

## Certificate of Analysis for NR-41324

## Schistosoma mansoni, Glyceraldehyde 3-Phosphate Dehydrogenase (GAPDH) Gene Forward Primer

## Catalog No. NR-41324

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

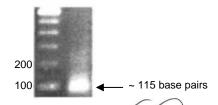
**Product Description:** NR-41324 contains a twenty nucleotide forward primer designed to amplify the glyceraldehyde 3-phosphate dehydrogenase (GAPDH) gene from *Schistosoma mansoni* (*S. mansoni*) when paired with the GAPDH reverse primer (NR-41360). The sequence of the GAPDH forward 20-mer is 5'-AGATGGCCGTGGAGCGATGC-3'.

Lot<sup>1</sup>: 61433117 Manufacturing Date: 17MAY2012

TEST	SPECIFICATIONS	RESULTS
PCR Assay of Extracted Nucleic Acid <sup>2,3,4</sup>		
Amplicon size	~ 115 base pair amplicon	~ 115 base pair amplicon (Figure 1)
Primer Characteristics <sup>1</sup>		
Molecular weight	Report results	6223 g/mol
Primer melting temperature (Tm)	Report results	66.6°Č
GC content	Report results	65.0%
Primer concentration	Report results	100 μΜ
Moles of primer	Report results	3.0 nmoles per vial
Micrograms of primer	Report results	18.7 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-41324 lot: 61433117 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* GAPDH Gene using NR-41324 and NR-41360



Date: 16 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 938 to 1048 of GenBank: M92359.1

<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)