

Monoclonal Anti-Yersinia pestis LcrV Protein (produced *in vitro*)

Catalog No. NR-3831

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Contributor:

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Product Description:

Antibody Class: IgG1

Monoclonal antibody specific to a recombinant form of the LcrV (low calcium response V or V-antigen) protein of *Yersinia pestis* (*Y. pestis*) was purified from a murine hybridoma supernatant by protein G sepharose affinity chromatography.

Y. pestis, the causative agent of the plague, is a Gramnegative pathogen that infects many animal species, including humans, and is transmitted by arthropods vectors or aerosol droplets.¹ LcrV is a multifunctional protein that plays an important role in type III secretion in *Y. pestis*. Immunization with purified recombinant LcrV is sufficient to generate protective immunity to plague in mice, guinea pigs, and non-human primates.^{2–4} Additionally, LcrV injection into animals results in the release of interleukin–10, a cytokine that suppresses innate immune functions, and also prevents the release of proinflammatory cytokines.⁵

Material Provided:

Each vial contains approximately 1 mg of purified monoclonal antibody to recombinant LcrV protein in PBS, pH 7.3-7.4.

Packaging/Storage:

NR-3831 was packaged in screw cap cryovials. It is provided frozen and should be stored at -20°C or colder immediately upon arrival.

Functional Activity:

NR-3831 has been shown to be specific for the *Y. pestis* LcrV protein by Western blot analysis. NR-3831 is reactive in ELISA and *in vivo* plague neutralization assays.

Citation:

Acknowledgment for publications should read "The following reagent was obtained through the NIH Biodefense and Emerging Infections Research Resources Repository, NIAID, NIH: Monoclonal Anti-Yersinia pestis LcrV Protein (produced in vitro), NR-3831."

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. <u>Biosafety in</u> <u>Microbiological and Biomedical Laboratories</u>. 5th ed. Washington, DC: U.S. Government Printing Office, 2007; see <u>www.cdc.gov/od/ohs/biosfty/bmbl5/bmbl5toc.htm</u>.

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