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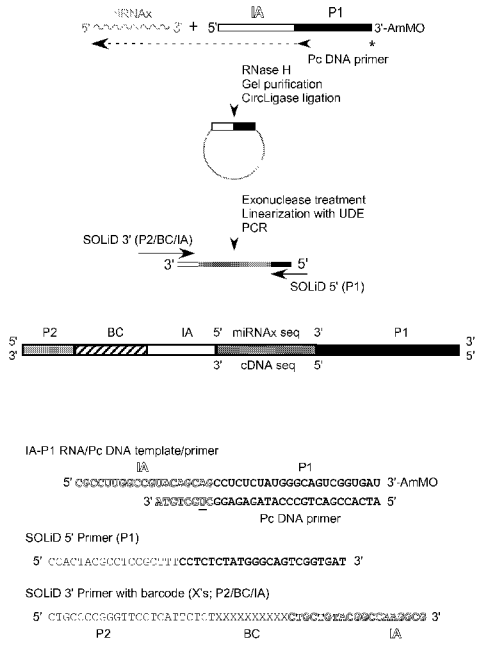
(54) Title: USE OF TEMPLATE SWITCHING FOR DNA SYNTHESIS

(57) Abstract: A method of preparing a DNA copy of a target polynucleotide using template switching is described. The method includes mixing a double stranded template/primer substrate made up of a DNA primer oligonucleotide associated with a complementary oligonucleotide template strand with a target polynucleotide in a reaction medium and adding a suitable amount of a non- retroviral reverse transcriptase to the reaction medium to extend the DNA primer oligonucleotide from its 3' end to provide a DNA copy polynucleotide. The DNA copy polynucleotide includes a complementary target DNA polynucleotide that is synthesized using the target polynucleotide as a template. Methods of adding nucleotides to the double stranded template/primer substrate are also described. The method can be used to facilitate detection, PCR amplification, cloning, and determination of RNA and DNA sequences.

Fig. 2



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