

Entamoeba invadens, Strain CK (+luc) (axenic)

Catalog No. NR-51615

(Derived from ATCC® 30994™)

Product Description:

Entamoeba invadens (*E. invadens*), strain CK (+luc) is a transgenic clone derived from strain IP-10 (ATCC® 30994™; BEI Resources NR-15226), which was originally isolated in 1952 from a green water snake (*Natrix cyclopion*) in Florida. Strain CK (+luc) was deposited to BEI Resources as a firefly luciferase-expressing strain. NR-51615 was produced by cultivation of ATCC® 30994™ in LYI *Entamoeba* medium supplemented with 10% heat-inactivated adult bovine serum (HIBS), Diamond's Vitamin solution and 40 µg per mL G418 for 10 days at 25°C in an axenic and microaerophilic atmosphere until peak density was reached.

Lot: 70022612

Manufacturing Date: 22MAR2019

TEST	SPECIFICATIONS	RESULTS
Cellular Morphology ¹ 2 days at 25°C in a microaerophilic atmosphere in LYI <i>Entamoeba</i> medium supplemented with 10% HIBS and Diamond's Vitamin solution	Report results	Polymorphic, adherent, vacuoles visible
Genotypic Analysis ² Sequencing of 18S ribosomal RNA (rRNA) gene (~ 1840 base pairs) Sequencing of <i>PpyLuc</i> gene (~ 340 base pairs) ³	Consistent with <i>E. invadens</i> ≥ 99% sequence identity to <i>PpyLuc</i> (GenBank: M15077.1)	Consistent with <i>E. invadens</i> 99.7% sequence identity to <i>PpyLuc</i> (GenBank: M15077.1)
Functional Activity of Luciferase Gene ^{2,4}	Positive	Positive
Viable Cell Count by Hemacytometry ²	> 10 ⁶ cells per mL	1.2 × 10 ⁶ cells per mL
Viability (post-freeze) ¹ 2 days at 25°C in a microaerophilic atmosphere in LYI <i>Entamoeba</i> medium supplemented with 10% HIBS and Diamond's Vitamin solution	Growth	Growth
Sterility (21-day incubation) ¹ Harpo's HTYE broth, 37°C and 26°C, aerobic ⁵ Trypticase soy broth, 37°C and 26°C, aerobic Sabouraud broth, 37°C and 26°C, aerobic DMEM with 10% FBS, 37°C and 26°C, aerobic Sheep blood agar, 37°C, aerobic Sheep blood agar, 37°C, anaerobic Thioglycollate broth, 37°C, anaerobic	No growth No growth No growth No growth No growth No growth No growth	No growth No growth No growth No growth No growth No growth No growth

¹Testing completed on vial, post-freeze material

²Testing completed on bulk material prior to vialing and freezing

³Primer sequences and conditions for PCR are available upon request.

⁴Luciferase activity was determined using the Luciferase Assay System (Promega E1500). Parasites were lysed and incubated with luciferase assay reagent. Luciferase activity was measured using a luminometer with a bioluminescence emission spectra of approximately 560 nm.

⁵Atlas, Ronald M. *Handbook of Microbiological Media*. 3rd ed. Ed. Lawrence C. Parks. Boca Raton: CRC Press, 2004, p. 798.

/Heather Couch/

Heather Couch

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