



## Axiom™ Genome-Wide ASI 1 Array Plate

### Intended Use

The Axiom™ Genome-Wide ASI 1 Array Plate consists of peg arrays designed for the genotyping of single nucleotide polymorphisms (SNPs) and simple insertion/deletions (in/dels). This array plate, when used with the Axiom™ 2.0 Reagent Kit (see **Ordering Information** for further details) 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 from Affymetrix that includes instrumentation for sample preparation, and array washing, staining and scanning.

The array plate is available in a single configuration:

- **96-Array Plate** — Twelve (12) columns of 8 microarrays in each column for a total of 96 identical microarrays on the same plate.

Each microarray on the Axiom Genome-Wide ASI 1 Array Plate enables the genotyping of > 600,000 SNPs and 2,834 simple indels. SNPs on this array were chosen from the dbSNP database (including SNPs from the 1000 Genomes project data releases) as well as the Axiom Genomic Database. These SNPs are present on short randomly generated fragments of genomic DNA (25 to 125 basepair), and are amplified using the Axiom 2.0 Reagent Kit. The reagents for processing Axiom arrays are also included in this reagent kit.

SNPs were chosen and represented on the array in part based upon genotyping reproducibility and call rate, with accuracy determined using genotypes from the International HapMap Project. These SNPs have been validated across multiple samples, including the original 270 HapMap Phase I samples as well as additional extended HapMap 3 populations.

Identical to the cartridge array manufacturing process, the oligonucleotide probes on Axiom Genome-Wide ASI 1 Array Plates are synthesized in situ using Affymetrix' photolithographic process.

### Instructions for Use

Refer to the following documents for instructions on processing samples using the Axiom™ 2.0 Assay.

- *Axiom™ 2.0 Assay Automated Workflow User Guide*, P/N 702963
- *Axiom™ 2.0 Assay Automated Workflow Site Prep Guide*, P/N 702984
- *Axiom™ 2.0 Assay Automated Target Prep Protocol QRC*, P/N 702962
- *Axiom™ 2.0 Assay Manual Workflow User Guide*, P/N 702990
- *Axiom™ 2.0 Assay Manual Workflow Site Prep Guide*, P/N 702991
- *Axiom™ 2.0 Manual Target Prep Protocol QRC*, P/N 702989
- *Axiom™ 2.0 gDNA Sample Prep Protocol QRC*, P/N 702987
- *GeneTitan® MC Protocol for Axiom 2.0 Array Plate Processing QRC*, P/N 702988

### Related Documents

The following documents contain information related to the instruments and software required to perform the Axiom 2.0 Genotyping Assay:

- *GeneTitan® Multichannel Instrument User's Manual*, P/N 08-0306
- *GeneTitan® Multichannel Instrument Site Preparation Guide*, P/N 08-0305
- *Affymetrix® GeneChip® Command Console® Software User Manual*, P/N 702569
- *Affymetrix® Genotyping Console™ 4.1 User Manual*, P/N 702982
- *Biomek® Liquid Handler User's Manual*, Beckman Coulter P/N 987834
- *Biomek® Software User's Manual*, Beckman Coulter P/N 987835

### 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 type. Additional information can be located under the specific array product on the Affymetrix web site at [www.affymetrix.com/support/technical/libraryfilesmain.affx](http://www.affymetrix.com/support/technical/libraryfilesmain.affx).

### Reagents, Instrumentation and Software Required

1. Axiom™ 2.0 Reagent Kit
2. Axiom™ Genome-Wide and/or myDesign Array Plates
3. Biomek FX<sup>®</sup> Target Prep Express by Beckman Coulter
4. GeneTitan™ Multichannel Instrument
5. Affymetrix GeneChip® Command Console® Software
6. Affymetrix Genotyping Console

For a complete list of reagents and consumables required, please refer to the *Axiom™ 2.0 Assay Automated Workflow Site Prep Guide*, P/N 702984, or the *Axiom™ 2.0 Assay Manual Workflow Site Prep Guide*, P/N 702991.

### Ordering Information

Product Name	Description	Part Number
Axiom™ Genome-Wide ASI 1 96-Array Plate	One 96-Array Plate	901640
Axiom™ GeneTitan® Consumables Kit <sup>1</sup>	Contains all GeneTitan consumables required to process an Axiom array plate	901606
Axiom™ 2.0 Reagent Kit	One 96-Reaction Kit	901758

1. One Hyb Tray, one Scan Tray, and five Stain Trays with covers are included for use with each array plate. These consumables are required for processing Axiom array plates on the GeneTitan Multichannel Instrument.

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### Storage, Handling and Stability

Axiom Genome-Wide ASI 1 Array Plates should be stored at 2 to 8 °C and must not be frozen. Refer to the expiration date on the package label. Do not use arrays or reagents after the expiration date.

#### When Handling the Axiom Array Plate

Remove the Array Plate from the pouch with gloved hands. The plate is packaged with a blue plastic base. Do not remove the Array Plate from this protective base, or touch the Array Plate directly. Keep the Array Plate in the protective base at all times, including when placed on the GeneTitan Multi-Channel instrument.

#### When Handling the 96 Plate Scan Tray

Remove the 96 Plate Scan Tray (Scan Tray) from the pouch with gloved hands. The Scan Tray is packaged with a black protective base and cover. Keep the Scan Tray in the protective base with the cover at all times prior to loading into the GeneTitan Multi-Channel Instrument. Do not touch the bottom of the Scan Tray directly.

The Scan Tray has protruding guide posts that may be sharp and can puncture the pouch if not handled carefully. Take the necessary precautions to avoid injury.

## Precautions

1. AXIOM GENOME-WIDE ASI 1 ARRAY PLATES ARE FOR RESEARCH USE ONLY. NOT FOR USE IN DIAGNOSTIC PROCEDURES.
2. Avoid microbial contamination, which may cause erroneous results.
3. WARNING: All biological specimens and materials with which they come into contact should be handled as if capable of transmitting infection and disposed of with proper precautions in accordance with federal, state, and local regulations. This includes adherence to the OSHA Bloodborne Pathogens Standard (29 CFR 1910.1030) for blood-derived and other samples governed by this act. Never pipet by mouth. Avoid specimen contact with skin and mucous membranes.
4. CAUTION: Exercise standard precautions when obtaining, handling, and disposing of potentially carcinogenic reagents.
5. Exercise care to avoid cross-contamination of samples during all steps of this procedure, as this may lead to erroneous results.
6. Use powder-free gloves whenever possible to minimize introduction of powder particles into sample or probe array plates.
7. CAUTION: Use care when handling the Scan Tray as it has protruding guiding posts that may be sharp and can stick out of the pouch if not handled carefully.

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