

## pNL-GFPΔEnv Vector

### Catalog No. HRP-20247

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

#### Contributor:

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#### Manufacturer:

NIH HIV Reagent Program

#### Product Description:

HRP-20247 is a human immunodeficiency virus type 1 (HIV-1) indicator viral expression vector, encoding an HIV-1 green fluorescent protein (GFP) reporter virus lacking a 943-base pair (bp) segment of the *env* (envelope) gene, which renders it replication-incompetent. pNL-GFPΔEnv was generated from NL-NLucΔEnv by substituting NLuc with the GFP indicator gene.<sup>1,2</sup> NL-NLuc was generated from the parental NL4-3 molecular clone by introducing NLuc at the N-terminus of Nef (with 96 bp of the ORF deleted) and preventing its expression.<sup>1,2</sup> The beta-lactamase gene, *bla*, provides transformant selection through ampicillin resistance in *Escherichia coli* (*E. coli*). The plasmid size is approximately 14,825 base pairs. The plasmid sequence and map are provided on the BEI Resources webpage.

#### Material Provided:

Each vial contains plasmid DNA in TE buffer (10 mM Tris-HCl, 1 mM EDTA, pH 8). 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-20247 was packaged aseptically in screw-capped plastic cryovials. The product is provided frozen and should be stored at -20°C or colder immediately upon arrival. Freeze-thaw cycles should be avoided.

#### Citation:

Acknowledgment for publications should read "The following reagent was obtained through BEI Resources, NIAID, NIH: pNL-GFPΔEnv Vector, HRP-20247."

#### 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). Current Edition. Washington, DC: U.S. Government Printing Office.

#### Disclaimers:

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#### References:

1. Irwan, I. D., H. P. Bogerd and B. R. Cullen. "Epigenetic Silencing by the SMC5/6 Complex Mediates HIV-1 Latency." *Nat. Microbiol.* 12 (2022): 2101-2113. PubMed: 36376394.
2. Adachi, A., et al. "Production of Acquired Immunodeficiency Syndrome-Associated Retrovirus in Human and Nonhuman Cells Transfected with an Infectious Molecular Clone." *J. Virol.* 59 (1986): 284-291. PubMed: 3016298.

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