b|e|i RESOURCES

SUPPORTING INFECTIOUS DISEASE RESEARCH

Certificate of Analysis for MRA-841

Plasmodium berghei, Strain NK65 PbBlue

Catalog No. MRA-841

Product Description:

Plasmodium berghei (P. berghei), strain NK65 PbBlue is a beta-galactosidase-expressing recombinant strain constructed using a pSE-05 targeting vector (available as BEI Resources Catalog No. MRA-842). MRA-841 is a stable line selected with pyrimethamine that features a sporozoite-specific quantifiable expression of the lacZ gene driven by a circumsporozoite protein (CSP) promoter. MRA-841 was produced by inoculation of BEI Resources seed lot 7603614 into three ND4 Swiss Webster mice. Infection was allowed to progress for 4 days. Infected blood was collected by orbital bleeding and used to inoculate 18 ND4 Swiss Webster mice. Infection was allowed to progress until parasitemia reached 5%. Infected blood was collected by retro-orbital bleeding.

Lot: 70034919 **Manufacturing Date: 01MAY2020**

TEST	SPECIFICATIONS	RESULTS
Genotypic Analysis[1]		
Circumsporozoite Surface Protein 1 (CSP1) gene PCR amplicon analysis	~ 900 to 1500 base pair amplicon	~ 950 base pair amplicon
Sequencing of CSP1 gene (~ 920 base pairs)	Consistent with *P. berghei*	Consistent with *P. berghei* (Figure 1)
Level of Parasitemia		
Pre-freeze (7 days post-infection)[2]	≥ 2%	5.59%
Post-freeze (7 days post-infection)[1]	≥ 1%	2.15%
Viability (7 days post-infection)[1]	Growth in inoculated mice	Growth in inoculated mice

[1]Testing completed on vialed, post-freeze material
[2]Testing completed on bulk material prior to vialing and freezing

Figure 1: MRA-841 CSP1 Sequence

AAAGAATACTAATACTAATAATATTACAAATCCTAATGAATTGCTTACAATATTAAATATACTTGAACATTTATCCATTTTACAAATTTCAGTATCA
ATATCTTCTAAGGTCAAATCTTCTGCTTTCTTATTTGAACCTTTTCGTTTTCTAACTCTTATACCAGAACCACATGTTACGTTACATTGAGACCATT
CCTCTGTGATACTATCCCTGATCTGTTTAACAAATTCTAGTATTTTTTCCGCGCTTGGGATATAAGAATCGTCATTATTATTATTTTTGTTATTGTT
ATTACCACCTGGCTGTGGTTGTGGCTGTGGTCGTGGCTGTGGTTGTGGCTGTGGCTGTGGTTGTGGCTGTGGCTGTGGTTGTGGCTGCGGCCGTGGC
TGTGGTTGTGGATTGTTATTTCCTTGTGGTGGTGCTGGGTCATTTGGGTTTGGTGGTGGTGGGTCATTTGCGTTTGGTGGTGCTGGGTCATTTGCGT
TTGGTGGTGCTGGGTCATTTGCGTTTGGTGGTGCTGGGTCATTTGCGTTTGGTGGTGCTGGGTCATTTGCGTTTGGTGGTGGTGGGTCATTTGGGTT
TGGTGGTGGTGGGTCATTTGGGTTTGGTGGTGGTGGGTCATTTGGGTTTGGTGGTGGTGGTGGTTGTTTCAATTTATTATTACGCTCTATTTTTTCG
TTTTTTTTCTCATTTTTTTTTCCTTCGGGAGCATCGGCAAGTAATCTGTTGACTGTATTTCGATTGTATATTTTTCCATTCTTAGAGTTAAGCACGT
GATACAATTTATTATCATTTCCTTCATTGTAACATAGCTCGTTTAAGTTCCTTTGGGCTTGGATGCTTTTATTTTGTCCATATCCTGGAAGTAGAGA
ATTAACTAATAAAAGTGACGCTACAACTAAAATGGTACACTTC

/Sonia Bjorum Brower/
Sonia Bjorum Brower 11 OCT 2024
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