

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