

Expression Vector Containing the Glutathione S-Transferase Gene Fragment from *Biomphalaria glabrata*, Recombinant in *Escherichia coli*

Catalog No. NR-41867

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

For research use only. Not for human use.

Contributor and Manufacturer:

Matthew S. Tucker, Head Schistosomiasis Laboratory and Principal Investigator, Biomedical Research Institute, Rockville, Maryland, USA (NIH-NIAID Contract HHSN2722010000051)

Product Description:

NR-41867 is an expression vector (pCR[®]2.1-TOPO[®]) containing a fragment of the glutathione S-transferase (GST) 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 GST 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 GST gene fragment is available (GenBank: [GH716994](https://www.ncbi.nlm.nih.gov/nuclot/GH716994)).

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-41867 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 Glutathione S-Transferase Gene Fragment from *Biomphalaria glabrata*, Recombinant in *Escherichia coli*, NR-41867."

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.

Disclaimers:

You are authorized to use this product for research use only. It is not intended for human use.

Use of this product is subject to the terms and conditions of the BEI Resources Material Transfer Agreement (MTA). The MTA is available on our Web site at www.beiresources.org.

While BEI Resources uses reasonable efforts to include accurate and up-to-date information on this product sheet, neither ATCC[®] nor the U.S. Government makes any warranties or representations as to its accuracy. Citations from scientific literature and patents are provided for informational purposes only. Neither ATCC[®] nor the U.S. Government warrants that such information has been confirmed to be accurate.

This product is sent with the condition that you are responsible for its safe storage, handling, use and disposal. ATCC[®] and the U.S. Government are not liable for any damages or injuries arising from receipt and/or use of this product. While reasonable effort is made to ensure authenticity and reliability of materials on deposit, the U.S. Government, ATCC[®], their suppliers and contributors to BEI Resources are not liable for damages arising from the misidentification or misrepresentation of products.

Use Restrictions:

This material is distributed for internal research, non-commercial purposes only. This material, its product or its derivatives may not be distributed to third parties. Except as performed under a U.S. Government contract, individuals contemplating commercial use of the material, its products or its derivatives must contact the contributor to determine if a license is required. U.S. Government contractors may need a license before first commercial sale. This material may be subject to third party patent rights.

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.

ATCC[®] is a trademark of the American Type Culture Collection.

