

Simian-Human Immunodeficiency Virus Infectious Molecular Clone, pSHIV DH12-V3AD8

Catalog No. HRP-20279

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For research use only. Not for use in humans.

Contributor and Manufacturer:

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Product Description:

HRP-20279 is a full-length chimeric infectious molecular clone of simian-human immunodeficiency virus, SHIV DH12-V3AD8.^{1,2} The plasmid is approximately 13,150 base pairs and contains an ampicillin resistance marker for transformant selection. The plasmid sequence is provided on the BEI Resources webpage.

SHIV DH12-V3AD8 virus was constructed by inserting the entire 33 amino acid gp120 V3 coding region of SHIV AD8EO, into the genetic background of SHIV DH12-CL-7 (a molecularly cloned derivative of CXCR4-tropic SHIV DH12 virus), which confers the capacity to use the CCR5 coreceptor for cell entry. It replicates to high levels in rhesus macaque peripheral blood mononuclear cells (PBMC) and exhibits a Tier 2 neutralization sensitivity phenotype.^{1,2}

Material Provided:

Each vial contains plasmid DNA in TE buffer (10 mM Tris-HCl, 1 mM EDTA, pH 8.0). 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 replicate the plasmid in *E. coli* prior to expression studies.

Packaging/Storage:

HRP-20279 was packaged aseptically in cryovials. The product is provided frozen on dry ice and should be stored at -20°C or colder immediately upon arrival. Freeze-thaw cycles should be minimized.

Citation:

Acknowledgment for publications should read “The following reagent was obtained through BEI Resources, NIAID, NIH: Simian-Human Immunodeficiency Virus Infectious Molecular Clone, pSHIV DH12-V3AD8, HRP-20279.”

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.

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References:

1. Martin, M. A., Personal Communication.
2. Shingai, M., et al. “Passive Transfer of Modest Titers of Potent and Broadly Neutralizing Anti-HIV Monoclonal Antibodies Block SHIV Infection in Macaques.” *J. Exp. Med.* 211 (2014): 2061-2074. PubMed: 25155019.
3. Sadjadpour, R., et al. “Induction of Disease by a Molecularly Cloned Highly Pathogenic Simian Immunodeficiency Virus/Human Immunodeficiency Virus Chimera is Multigenic.” *J. Virol.* 78 (2004): 5513-5519. PubMed: 15113931.

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