

Diagnostic Plasmid Containing the Small Subunit Ribosomal RNA Gene (18S) from *Plasmodium falciparum*

Catalog No. MRA-177

Product Description: The small subunit ribosomal RNA gene (18S rRNA gene; GenBank: AF145334) from *Plasmodium falciparum* (*P. falciparum*) was amplified from genomic DNA by nest 1 PCR primers and cloned into vector pCR2.1-TOPO (Invitrogen®). The resulting plasmid (clone 8) may be used in PCR assays for the diagnosis of mixed species malaria infections.

Lot^{1,2}: 64473364

Manufacturing Date: 06SEP2016

TEST	SPECIFICATIONS	RESULTS
Next-Generation DNA Sequencing MRA-177 18S rRNA gene pCR2.1-TOPO (Invitrogen®)	~ 5000 base pairs ~ 1100 base pairs ~ 3900 base pairs	5037 base pairs (Figures 1 and 2) 1103 base pairs 3934 base pairs
Genotypic Analysis Sequencing of 18S ribosomal RNA gene (~ 1110 base pairs)	≥ 99% sequence identity to <i>P. falciparum</i> 18S rRNA gene (GenBank: AF145334)	99.6% sequence identity to <i>P. falciparum</i> 18S rRNA gene (GenBank: AF145334)
Concentration by PicoGreen® Measurement	Report results	0.5 µg in 50 µL per vial (10.3 µg/mL)
Amount	Report results	515 ng per vial
OD₂₆₀/OD₂₈₀ Ratio	1.7 to 2.1	1.9

¹MRA-177, lot 64473364 was extracted from a preparation of MR-MRA-177, lot 58068546.

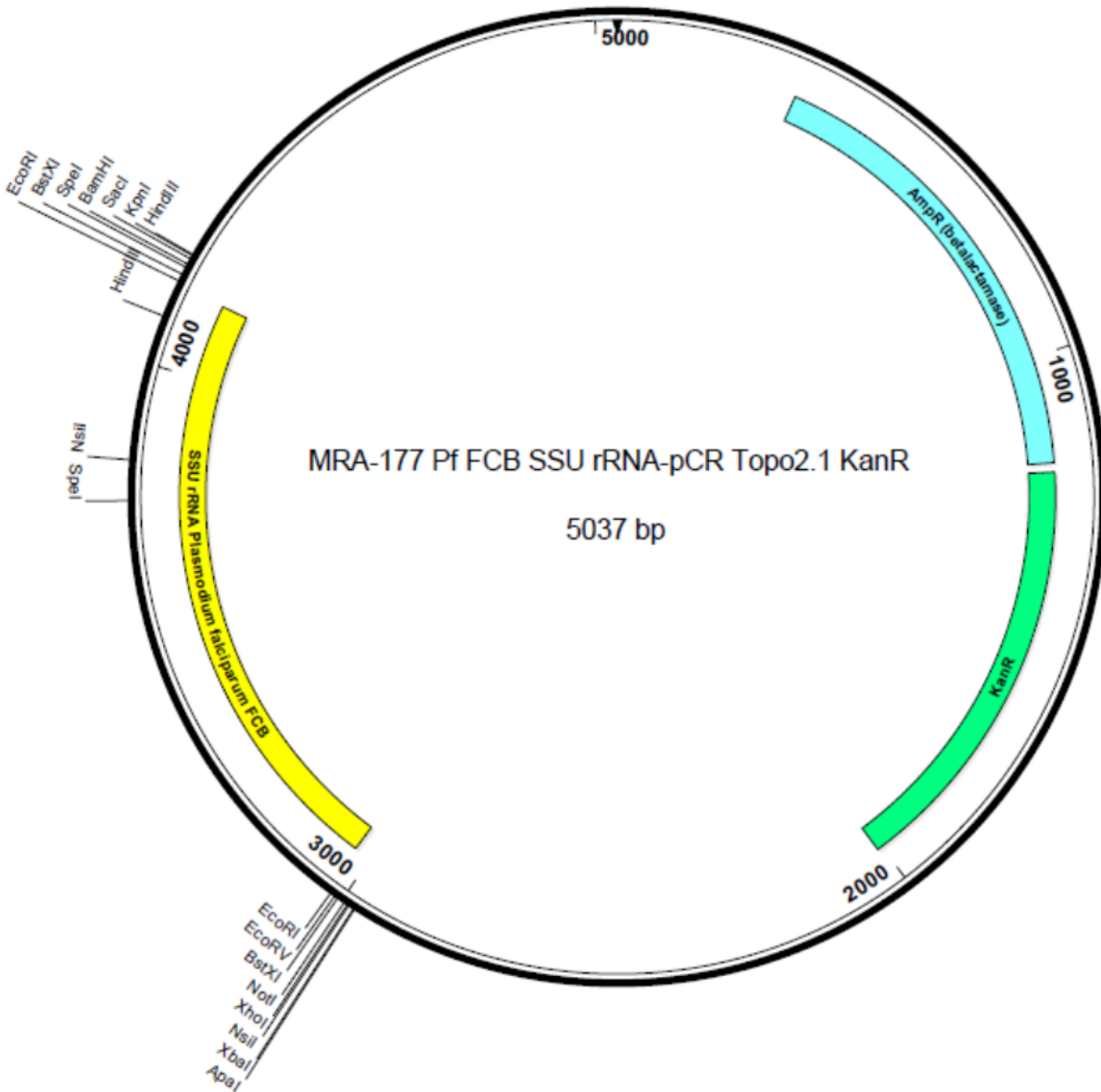
²Extracted using a QIAprep® Spin Miniprep Kit (QIAGEN® 27104)

Figure 1: Complete Plasmid Sequence of MRA-177

>MRA-177 |lot_64473364| complete plasmid sequence (red text is 18S rRNA gene sequence)
TACGGCTACACTAGAGAAGACAGTATTTGGTATCTGCGCTCTGCTGAAGCCAGTTACCTTCGGAAAAAGAGTTGGTAGCTCTTGA
TCCGGCAAACAACACCACCGCTGGTAGCGGTGGTTTTTTTTGTTTGAAGCAGCAGATTACGCGCAGAAAAAAGGATCTCAAGAA
GATCCTTTGATCTTTTCTACGGGTGTGACGCTCAGTGGAACGAAAACCTCACGTTAAGGGATTTTGGTCATGAGATTATCAAAAA
GGATCTTACCTAGATCCTTTTAAATTAATAAATGAAGTTTTAAATCAATCTAAAGTATATATGAGTAAACTTGGTCTGACAGTTACC
AATGCTTAATCAGTGAGGCACCTATCTCAGCGATCTGTCTATTTTCGTTTCATCCATAGTTGCCTGACTCCCCGTGCTGATAGATAAC
TACGATACGGGAGGGCTTACCATCTGGCCCCAGTGCTGCAATGATACCGCGAGACCCACGCTCACCGGCTCCAGATTATCAG
CAATAAACCCAGCCAGCCGGAAGGGCCGAGCGCAGAAGTGGTCTGCAACTTTATCCGCCTCCATCCAGTCTATTAATTGTTGC
CGGGAAGCTAGAGTAAGTAGTTCCGCCAGTTAATAGTTTGCGCAACGTTGTTGCCATTGCTACAGGCATCGTGGTGTACAGCTC
GTCGTTTGGTATGGCTTCATTCAGCTCCGGTTCCCAACGATCAAGGCGAGTTACATGATCCCCCATGTTGTGCAAAAAAGCCGGT
TAGTCTCCTTCGGTCCCGATCGTTGTGCAAGTAAGTTGGCCGAGTGTATCACTCATGTTATGCGAGCACTGCATAATTC
TCTTACTGTATGCCATCCGTAAGATGCTTTTCTGTGACTGGTGTGACTCAACCAAGTCATTCTGAGAATAGTGTATGCGGCGA
CCGAGTTGCTCTTGGCCGGCGTCAATACGGGATAATACCGCGCCACATAGCAGAAGTAAAGTGTCTATCATTGGAAAAACGT
TCTTCGGGGCGAAAACCTCTCAAGGATCTTACCGCTGTTGAGATCCAGTTCGATGTAACCCACTCGTGCACCCAACTGATCTTCA
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CTATGTCTGATAGCGGTCGCCACACCCAGCCGGCCACAGTTCGATGAATCCAGAAAAAGCGGCCATTTTCCACCATGATAATTC
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CGTAAAGCACTAAATCGGAACCCCTAAAGGGAGCCCCGATTTAGAGCTTGACGGGGAAAGCCGGCGAACGTGGCGAGAAAGG
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GTTGTAACACGACGGCCAGTGAATTGTAATACGACTCACTATAGGGCGAATTGGGCCCTCTAGATGCATGCTCGAGCGGCCGC
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TGAAATTTCTAAGATTTTTCTGGAGACGGACTACTGCGAAAGCATTGCTTAATCTATTTCCATTAATCAAGAACGAAAGTTAAGGG
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TCTTTCTAGGTGACTTTTAGATTGCTTCTTTCAGTACCTTATGAGAAATCAAAGTCTTTGGGTTCTGGGGCGAGTATTCGCGCAA
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TAAAGCCTGGGGTGCCTAATGAGTGAGCTAATCATTAAATTGCGTTGCGCTCACTGCCCGCTTCCAGTCGGGAAACCTGTC
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GGGATAACGCAGGAAAGAACATGTGAGCAAAAGGCCAGCAAAAGGCCAGGAACCGTAAAAAGGCCGCTTGGTGGCGTTTTT
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ACCAGGCGTTTCCCCCTGGAAGCTCCCTCGTGCCTCTCCTGTTCCGACCCTGCCGCTTACCGGATACCTGTCCGCTTTCTC
CCTTCGGGAAGCGTGGCGCTTTCTCATAGCTCACGCTGTAGGTATCTCAGTTCGGTGTAGGTCGTTCCGCTCCAAGCTGGGCTG
TGTGCACGAACCCCGCTTACGCCGACCGCTGCGCCTTATCCGTAACACTATCGTCTTGAGTCCAACCCGGTAAGACACGACT
TATCGCCACTGGCAGCAGCCACTGGTAACAGGATTAGCAGAGCGAGGTATGTAGGCGGTGCTACAGAGTTCTTGAAGTGGT
GCCTAAC

Figure 2: Plasmid Map of MRA-177



Date: 19 JUL 2017

Signature:

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