DEVELOPMENT OF SINGLE-TUBE MUTIPLEX RT-PCR FOR DENGUE VIRUS TYPING

Pannamas Maneekan¹, Akanitt Jittmittraphap², Pornsawan Leaungwutiwong², Jaranit Kaewkangwal¹ and Natthanej Luplertlop¹

¹Department of Tropical Hygiene, ²Department of Microbiology and Immunology, Faculty of Tropical Medicine, Mahidol University, Bangkok, Thailand

Abstract. This study evaluated a single-tube multiplex RT-PCR with a primer focusing on nonstructural protein region 5 (NS5) and a highly conserved region for dengue virus serotyping. The method was compared with conventional PCR. This new method had a sensitivity of 96.7% and a specificity of 96.7% for disease detection. The new method also proved suitable for use in the field as it reduces time and decreases risk of contamination.

Correspondence: Natthanej Luplertlop, Department of Tropical Hygiene, Faculty of Tropical Medicine, Mahidol University, 420/6 Ratchawithi Road, Bangkok 10400, Thailand.

Tel: +66 (0) 2644 7483: Fax: +66 (0) 2644 4436

E-mail: tmnll@mahidol.ac.th