



## Certificate of Analysis

Verified by:  
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Quality Release date:  
Sep 19, 2019

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Product Name: **Sahara Hot Start PCR Master Mix**  
Catalog Num: R02151  
Lot Num: 3145074  
Analysis Date: Sep 13, 2019  
Expiration Date: Sep 13, 2021  
Storage: Store at -20 °C

### Master Mix Tests

### Results

#### PCR Amplification Test

A 25  $\mu$ L reaction using 1X Sahara Hot Start PCR Master Mix, 0.4  $\mu$ M target specific primers, and 5 ng linearized Lambda DNA as template for 35 cycles of PCR amplification, resulted in the expected products. Products of 200, 500, 803, 1000, and 1400 bp were amplified in independent reactions and a single product was obtained for each reaction.

PASS

#### Endonuclease Activity Test

Absence of endonuclease activity was determined by overnight incubation of *E. coli* amplified DNA with 25 U Taq polymerase in 1X reaction buffer at 37 °C, and monitored for little or no decrease in original amount of amplicon when resolved by gel electrophoresis.

PASS

#### Hot Start Functional Test

Hot Start function of Taq polymerase was tested using bacteriophage lambda genomic DNA template and a gene fragment containing the mouse GAPDH gene. Cycling conditions of 2 min @ 95 °C, 50x (15 s @ 95 °C, 60 s @ 60 °C) were used. The products were resolved by agarose gel electrophoresis on a 4% gel. Decreased primer dimer formation and absence of non-specific amplification using Sahara Hot Start PCR Master Mix compared to variant not containing hot start function was monitored.

PASS