A HIGHLY SENSITIVE HEAT-REPRESSIBLE SPLIT-T7 POLYMERASE (THERMAL-T7RNAP) FOR APPLICATIONS IN BIOTECHNOLOGY

ABSTRACT

The present invention relates to heat-repressible split-T7 polymerases comprising temperature-sensitive domains of Tlpa protein fused with split T7 RNA polymerase (T7RNAP) to introduce thermal control into widely used T7 RNA polymerase, creating a heat-repressible Thermal-T7RNAP system. The invention further provides polynucleotides encoding the heat-repressible split-T7 polymerases, and methods of thermal control of bioproduction.

Figure 2b