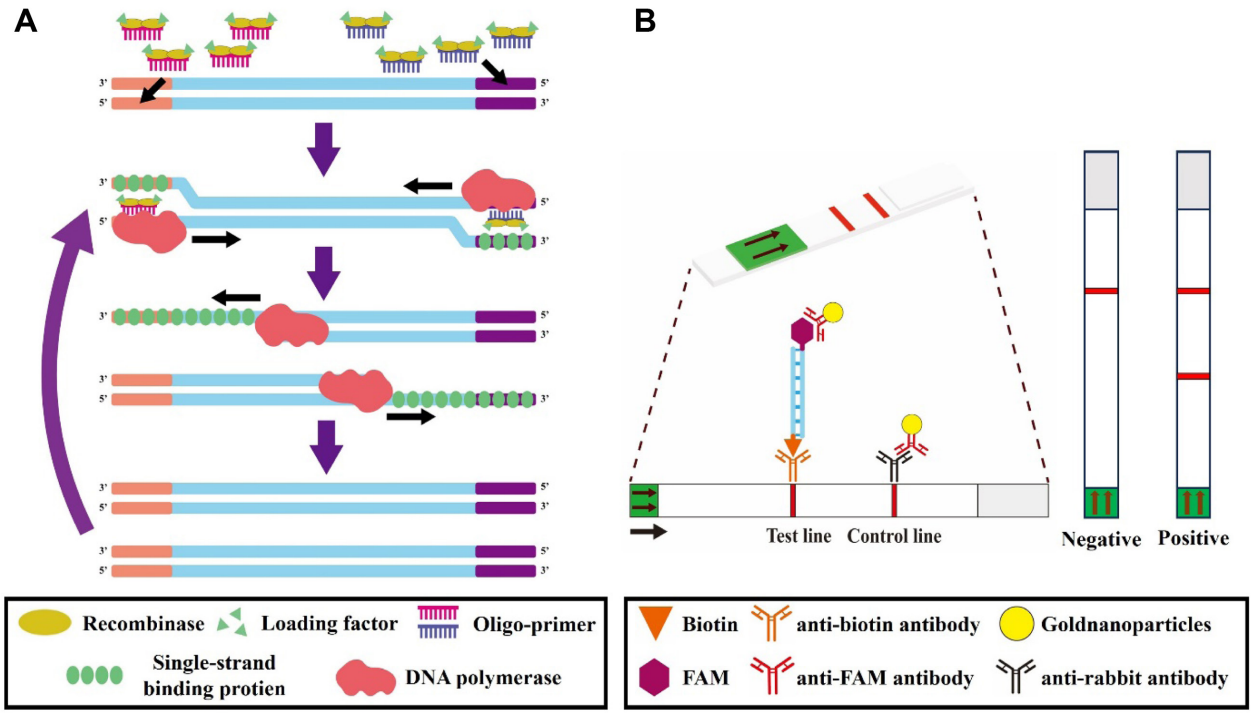

Supplementary Fig. 1. The principle of the recombinase polymerase amplification (RPA) and lateral flow strip assay. (A) The RPA was conducted in isothermal conditions and required short reaction times. The recombinase and loading factor bind and complex into specific primers without temperature alterations. The SSB made the single-stranded template stabilize before amplification began. (B) The lateral flow strip was combined using nucleic acid-based methods. This method used modified primers such as FAM-labelled primer, and Biotin-labelled primer. FAM was bound by the FAM-antibody labeled with gold nanoparticles, and the Biotin was captured into anti-Biotin antibodies on the test line.