

Stage L3 *Brugia pahangi* Infective Larvae (Live)

Catalog No. NR-48899

This reagent is the tangible property of the U.S. Government.

For research use only. Not for human use.

Contributor:

Andrew R. Moorhead, D.V.M., M.S., Ph.D., Director and Principal Investigator, Filariasis Research Reagent Resource Center, Department of Infectious Diseases University of Georgia College of Veterinary Medicine, Athens, Georgia, USA

Manufacturer:

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

Product Description:

Classification: *Onchocercidae*, *Brugia*

Species: *Brugia pahangi*

Strain: FR3

Original Source: *Brugia pahangi* (*B. pahangi*), strain FR3 was originally obtained from researchers in Malaysia by Dr. John Schacher.^{1,2}

B. pahangi is a thread-like filarial nematode with a life cycle consisting of a mosquito intermediate host and a wide variety of carnivorous definitive hosts including human and felines.^{1,3} Mosquitos deposit infective third stage larvae (L3) on human skin. The larvae then penetrate and migrate to the lymphatic vessels where they develop into adult worms over several months. Development includes molting transitions into fourth stage larvae (L4) and juvenile adults to reach maturation. The matured female worms release large numbers of microfilariae into the host bloodstream. The microfilariae are ingested by a mosquito during a blood meal and penetrate the midgut and develop over a period of 10 to 14 days to L3.^{4,5} L3 are developmentally arrested in the mosquito. The process repeats when the mosquito's proboscis penetrates the definitive host's skin.⁴

Material Provided:

NR-48899 consists of up to 1000 stage L3 *B. pahangi* infective larvae. If more material is required for your intended use, please contact BEI Customer Services at contact@beiresources.org, to request the additional material.

Packaging/Storage:

NR-48899 was packaged in 50 mL conical tubes. The product is provided at room temperature and should be placed in an incubator, used immediately, or frozen and stored at -20°C or colder. Note: Freezing will kill the larvae,

please consider your application prior to freezing this material.

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: Stage L3 *Brugia pahangi* Infective Larvae (Live), NR-48899."

Biosafety Level: 2

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.

Disclaimers:

You are authorized to use this product for research use only. It is not intended for human use.

Use of this product is subject to the terms and conditions of the BEI Resources Material Transfer Agreement (MTA). The MTA is available on our Web site at www.beiresources.org.

While BEI Resources uses reasonable efforts to include accurate and up-to-date information on this product sheet, neither ATCC® nor the U.S. Government makes any warranties or representations as to its accuracy. Citations from scientific literature and patents are provided for informational purposes only. Neither ATCC® nor the U.S. Government warrants that such information has been confirmed to be accurate.

This product is sent with the condition that you are responsible for its safe storage, handling, use and disposal. ATCC® and the U.S. Government are not liable for any damages or injuries arising from receipt and/or use of this product. While reasonable effort is made to ensure authenticity and reliability of materials on deposit, the U.S. Government, ATCC®, their suppliers and contributors to BEI Resources are not liable for damages arising from the misidentification or misrepresentation of products.

Use Restrictions:

This material is distributed for internal research, non-commercial purposes only. This material, its product or its derivatives may not be distributed to third parties. Except as performed under a U.S. Government contract, individuals contemplating commercial use of the material, its products or its derivatives must contact the contributor to determine if a license is required. U.S. Government contractors may need a license before first commercial sale.

References:

1. Schacher, J. F. "Morphology of the Microfilaria of *Brugia pahangi* and of the Larval Stages of the Mosquito." J. Parasitol. 48 (1962): 679-692. PubMed: 13976565.
2. Michalski, M. L., et al. "The NIH-NIAID Filariasis Research Reagent Resource Center." PLoS Negl. Trop. Dis. 5 (2011): e1261. PubMed: 22140585.
3. Schacher, J. F. "Developmental Stages of *Brugia pahangi* in the Final Host." J. Parasitol. 48 (1962): 693-706. PubMed: 13976564.
4. Simonsen, P. E. and M. E. Mwakitalu. "Urban Lymphatic Filariasis." Parasitol. Res. 112 (2013): 35-44. PubMed: 23239094.
5. Li, B. W., et al. "Transcription Profiling Reveals Stage- and Function-Dependent Expression Patterns in the Filarial Nematode *Brugia malayi*." BMC Genomics 13 (2012): 184. PubMed: 22583769.

ATCC® is a trademark of the American Type Culture Collection.

