

Certificate of Analysis for NR-41370

Biomphalaria glabrata, Glyceraldehyde 3-Phosphate Dehydrogenase (GAPDH) Gene Reverse Primer

Catalog No. NR-41370

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

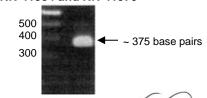
Product Description: NR-41370 contains a twenty nucleotide reverse primer designed to amplify the glyceraldehyde 3-phosphate dehydrogenase (GAPDH) gene from *Biomphalaria glabrata* (*B. glabrata*) when paired with the GAPDH forward primer (NR-41334). The sequence of the GAPDH reverse 20-mer is 5'-TGCAGCACCACGACCACCAC3'.

Lot¹: 61500685 Manufacturing Date: 17MAY2012

TEST	SPECIFICATIONS	RESULTS
PCR Assay of Extracted Nucleic Acid ^{2,3}		
Biomphalaria glabrata	~ 375 base pair amplicon	~ 375 base pair amplicon (Figure 1)
Schistosoma mansoni	No amplicons	No amplicons
Primer Characteristics ¹		
Molecular weight	Report results	6001 g/mol
Primer melting temperature (Tm)	Report results	66.6°C
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	18.0 µg per vial
Gene Stability by Quantitative Real-Time PCR	Report results	No statistical significant difference in threshold cycle (Ct) ^{4,5}

NR-41370 lot: 61500685 was manufactured by Eurofins MWG Operon. Primer characteristics were determined by the manufacturer. The bulk material was thawed and aliquoted at ATCC®.

Figure 1: PCR Amplification of *B. glabrata* GAPDH using NR-41334 and NR-41370



Date: 29 AUG 2013 Signature:

Title: Technical Manager, BEI Authentication or designee

ATCC®, on behalf of BEI Resources, hereby represents and warrants that the material provided under this certificate has been subjected by the contributor and manufacturer to the tests and procedures specified and that the results described, along with any other data provided in this certificate, are true and accurate to the best of ATCC®'s knowledge.

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

³Position 292 to 666 of GenBank: FC855383.1

⁴20 individual snails were utilized for RT-PCR amplification

⁵ANOVA test (P value = 0.01)