

Certificate of Analysis for NR-41368

Schistosoma mansoni, Ubiquitin Gene Reverse Primer

Catalog No. NR-41368

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

Product Description: NR-41368 contains a twenty-four nucleotide reverse primer designed to amplify the ubiquitin gene from Schistosoma mansoni (S. mansoni) when paired with the ubiquitin primer (NR-41332). The sequence of the ubiquitin reverse 5'-AAGTTAACCACCACGAAGACGCAA-3'.

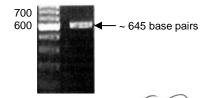
Manufacturing Date: 17MAY2012 Lot¹: 61500644

TEST	SPECIFICATIONS	RESULTS
PCR Assay of Extracted Nucleic Acid ^{2,3,4} Amplicon size	~ 645 base pair amplicon	~ 645 base pair amplicon (Figure 1)
Primer Characteristics ¹		
Molecular weight	Report results	7333 g/mol
Primer melting temperature (Tm)	Report results	62.9°Č
GC content	Report results	45.8%
Primer concentration	Report results	100 μM
Moles of primer	Report results	3.0 nmoles per vial
Micrograms of primer	Report results	22.0 µg per vial
Gene Stability by Quantitative Real-Time PCR	Report results	No statistical significant difference in threshold cycle (Ct) ^{5,6}

¹NR-41368 lot: 61500644 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 S. mansoni Ubiquitin Gene using NR-41332 and NR-41368



Date: 18 SEP 2013 Signature:

> Title: Technical Manager, BEI Authentication or designee

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

³Position 249 to 890 of GenBank: AF045474.1

⁴This test showed no cross amplification in mice ⁵20 individual snails were utilized for RT-PCR amplification

⁶ANOVA test (P value = 0.01)