

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

Catalog No. NR-41868

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Contributor and Manufacturer:

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Product Description:

NR-41868 is an expression vector (pCR[®]2.1-TOPO[®]) containing a fragment of the metallothionein gene from *Biomphalaria glabrata* (*B. glabrata*), transformed into *Escherichia coli* (*E. coli*), strain DH5 α .^{1,2}

To create the insert, RNA was extracted from juvenile *B. glabrata*, strain NMRI, 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[®] PCR-Select[™] cDNA Subtraction Kit. PCR was performed using adaptor-specific primers for the metallothionein gene fragment. The amplified product was cloned into pCR[®]2.1-TOPO[®] (Invitrogen[™] Life Technologies[™]) cloning vector, and was transformed into *E. coli*, strain DH5 α .^{1,2}

The expressed sequence tag (EST) of the metallothionein gene fragment is available (GenBank: [GH717309](#)).

Material Provided:

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

Packaging/Storage:

NR-41868 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 Metallothionein Gene Fragment from *Biomphalaria glabrata*, Recombinant in *Escherichia coli*, NR-41868."

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/bmb15/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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