

Certificate of Analysis for NR-41374

Biomphalaria glabrata, Beta-Tubulin Gene Reverse Primer

Catalog No. NR-41374

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

Product Description: NR-41374 contains a twenty nucleotide reverse primer designed to amplify the beta-tubulin gene from *Biomphalaria glabrata (B. glabrata)* when paired with the beta-tubulin forward primer (NR-41338). The sequence of the beta-tubulin reverse 20-mer is 5'-GGAGACGGGGAAGGGGACC-3'.

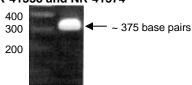
Lot¹: 61500637 Manufacturing Date: 17MAY2012

TEST	SPECIFICATIONS	RESULTS
PCR Assay of Extracted Nucleic Acid ^{2,3} Biomphalaria glabrata Schistosoma mansoni	~ 375 base pair amplicon No amplicons	~ 375 base pair amplicon (Figure 1) No amplicons
Primer Characteristics ¹ Molecular weight Primer melting temperature (Tm) GC content Primer concentration Moles of primer Micrograms of primer	Report results Report results Report results Report results Report results Report results	6322 g/mol 70.6°C 75.0% 100 µM 3.0 nmoles per vial 19.0 µg per vial
Gene Stability by Quantitative Real-Time PCR	Report results	No statistical significant difference in threshold cycle (Ct) ^{4,5}

¹NR-41374 lot: 61500637 was manufactured by Eurofins MWG Operon. Primer characteristics were determined by the manufacturer. The bulk material was thawed and aliquoted at ATCC[®].

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Figure 1: PCR Amplification of *B. glabrata* Beta-Tubulin using NR-41338 and NR-41374



Date: 29 AUG 2013

Title: Technical Manager, BEI Authentication or designee

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²PCR completed by the Biomedical Research Institute prior to vialing.

³Position 126 to 498 of GenBank: CV548160.1

⁴20 individual snails were utilized for RT-PCR amplification

⁵ANOVA test (P value = 0.01)