

Plasmodium yoelii subsp. yoelii, Strain K (Kenya)

Catalog No. MRA-428

Product Description: *Plasmodium yoelii* (*P. yoelii*) subsp. *yoelii*, strain K (Kenya) was isolated in 1977 by P. J. Gardener from the blood of *Praomys jacksoni* trapped in the Kakamega Forest in Kenya.

Lot¹: 64002936

Manufacturing Date: 08FEB2016

TEST	SPECIFICATIONS	RESULTS
Genotypic Analysis Sequencing of Circumsporozoite Surface Protein 1 (CSP1) gene (~ 822 base pairs) CSP1 PCR amplicon analysis ²	Consistent with <i>P. yoelii</i> subsp. <i>yoelii</i> ~ 900-1100 base pair amplicon	Consistent with <i>P. yoelii</i> subsp. <i>yoelii</i> (Figure 1) ~ 1100 base pair amplicon
Level of Parasitemia Pre-freeze ³ Post-freeze ⁴	Report results ≥ 1%	5.60% 7.03%
Viability (post-freeze)⁵	Growth in inoculated mice	Growth in inoculated mice

¹MRA-428 was produced by inoculation of MRA-428 lot 2451551 into two ND4 Swiss Webster mice. Infection was allowed to progress for 5 days until parasitemia reached > 2%. Infected blood was collected by orbital bleeding and used to inoculate 20 ND4 Swiss Webster mice. Infection was allowed to progress until parasitemia reached > 5%. After 6 days, infected blood was collected by orbital bleeding. **Note: MRA-428 lot 2451551 was cleaned of contaminating lactose dehydrogenase-elevating virus (LDEV) prior to producing this lot.**

²Primer sequences and conditions for PCR are available upon request; see, Mauduit, M., et al. "A Role for Immune Responses against Non-CS Components in the Cross-Species Protection Induced by Immunization with Irradiated Malaria Sporozoites." *PLoS One* 4 (2009): e7717. PubMed: 19890387.

³Pre-freeze parasitemia was determined after 6 days post infection by microscopic counts of Giemsa-stained blood smears.

⁴Post-freeze parasitemia was determined after 8 days post infection by microscopic counts of Giemsa-stained blood smears.

⁵Viability was confirmed by examination of two ND4 Swiss Webster mice for parasitemia at 8 days post infection.

Figure 1: MRA-428 CSP1 Sequence

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AACATTTATC  CATTTTACAA  ATTTTCAGTAT  CAATATCCTC  TAAGGTCAAA  TTTTCTGGTT  GCTTGTTTAC  ATTTTTTCGT
TTTCTAACTC  TTACACCAGA  ACCACAGGTT  AACTACATT  GAGACCATT  CTCTGTGAGT  TGATTGCTCA  TCTGTTTAAAC
AAATTCTAAT  ATTTGTTCTG  CGCTTGGGAC  ATAAGAATCT  TCATTATTAT  TACCATTATT  ATTGTTATTA  TTGTTATTGT
TGTTGTTGTT  GTTATTATCA  CCTGGTTGTG  GTTGTGGCTG  TGGTTTGGGC  TGTGGTTTGG  GCTGTGGTTT  GGGCTGTGGT
TTGGGCTGTG  GTTGTGGCTG  TGGTTGTTGT  GGTGGTGCGT  TTGGATCTGC  TCTTGGTGCG  TTAGGGTCTG  CTCTTGGTGC
GTTAGGGTCT  GCTCTTGGCG  CATTTGGATC  TGCTCTTGGT  GCGTTAGGGT  CTGCTACTGG  CGCATTTGGG  TCTGCTACTG
GCGCATTTGG  GTCTGCTACT  GGCGCATTTG  GATCTGCTAC  TGGCGCATTT  GGGTCTGCTA  CTGGCGCATT  TGGATCTGCT
ACTGGCGCAT  TTGGATCTGC  TACTGGCGCA  TTTGGGTCTG  CTA CTGGCGC  ATTTGGGTCT  GCTACTGGCG  CATTTGGGTC
TGCTACTGGC  GCATTTGGGT  CTGCTACTGG  CGCATTTGGG  TCTGCTACTG  GCGCATTTGG  GTCTGCTACT  GCTGCTGGCT
GTTTCAATTT  ATTTTGAGCC  TCTTTTGGTG  GATCAGCTTT  TTTTCTTCT  TTTGGAGCAT  CTTTGTGGC  ATCTTTTGGG
GCATCTTTTT  TTTCTTCTTT  TG
    
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Date: 21 AUG 2017

Signature:



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