

**Expression Vector Containing the Melanogenic Peroxidase Gene Fragment from *Biomphalaria glabrata*, Recombinant in *Escherichia coli***

**Catalog No. NR-41872**

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**Contributor and Manufacturer:**

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**Product Description:**

NR-41872 is an expression vector ([pCR<sup>®</sup>2.1-TOPO<sup>®</sup>](#)) containing a fragment of the melanogenic peroxidase gene from *Biomphalaria glabrata* (*B. glabrata*), transformed into *Escherichia coli* (*E. coli*), strain DH5 $\alpha$ .<sup>1</sup>

To create the insert, RNA was extracted from juvenile *B. glabrata*, strain BS90, that were exposed to *Schistosoma mansoni*. First strand cDNA was synthesized with oligopoly(dT)15. To construct the library, first strand cDNA was processed into all steps of suppression subtractive hybridization (SSH) using the Clontech<sup>®</sup> PCR-Select<sup>™</sup> cDNA Subtraction Kit. PCR was performed using adaptor-specific primers for the melanogenic peroxidase gene fragment. The amplified product was cloned into pCR<sup>®</sup>2.1-TOPO<sup>®</sup> (Invitrogen<sup>™</sup> Life Technologies<sup>™</sup>) cloning vector, and was transformed into *E. coli*, strain DH5 $\alpha$ .<sup>1,2</sup>

The expressed sequence tag (EST) of the melanogenic peroxidase gene fragment is available (GenBank: [GH716074](#)).

**Material Provided:**

Each vial contains approximately 1 mL of *E. coli*, strain DH5 $\alpha$ , in Luria Bertani (LB) broth containing 100  $\mu$ g/mL of ampicillin supplemented with 15% glycerol.

**Packaging/Storage:**

NR-41872 was packaged aseptically in screw-capped cryovials. The product is provided frozen on dry ice and should be stored at -80°C or colder immediately upon arrival. Freeze-thaw cycles should be minimized.

**Citation:**

Acknowledgment for publications should read "The following reagent was provided by the NIAID Schistosomiasis Resource Center for distribution through BEI Resources, NIAID, NIH: Expression Vector Containing the Melanogenic Peroxidase Gene Fragment from *Biomphalaria glabrata*, Recombinant in *Escherichia coli*, NR-41872."

**Biosafety Level: 1**

Appropriate safety procedures should always be used with this material. Laboratory safety is discussed in the following publication: U.S. Department of Health and Human Services, Public Health Service, Centers for Disease Control and Prevention, and National Institutes of Health. [Biosafety in Microbiological and Biomedical Laboratories](#). 5th ed. Washington, DC: U.S. Government Printing Office, 2009; see [www.cdc.gov/biosafety/publications/bmbl5/index.htm](http://www.cdc.gov/biosafety/publications/bmbl5/index.htm).

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**References:**

1. Tucker, M.S., Personal Communication.
2. Ittiprasert, W., et al. "Identification of Immediate Response Genes Dominantly Expressed in Juvenile Resistant and Susceptible *Biomphalaria glabrata* Snails Upon Exposure to *Schistosoma mansoni*." [Mol. Biochem. Parasitol.](#) 169 (2010): 27-39. PubMed: 19815034.

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