

**Total RNA from *Brugia pahangi*, Strain FR3, Microfilariae**

**Catalog No. NR-48664**

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**For research use only. Not for human use.**

**Contributor:**

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**Manufacturer:**

Filariasis Research Reagent Resource Center supported by Contract HHSN27220100030I, NIH-NIAID Animal Models of Infectious Disease Program

**Product Description:**

NR-48664 is a preparation of total RNA extracted from *Brugia pahangi* (*B. pahangi*), strain FR3, microfilariae. *B. pahangi*, strain FR3 was originally obtained from researchers in Malaysia by Dr. John Schacher.<sup>1,2</sup>

*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.<sup>1,3</sup> 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.<sup>4,5</sup> L3 are developmentally arrested in the mosquito. The process repeats when the mosquito's proboscis penetrates the definitive host's skin.<sup>4</sup>

**Material Provided:**

Each vial of NR-48664 contains 0.5 µg to 2.0 µg of DNase-treated RNA 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-48664 was packaged in RNase/DNase-free plastic vials. The product is provided frozen and should be stored at -80°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: Total RNA from *Brugia pahangi*, Strain FR3, Microfilariae, NR-48664."

**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:**

- 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.
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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.

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