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(57) Abstract :

A DENGUE REVERSE TRANSCRIPTION POLYMERASE CHAIN REACTION (RT-PCR) ASSAY KIT FOR DETECTION AND SEROTYPING OF DENGUE VIRUS ABSTRACT 5 A dengue reverse transcription polymerase chain reaction (RT-PCR) assay kit for detection and serotyping of dengue virus is provided. The dengue RT-PCR assay kit includes a plurality of primer sets for dengue virus detection and serotyping including at least one forward primer and reverse primer, a synthetic positive control sequence for validating the effectiveness of the RT-PCR assay kit, an internal control sequence for monitoring an efficiency of an entire process and identifying potential issues during sample processing and amplification, one or more standards for serving as benchmarks for accurate quantification and spanning copy numbers from 10^5 to 10^1 and an Eva green dye and high-resolution melt analysis (HRMA) for cost-effective and sensitive detection. The Eva green dye binds to double-stranded DNA, facilitating real-time monitoring of amplification. [FIG.1]

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