

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

**Catalog No. NR-42492**

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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-42492 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.<sup>1</sup> 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.<sup>2,3</sup> 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.<sup>4</sup>

**Material Provided:**

Each vial of NR-42492 contains 0.5 µg to 2.0 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-42492 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-42492."

**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](http://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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