

TaqMan® OpenArray® Genotyping Instrument Platform



- High-throughput results with ease—the powerful OpenArray® NT Imager and Autoloader combination helps enable the processing of thousands of samples per day without robotics
- Reliable multiple-sample loading—fill 3,072 through-holes (33 nL each) without cross-contamination and with minimal hands-on time
- Economical, highly scalable approach—run up to three TaqMan® OpenArray® Genotyping Plates simultaneously on the OpenArray® NT Imager

Introduction

The TaqMan® OpenArray® Genotyping System provides PCR-based SNP analysis of thousands to tens of thousands of samples and hundreds of candidate SNPs. Six TaqMan® OpenArray® Genotyping Plate formats help enable researchers to test from 144 samples against 16 unique TaqMan® Genotyping Assays to 12 samples against 256 unique TaqMan® Genotyping Assays. For more information about plate formats, refer to the TaqMan® OpenArray® Genotyping System product bulletin (P/N 135PB06). The system workflow requires thermal cycling

and fluorescence imaging of TaqMan® Genotyping Assays. Results are captured on a PC, and the OpenArray® Genotyping Analysis Software enables researchers to view specific assay data and scatter plots.

For more information, please refer to the TaqMan® OpenArray® Genotyping System User Guide (P/N 4400385).

The TaqMan® OpenArray® Genotyping Instrument Platform includes:

- OpenArray® NT Imager—images three TaqMan® OpenArray® Genotyping Plates simultaneously
- OpenArray® Autoloader—loads samples into TaqMan® OpenArray® Genotyping Plates
- OpenArray® Case Sealing Station—seals TaqMan® OpenArray® Genotyping Plates
- TaqMan® OpenArray® Instrument Accessories (includes PC system)

Fluorescence Detection

The OpenArray® NT Imager uses three filtered high-brightness LEDs to excite, and a cooled CCD camera to detect, fluorescence emission from dyes. The excitation and emission wavelengths support FAM™ and VIC® dye detection,

making this an ideal platform for running all TaqMan® Genotyping Assays.

Genotyping Software

OpenArray® Genotyping Analysis Software presents tabular data and called genotypes for review, while allowing researchers to adjust analysis parameters. Data from many TaqMan® OpenArray® Plates may be combined into the same data project. Researchers can easily modify calls per assay with a few mouse clicks. Data can be plotted in a numerical or graphical way, and can be exported into a comma-separated values file (.csv format) for further analysis.

Data Management and Analysis Using AutoCaller™ Software

AutoCaller™ Software is a complementary SNP genotyping analysis tool, combined with the power of a versatile database, which enables importation and efficient management of multiple genotyping experiment files. Experimental data files from the OpenArray® Genotyping Analysis Software are imported into the database. From there, data from multiple genotyping plates can be easily searched, viewed, edited, and analyzed. AutoCaller™

Software uses a genotyping algorithm with simple genotyping-calling procedures. It also provides a variety of statistical tools for additional data analysis.

Dual Flat Block GeneAmp® PCR System 9700

The Dual Flat Block GeneAmp® PCR System 9700 was developed specifically for the TaqMan® OpenArray® Genotyping System, and can simultaneously thermal-cycle up to eight TaqMan® OpenArray®

Genotyping Plates. Based on the GeneAmp® PCR System 9700, this system offers interchangeable blocks for standard PCR formats as well.

Warranty

Purchase of the instrument platform includes a one-year limited warranty on parts and labor, plus an installation package that includes setup and calibration of the instrument by a highly trained Applied Biosystems Service Support team member.

Service and Support

The TaqMan® OpenArray® Genotyping Instrument Platform is fully serviced and supported by Applied Biosystems.

Register for More Information

To find out more about this product and register to receive product updates and announcements, visit www.appliedbiosystems.com/taqmanopenarray.

OpenArray® NT Imager Specifications

General

Sample capacity: Three (3) TaqMan® OpenArray® Genotyping Plates in 15 minutes
Fluorescence excitation: 480, 520, and 570 nm
Fluorescence emission: 510, 535, 560, and 620 nm

Dimensions and Electrical

W: 63 cm (25 in), D: 77 cm (30 in), H: 72.5 cm (28.5 in)
Weight: 78 kg (172 lb) 100–240 VAC, 50–60 Hz, 10–12 A

Warranty and Service

One year for parts, labor, and travel

OpenArray® Autoloader Specifications

Dimensions and Electrical

W: 28.3 cm (11.1 in), D: 36.8 cm (14.5 in), H: 17.8 cm (7 in)
Weight: 11.3 kg (25 lb) 115 V, 60 Hz, 15 A circuit

Dual Flat Block GeneAmp® PCR System 9700 Specifications

General

Temperature uniformity (overall for two blocks): ≤0.75°C
Temperature accuracy: ≤0.25°C (from 35°C to 99.9°C)
Internal calibration: 4°C to 99.9°C

Dimensions

W: 30 cm (11.8 in), D: 50 cm (19.7 in), H: 26 cm (10.2 in)
Weight: 14.6 kg (39 lb)

OpenArray® Case Sealing Station Specifications

Dimensions and Electrical

W: 15.2 cm (6 in), D: 17.8 cm (7 in), H: 15.9 cm (6.2 in)
Weight: 4.5 kg (10 lb) 16 V DC

ORDERING INFORMATION

Instrument Systems	P/N	Instrument Accessories	P/N
TaqMan® OpenArray® Genotyping Instrument Platform	4408510	OpenArray® Plate Guide Set	20292
OpenArray® NT Imager	4412491	OpenArray® Autoloader Tip Block	20322
OpenArray® Autoloader	4409360	OpenArray® Autoloader Plate Holder	20384
OpenArray® Case Sealing Station	4409361	TaqMan® OpenArray® Genotyping Software Installation CD	20441
Dual Flat Block GeneAmp® PCR System 9700	4428234	TaqMan® OpenArray® 9700 Adaptor	4426824
Dual Flat Block GeneAmp® PCR System 9700, Sample Module Only	4425757	TaqMan® OpenArray® 9700 Compression Pad	4426825

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