

Genomic DNA from Adult Female *Acanthocheilonema viteae*, Strain FR3

Catalog No. NR-44347

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Contributor:

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Manufacturer:

Filariasis Research Reagent Resource Center supported by Contract HHSN272201000030I, NIH-NIAID Animal Models of Infectious Disease Program

Product Description:

NR-44347 is a preparation of genomic DNA extracted from adult female *Acanthocheilonema viteae* (*A. viteae*), strain FR3.

A. viteae (formerly *Dipetalonema viteae*), is a filarial nematode with a life cycle consisting of a soft tick (Argasidae) intermediate host and a rodent definitive host.¹ Infective third-stage larvae are transmitted from a soft tick host to the subcutaneous tissue of a rodent during a blood meal. Filariasis develops within 2-3 months as larvae transition to adult worms and release large numbers of microfilariae in the rodent host bloodstream.^{2,3} The life-cycle is complete when microfilariae are taken up during subsequent blood meals by a soft tick and develop into infective third-stage larvae.

A. viteae lacks the *Wolbachia* bacterial endosymbiont, which is found in most human-infective filarial nematodes. *Wolbachia* bacteria have been shown to influence host reproductive systems to improve parasitic advantage.⁴

Material Provided:

Each vial of NR-44347 contains approximately 0.25 µg of genomic DNA in TE buffer (1 mM Tris-HCl, 0.1 mM EDTA, pH ~ 8). The concentration is shown on the Certificate of Analysis. The vial should be centrifuged prior to opening.

Packaging/Storage:

NR-44347 was packaged in plastic vials. The product is provided frozen and should be stored at -20°C or colder upon arrival. Freeze-thaw cycles should be minimized.

Citation:

Acknowledgment for publications should read "The following reagent was provided by the NIH/NIAID Filariasis Research Reagent Resource Center for distribution by BEI Resources,

NIAID, NIH: Genomic DNA from Adult Female *Acanthocheilonema viteae*, Strain FR3, NR-44347."

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. Maki, J. and P. P. Weinstein. "Transplantation into Jirds as a Method of Assessing the Viability and Reproductive Integrity of Adult *Acanthocheilonema viteae* from Culture." J. Parasitol. 77 (1991): 749-754. PubMed: 1919923.
2. Pogonka, T. et al. "*Acanthocheilonema viteae*:"

- Characterization of a Molt-Associated Excretory/Secretory 18 kDa Protein." *Exp Parasitol.* 93 (1999): 73-81. PubMed: 10502469.
3. Michalski, M. L., et al. "The NIH-NIAID Filariasis Research Reagent Resource Center." *PLoS Negl. Trop. Dis.* 5 (2011): e1261. PubMed: 22140585.
 4. Slatko B. E., M. J. Taylor and J. M. Foster. "The *Wolbachia* Endosymbiont as an Anti-Filarial Nematode Target." *Symbiosis* 51 (2010): 55-65. Pubmed: 20730111.

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