

**Simian-Human Immunodeficiency Virus Infectious Molecular Clone, pSHIV AD8EO**

**Catalog No. HRP-20278**

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**For research use only. Not for use in humans.**

**Contributor:**

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**Manufacturer:**

BEI Resources

**Product Description:**

HRP-20278 is a full-length chimeric infectious molecular clone of the simian-human immunodeficiency virus, SHIV AD8EO (GenBank: [MN816822](#)).<sup>1,2</sup> The plasmid is approximately 13,040 base pairs and contains an ampicillin resistance marker for transformant selection. The plasmid sequence is provided on the BEI Resources webpage.

SHIV AD8EO, a molecularly cloned derivative of SHIVAD8, is CCR5-tropic. It replicates to high levels in rhesus macaque peripheral blood mononuclear cells (PBMC) and exhibits a Tier 2 neutralization sensitivity phenotype. It generates sustained levels of plasma viremia and depletes CD4<sup>+</sup> T cells, leading to symptomatic immunodeficiency in inoculated monkeys.<sup>1,2,3</sup>

**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-20278 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 AD8EO, HRP-20278.”

**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. “Most Rhesus Macaques Infected with the CCR5-tropic SHIV(AD8) Generate Cross-Reactive Antibodies that Neutralize Multiple HIV-1 Strains.” *Proc. Natl. Acad. Sci. U. S. A.* 109 (2012): 19769-19774. PubMed: 23129652.
3. 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.

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