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SUPPORTING INFECTIOUS DISEASE RESEARCH

# Rickettsia conorii, Strain 7

# Catalog No. NR-51408

# For research use only. Not for human use.

### **Contributor:**

**ATCC<sup>®</sup>** 

## Manufacturer:

BEI Resources

## **Product Description:**

Bacteria Classification: Rickettsiaceae, Rickettsia Species: Rickettsia conorii

Strain: 7 (also referred to as Malish or Malish 7)<sup>1,2</sup>

- <u>Original Source</u>: *Rickettsia conorii (R. conorii)*, strain 7 was isolated from *Ornithodoros moubata* ticks from South Africa in 1946.<sup>1,2</sup>
- <u>Comments</u>: The complete genome of *R. conorii,* strain 7 has been sequenced (GenBank: <u>AE006914</u>).<sup>1</sup>

*R. conorii* is a member of the spotted fever group of Rickettsiae found in Europe and Asia.<sup>2</sup> *R. conorii* is an intracellular Gram-negative pathogen that is transmitted to a human host via interaction with an infected tick (commonly *Rhipicephalus sanguineus*). The tick acts as both a natural reservoir and a vector for disease transmission. *R. conorii* is the main agent for Mediterranean Spotted Fever in Europe.<sup>2,3</sup>

#### **Material Provided:**

Each vial contains approximately 1 mL of cell lysate and supernatant from *Cercopithecus aethiops* kidney epithelial cells infected with *R. conorii*, strain 7, supplemented with 20% fetal bovine serum and 10% DMSO.

<u>Note</u>: If homogeneity is required for your intended use, please purify prior to initiating work.

## Packaging/Storage:

NR-51408 was packaged aseptically in screw-capped plastic cryovials and is provided frozen on dry ice. The product should be stored at -130°C or colder, preferably in the vapor phase of a liquid nitrogen freezer. If liquid nitrogen storage facilities are not available, frozen cryovials may be stored at -70°C or colder for approximately one week. Freeze-thaw cycles should be avoided.

### **Growth Conditions:**

<u>Host</u>: *Cercopithecus aethiops* kidney epithelial cells (Vero; ATCC<sup>®</sup> CCL-81<sup>™</sup>)

<u>Growth Medium</u>: Dulbecco's Modified Eagle's Medium (DMEM) containing 4 mM L-glutamine, 4500 mg per L glucose, 1 mM sodium pyruvate, and 1500 mg per L sodium bicarbonate supplemented with 5% fetal bovine serum or equivalent

Infection: Cells should be 60% to 80% confluent Incubation: 6 to 14 days at 35°C and 5% CO<sub>2</sub> Cytopathic Effect: Cell rounding and sloughing Citation:

Acknowledgment for publications should read "The following reagent was obtained through BEI Resources, NIAID, NIH: *Rickettsia conorii,* Strain 7, NR-51408."

### **Biosafety Level: 3**

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. <u>Biosafety in Microbiological and Biomedical Laboratories</u>. 5th ed. Washington, DC: U.S. Government Printing Office, 2009; see www.cdc.gov/biosafety/publications/bmbl5/index.htm.

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#### **References:**

- Ogata, H., et al. "Mechanisms of Evolution in *Rickettsia* conorii and *R. prowazekii*." <u>Science</u> 293 (2001): 2093-2098. PubMed: 11557893.
- Kuloglu, E., et al. "Mediterranean Spotted Fever in the Trakya Region of Turkey." <u>Ticks Tick Borne Dis.</u> 3 (2012): 298-304. PubMed: 23168048.

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- 3. Portillo, A., et al. "Rickettsioses in Europe." <u>Microbes</u> Infect. 17 (2015): 834-838. PubMed: 26384814.
- 4. Zhu, Y., et al. "Proposal to Create Subspecies of *Rickettsia conorii* Based on Multi-Locus Sequence Typing and an Emended Description of *Rickettsia conorii*." <u>BMC</u> <u>Microbiol.</u> 14 (2005): 11. PubMed: 15766388.

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