

**Vector pCAGGS Containing the Zaire Ebola virus, Mayinga VP40 Gene with N-Terminal FLAG Tag**

**Catalog No. NR-49399**

**For research use only. Not for human use.**

**Contributor:**

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**Manufacturer:**

BEI Resources

**Product Description:**

The VP40 matrix protein gene from Zaire ebolavirus (EBOV), Mayinga (GenBank: AF086833) was directionally subcloned into a modified pCAGGS mammalian expression vector.<sup>1</sup> The resulting plasmid encodes a recombinant EBOV VP40 containing a FLAG tag (DYKDDDDK) and three additional alanine residues at the amino terminus. The plasmid was produced in *Escherichia coli* and extracted.

VP40 is tightly associated with the inner leaflet of the virion membrane and drives filovirus budding.<sup>2</sup> Cells expressing both VP40 and a filovirus glycoprotein produce virus-like particles. Unlike the Marburg marburgvirus VP40, EBOV VP40 does not inhibit interferon signalling.<sup>3</sup>

NR-49399 has been qualified for use in bacterial transformations.

**Material Provided:**

Each vial contains approximately 50 µL of plasmid DNA. The DNA concentration and content are shown on the Certificate of Analysis. The vial should be centrifuged prior to opening.

**Packaging/Storage:**

NR-49399 was packaged aseptically in screw-capped plastic 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: Vector pCAGGS Containing the Zaire Ebola virus, Mayinga VP40 Gene with N-Terminal FLAG Tag, NR-49399.”

**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. 5th ed. Washington, DC: U.S. Government Printing Office, 2009; see [www.cdc.gov/biosafety/publications/bmb15/index.htm](http://www.cdc.gov/biosafety/publications/bmb15/index.htm).

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**References:**

1. Basler, C. F., Personal Communication.
2. Jasenosky, L. D., and Y. Kawoaka. “Filovirus Budding.” Virus Res. 106 (2004): 181-188. PubMed: 15567496.
3. Valmas, C., et al. “Marburg Virus Evades Interferon Responses by a Mechanism Distinct from Ebola Virus.” PLoS Pathog. 6 (2010): e1000721. PubMed: 20084112.

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