

Plasmid pMRLB72 Containing Gene ML0049 (Protein EsxA) from *Mycobacterium leprae*

Catalog No. NR-19334

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Contributor:

BEI Resources

Manufacturer:

Karen Dobos, PhD., Colorado State University, Fort Collins, Colorado, USA

Product Description:

NR-19334 is a recombinant expression vector containing *Mycobacterium leprae* gene ML0049, which encodes early secretory antigenic target ESAT-6 (6 kDa homolog EsxA).^{1,2} Gene ML0049 was amplified by PCR and cloned into pET23b for expression in *Escherichia coli*, strain TOP10.¹ The expressed protein is histidine-tagged and has an observed molecular weight of 6 kDa.

Note: Plasmid pMRLB.72 contains the gene required for ampicillin (Ap) resistance. The recommended concentration of Ap in culture is 50 µg/mL. Carbenicillin (50 µg/mL) may be used as an alternative to ampicillin.

Material Provided:

Each vial contains approximately 1 µg of lyophilized plasmid DNA in TE buffer (10 mM Tris-HCl, 1 mM EDTA buffer). Please refer to the Certificate of Analysis for lot-specific information.

Note: Plasmid pMRLB72 is soluble in TE buffer (10 mM Tris-HCl, 1 mM EDTA buffer)

Packaging/Storage:

NR-19334 was packaged aseptically in cryovials. The product is provided frozen and should be stored at -80°C or colder immediately upon arrival. Freeze-thaw cycles should be avoided.

Citation:

Acknowledgment for publications should read "The following reagent was obtained through BEI Resources, NIAID, NIH: Plasmid pMRLB72 Containing Gene ML0049 (Protein EsxA) from *Mycobacterium leprae*, NR-19334."

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. Spencer, J. S., et al. "Antigenic Specificity of the *Mycobacterium leprae* Homologue of ESAT-6." *Infect. Immun.* 70 (2002): 1010-1013. PubMed: 11796642.
2. Leprosy: Gene [ML0049](#)

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