

Axiom™ Precision Medicine Diversity Array Plate

Catalog Number 951958

Pub. No. MAN0018356 Rev. A.0



WARNING! Read the Safety Data Sheets (SDSs) and follow the handling instructions. Wear appropriate protective eyewear, clothing, and gloves. Safety Data Sheets (SDSs) are available from thermofisher.com/support.

Product use

The Applied Biosystems™ Axiom™ Precision Medicine Diversity Array (PMDA) is designed for genotyping of single nucleotide polymorphisms (SNPs), simple insertion/deletions (indels), and copy number variations (CNV). This array plate, when used with the Axiom™ 2.0 Plus Reagent Kit 96F (or Axiom™ 2.0 Reagent Kit), enables researchers to perform large-scale genotyping studies with minimal hands-on processing per plate.

Each plate consists of 96 microarrays and is offered as a part of a complete automated solution that includes instrumentation for sample preparation, and array washing, staining, and scanning.

Markers are amplified using a whole-genome amplification step using the Axiom™ 2.0 Plus Reagent Kit 96F or the Axiom™ 2.0 Reagent Kit. A mPCR step is enabled with Axiom™ 2.0 Plus Reagent Kit 96F to offer accurate genotyping of markers in regions of high homology. Amplified DNA is fragmented into short segments of DNA (25–125 base pair) before array hybridization. The reagents for processing Axiom™ PMDA Array Plates are also included in these reagent kits.

Identical to the cartridge array manufacturing process, the oligonucleotide probes on Axiom™ PMDA Array Plates are synthesized *in situ* using the photolithographic process.

Instructions for use

See the following documents for instructions on processing samples using the Axiom™ 2.0 Plus Assay.

Axiom™ 2.0 Plus Assay

- *Axiom™ 2.0 Plus Assay 96-Array Format Automated Workflow User Guide—Applied Biosystems™ NIMBUS™ Target Preparation Instrument* (Pub. No. MAN0018331, SPG Pub. No. MAN0018332, QR Pub. No. MAN0018333)

Related documentation

- *GeneTitan™ MC Protocol for Axiom™ Array Plate Processing Quick Reference* (Pub. No. MAN0017718)
- *GeneTitan™ Multi-Channel Instrument User Guide* (Pub. No. 08-0308, SPG Pub. No. 08-0305)
- *GeneChip™ Command Console™ User Guide* (Pub. No. 702569)
- *Axiom™ Analysis Suite User Guide* (Pub. No. 703307)
- *Axiom™ Genotyping Solution Data Analysis Guide* (Pub. No. 702961)

Library files

Library files contain information about the probe array design characteristics, probe use and content, and scanning and analysis parameters. These files are unique for each probe array. Additional information can be located under the specific array product on our website.

Reagents, instrumentation, and software required

1. Reagent kit:
 - Axiom™ 2.0 Plus Reagent Kit 96F (with reagents for mPCR step), or
 - Axiom™ 2.0 Reagent Kit
2. Applied Biosystems™ NIMBUS™ Target Preparation Instrument
3. GeneTitan™ Multi-Channel Instrument
4. GeneChip™ Command Console™ (GCC) software
5. Axiom™ Analysis Suite software

For a complete list of reagents and consumables required, see *Axiom™ 2.0 Plus Assay 96-Array Format Automated Workflow Site Preparation Guide—Applied Biosystems™ NIMBUS™ Target Preparation Instrument* (Pub. No. MAN0018332).

Ordering information

| Product name | Description | Source |
|---|---|--------|
| Axiom™ Precision Medicine Diversity Array (PMDA) | One 96-array format plate | 951958 |
| Supporting products | | |
| Axiom™ 2.0 Plus Reagent Kit 96F | Reagents sufficient for one 96-array plate (including a mPCR step ^[1]) | 951960 |
| Axiom™ 2.0 Reagent Kit | Sufficient for one 96-array plate | 901758 |
| Axiom™ 2.0 Plus Assay, PMDA Array, and GeneTitan™ Consumables Kit | Sufficient for processing one 96-array plate (with reagents for mPCR step ^[1]) Consists of: <ul style="list-style-type: none"> • One Axiom™ 2.0 Plus Reagent Kit 96F • One Axiom™ PMDA Array Plate • One Axiom™ GeneTitan™ Consumables Kit | 951961 |
| Axiom™ 2.0 Assay, PMDA Array, and GeneTitan™ Consumables Kit | Sufficient for processing one 96-array plate Consists of: <ul style="list-style-type: none"> • One Axiom™ 2.0 Reagent Kit • One Axiom™ PMDA Array Plate • One Axiom™ GeneTitan™ Consumables Kit | 951962 |
| Axiom™ 2.0 Plus Assay and PMDA Training Kit | Sufficient for processing two 96-array plates (with reagents for mPCR step ^[1]) Consists of: <ul style="list-style-type: none"> • Two Axiom™ 2.0 Plus Reagent Kit 96F • Two Axiom™ PMDA Array Plates • Two Axiom™ GeneTitan™ Consumables Kits • Two PharmacoScan™ DNA Training Plate 96F | 951963 |
| Axiom™ 2.0 Assay and PMDA Training Kit | Sufficient for processing two 96-array plates Consists of: <ul style="list-style-type: none"> • Two Axiom™ 2.0 Reagent Kits • Two Axiom™ PMDA Array Plates • Two Axiom™ GeneTitan™ Consumables Kits • Two PharmacoScan™ DNA Training Plate 96F | 951964 |

^[1] The Axiom™ 2.0 Plus Reagent Kit 96F contains mPCR primers, however, the mPCR master mix kit must be purchased separately. See the *Axiom™ 2.0 Plus Assay 96-Array Format Automated Workflow Site Preparation Guide—Applied Biosystems™ NIMBUS™ Target Preparation Instrument* (Pub. No. MAN0018332) for details.

Storage, handling, and stability

The array plates should be stored at 2–8°C and must not be frozen. The array plates must be protected at all times from damage or exposure to dust. Refer to the expiration date on the package label. Do not use array plates or reagents after the expiration date.

When handling the 96-plate scan tray

Remove the scan tray from the pouch with gloved hands. The scan tray is packaged with a black plastic base. Do not remove the protective black plastic base from the scan tray or touch the scan tray directly. This protective base should stay with the scan tray at all times prior to loading into the GeneTitan™ MC Instrument.

CAUTION! The scan tray has protruding guiding posts that may be sharp and can stick out of the pouch if not handled carefully; therefore, take precaution to prevent unnecessary injury.

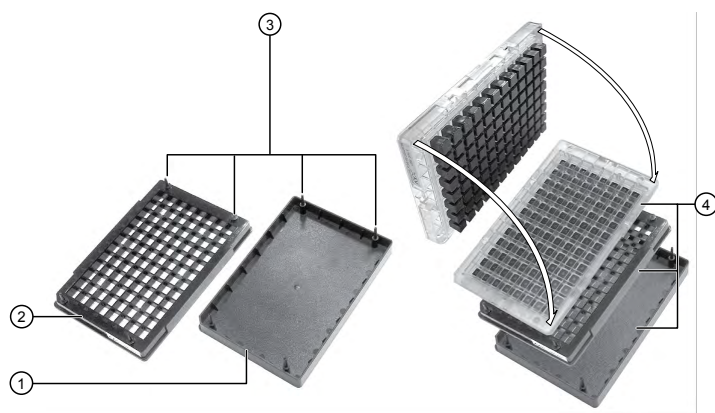


Figure 1 Scan tray assembly.

- ① Black plastic base
- ② Scan tray
- ③ Alignment pins
- ④ Array plate, scan tray, and black plastic base assembly

Note: Displayed action is for demonstration purposes only. All movement of the array plate is performed during the fluidics protocol on the GeneTitan™ Instrument.

When handling the 96-array plate

Remove the array plate from the pouch with gloved hands. The array plate is packaged with a blue plastic base. Do not remove the protective blue plastic base from the array plate or touch the array plate directly. Keep the array plate in the protective base at all times, including when placed on the GeneTitan™ MC Instrument.

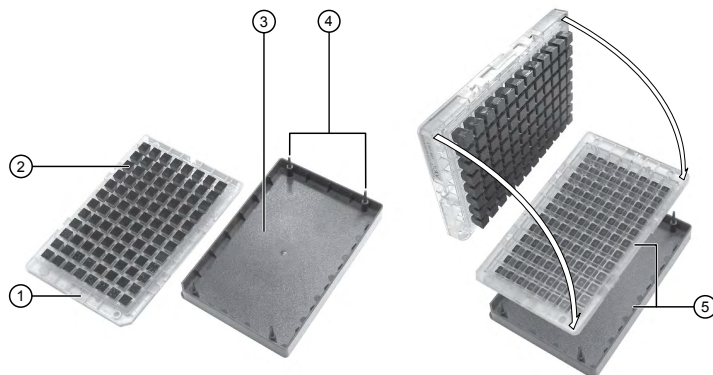


Figure 2 Array plate assembly.

- ① Array plate
- ② Array on glass substrate that is mounted on a peg
- ③ Blue plastic base
- ④ Alignment pins
- ⑤ Array plate and blue base assembly

Note: Displayed action is for demonstration purposes only.

Limited product warranty

Life Technologies Corporation and/or its affiliate(s) warrant their products as set forth in the Life Technologies' General Terms and Conditions of Sale at www.thermofisher.com/us/en/home/global/terms-and-conditions.html. If you have any questions, please contact Life Technologies at www.thermofisher.com/support.



Affymetrix Pte Ltd | 7 Gul Circle #2M-01 | Keppel Logistics Building | Singapore 629563

For descriptions of symbols on product labels or product documents, go to thermofisher.com/symbols-definition.

The information in this guide is subject to change without notice.

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