

***Rhipicephalus sanguineus* Nymph**

**Catalog No. NR-44120**

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

**Contributor:**

Michael L. Levin, Ph.D., Medical Entomology Lab Director, Rickettsial Zoonoses Branch, Centers for Disease Control and Prevention (CDC), Atlanta, Georgia, USA

**Manufacturer:**

CDC, Atlanta, Georgia, USA

**Product Description:**

Classification: *Ixodidae*, *Rhipicephalus*

Species: *Rhipicephalus sanguineus* (common name: brown dog tick)

Original Source: *Rhipicephalus sanguineus* (*R. sanguineus*) ticks were removed from the skin of a domestic dog in 2001 in Oklahoma, USA.<sup>1</sup>

Transmission Competent Pathogens: *Ehrlichia canis*, *Rickettsia conorii* and *Rickettsia rickettsii*

Comments: A portion of the 12S small ribosomal RNA from this *R. sanguineus* colony has been sequenced (GenBank: [HM138900](#)).<sup>2</sup> The mitochondrial genome of a representative *R. sanguineus* colony has been sequenced (GenBank: [NC\\_002074](#)).

**Material Provided:**

NR-44120 contains a live, wild-type *R. sanguineus* nymph. Registrants may order up to 200 nymphs in a given month.

Note: *R. sanguineus* can also be obtained in adult (NR-42512) or larval forms (NR-44119).

**Packaging/Storage:**

NR-44120 is prepared and shipped by CDC. The product is provided at room temperature and should be placed in a humidified environmental incubator<sup>3</sup> or used immediately.

**Growth Conditions:**

All life stages are fed on New Zealand White rabbits. The contributor recommends standardized laboratory conditions for the maintenance of ticks.<sup>3</sup>

**Citation:**

Acknowledgment for publications should read “The following reagent was provided by Centers for Disease Control and Prevention for distribution by BEI Resources, NIAID, NIH: *Rhipicephalus sanguineus* Nymph, NR-44120.”

**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/bmbL5/index.htm](http://www.cdc.gov/biosafety/publications/bmbL5/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](http://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. Levin, M. L., Personal Communication.
2. Levin, M. L., et al. “Incongruent Effects of Two Isolates of *Rickettsia conorii* on the Survival of *Rhipicephalus sanguineus* Ticks.” Exp. Appl. Acarol. 49 (2009): 347-359. PubMed: 19421877.
3. Troughton, D. R. and M. L. Levin. “Life Cycles of Seven Ixodid Tick Species (Acari: Ixodidae) Under Standardized Laboratory Conditions.” J. Med. Entomol. 44 (2007): 732-740. PubMed: 17915502.

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

