

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 glycerol stock was grown in Luria-Bertani broth with kanamycin (25 µg per mL) and ampicillin (50 µg per mL) for 1 day at 37°C in an aerobic atmosphere, extracted using a QIAprep™ Spin Miniprep Kit (QIAGEN® 27104) and vialied in TE buffer (10 mM Tris-HCl, 1 mM EDTA, pH 8.0).

Lot: 70042650

Manufacturing Date: 13APR2021

TEST	SPECIFICATIONS	RESULTS
Next-Generation DNA Sequencing	~ 5100 base pairs	5037 base pairs ¹ (Figures 1 and 2)
Genotypic Analysis Sequencing of insert (~ 1100 base pairs) 18S rRNA gene	≥ 99% sequence identity to <i>P. falciparum</i> 18S rRNA gene (GenBank: AF145334.1) Consistent with lot 64473364	99.6% sequence identity to <i>P. falciparum</i> 18S rRNA gene (GenBank: AF145334.1) Consistent with lot 64473364
Antibiotic Resistance Ampicillin (encoded by beta-lactamase gene <i>bla</i>) ² Kanamycin (encoded by <i>aph</i>)	<i>bla</i> sequence present <i>aph</i> sequence present	<i>bla</i> sequence present <i>aph</i> sequence present
Concentration by PicoGreen® Measurement	Report results	0.2 µg in 20 µL per vial (10 µg per mL)
Amount per Vial	Report results	0.2 µg per vial
OD₂₆₀/OD₂₈₀ Ratio	1.7 to 2.1	1.9

¹The sequence was assembled pre-vial using the depositor's predicted sequence as the reference sequence.

²The antibiotic ampicillin degrades quickly during growth. Bacterial stationary phase should be minimized during plasmid expansion to avoid plasmid loss and increased antibiotic concentrations may be necessary.

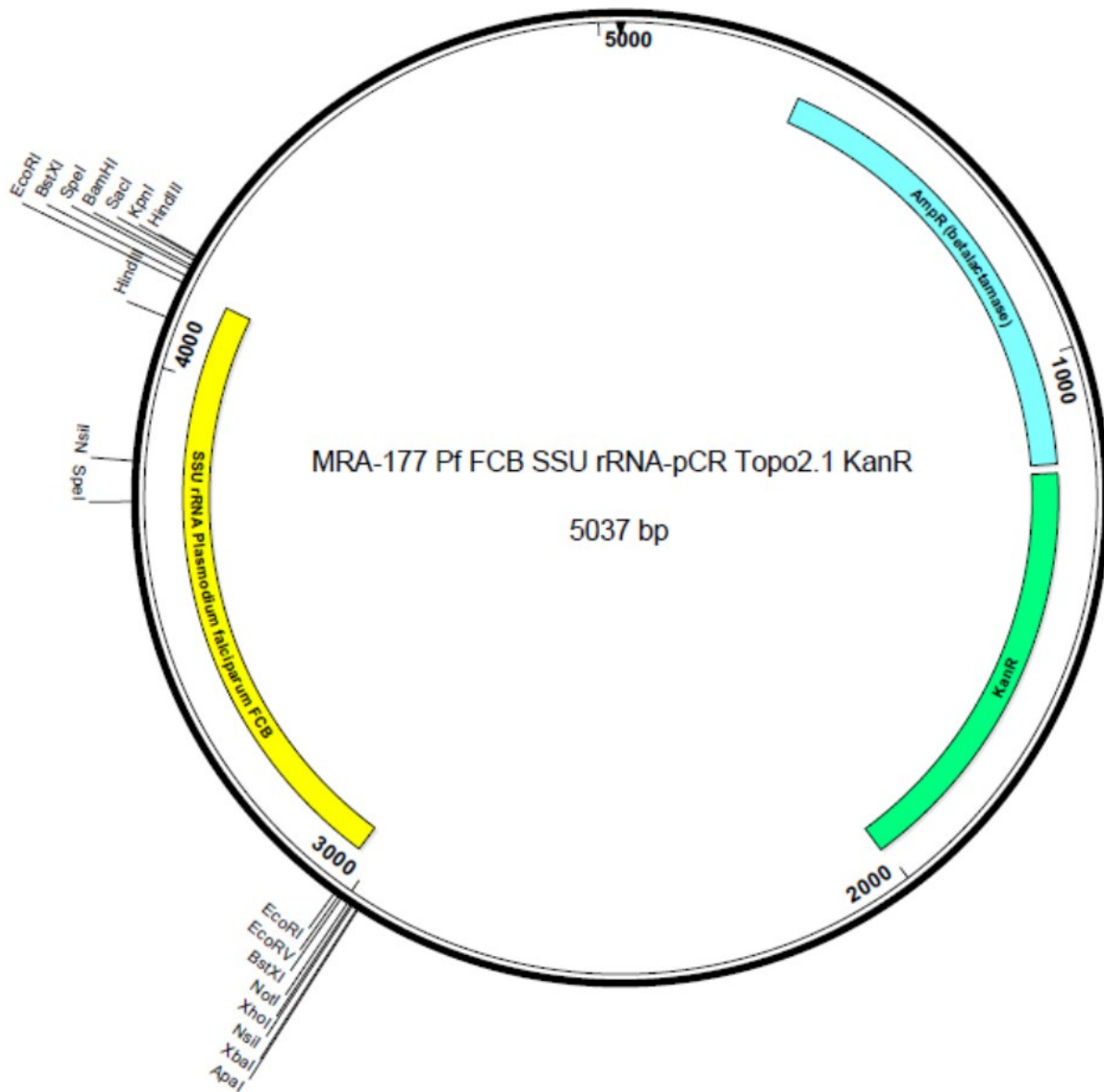
Figure 1: Complete Plasmid Sequence of MRA-177

>MRA-177 lot_70042650 complete plasmid sequence

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Figure 2: Plasmid Map of MRA-177



/Heather Couch/
Heather Couch

Program Manager or designee, ATCC Federal Solutions

04 JUN 2021

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