Anaplasma phagocytophilum, Strain NCH-1

Catalog No. NR-48807

For research use only. Not for use in humans.

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 Massachusetts, USA.1,2
Comments: The complete genome of A. phagocytophilum, strain NCH-1 has been sequenced (GenBank: LANT00000000).

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.4 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 × 10⁵ to 1 × 10⁶ 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 indirect fluorescent antibody (IFA) assay.

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


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References:

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