

ArrayPrep® Target Preparation System

Labels and Purifies DNA Samples for Enhanced aCGH Test Reliability



Automating the aCGH Workflow

Testing patient samples with aCGH is a powerful tool that provides a wealth of genetic information to the physician. However, the tedious methods used to perform the tests can be formidable to many molecular cytogenetics laboratories. SciGene products automate the entire microarray workflow from DNA labeling to post-hybridization processing to enhance throughput, reduce operator effort, improve reliability and lower cost per test.

Prepares 8 to 96 Samples Ready for Hybridization

The ArrayPrep® Target Preparation System is a robotic system that automates DNA labeling using SciGene's ready-to-use kit or those from Agilent and Roche NimbleGen. The system automates reaction setup and purification and presents labeled samples ready for array hybridization. The ArrayPrep System requires less than 30 minutes hands-on time to process each batch of samples compared to many hours of technician time required to handle reagents, buffers and labware with manual methods.

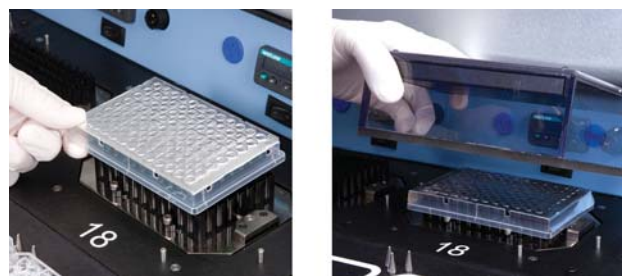


The ArrayPrep System automates reaction setup and magnetic bead purification of labeled products.

The system includes easy-to-follow instructions and comes pre-programmed with optimized protocols for labeling 8 to 96 patient DNA samples and controls. By automating aCGH sample preparation, the ArrayPrep System affords the laboratory significant savings in labor, improves overall test reliability and lowers costs by minimizing repeat testing.

Easy Operation Using Optimized Protocols

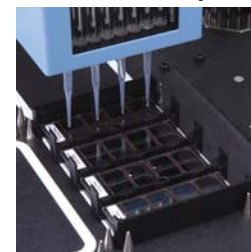
The ArrayPrep instrument was designed specifically to automate methods used to prepare samples for aCGH analysis. The combination of its small size, pipettor and deck design, and machine interface make it easy to use. To operate the instrument, simply follow the included reference card for placing labware, reagents and buffers, select the chemistry and number of samples to be used and then press start. The operator returns to the instrument only to seal plates for denaturation/ incubation steps and to remove the final purified samples ready for quantitation.



The system is equipped with three temperature-controlled stations with removable heated lids.

Prepares Hybridization Samples and Loads Arrays

The ArrayPrep System also prepares hybridization samples and loads them onto arrays used with the Mai Tai® System. The ArrayPrep instrument mixes labeled samples with hybridization buffers and then heats, cools and loads them onto gasket slides in Mai Tai cassettes. After placing arrays onto the samples, the cassettes are sealed and placed into a rotating oven for incubation and bubble mixing. Handling errors are reduced by ensuring that each sample is precisely delivered to its assigned array.



Automatically loads microarrays onto the Mai Tai System.

SciGene Automates Microarray Workflows

Improves Data Quality and Assay Reliability



Automates Benchwork from Labeling to Scanner

Laboratory methods for processing samples used in microarray assays are tedious, complex and time consuming which can lead to unreliable results.

SciGene has the solution with three specialized instruments that automate the sample handling workflow used with microarrays... starting with DNA, the instruments perform all of the steps from amplification and labeling through array hybridization and post hybridization processing.

Used separately, each instrument can improve laboratory workflow. Used together, they provide a powerful platform for automating microarray assays.

ArrayPrep® Target Preparation System

The ArrayPrep System automates sample labeling and then loads the samples onto microarrays using the Mai Tai Hybridization System. Using simple procedures, DNA and reagents are loaded and then the instrument follows recommended manufacturer's protocols optimized for processing up to 96 samples. Automation with the ArrayPrep System provides the laboratory enormous savings in labor and improves overall test reliability.

Mai Tai® Hybridization System

The Mai Tai System consists of an automation-compatible, multiple slide hybridization cassette and rotating oven. When setting up hybridizations, cassettes are placed on the ArrayPrep instrument and the labeled DNA samples automatically loaded onto gasket slides in the cassettes. After placing the arrays, the cassettes are sealed and the samples "bubble mixed" during hybridization by rotation in a CLIA-compliant oven. The ArrayPrep and Mai Tai System automates the selection and pipetting of samples onto arrays streamlining the work and reducing the potential for sample mix-ups.

Little Dipper® Processor

At the completion of hybridization using the Mai Tai System, slides are removed from the cassettes, washed and then dried using the Little Dipper Processor. Up to 24 slides can be processed at one time following optimized protocols developed for popular platforms (Agilent, Roche NimbleGen, etc). The Little Dipper Processor reduces batch-to-batch variability often seen with manual processing and produces clean arrays with consistently low backgrounds ready for scanning.

Specifications

ArrayPrep® Target Preparation System

Electrical

Cat.# 2000-00-1/2 115/230V AC; 12A/6A; 1400W

Dimensions (HxWxD)

Instrument 35x46x26 inches (89x117x66 cm)
Instrument Crate 30x53x37 inches (76x135x94 cm)
Accessories Carton 13x42x24 inches (33x107x61 cm)

Weight

Instrument Net 120 lbs (54 kg)
Shipping Gross 360 lbs (163 kg) in 4 containers

Performance and Controls

Temperature Range 4°C to 99°C
Temperature Regulation ± 0.2°C from set point
Pipetting Range 1 to 250 µl

Ordering Information

Catalog No. Description

2000-00-1/2 ArrayPrep® Target Preparation System, 115/230V.
Includes a labware kit and a 12 month warranty.

Related Products

1080-XX-1/2 Little Dipper® Microarray Processor, 115/230V.
1075-00-1/2 Mai Tai® Hybridization System, 115/230V.
1090-13-1/2 NoZone® WS Workspace, 115/230V.
1090-11-1/2 NoZone® TL Workspace, 115/230V.
1090-12-1/2 NoZone® GP Workspace, 115/230V.