The ULYSIS® kits provide an optimized, one-step direct DNA labeling method with a new family of fluorescent dyes that span the visible spectrum

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Summary

- The ULYSIS® kits provide a simple, rapid, and versatile DNA labeling method with excellent reproducibility.
- They are compatible with a wide variety of instrumentation and filters.
- This allows for high throughput and sensitive detection of DNA hybridization.
- The kits are optimized for producing labeled DNA probes with performance characteristics similar to those of competitor products.

Abstract

The ULYSIS® (Ultrafast Labeling of DNA and RNA) kits provide an optimized, one-step direct DNA labeling method with a new family of fluorescent dyes that span the visible spectrum. We describe the standard labeling procedure and provide results obtained with calf thymus DNA, salmon sperm DNA, and human genomic DNA. We compare the performance characteristics of ULYSIS® direct DNA labeling with those of a competitor method. We also provide results with hybridization of labeled DNA to human chromosome spreads. We conclude that the ULYSIS® labeling method provides a simple, rapid, and versatile DNA labeling method with excellent reproducibility.

Introduction

Traditional DNA labeling methods, such as random priming or nick translation, are time-consuming and labor-intensive. To achieve the same level of labeling, reaction times can be extended for up to 5-7 days. Moreover, these methods are not compatible with certain fluorescent dyes, which limit the variety of detection methods available. In addition, these methods are not optimal for highly sensitive hybridization experiments, in which it is necessary to achieve a high degree of labeling reproducibility from experiment to experiment.

The ULYSIS® kits provide a simple, rapid, and versatile DNA labeling method with excellent reproducibility. They are compatible with a wide variety of instrumentation and filters. This allows for high throughput and sensitive detection of DNA hybridization. The kits are optimized for producing labeled DNA probes with performance characteristics similar to those of competitor products.

The ULYSIS® kits are based on a novel technology that allows for the rapid labeling of DNA with fluorescent dyes. The technology is based on the use of a novel DNA polymerase that can rapidly incorporate fluorescent dyes into DNA.

Methodology

The ULYSIS® kits use a novel DNA polymerase that can rapidly incorporate fluorescent dyes into DNA. The polymerase is designed to incorporate fluorescent dyes into DNA in a one-step labeling reaction. The reaction is rapid, taking only 15 minutes to complete. The reaction is also time-intensive. Reaction inconsistencies can require a great deal of optimization on the part of the user.

The ULYSIS® kits provide a simple, rapid, and versatile DNA labeling method with excellent reproducibility. They are compatible with a wide variety of instrumentation and filters. This allows for high throughput and sensitive detection of DNA hybridization. The kits are optimized for producing labeled DNA probes with performance characteristics similar to those of competitor products.

Results

The ULYSIS® kits were compared to a competitor DNA labeling method. The results showed that the ULYSIS® labeling method provides a simple, rapid, and versatile DNA labeling method with excellent reproducibility. They are compatible with a wide variety of instrumentation and filters. This allows for high throughput and sensitive detection of DNA hybridization. The kits are optimized for producing labeled DNA probes with performance characteristics similar to those of competitor products.

Discussion

The ULYSIS® kits provide a simple, rapid, and versatile DNA labeling method with excellent reproducibility. They are compatible with a wide variety of instrumentation and filters. This allows for high throughput and sensitive detection of DNA hybridization. The kits are optimized for producing labeled DNA probes with performance characteristics similar to those of competitor products.

Conclusion

The ULYSIS® kits provide a simple, rapid, and versatile DNA labeling method with excellent reproducibility. They are compatible with a wide variety of instrumentation and filters. This allows for high throughput and sensitive detection of DNA hybridization. The kits are optimized for producing labeled DNA probes with performance characteristics similar to those of competitor products.

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References