

Vector pCAGGS Containing the Mouse-Adapted Marburg Marburgvirus, Ravn VP40 Gene with N-Terminal FLAG Tag

Catalog No. NR-49355

For research use only. Not for human use.

Contributor and Manufacturer:

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Product Description:

The VP40 membrane-associated protein gene from a mouse-adapted variant¹ of Marburg marburgvirus (MARV), Ravn (GenBank: EU500826) was directionally subcloned into a modified pCAGGS mammalian expression vector.² The resulting plasmid encodes a recombinant MARV 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.³ Cells expressing both VP40 and a filovirus glycoprotein produce virus-like particles. MARV VP40 inhibits the interferon-induced phosphorylation of Jak and STAT proteins.⁴

NR-49355 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-49355 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 Mouse-Adapted Marburg Marburgvirus, Ravn VP40 Gene with N-Terminal FLAG Tag, NR-49355.”

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/bmbl5/index.htm.

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References:

1. Kelly, L., et al. “Development and Characterization of a Mouse Model for Marburg Hemorrhagic Fever.” J. Virol. 83 (2009): 6404-6415. PubMed: 19369350.
2. Basler, C. F., Personal Communication.
3. Jasenosky, L. D., and Y. Kawoaka. “Filovirus Budding.” Virus Res. 106 (2004): 181-188. PubMed: 15567496.
4. Ramanan, P., et al. “Filoviral Immune Evasion Mechanisms.” Viruses 3 (2011): 1634-1649. PubMed: 21994800.

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