

**Plasmodium yoelii subsp. yoelii, Strain 17XNL:PyGFP**

**Catalog No. MRA-817**

**Product Description:**

*Plasmodium yoelii* (*P. yoelii*) subsp. *yoelii*, strain 17XNL:PyGFP is a 17XNL line that is stably transfected with a vector (pL0016, available as BEI Resources MRA-785) containing the green fluorescent protein (GFP) gene. *P. yoelii* subsp. *yoelii*, strain 17XNL is a non-lethal line of the 17X strain, which was originally isolated by I. Landau from wild-caught thicket rat (*Thamnomys rutilans*) no. 17X, at La Maboké Field Station in Central African Republic, April 1965. MRA-817 was produced by inoculation of BEI Resources seed lot 2166 into 3 Swiss Webster ND4 mice. The infection was allowed to progress for 7 days. Infected blood was collected by retro-orbital bleeding and used to inoculate 21 Swiss Webster ND4 mice. Infection was allowed to progress for 9 days. Infected blood was collected by retro-orbital bleeding.

**Lot: 70041754**

**Manufacturing Date: 10MAR2021**

TEST	SPECIFICATIONS	RESULTS
<b>Genotypic Analysis<sup>1</sup></b> Circumsporozoite Surface Protein 1 (CSP1) gene PCR amplicon analysis Sequencing of CSP1 gene (~ 1220 base pairs)	~ 1100 to 1300 base pair amplicon  ≥ 95% sequence identity to <i>P. yoelii</i> subsp. <i>yoelii</i> , strain 17XNL CSP1 gene (GenBank: GQ862301.1)	~ 1300 base pair amplicon  100% sequence identity to <i>P. yoelii</i> subsp. <i>yoelii</i> , strain 17XNL CSP1 gene (GenBank: GQ862301.1) (Figure 1)
<b>Phenotypic Analysis</b> GFP expression by fluorescence microscopy	Positive	Positive (Figure 2)
<b>Level of Parasitemia</b> Pre-freeze (9 days post-infection) <sup>2</sup> Post-freeze (7 days post-infection) <sup>1</sup>	Report results ≥ 1%	8.84% 2.01%
<b>Viability (post-freeze; 7 days post-infection)<sup>1</sup></b>	Growth in inoculated mice	Growth in inoculated mice

<sup>1</sup>Testing completed on vial, post-freeze material

<sup>2</sup>Testing completed on bulk material prior to vialing and freezing

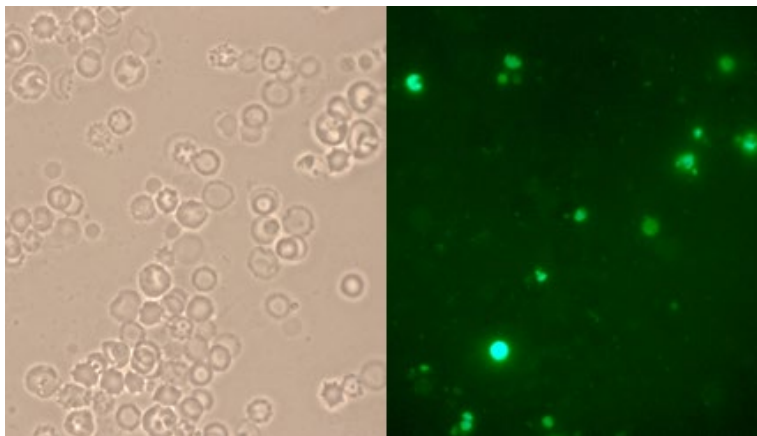
**Figure 1: MRA-817 CSP1 Sequence**

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GCGTCACTTT TATTAGTTGA TTCTCTACTT CCAGGATATG GACAAAATAA AAGTGTCCAA GCCCAAAGAA ACTTAAACGA
GCTATGTTAC AATGAAGAAA ATGATAATAA ATTGTATCAC GTCCTTAACT CGAAGAATGG AAAAATATAC AATCGAAATA
TAGTCAACAG ATTACTTGGC GATGCTCTCA ACGGAAAACC AGAAGAAAAA AAAGATGATC CCCCAAAAGA TGGCAACAAA
GATGATCTTC CAAAAGAAGA AAAAAAAGAT GATCTTCCAA AAGAAGAAAA AAAAGATGAT CCCCAAAAG ATCCTAAAAA
AGATGATCCA CAAAAGAGG CTCAAAATAA ATTGAATCAA CCAGTAGTGG CAGATGAAAA TGTAGATCAA GGGCCAGGAG
CACCACAAGG GCCAGGAGCA CCACAAGGGC CAGGAGCACC ACAGGGGCCA GGAGCACCAC AGGGGCCAGG AGCACCACAA
GGGCCAGGAG CACCACAAGG ACCAGGAGCA CCACAAGGGC CAGGAGCACC ACAAGGGCCA GGAGCACCAC AAGGGCCAGG
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AAGGACCAGG AGCACCACAA GGACCAGGAG CACCACAAGG WCCAGGAGCA CCACAGGGTC CAGGAGCACC ACAGGGTCCA
GGAGCACCAC AAGGACCAGG AGCACCACAG GGGCCAGGAG CACCACAAGG ACCAGGAGCA CCACAAGGAC CAGGAGCACC
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CACCACAACA GCCACCACAA CAGCCACCAC AACAGCCACC ACAACAACCA CGCCCACAGC CAGATGGTAA TAACAACAAT
AACAAATAA ATGGTAATAA TAATGAAGAT TCTTATGTCC CAAGCGCGGA ACAAATACTA GAATTTGTTA AACAGATAAG
TAGTCAACTC ACAGAGGAAT GGTCTCAATG TAGTGTAAAC TGTGGTTCTG GTGTAAGAGT TAGAAAACGA AAAAATGTAA
ACAAGCAACC AGAAAATTTG ACCTTAGAGG ATATTGATAC TGAATTTTGT AAAATGGATA AATGTTCAAG TATATTTAAT
ATTGTAAGCA ATTCATTAGG ATTT

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Figure 2: GFP Expression by MRA-817



/Sonia Bjorum Brower/  
Sonia Bjorum Brower

Technical Manager or designee, ATCC Federal Solutions

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