

Vector pCAGGS Containing Marburg Marburgvirus, Musoke Glycoprotein

Catalog No. NR-19815

For research use only. Not for human use.

Contributor:

Adolfo Garcia-Sastre, Ph.D., Departments of Medicine and Microbiology, and Global Health and Emerging Pathogens Institute, Icahn School of Medicine at Mount Sinai, One Gustave L. Levy Place, New York, New York, USA

Manufacturer:

BEI Resources

Product Description:

The viral glycoprotein gene from Marburg Marburgvirus (MARV), Musoke was subcloned into the mammalian expression vector pCAGGS.^{1,2} The plasmid was produced in *Escherichia coli* 5-alpha F'f cells (New England Biolabs®) and extracted using a QIAGEN® plasmid DNA extraction kit .

293T cells co-transfected with NR-19815 and a β -lactamase-EBOV VP40 fusion protein (NR-19813) produce MARV virus-like particles (VLPs). Fusion of these VLPs with target cells can be detected by monitoring β -lactamase activity using a fluorogenic substrate, permitting study of the cell entry steps of this highly pathogenic virus without the need for BSL-4 containment.²

NR-19815 has been qualified for use in bacterial transformations.

Material Provided:

Each vial contains 20 to 100 ng of plasmid DNA in TE buffer (10 mM Tris-HCl, 1 mM EDTA, pH 7.0). The concentration is shown on the Certificate of Analysis. The vial should be centrifuged prior to opening.

Packaging/Storage:

NR-19815 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 Marburg Marburgvirus, Musoke Glycoprotein, NR-19815."

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.

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References:

1. Manicassamy, B., et al. "Characterization of Marburg Virus Glycoprotein in Viral Entry." Virology 358 (2007): 79-88. PubMed: 16989883.
2. Tscherne, D.M., et al. "An Enzymatic Virus-like Particle Assay for Sensitive Detection of Virus Entry." J. Virol. Methods 163 (2010): 336-343. PubMed: 19879300.

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