Supplementary Materials

Establishment of a rapid and sensitive method based on Recombinase Polymerase Amplification to detect mts90, a new molecular target of *Mycobacterium tuberculosis*

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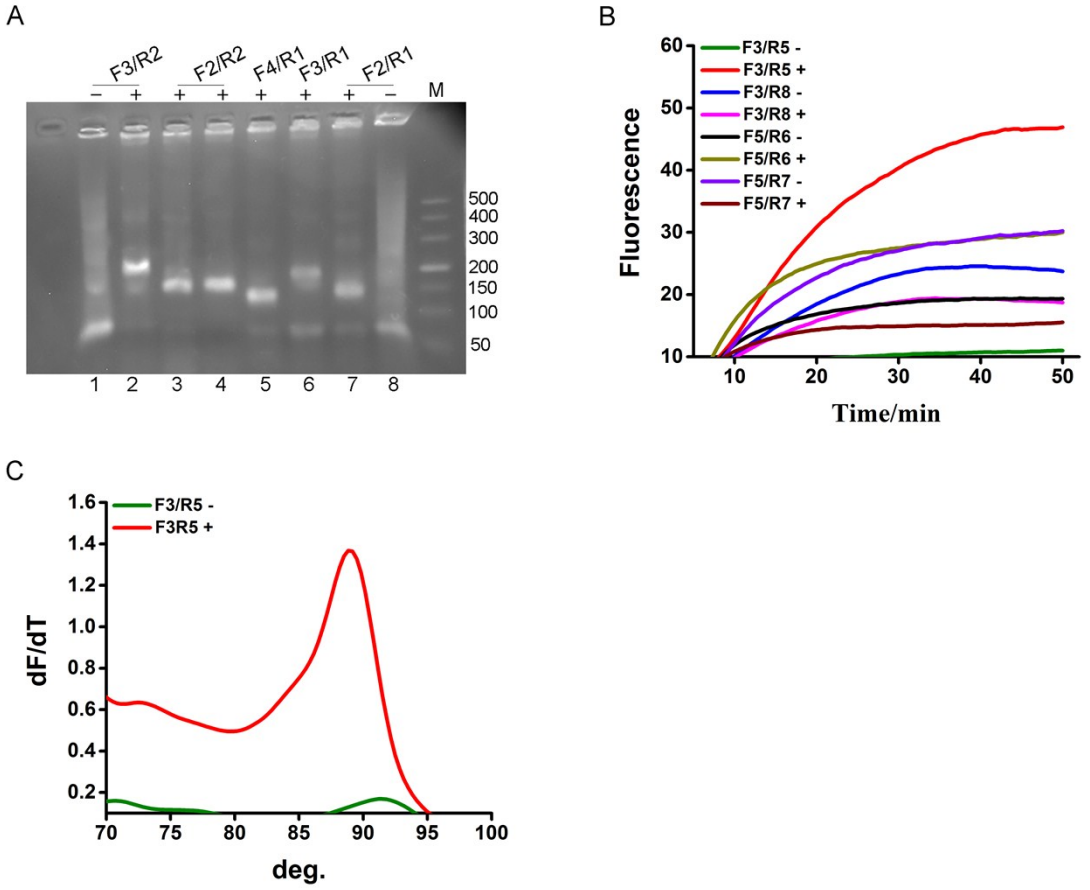

Figure S1. Screening for primers by electrophoresis and fluorescent dye. (A) Different primer pairs were analyzed by electrophoresis analysis. Lane 1, 2: F3/R2; lane 3, 4: F2/R2; lane 5: F4/R1; lane 6: F3/R1; lane 7, 8: F2/R2; lane M = 500 bp DNA ladder. The primer pair of F3/R2 was selected. (B) Amplification effect of different primers was monitored in real time by EvaGreen® Dye. There was a significant difference in fluorescence intensity between positive and negative amplification of F3/R5. (C) The melting curve of F3/R5. It proved the specific amplification. The RPA reactions analyzed by Gel were performed in 39℃ water bath, while RPA reactions with EvaGreen® Dye were played in the Rotor-Gene Q. The template of screening primers was 0.1μg mts90 standard plasmid per reaction.

(□positive reaction; □no template control).

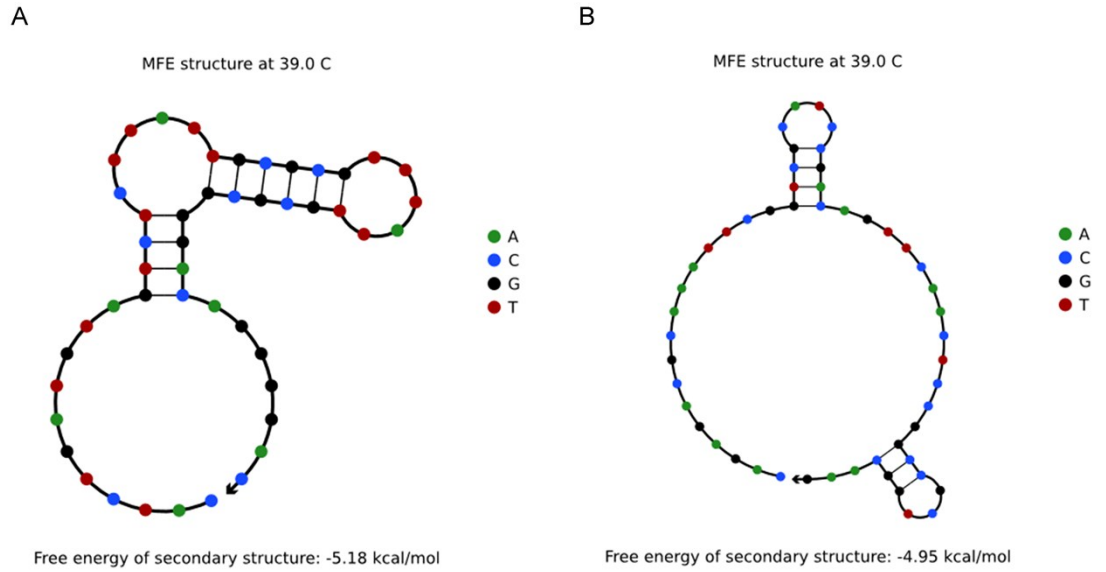

Figure S2. The secondary structures of probes. (A) The probe of P1. (B) The probe of P2. Schematic illustration of the secondary structures for the designed probes was showed online (http://www.nupack.org/), each probe was analyzed at a concentration of 0.12 nM in 39 ℃.