. Spectr. 10 (2022): e0047822. PubMed: 35297654.
3. Matsuda, K., et al. “An SIV Molecular Clone that Targets the CNS and Induces Neuroaids in Rhesus Macaques.” PLoS Pathog. 13 (2017): e1006538. PubMed: 28787449.

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