b|e|i RESOURCES
SUPPORTING INFECTIOUS DISEASE RESEARCH

Certificate of Analysis for NR-46447

Ehrlichia chaffeensis, Strain Osceola

Catalog No. NR-46447

This reagent is the property of the U.S. Government.

Product Description:

Ehrlichia chaffeensis (E. chaffeensis), strain Osceola was isolated in 1997 from the blood of a patient in Florida, USA, with a suspected diagnosis of human monocytic ehrlichiosis (HME). NR-46447 lot 70025771 was produced by infecting DH82 cells (ATCC® CRL-10389™) and incubating in 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 (ATCC® 30-2002™), supplemented with 7% fetal bovine serum (ATCC® 30-2020™) that was heat-inactivated and an additional 2 mM L-glutamine (ATCC® 30-2214™) for 3 days at 37°C with 5% CO_2. NR-46447 is provided in cell lysate and supernatant supplemented with 45% heat-inactivated fetal bovine serum and 5% DMSO.

Lot: 70025771 **Manufacturing Date: 30SEP2019**

TEST	SPECIFICATIONS	RESULTS
Identification of Infectivity in DH82 Cells by Indirect Fluorescent Antibody (IFA) Assay[1]	Fluorescence observed	Fluorescence observed
Genotypic Analysis Sequencing of *ECH_0849* gene (~ 920 base pairs)	≥ 99% identity with *E. chaffeensis*, strain Osceola (GenBank: CP007477.1)	100% identity with *E. chaffeensis*, strain Osceola (GenBank: CP007477.1)
Titer by $TCID_{50}$ Assay in DH82 Cells by IFA[1,2]	Report results	2.8×10^5 $TCID_{50}$ per mL
Sterility (21-day incubation)		
Harpo's HTYE broth, 37°C and 26°C, aerobic[3]	No growth	No growth
Trypticase soy broth, 37°C and 26°C, aerobic	No growth	No growth
Sabouraud broth, 37°C and 26°C, aerobic	No growth	No growth
Sheep blood agar, 37°C, aerobic	No growth	No growth
Sheep blood agar, 37°C, anaerobic	No growth	No growth
Thioglycollate broth, 37°C, anaerobic	No growth	No growth
DMEM with 10% FBS, 37°C and 5% CO_2	No growth	No growth
Mycoplasma Contamination		
Agar and broth culture (14-day incubation at 37°C)	None detected	None detected
DNA detection by PCR of extracted Test Article nucleic acid	None detected	None detected

[1] *Ehrlichia chaffeensis* IFA IgG reagent kit (Fuller Laboratories ECHG-120)

[2] The Tissue Culture Infectious Dose 50% ($TCID_{50}$) endpoint is the 50% infectious endpoint in cell culture. The $TCID_{50}$ is the dilution of organism that under the conditions of the assay can be expected to infect 50% of the culture vessels inoculated, just as a Lethal Dose 50% (LD_{50}) is expected to kill half of the animals exposed. A reciprocal of the dilution required to yield the $TCID_{50}$ provides a measure of the titer (or infectivity) of the organism preparation.

[3] Atlas, Ronald M. Handbook of Microbiological Media. 3rd ed. Ed. Lawrence C. Parks. Boca Raton: CRC Press, 2004, p. 798.

/Heather Couch/
Heather Couch 26 MAR 2020
Program Manager or designee, ATCC Federal Solutions

ATCC®, on behalf of BEI Resources, hereby represents and warrants that the material provided under this certificate has been subjected to the tests and procedures specified and that the results described, along with any other data provided in this certificate, are true and accurate to the best of ATCC®'s knowledge.

ATCC® is a trademark of the American Type Culture Collection.
You are authorized to use this product for research use only. It is not intended for human use.

Support Provided by NIAID

BEI Resources
www.beiresources.org
E-mail: contact@beiresources.org
Tel: 800-359-7370
Fax: 703-365-2898