Recombinant DNA Sequencing using GenomeLab GeXP™ Genetic Analysis System

INTRODUCTION AND OVERVIEW

Within the process of manufacturing biologics utilizing recombinant DNA technology, validating the coding sequence in the Master Cell Bank (MCB) is critical due to adverse impact to the intended products. The MDK Development Kit (4B) was used by Organogenesis (PlenusDNA) for plasmid DNA reagent preparations. The purified MDK dGTP chemistry can be used by agarose gel electrophoresis and concentration measured by optical density. Purification of the sequencing reaction products was performed using the ethanol precipitation technique detailed in Table 2. Sequencing products were reconstituted in 4 μL of Sample Loading Solution and overlaid with mineral oil. Sequencing products were reconstituted in 4 μL of Sample Loading Solution and overlaid with mineral oil. Sequencing products were reconstituted in 4 μL of Sample Loading Solution and overlaid with mineral oil. Sequencing products were reconstituted in 4 μL of Sample Loading Solution and overlaid with mineral oil.

METHODS

Plasmid DNA Purification

Plasmid DNA purified from overnight cultures grown in 100 μL bacterial media with 100 μg/ml ampicillin. Sequence data was analyzed by agarose gel electrophoresis and concentration measured by optical density. Sequencing Reaction Preparation

All conditions were measured using the existing DT-based chemistries from the GenomeLab Quick Start Kit (dITP) as well as the GenomeLab GeXP Genetic Analysis System (dGTP). The MDK Development Kit (4B) was reconstituted according to instructions in the kit insert. The different nucleotide chemistries were prepared in separate sequencing plates or individual tubes due to the use of different thermal cycling parameters. Approximately 30 μL of purified DNA was used per sequencing reaction.

Sequencing Reaction Preparation

The dGTP chemistry can be used for sequencing difficult templates with repeat regions, polymerase hardstop regions and presence of dITP (4A). The dGTP chemistry is useful in sequencing difficult templates with repeat regions, polymerase hardstop regions and presence of dITP (4A). The dGTP chemistry is useful in sequencing difficult templates with repeat regions, polymerase hardstop regions and presence of dITP (4A).

RESULTS

The dITP chemistry is suitable for routine sequencing. The dGTP chemistry is suitable for routine sequencing. The dGTP chemistry is suitable for routine sequencing. The dGTP chemistry is suitable for routine sequencing. The dGTP chemistry is suitable for routine sequencing. The dGTP chemistry is suitable for routine sequencing. The dGTP chemistry is suitable for routine sequencing. The dGTP chemistry is suitable for routine sequencing.

CONCLUSIONS

The GenomeLab GeXP Genetic Analysis System generates excellent results in sequencing, and can be used for sequencing difficult templates. The GenomeLab GeXP Genetic Analysis System generates excellent results in sequencing, and can be used for sequencing difficult templates. The GenomeLab GeXP Genetic Analysis System generates excellent results in sequencing, and can be used for sequencing difficult templates. The GenomeLab GeXP Genetic Analysis System generates excellent results in sequencing, and can be used for sequencing difficult templates. The GenomeLab GeXP Genetic Analysis System generates excellent results in sequencing, and can be used for sequencing difficult templates.