

Plasmodium berghei, Strain (ANKA) 354c14

Catalog No. MRA-866

Product Description:

Plasmodium berghei (*P. berghei*), strain (ANKA) 354c14 is a genetically modified clone of the ANKA strain following stable transfection with the pL0028 vector (BEI Resources MRA-797). This line expresses green fluorescent protein (GFP)-luciferase under the control of the *ama-1* promoter and contains the pyrimethamine-resistant form of the *Toxoplasma gondii dhfr-ts* gene as a drug-selectable marker. MRA-866 was produced by inoculation of seed material into 3 ND4 Swiss Webster mice. Infection was allowed to progress for 3 days. Infected blood was collected by orbital bleeding and used to inoculate 22 ND4 Swiss Webster mice. Infection was allowed to progress until parasitemia reached > 5%. After 6 days, infected blood was collected by orbital bleeding.

Lot: 70005220

Manufacturing Date: 25MAY2017

TEST	SPECIFICATIONS	RESULTS
Genotypic Analysis¹ Sequencing of Circumsporozoite Surface Protein 1 (CSP1) gene (665 base pairs; Figure 1)	≥ 95% sequence identity to <i>P. berghei</i> , strain ANKA (GenBank: LK023119.2)	100% sequence identity to <i>P. berghei</i> , strain ANKA (GenBank: LK023119.2)
Phenotypic Analysis GFP expression ¹	Fluorescence observed	Fluorescence observed
Functional Activity by PCR Amplification¹ CSP1 PCR amplicon analysis	~ 900 to 1100 base pair amplicon	~ 900 base pair amplicon
Level of Parasitemia Pre-freeze (6 days post-infection) ² Post-freeze (5 days post-infection) ¹	Report results ≥ 1%	7.61% 5.17%
Viability (5 days post-infection)¹	Growth in inoculated mice	Growth in inoculated mice

¹Testing completed on vial, post-freeze material

²Testing completed on bulk material prior to vialing and freezing

Figure 1: MRA-866 CSP1 Sequence

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CACCAAACCC AAATGACCCA CCACCACCAA ACCCAAATGA CCCACCACCA CCAAACCCAA ATGACCCACC ACCACCAAAC
GCAAATGACC CACCACCACC AAACGCAAAT GACCAGCAC CACCAAACGC AAATGACCCA GCACCACCAA ACGCAAATGA
CCCAGCACCA CCAAACGCAA ATGACCCAGC ACCACCAAAC GCAAATGACC CACCACCACC AAACCCAAAT GACCAGCAC
CACCAAACGC AAATGACCCA CCACCACCAA ACCCAAATGA CCCAGCACCA CCACAAGGAA ATAACAATCC ACAACCACAG
CCACGGCCGC AGCCACAACC ACAGCCACAG CCACAACCAC AGCCACAGCC ACAACCACAG CCACGACCAC AGCCACAACC
ACAGCCAGGT GGTAATAACA ATAACAAAAA TAATAATAAT GACGATTCTT ATATCCCAAG CGCGGAAAAA ATACTAGAAT
TTGTTAAACA GATCAGGGAT AGTATCACAG AGGAATGGTC TCAATGTAAC GTAACATGTG GTTCTGGTAT AAGAGTTAGA
AAACGAAAAG GTTCAAATAA GAAAGCAGAA GATTTGACCT TAGAAGATAT TGATACTGAA ATTTGTAAAA TGGATAAATG
TTCAAGTATA TTTAATATTG TAAGC
    
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/Heather Couch/

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25 MAR 2021

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