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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**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 HHSN272201000005I)

**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 DH5α.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 oligo-poly(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 DH5α.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 DH5α, in Luria Bertani (LB) broth containing 100 µg/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

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

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