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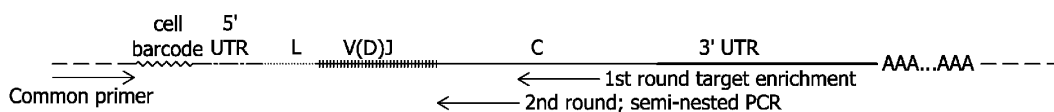


FIG. 1

(57) Abstract: Systems and methods for long-read sequencing of immune receptor are disclosed. A method in accordance with the present disclosure comprises generating a 3'-barcoded cDNA library comprising an immune receptor target sequence, wherein the immune receptor target sequence comprises a variable region and a barcoded region; amplifying the immune receptor target sequence; linking the variable region of the immune receptor target sequence to a probe to generate a labeled immune receptor target sequence; capturing the labeled immune receptor target sequence; amplifying the captured immune receptor target sequence; passing the captured immune receptor target sequence through a nanopore sequencing device; and generating, by way of the nanopore sequencing device, a full-length immune receptor target sequence.



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