

SYSTEMS



MassARRAY[®] System

Targeted Molecular Analysis

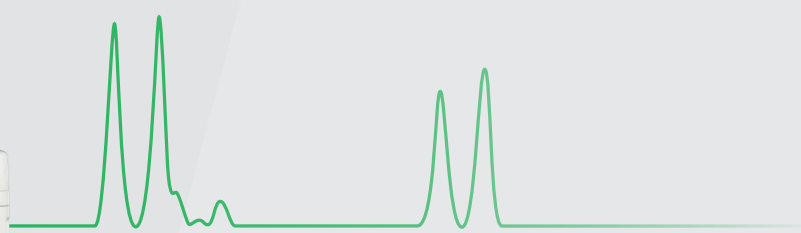


With the exception of the MassARRAY Dx, all other products are
For Research Use Only. Not for use in diagnostic procedures.



Behind Every Genetic Analysis There is a Trusted Platform

The MassARRAY® System is an open platform that simplifies genetic research. Placed at the center of your molecular workflow, you can optimize your laboratory efficiency. With a wide variety of applications, including PGx, oncology, sample identification, and custom panels, the MassARRAY System is an ideal solution to meet your lab's needs.





Maximum Productivity

Sample to data in a single day. Run from one to thousands of samples with varying applications on a single system.



Simple Workflow

Combining automation, minimal hands-on time and on-board data analysis, the MassARRAY System delivers a standardized workflow covering a suite of research applications.



Broad Multiplexing Range

Target up to 50 specific DNA variants in a single PCR reaction and run up to 96 or 384 samples on a single SpectroCHIP® Array, allowing you to test hundreds of variants.



Advanced Biomarker Detection

Detect SNPs, insertions, deletions, translocations, copy number variation, and methylation markers with one system. Analyze down to 0.1% allele frequency with minimal DNA input.



Minimal Bioinformatics Analysis

Simplified data analysis and reporting. No complex bioinformatics required.

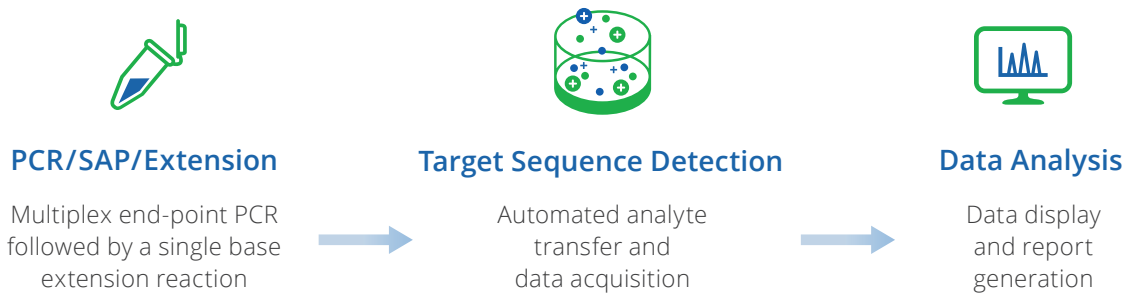


Cost-Effective Testing

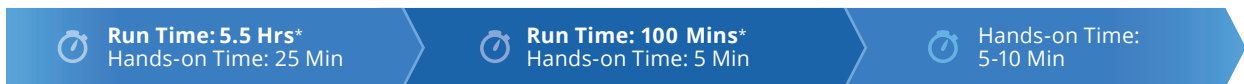
With affordable upfront cost and minimal reagent waste, the MassARRAY is an efficient laboratory tool.

STRAIGHTFORWARD WORKFLOW

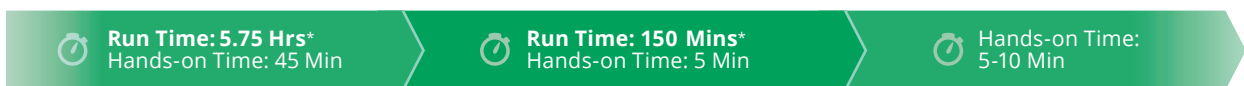
The MassARRAY System couples mass spectrometry with end-point PCR, enabling highly multiplexed reactions with standard cycling conditions. After nucleic acid extraction, approximately 10-40 ng of sample advances through a straightforward 3-step workflow:



96 FORMAT



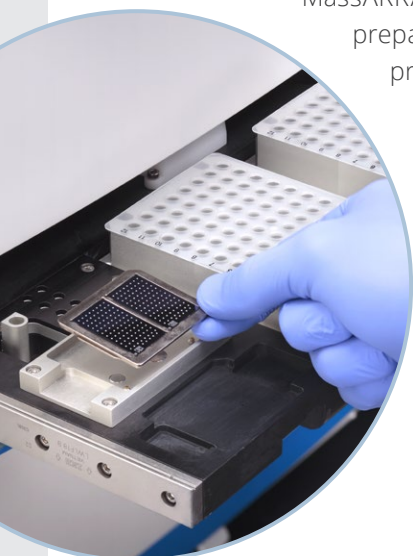
384 FORMAT



* Workflow time may vary depending on set up, chemistry and acquisition settings.

FLEXIBLE CHEMISTRY & AUTOMATED DETECTION

Maintaining an efficient workflow that ensures the integrity of results is essential to any laboratory. The MassARRAY System empowers high-throughput testing by automating key aspects of sample preparation while allowing laboratories the flexibility to customize their extraction and sample preparation protocols.



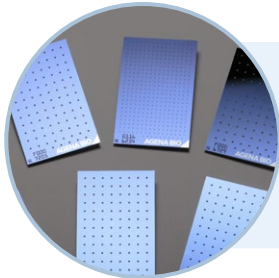
- **Automated Sample Transfer** – An internal liquid handler within the sealed system performs sample conditioning and transfer to SpectroCHIP Arrays, reducing carry-over contamination.
- **Continuous Sample Loading** – Enables a flexible workflow, minimizes downtime between batches, and optimizes throughput without risking sample integrity.
- **On-Board Stability** – An integrated plate cooler maintains a steady-state temperature, preserving the integrity of your PCR samples during daily or overnight runs.

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TRUSTED TECHNOLOGY OFFERING A UNIQUE SOLUTION

The MassARRAY System uses matrix-assisted laser desorption/ionization - time of flight (MALDI-TOF) mass spectrometry for the precise detection of DNA molecules. Genetic variants are distinguished by analysis of their individual masses, eliminating the need for fluorescence or labeling.

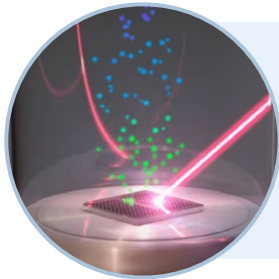
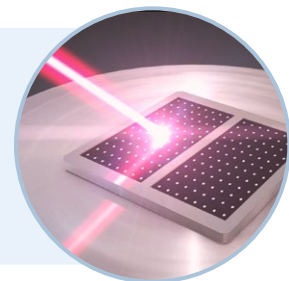


SpectroCHIP® Preparation

DNA analyte is transferred to a SpectroCHIP® where it crystalizes with the matrix.

DNA Ionization

SpectroCHIP Arrays with crystalized analytes are then transferred to the MassARRAY MALDI-TOF analyzer, where they are irradiated by a laser, inducing desorption and ionization of molecules within a vacuum chamber.

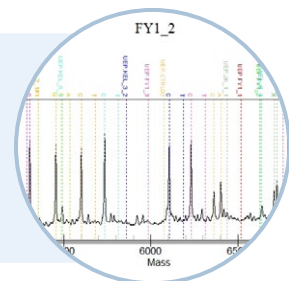


DNA Separation

Positively charged DNA ions are accelerated and migrate through the vacuum tube at different speeds dependent on the mass of the ions, reaching a highly sensitive detector at different arrival times (time of flight).

DNA Analysis

The MassARRAY System determines the mass based on the unique arrival times and displays a mass spectrum identifying the different genetic targets.



"The main advantages of the MassARRAY System are ease of use, quick turnaround time, and ease of onboarding... With the Agena MassARRAY, we can go live with an assay in a short period of time."

– Dr. Castro-Echeverry *Baylor Scott & White Health*

BROAD MULTIPLEXING ABILITY

The MassARRAY System and SpectroCHIP consumable enable genotyping of up to 50 genetic variants per pad: **up to 19,200* genetic variants across the entire chip.**

The MassARRAY is an ideal system for targeting 10s-100s of genetic markers per sample. The SpectroCHIP features 96 or 384 inert matrix pads evenly spaced across an array. Unique DNA analyte mixtures can be deposited onto any pad, enabling side-by-side testing of different assays for distinct biomarkers from varying sample types in a single run.

*Based on the SpectroCHIP 384. The 96 format can genotype up to 4,800 genetic variants.



10-40ng
of DNA

+



50
targets per pad

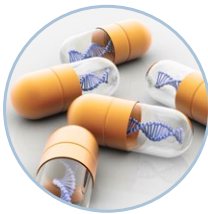
=



19,200
genetic variants

FLEXIBLE APPLICATIONS

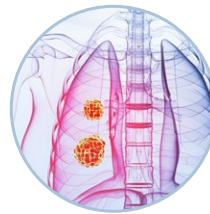
The MassARRAY meets laboratory needs with both pre-designed and custom panels. Detect a wide range of biomarkers including SNPs, insertions, deletions, translocations, copy number variation, and methylation.



Pharmacogenetics



Liquid Biopsy



Mutation Profiling



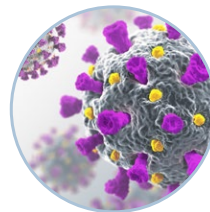
Specimen Validity



Sample Integrity



Hereditary Genetics



Infectious Disease



Methylation

Don't see your application? Our custom assay services can get your lab up and running quickly.



ACTIONABLE DATA WITH SYSTEM SOFTWARE

Save time and energy with easy-to-read data that minimizes bioinformatics requirements. The included system software package provides comprehensive reports with the status of each target gene in integrable formats (HTML, PDF and CSV). This data can be accessed remotely, used as is in your laboratory's research workflow, or analyzed further with collaborators.



1	Report Summary						
2	Report Software Version	1.90.025					
3	Report date	2023-01-16					
4	Report time	13:40:52					
5	SNP panel name	VeridoseCore					
6	SNP panel directory	C:\MassARRAY\7\Open/Bios\Reports\PCis Report\NeptolyData\Veridose					
7	SNP haplotype file	C:\MassARRAY\7\Open/Bios\Reports\PCis Report\NeptolyData\Veridose					
8	CSV panel definition file	PCisReport_CNV_defintion.csv					
9	CSV panel version settings	CNV22					
10	Number of plates						
11	Number of all samples	1					
12	Number of failed samples	0					
13	Plate name						
14	Number of control samples	PGx73_Veridose-CNV_1_1					
15	Number of control samples	PA33					
16	Number of control samples	Agena2N					
17							
18		ABCBL	APOR	COMT	CYP1A2	CYP2B6	CYP2
19		G/G	E/E	A/G	*1A/*1P	*1/*6	*1/*
20		A/G	E/E	G/G	*1A/*1P	*1/*1	*1/*
21		G/G	E/E	A/G	*1P/*1P	*1/*6	*1/*
22		A/A	E/E	A/G	*1A/*1P	*1/*1	*1/*
23		G/G	E/E	A/A	*1A/*1P	*1/*6	*1/*



Agena | Somatic Variant Report

Home Summary View

Search

Change Zscore (Default Value: 3)

Report Summary: Analysis Parameters:

Date of Report: Tue Jan 9 11:04:47 2024 Intensity Type: SNR

SVR Report Version: v1.0 Intensity Threshold: 5

Chemistry: IPLXHS Baseline Method: External



Agena | CFTR Report

Home Panel Content

Search

Report Summary: Analysis Parameters:

Date of Report: Tue Jan 16 15:54:50 2022 Intensity Type: Height

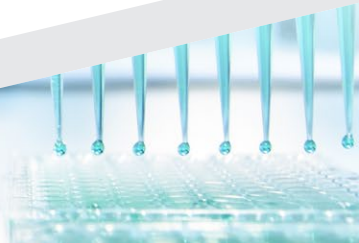
Panel Name: CFTR v3.0 Panel Intensity Threshold: 0.2

Total Samples: 32 Extension Rate Threshold: 0.5

QC Passed: 24

QC Failed: 8

Samples with Variants: 22



ORDERING INFORMATION

Catalog No.	Product
10445	MassARRAY System with Chip Prep Module, 96 Genotyping
10446	MassARRAY System with Chip Prep Module, 96 EpiTyper
10447	MassARRAY System with Chip Prep Module, 384 Genotyping
10448	MassARRAY System with Chip Prep Module, 384 EpiTyper

SPECIFICATIONS

MassARRAY System with CPM 96

Components:	MassARRAY Analyzer 4 Chip Prep Module 96 Integrated computer
Dimensions:	37W x 43H x 27D in (104W x 110H x 68D cm)
Capacity:	2 x Microtiter plates (96-well) 2 x SpectroCHIP CPM 96 Arrays
Processing time:	Approx. 100 minutes per 96-well plate

MassARRAY System with CPM 384

Components:	MassARRAY Analyzer 4 Chip Prep Module 384 Integrated Computer
Dimensions:	37W x 43H x 27D in (104W x 110H x 68D cm)
Capacity:	2 x Microtiter plates (384-well) 2 x SpectroCHIP CPM 384 Arrays
Processing time:	Approx. 150 minutes per 384-well plate

With the exception of the MassARRAY Dx, all other products are For Research Use Only.
Not for use in diagnostic procedures.

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