

***Schistosoma mansoni* Microsatellite
SMD011 Forward Primer**

Catalog No. NR-29384

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

For research use only. Not for human use.

Contributor:

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Manufacturer:

Eurofins MWG Operon

Product Description:

NR-29384 is a twenty nucleotide forward primer designed to amplify microsatellite SMD011 from *Schistosoma mansoni* (*S. mansoni*) when paired with the SMD011 reverse primer (NR-29385). The sequence of the SMD011-F 20-mer is 5'-ACCAGAGATCAATAACGCTT-3'.^{1,2} Please see Appendix I for general PCR procedure details.

Material Provided:

Each vial contains approximately 30 µL of forward primer in nuclease-free distilled water. The concentration is shown on the Certificate of Analysis.

Packaging/Storage:

Primers were packaged aseptically in screw-capped plastic cryovials. The product is provided frozen on dry ice and should be stored at -20°C or colder upon arrival. Freeze-thaw cycles should be minimized. **Note: For long-term storage it is strongly recommended that primers are kept in TE buffer (10 mM Tris, 1 mM EDTA), pH 8.0 at -20°C or colder.**

Citation:

Acknowledgment for publications should read "The following reagent was obtained through BEI Resources, NIAID, NIH: *Schistosoma mansoni* Microsatellite SMD011 Forward Primer, NR-29384."

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.

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References:

1. Gower, C. M. et al. "Development and Application of an Ethically and Epidemiologically Advantageous Assay for the Multi-Locus Microsatellite Analysis of *Schistosoma mansoni*." Parasitology 134 (2007): 523-536. PubMed: 17096873.
2. Curtis, J., et al. "Microsatellite Loci in the Human Blood Fluke *Schistosoma mansoni* and their Utility for Other Schistosome Species." Mol. Ecol. Notes 1 (2001): 143-145.

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APPENDIX I

S. mansoni Microsatellite Primers

Recommended Reagents/Equipment

| Reagent | Source | Catalog # |
|--|-----------------------------|----------------------|
| <i>S. mansoni</i> microsatellite primers (forward and reverse) | BEI Resources | NR-29379 to NR-29395 |
| Genomic DNA from <i>S. mansoni</i> ¹ | BEI Resources | NR-28910 to NR-28912 |
| 10X PCR Buffer | No Manufacturer Recommended | N/A |
| Taq [®] Polymerase | No Manufacturer Recommended | N/A |
| dNTP Mix | No Manufacturer Recommended | N/A |
| Molecular Biology Grade Water | No Manufacturer Recommended | N/A |

¹Primers can also be used with other *S. mansoni* nucleic acids.

Reaction Mix¹

| Reagent | Stock Concentration | Volume per Reaction (µL) |
|--|---------------------|--------------------------|
| Molecular Biology Grade Water | --- | 16.5 |
| 10X PCR Buffer | 10X | 2.5 |
| dNTP Mix | 5 mM each | 1 |
| Taq [®] Polymerase | 5 Units per µL | 1 |
| Forward and Reverse Primers ² | 10 µM (each primer) | 1 |
| Template DNA | 25 ng per µL | 2 |
| | | Total – 25 µL |

¹Reaction mix should be kept on bench-top cooler until ready for use.

²Primers are supplied at a concentration of 100 µM and need to be diluted to the working stock concentrations.

Cycling Protocol

| Cycle | # of Repeats | Step | Conditions |
|-------|--------------|------|--|
| 1 | 1 | 1 | 94°C for 15 minutes |
| 2 | 10 | 1 | 94°C for 30 seconds |
| | | 2 | 68°C for 90 seconds (decrease temperature 1°C per cycle) |
| 3 | 20 | 1 | 94°C for 30 seconds |
| | | 2 | 58°C for 90 seconds |
| 4 | 1 | 1 | 72°C for 60 seconds |
| 5 | 1 | 1 | 60°C for 30 minutes |