





# Automate

## Introducing the ABI PRISM® 3100 Genetic Analyzer.

The Applied Biosystems capillary electrophoresis product line is designed with one thing in mind: increasing your productivity. The 3100 system is a fully automated, fluorescence-based capillary electrophoresis platform that simultaneously analyzes 16 samples. It not only has more capillaries, but more flexibility as well, with the ability to automate the routine tasks that normally slow you down. In fact, the 3100 system is capable of 24-hour, hands-free operation.



You can place two 96- or 384-well plates on the autosampler at once. When the sample plate is in place, you can automatically inject, run, and analyze samples according to userdefined analysis parameters. Automated sample injection, separation, and detection

Continuous, hands-free operation

Minimal set-up

Easy to use

#### **3100 Genetic Analyzer Workflow**

#### Full automation. More data. Complete freedom.

We designed the 16-capillary 3100 system to provide you with automated polymer loading, sample injection, separation and detection, and data analysis. After placing plates on the instrument's autosampler and importing the sample information, simply select the "Start Run" command. The 3100 system requires no further attention for 24 hours.

## The ideal genetic analyzer for mid- to high-throughput labs.

Until now, incorporating the power of capillary electrophoresis into your research meant choosing between a high-throughput system and a single-capillary system. But the new 3100 system employs the proven technology of capillary electrophoresis in a new option that combines the productivity of multiple capillaries with economies of scale—accelerating your research. All in a versatile, reliable, and easy-to-use analyzer.



# Analyze

All research is a process of evolution. With that in mind, we designed the ABI PRISM<sup>®</sup> 3100 Genetic Analyzer for maximum application flexibility—not only with the power to analyze more samples, but to accommodate your particular research needs.

### Not just fast. Versatile.

The 3100 system offers unprecedented application flexibility. It's capable of running a wide variety of DNA electrophoresis applications for sequencing and fragment analysis—including microsatellite analysis, comparative genotyping, and SNP validation and screening—as well as *de novo*, and comparative sequencing. You can easily switch between capillary lengths, separation matrices, and chemistry kits as your research requirements change.

#### More samples. Less time.

With 16 capillaries, the 3100 system provides high sample throughput. In fact, you can analyze hundreds of samples in a single day. Furthermore, the increased efficiency and sensitivity of a capillary electrophoresis system reduces the amount of DNA required for each sample injection—reducing the overall cost per sample compared to slab-gel systems.



Sequencing sample run on the 3100 system under standard sequencing conditions. Length of the read is 750 bases at the 98.5% basecalling accuracy with less than 2% ambiguity.

Highly flexible applications and chemistries

Powerful collection software and downstream analysis tools

Streamlined workflow

### Fewer hassles. More efficiency.

Because there are no gels to prepare, no loading with pipettes, and no glass plates to clean, you experience increased run-to-run consistency and higher reliability. Minimal instrument set-up requirements result in reduced running times and associated labor—and more importantly, more time to focus on other research activities.

### Ultra-sensitive detection.

The key to cost-effective, accurate nucleic acid analysis is maximizing the amount of signal per sample. The 3100 system's 16 capillaries are simultaneously illuminated from both sides of the capillary array by a laser beam, maximizing signal uniformity and sensitivity while providing superior performance over capillary-scanning or slab-gel systems.



Fragment analysis sample run with internal size standard run on the 3100 system using GeneScan<sup>™</sup> default module.

# Achieve

The new ABI PRISM<sup>®</sup> 3100 Genetic Analyzer opens up a world of possibilities. With the increased capacity of 16 capillaries and complete automation, you'll get more done, more quickly—and notice a dramatic impact on the pace of your research. 16 capillaries

Complete automation

High versatility

More answers, less work

## Do more than you ever imagined possible. Every day.

Thousands of labs around the world already use the power of Applied Biosystems solutions to unravel the secrets of life sciences. The new ABI PRISM® 3100 Genetic Analyzer's intelligent design and engineering can help you accomplish your research at an extraordinary pace, allowing you to see more data faster than ever before. It's also part of the trusted family of DNA analysis systems from Applied Biosystems.

#### Let our experience help you excel.

Applied Biosystems is proud to play a part in today's exciting developments in genetic research. Moreover, we're committed to helping you achieve your goals by offering, along with unparalleled support, the most sophisticated technology available for DNA analysis.

#### **Worldwide Sales Offices**

Applied Biosystems vast distribution and service network, composed of highly trained support and applications personnel, reaches into 150 countries on six continents. For international office locations, please call the division headquarters or refer to our Web site at www.appliedbiosystems.com

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