

**Genomic DNA from *Anaplasma phagocytophilum*, Strain NCH-1**

**Catalog No. NR-51150**

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

**Contributor:**

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**Manufacturer:**

BEI Resources

**Product Description:**

Genomic DNA was extracted from a preparation of cell lysate and supernatant from human promyelocytic leukemia cells (HL-60; ATCC® CCL-240™) infected with *Anaplasma phagocytophilum* (*A. phagocytophilum*), strain NCH-1. *A. phagocytophilum*, strain NCH-1 was isolated in 1997 from the blood of a patient suffering from human granulocytic ehrlichiosis in Massachusetts, USA.<sup>1</sup> The complete genome of *A. phagocytophilum*, strain NCH-1 has been sequenced (GenBank: LANT01000009).

*A. phagocytophilum* is an intracytoplasmic bacterium that is transmitted by *Ixodes persulcatus* complex ticks and infects bone marrow-derived mammalian cells. It is the causative agent of tick-borne fever of ruminants, equine granulocytic ehrlichiosis, and human granulocytic ehrlichiosis (HGE).<sup>2,3</sup> *A. phagocytophilum* was formerly known as *Ehrlichia phagocytophila*, but was subsequently reassigned to the *Anaplasmataceae* family.<sup>3</sup>

NR-51150 has been qualified for PCR applications by amplification of approximately 1470 base pairs of the 16S ribosomal RNA gene.

**Material Provided:**

Each vial contains 100 µL of bacterial genomic DNA in TE buffer (10 mM Tris-HCl, 1 mM EDTA, pH 7.0). The bacterial genomic DNA is in a background of cellular nucleic acid and carrier RNA. The vial should be centrifuged prior to opening.

**Packaging/Storage:**

NR-51150 was packaged aseptically in screw-capped plastic cryovials. The product is provided frozen and should be stored at -20°C or colder immediately upon arrival. Freeze-thaw cycles should be minimized.

**Citation:**

Acknowledgment for publications should read “The following reagent was obtained through BEI Resources, NIAID, NIH:

Genomic DNA from *Anaplasma phagocytophilum*, Strain NCH-1, NR-51150.”

**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. Telford, S. R., et al. “Perpetuation of the Agent of Human Granulocytic Ehrlichiosis in a Deer Tick-Rodent Cycle.” Proc. Natl. Acad. Sci. USA 93 (1996): 6209-6214. PubMed: 8650245.

2. Dumler, J. S., et al. "Human Granulocytic Anaplasmosis and *Anaplasma phagocytophilum*." Emerg. Infect. Dis. 11 (2005): 1828-1834. PubMed: 16485466.
3. Dumler, J. S., et al. "Reorganization of Genera in the Families *Rickettsiaceae* and *Anaplasmataceae* in the Order *Rickettsiales*: Unification of Some Species of *Ehrlichia* with *Anaplasma*, *Cowdria* with *Ehrlichia* and *Ehrlichia* with *Neorickettsia*, Descriptions of Six New Species Combinations and Designation of *Ehrlichia equi* and 'HGE agent' as Subjective Synonyms of *Ehrlichia phagocytophila*." Int. J. Syst. Evol. Microbiol. 51 (2001): 2145-2165. PubMed: 11760958.

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