ABSTRACT

METHODS AND COMPOSITIONS FOR SIZE-CONTROLLED HOMOPOLYMER TAILING OF SUBSTRATE POLYNUCLEOTIDES BY A NUCLEIC ACID POLYMERASE

The present invention is directed to methods and compositions for adding tails of specific lengths to a substrate polynucleotide. The invention also contemplates methods and compositions for immobilization of tailed substrates to a solid support. The disclosure contemplates that the attenuator molecule is any biomolecule that associates with a tail sequence added to a substrate polynucleotide and controls the addition of a tail sequence to the 3' end of the substrate polynucleotide. The sequence that is added to the substrate polynucleotide is referred to herein as a tail sequence, or simply a tail, and the process of adding a nucleotide to a substrate polynucleotide is referred to herein as tailing.

[Fig. 1]