

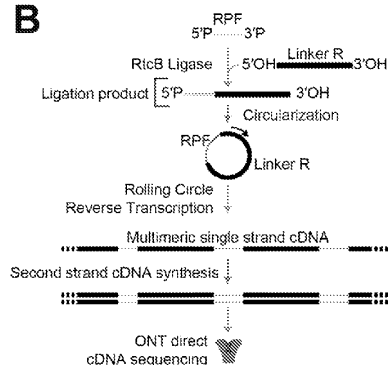


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(54) **Title:** METHOD FOR PREPARING AN RNA SAMPLE FOR SEQUENCING AND KIT THEREOF

Fig. 1 B



(57) **Abstract:** A method for preparing at least one RNA molecule contained in a biological sample for sequencing comprising the following steps: (i) obtaining a biological sample comprising at least one RNA molecule, wherein the at least one RNA molecule bears a phosphate or a 2',3'-cyclic phosphate group at 3' end; (ii) phosphorylating the at least one RNA molecule at the 5' end, thus introducing a phosphate group at the 5' end of the at least one RNA molecule, and obtaining at least one RNA molecule phosphorylated at both ends; (iii) ligating the 3' end of the at least one phosphorylated RNA molecule to the 5' end of a random RNA linker, wherein the random RNA linker bears a -OH group at both ends, obtaining at least one first ligation product; (iv) self-ligating the at least one first ligation product to form at least one circular RNA molecule, wherein the at least one circular RNA molecule is mixed with linear RNA molecules; (v) digesting the linear RNA molecules; (vi) subjecting the at least one circular RNA molecule to reverse transcription rolling circular amplification, obtaining at least one single-stranded cDNA molecule, wherein the at least one single-stranded cDNA molecule carries at least 1, preferably between 2 and 500, copies of the at least one RNA molecule; wherein the at least one single-stranded cDNA molecule is suitable for sequencing.

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