

Vector pCAGGS Containing the Marburg Marburgvirus, Musoke VP35 Gene with N-Terminal FLAG Tag

Catalog No. NR-49214

For research use only. Not for human use.

Contributor and Manufacturer:

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Product Description:

The VP35 polymerase complex protein gene from Marburg marburgvirus (MARV), Musoke (GenBank: DQ217792) was directionally subcloned into a modified pCAGGS mammalian expression vector.¹ The resulting plasmid encodes a recombinant MARV VP35 containing a FLAG tag (DYKDDDDK) and three additional alanine residues at the amino terminus. The plasmid was produced in *Escherichia coli* and extracted.

VP35 is a component of the marburgvirus nucleocapsid² and an essential cofactor in the filoviral RNA-dependent RNA polymerase complex.³ It also binds dsRNA and antagonizes host cell interferon induction at multiple levels.⁴

NR-49214 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-49214 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 Marburgvirus, Musoke VP35 Gene with N-Terminal FLAG Tag, NR-49214.”

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. Basler, C. F., Personal Communication.
2. Elliott, L. H., M. P. Kiley and J. B. McCormick. “Descriptive Analysis of Ebola Virus Proteins.” *Virology* 147 (1985): 169-176. PubMed: 4060597.
3. Mühlberger, E., et al. “Three of the Four Nucleocapsid Proteins of Marburg Virus, NP, VP35, and L, are Sufficient to Mediate Replication and Transcription of Marburg Virus-Specific Monocistronic Minigenomes.” *J. Virol.* 72 (1998): 8756-8764. PubMed: 9765419.
4. Ramanan, P., et al. “Structural Basis for Marburg Virus VP35-Mediated Immune Evasion Mechanisms.” *Proc. Natl. Acad. Sci. USA* 109 (2012): 20661-20666. PubMed: 23185024.

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