

Plasmid pETMPOX/L1RoΔTM Containing the M1R Gene from Monkeypox Virus, Zaire 79

Catalog No. NR-3023

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Contributor:

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Manufacturer:

BEI Resources

Product Description:

The monkeypox M1R gene (GenBank AY160187) was amplified from the plasmid pMPOX/L1Ro by PCR and subcloned into the prokaryotic expression vector pET26b (Novagen®), which contains coding sequences for a 6-histidine tag at the C-terminus of the expressed protein.¹ The transmembrane (TM) domain of the M1R gene was deleted during subcloning so that the resulting vector would express only the extracellular domain of the protein. The plasmid was produced in *Escherichia coli* (*E. coli*) DH5α™ cells and extracted using a QIAGEN® EndoFree® Plasmid Maxi Kit. The pETMPOX/L1RoΔTM plasmid is reported to direct the expression of monkeypox M1R protein in inclusion bodies when transformed into an appropriate expression host cell such as *E. coli* BL21(DE3).¹ The designation L1Ro is used to indicate that the M1R gene is the monkeypox ortholog of the vaccinia virus L1R gene.

Material Provided:

Each vial contains approximately 20 to 60 ng of plasmid DNA in TE buffer (10 mM Tris-HCl, 1 mM EDTA, pH 7.0). The lot-specific DNA concentration and content are shown on the Certificate of Analysis.

Packaging/Storage:

NR-3023 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: Plasmid pETMPOX/L1RoΔTM Containing the M1R Gene from Monkeypox Virus, Zaire 79, NR-3023.”

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, 2007; see www.cdc.gov/od/ohs/biosfty/bmb15/bmb15toc.htm.

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References:

1. Heraud, J. M., et al. “Subunit Recombinant Vaccine Protects Against Monkeypox.” J. Immunol. 177 (2006): 2552-2564. PubMed: 16888017.

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