

Vector pCAGGS Containing the Marburg Virus-Musoke VP40 Gene with N-Terminal FLAG Tag

Catalog No. NR-49410

For research use only. Not for use in humans.

Contributor:

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Manufacturer:

BEI Resources

Product Description:

The VP40 matrix protein gene from Marburg virus (MARV), Musoke (GenBank: [DQ217792](#)) was directionally subcloned into a modified pCAGGS mammalian expression vector.¹ 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. The complete plasmid sequence is provided on the BEI Resources webpage.

VP40 is tightly associated with the inner leaflet of the virion membrane and drives filovirus budding.² Cells expressing both VP40 and a filovirus glycoprotein produce virus-like particles. MARV VP40 inhibits the interferon-induced phosphorylation of Jak and STAT proteins.³

NR-49410 has been qualified for use in bacterial transformations.

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:

NR-49410 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 Marburg Virus-Musoke VP40 Gene with N-Terminal FLAG Tag, NR-49410.”

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. Basler, C. F., Personal Communication.
2. Jasenosky, L. D., and Y. Kawoaka. “Filovirus Budding.” *Virus Res.* 106 (2004): 181-188. PubMed: 15567496.
3. Ramanan, P., et al. “Filoviral Immune Evasion Mechanisms.” *Viruses* 3 (2011): 1634-1649. PubMed: 21994800.

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