

## **Certificate of Analysis for NR-41328**

## Schistosoma mansoni, 18S Ribosomal RNA Gene Forward Primer

## Catalog No. NR-41328

This reagent is the tangible property of the U.S. Government.

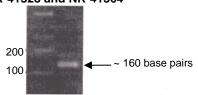
**Product Description:** NR-41328 contains a twenty-one nucleotide forward primer designed to amplify the 18S ribosomal RNA gene from *Schistosoma mansoni* (*S. mansoni*) when paired with the 18S ribosomal RNA reverse primer (NR-41364). The sequence of the 18S ribosomal RNA forward 21-mer is 5'-CGGTGAAACCGCGAATGGCTC-3'.

Lot<sup>1</sup>: 61433121 Manufacturing Date: 17MAY2012

TEST	SPECIFICATIONS	RESULTS
PCR Assay of Extracted Nucleic Acid <sup>2,3,4</sup>	4001	1001
Amplicon size	~ 160 base pair amplicon	~ 160 base pair amplicon (Figure 1)
Primer Characteristics <sup>1</sup>		
Molecular weight	Report results	6456 g/mol
Primer melting temperature (Tm)	Report results	66.5°Č
GC content	Report results	61.9%
Primer concentration	Report results	100 μM
Moles of primer	Report results	3.0 nmoles per vial
Micrograms of primer	Report results	19.4 µg per vial
Gene Stability by Quantitative Real-Time PCR	Report results	No statistical significant difference in threshold cycle (Ct) <sup>5,6</sup>

NR-41328 lot: 61433121 was manufactured by Eurofins MWG Operon. Primer characteristics were determined by the manufacturer. The bulk material was thawed and aliquoted at ATCC<sup>®</sup>.

Figure 1: PCR Amplification of *S. mansoni* 18S Ribosomal RNA Gene using NR-41328 and NR-41364



**Date:** 17 SEP 2013

Signature (

**Title:** Technical Manager, BEI Authentication or designee

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<sup>&</sup>lt;sup>2</sup>PCR completed by the Biomedical Research Institute prior to vialing.

<sup>&</sup>lt;sup>3</sup>Position 78 to 273 of GenBank: U65657.1

<sup>&</sup>lt;sup>4</sup>This test showed no cross amplification in mice

<sup>&</sup>lt;sup>5</sup>20 individual snails were utilized for RT-PCR amplification

<sup>&</sup>lt;sup>6</sup>ANOVA test (P value = 0.01)