

# Product Information Sheet for MRA-729K

## **Anopheles minimus, Strain MINIMUS1, Frozen Kit (10 Male and 10 Female)**

### **Catalog No. MRA-729K**

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

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

#### **Contributor and Manufacturer:**

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#### **Product Description:**

Classification: Culicidae, *Anopheles*

Species: *Anopheles minimus*

Strain: MINIMUS1

Original Source: *Anopheles minimus* (*An. minimus*), strain MINIMUS1 was isolated in Tak Province, Mae Sot, Thailand.<sup>1</sup>

Comments: *An. minimus*, strain MINIMUS1 was generously donated to CDC by William Collins. The complete genome of *An. minimus*, strain MINIMUS1 has been sequenced (GenBank: [APHL000000000](https://www.ncbi.nlm.nih.gov/nuccore/AF000000000)).

Applications: MRA-729K is suitable for DNA and RNA isolation, protein extraction, etc.

*An. minimus*, strain MINIMUS1 was identified to species according to local morphologic criteria. Sequencing of the internal transcribed spacer 2 (ITS2) region confirmed that the MINIMUS1 strain is *An. minimus* type A.<sup>2,3</sup>

#### **Material Provided:**

Each kit of MRA-729K contains 10 adult male and 10 adult female wild-type *An. minimus*, strain MINIMUS1 mosquitoes, which were preserved in liquid nitrogen (quick-frozen) while alive.

#### **Packaging/Storage:**

MRA-729K is prepared and shipped from CDC. The product is provided frozen and should be stored at -80°C or colder immediately upon arrival.

#### **Citation:**

Acknowledgment for publications should read "The following reagent was obtained through BEI Resources, NIAID, NIH: *Anopheles minimus*, Strain MINIMUS1, Frozen Kit (10 Male and 10 Female), MRA-729K, contributed by Mark Q. Benedict."

#### **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).

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#### **References:**

1. Benedict, M. Q., Personal Communication.
2. For details on methods used to confirm the identity of the *An. minimus* MINIMUS1 stock, please refer to: [https://www.beiresources.org/portals/2/MR4/pdfs/anopheles/minimus1\\_stock\\_auth\\_sheet.pdf](https://www.beiresources.org/portals/2/MR4/pdfs/anopheles/minimus1_stock_auth_sheet.pdf).
3. Garros, C. et al. "Restriction Fragment Length Polymorphism Method for the Identification of Major African and Asian Malaria Vectors within the *Anopheles funestus* and *An. minimus* Groups." *Am. J. Trop. Med. Hyg.* 70 (2004): 260-265. PubMed: 15031514.
4. Trung, H. D., et al. "Malaria Transmission and Major Malaria Vectors in Different Geographical Areas of Southeast Asia." *Trop. Med. Int. Health.* 9 (2004): 230-237. PubMed: 15040560.
5. Van Bortel, W., et al. "Molecular Identification of *Anopheles minimus* s.l. Beyond Distinguishing the Members of the Species Complex." *Insect Mol. Biol.* 9 (2000): 335-340. PubMed: 10886418.

6. Van Bortel, W., et al. "Eco-Ethological Heterogeneity of the Members of the *Anopheles minimus* complex (Diptera: Culicidae) in Southeast Asia and Its Consequences for Vector Control." J. Med. Entomol. 41 (2004): 366-374. PubMed: 15185937.

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