DEVELOPMENT OF PCR-BASED DIAGNOSIS OF MINUTE INTESTINAL FLUKE, HAPLORCHIS TAICHUI

Pheravut Wongsawad and Chalobol Wongsawad

Department of Biology, Faculty of Science, Chiang Mai University, Chiang Mai, Thailand

Abstract. Haplorchis taichui specific primers were designed using a high annealing temperature random amplified polymorphic DNA (HAT-RAPD) PCR method and 18 arbitrary primers (Operon Technologies) to generate polymorphic DNA profiles for 13 different parasites. The H. taichui specific fragment was screened. A 256 bp HAT-RAPD marker generated from OPP-11 primer specific for H. taichui was cloned and sequenced. From the sequence data, specific primers were designed that generated a 256 bp amplicon. The minimum DNA template needed for PCR detection was 10 fg. The successful development of the H. taichui specific DNA-based detection will be beneficial in management and epidemiological control programs.

Correspondence: Pheravut Wongsawad, Department of Biology, Faculty of Science, Chiang Mai University, Chiang Mai 50200, Thailand.
Tel: +66 (0) 5394 3346 ext 1105
E-mail: pheravut@yahoo.com