**Ehrlichia chaffeensis**, Strain Liberty

**Catalog No. NR-46446**

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

**Contributor:**
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**Manufacturer:**
BEI Resources

**Product Description:**

Bacteria Classification: Anaplasmataceae, Ehrlichia
Species: Ehrlichia chaffeensis
Strain: Liberty
Original Source: Ehrlichia chaffeensis (E. chaffeensis), strain Liberty was isolated in 1998 from the blood of a patient in Florida, USA, with a suspected diagnosis of human monocytic ehrlichiosis (HME).1,2
Comments: E. chaffeensis, strain Liberty, has shown greater disease severity in a mouse model than strain Arkansas, but less disease severity than strain Wakulla.3 The complete genome of E. chaffeensis, strain Liberty has been sequenced (GenBank: CP007476).

E. chaffeensis is a Gram-negative, obligate intracellular pathogen of eukaryotic cells and belongs to the alpha subdivision of Proteobacteria. It was originally classified in the family Rickettsiaceae, but subsequently reassigned to the family Anaplasmataceae, both families belonging to the order Rickettsiales.3 E. chaffeensis is transmitted to humans by the lone star tick (Amblyomma americanum) and is the causative agent of HME.

**Material Provided:**

Each vial contains approximately 1 mL of cell lysate and supernatant from Canis familiaris macrophage-monocyte cells infected with E. chaffeensis, strain Liberty, supplemented with fetal bovine serum and DMSO. The concentrations are shown on the Certificate of Analysis.

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

**Packaging/Storage:**

NR-46446 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:**

Host: Canis familiaris macrophage-monocyte cells (DH82; ATCC® CRL-10389™)
Growth Medium: Dulbecco’s Modified Eagle’s Medium containing 4 mM L-glutamine, 4500 mg per L glucose, 1 mM sodium pyruvate and 1500 mg per L sodium bicarbonate, supplemented with 5% to 10% fetal bovine serum, or equivalent; optionally, the growth medium may also be supplemented with cycloheximide and additional L-glutamine.
Infection: Cells should be 50% to 80% confluent
Incubation: 3 to 6 days at 37°C and 5% CO2
Cytopathic Effect: Cell enlargement, rounding, detachment, granularity or other toxicity may or may not be observed. It is recommended that replication of E. chaffeensis be confirmed by PCR, IFA or staining of morulae with Diff-Quik (modified Giemsa stain).4

**Citation:**

Acknowledgment for publications should read “The following reagent was obtained through BEI Resources, NIAID, NIH: Ehrlichia chaffeensis, Strain Liberty, NR-46446.”

**Biosafety Level:**

2

**Disclaimers:**

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References:
1. Rikihisa, Y., Personal Communication.

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