

Expression Vector Containing the Heat Shock Protein 70 Gene Fragment from *Biomphalaria glabrata*, Recombinant in *Escherichia coli*

Catalog No. NR-41869

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Contributor and Manufacturer:

Matthew S. Tucker, Head Schistosomiasis Laboratory and Principal Investigator, Biomedical Research Institute, Rockville, Maryland, USA (NIH-NIAID Contract HHSN272201000051)

Product Description:

NR-41869 is an expression vector ([pCR[®]2.1-TOPO[®]](#)) containing a fragment of the heat shock protein (HSP) 70 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 HSP 70 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 HSP 70 gene fragment is available (GenBank: [GH717081](#)).

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-41869 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 Heat Shock Protein 70 Gene Fragment from *Biomphalaria glabrata*, Recombinant in *Escherichia coli*, NR-41869.”

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.
3. Ittiprasert, W., et al. “*Schistosoma mansoni* Infection of Juvenile *Biomphalaria glabrata* Induces a Differential Stress Response Between Resistant and Susceptible

Snails." Exp. Parasitol. 123 (2009): 203-211. PubMed:
19660454.

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