

Plasmodium berghei, Strain ANKA

Catalog No. MRA-311

Product Description: *Plasmodium berghei* (*P. berghei*), strain ANKA was isolated in July 1965 from *Anopheles dureni millecampsii* mosquitoes collected in the River Kasapa, Democratic Republic of Congo.

Lot¹: 64498867

Manufacturing Date: 10OCT2016

TEST	SPECIFICATIONS	RESULTS
Genotypic Analysis Sequencing of Circumsporozoite Surface Protein 1 (CSP1) gene (~ 650 base pairs) CSP1 PCR amplicon analysis ²	≥ 99% sequence identity to <i>P. berghei</i> , strain ANKA (GenBank: CAAI01007452) ~ 900-1100 base pair amplicon	99.1% sequence identity to <i>P. berghei</i> , strain ANKA (GenBank: CAAI01007452) (Figure 1) ~ 1100 base pair amplicon
Level of Parasitemia Pre-freeze ³ Post-freeze ⁴	Report results > 1%	9.8% 3.7%
Viability (post-freeze)⁵	Growth in inoculated mice	Growth in inoculated mice

¹MRA-311 was produced by inoculation of MR-MRA-311 lot 61271752 into ND4 Swiss Webster mice. Infection was allowed to progress for 5 days. Infected blood was collected by orbital bleeding and used to inoculate ND4 Swiss Webster mice. Infection was allowed to progress until parasitemia reached > 5%. After 5 days, infected blood was collected by orbital bleeding.

²For primer sequences and conditions for PCR refer to 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 prior to freezing and was completed 5 days post infection by microscopic counts of Giemsa-stained blood smears.

⁴Post-freeze parasitemia was determined after freezing and vialing, and was completed 5 days post infection by microscopic counts of Giemsa-stained blood smears.

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

Figure 1: MRA-311 CSP1 Sequence

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CACCAAACCC AAATGACCCA CCACCACCAA ACCCAAATGA CCCACCACCA CCAAACCCAA ATGACCCACC ACCACCAAAC
CCAAATGACC CACCACCACC AAACGCAAAT GACCCACCAC CACCAAACGC AAATGACCCA GCACCACCAA ACGCAAATGA
CCCAGCACCA CCAAACGCAA ATGACCCAGC ACCACCAAAC GCAAATGACC CAGCACCACC AAACGCAAAT GACCCACCAC
CACCAAACCC AAATGACCCA GCACCACCAA ACGCAAATGA CCCACCACCA CCAAACCCAA ATGACCCAGC ACCACCAAAC
GGAAATAACA ATCCACAACC ACAGCCACGG CCGCAGCCAC AACCACAGCC ACAGCCACAA CCACAGCCAC AGCCACAACC
ACAGCCACGA CCACAGCCAC AACCACAGCC AGGTGGTAAT AACAATAACA AAAATAATAA TAATGACGAT TYTTATATCC
CAAGCGCGGA AAAAATACTA GAATTTGTTA AACAGATCAG GGATAGTATC ACAGAGGAAT GGTCTCAATG TAACGTAACA
TGTGGTTYTG GTATAAGAGT TAGAAAACGA AAAGTTCAA ATAAGAAAGC AGAAGATTTG ACCTTAGAAR ATATTGATAC
TGAAATTTGT AAAA
    
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Date: 30 MAY 2017

Signature:



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