**Product Information Sheet for NR-48807**

**Anaplasma phagocytophilum**, Strain NCH-1

**Catalog No. NR-48807**

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

**Contributor:**
Jason A. Carlyon, Ph.D., Department of Microbiology and Immunology, Virginia Commonwealth University, Richmond, Virginia, USA

**Manufacturer:**
BEI Resources

**Product Description:**

**Bacteria Classification:** Anaplasmataceae, Anaplasma

**Species:** Anaplasma phagocytophilum

**Strain:** NCH-1

**Original Source:** Anaplasma phagocytophilum (A. phagocytophilum), strain NCH-1 was isolated in 1997 from the blood of a patient suffering from human granulocytic ehrlichiosis in Nantucket, Massachusetts, USA.1,2

A. phagocytophilum is a Gram-negative, obligate intracytoplasmic bacteria that infects bone marrow-derived mammalian cells, predominantly of the myeloid lineage.3 The species was formerly known as Ehrlichia phagocytophila and classified in the family Rickettsiaceae, but subsequently reassigned to the family Anaplasmataceae, both families belonging to the order Rickettsiales.3 A. phagocytophilum is transmitted by Ixodes persulcatus complex ticks and is the causative agent of tick-borne fever of ruminants, equine granulocytic ehrlichiosis, and human granulocytic ehrlichiosis (HGE).3,4

**Material Provided:**

Each vial contains approximately 1 mL of human promyelocytic leukemia cells (HL-60; ATCC® CCL-240™) infected with A. phagocytophilum, strain NCH-1, containing fetal bovine serum and DMSO (final concentrations are indicated on the Certificate of Analysis for each lot).

**Note:** If homogeneity is required for your intended use, please purify prior to initiating work.

**Packaging/Storage:**

NR-48807 was packaged aseptically in screw-capped plastic cryovials. The product is provided frozen and should be stored at -60°C or colder immediately upon arrival. For long-term storage, the vapor phase of a liquid nitrogen freezer is recommended. Freeze-thaw cycles should be avoided.

**Growth Conditions:**

- **Host:** HL-60 cells (ATCC® CCL-240™)
- **Growth Medium:** RPMI-1640 medium containing 2 mM L-glutamine, 10 mM HEPES, 4500 mg/L glucose, 1 mM sodium pyruvate and 1500 mg/L sodium bicarbonate, supplemented with 10% fetal bovine serum, or equivalent.
- **Infection:** Cells should be at a dilution of $1 \times 10^5$ to $1 \times 10^6$ cells/mL.
- **Incubation:** 8 days at 37°C and 5% CO₂.
- **Cytopathic Effect:** Uninfected HL-60 cells are typically round with smooth borders. Infected cell borders are rough in appearance. It is recommended that replication of A. phagocytophilum be confirmed by IFA.

**Citation:**

Acknowledgment for publications should read “The following reagent was obtained through BEI Resources, NIAID, NIH: Anaplasma phagocytophilum, Strain NCH-1, NR-48807.”

**Biosafety Level:** 2


**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 make 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:

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