



Take the Direct Route to DNA Sequencing

Introducing BigDye™ Direct Cycle Sequencing Kit

Streamlined sequencing workflow

Industry-standard Sanger sequencing with fewer workflow steps helps improve productivity and reduce experimental variability

Optimized for high performance

Start sequence reads closer to the primer while maintaining highly accurate reads

Go straight from PCR to sequencing

Kit includes specially formulated PCR Master Mix, Sequencing Master Mix, and M13 universal primers

Key Refinements Deliver Big Benefits

The BigDye™ Direct Cycle Sequencing Kit was developed on the foundation of industry-standard BigDye™ Terminator cycle sequencing, with modifications in key areas to help ensure the highest-quality data over the entire sequenced region—in less time and fewer workflow steps than ever before.

Streamlined Workflow

The BigDye™ Direct Cycle Sequencing Kit, the latest innovation in the BigDye™ product family, simplifies the Sanger sequencing workflow by combining post-PCR clean-up and cycle sequencing into a single step. The result? Up to 40% savings in time compared to traditional sequencing workflows (Figure 1). By reducing the number of manual handling steps and the amount of hands-on time required, not only will you produce results more quickly, but fewer pipetting and transfer steps also help reduce the possibility of introducing experimental variability, giving you more confidence in your data.

BigDye™ Direct Cycle Sequencing Kit workflow, run with POP-7™ Polymer
Four steps in approximately 5 process hours



A traditional cycle sequencing workflow, run with POP-6™ Polymer
Five steps in approximately 8 process hours

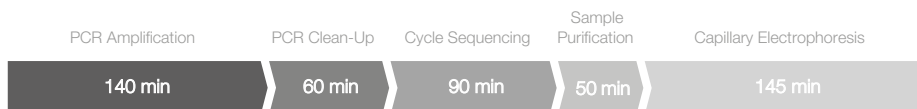


Figure 1. Sequencing With the BigDye™ Direct Cycle Sequencing Kit Takes Fewer Steps and Less Hands-On Time. By combining PCR clean-up and cycle sequencing into a single step, the BigDye™ Direct workflow reduces the traditional Sanger sequencing workflow time by up to 40% (time for each step is indicated in the diagram and includes hands-on processing time).

Uncompromised Performance

The BigDye™ Direct Kit gives you optimized sequencing runs—from PCR through cycle sequencing step. PCR master mix and M13 universal primers are supplied in the kit (Table 1). The BigDye™ Direct Cycle Sequencing Kit is ideal for resequencing applications because the kit components and protocol are optimized to allow both high-resolution data reads closer to the

primer, in addition to faster run times that are achieved with POP-7™ Polymer (Figure 2).

Additionally, the BigDye™ Direct Cycle Sequencing Kit is designed to work with Applied Biosystems™ Genetic Analyzers and the BigDye XTerminator™ Purification Kit for maximum efficiency and a completely integrated sequencing solution.

Designed for Convenience

By supplying components that work together for enhanced efficiency, such as PCR master mix and M13 universal primers, the BigDye™ Direct Kit delivers convenience and a streamlined workflow. These modifications not only take steps out of your sequencing protocol, they free you from having to procure reagents and consumables from multiple sources and optimize them to work together. The result is significant time savings for you, without compromising on the high-quality sequence data you expect from Applied Biosystems™ products.

Samples analyzed with the BigDye™ Direct Cycle Sequencing Kit can be run on the Applied Biosystems™ 3130, 3130xl, 3500, and 3500xL Genetic Analyzers, and on the 3730, and 3730xl DNA Analyzers. Simply download the specific mobility file required for your system from our website, free of charge.

The BigDye™ Direct Cycle Sequencing Kit is offered in 3 different configurations depending on your sequencing throughput needs: 24-reaction, 100-reaction, and 1,000-reaction kit sizes. Please see Table 1 for kit components.

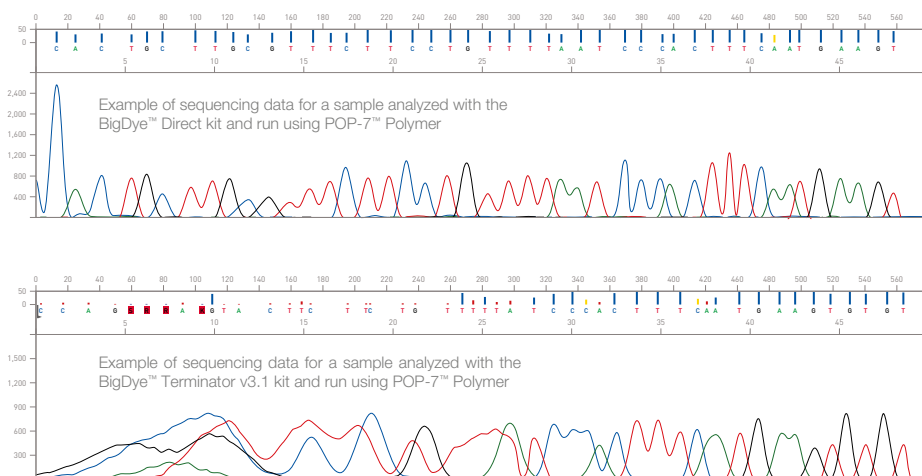


Figure 2. The BigDye™ Direct Cycle Sequencing Kit Delivers Faster Sequencing Run Times and Excellent 5' Resolution. The BigDye™ Direct kit's sequencing chemistry resolves high-quality bases right after the sequencing primer when using POP-7™ Polymer for capillary electrophoresis.

Component
BigDye™ Direct PCR Master Mix
BigDye™ Direct Sequencing Master Mix
CEPH Control
M13 Forward Primer
M13 Reverse Primer

Table 1. BigDye™ Direct Cycle Sequencing Kit Components.

For more information about BigDye™ Direct, please visit eu.fishersci.com

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