

Affymetrix® Genome-Wide Human SNP Array 6.0



INTENDED USE

The Affymetrix® Genome-Wide Human SNP Array 6.0 consists of a single array that enables genotyping of approximately 906,600 single nucleotide polymorphisms (SNPs) and assaying of approximately 945,826 non-polymorphic probes for detection of copy number variation.

The SNPs on this array were chosen from the public and Perlegen SNP databases. These SNPs are present on 200 to 1,100 basepair (bp) Nsp I or Sty I digested fragments in the human genome, and are amplified using the Affymetrix® Genome-Wide Human SNP Nsp/Sty Assay Kit 5.0/6.0.

SNPs were chosen and represented on arrays based upon reproducibility, call rate, accuracy and concordance with genotypes from the International HapMap Project. These SNPs have been validated across a minimum of 500 individuals from multiple populations, including Caucasian, Asian and African.

The 946,000 non-polymorphic probes were chosen to be amplified in Nsp I fragments also using the Genome-Wide Assay Kit 5.0/6.0.

Refer to the *Affymetrix® Genome-Wide Human SNP Nsp/Sty 6.0 User Guide* (P/N 702504) for procedures on DNA target preparation, target hybridization, fluidics setup, array scanning and data analysis instructions for processing Affymetrix® Genome-Wide Human SNP 6.0 Arrays.

INSTRUMENTATION AND SOFTWARE REQUIRED

1. GeneChip® Scanner 3000
2. GeneChip® Fluidics Station 450
3. Affymetrix® Genotyping Console™

Affymetrix® Genotyping Console™ provides genotype calling and QC call rate analysis for Affymetrix® Genome-Wide Human SNP Arrays 5.0 and 6.0.

ARRAY SPECIFICATIONS

Each array has 6.8 million 5 x 5 µm features. A feature consists of more than 1 million copies of a 25 bp oligonucleotide probe of defined sequence, synthesized in parallel by photolithographic manufacturing. For each SNP, six to eight oligonucleotides (25 bp each) are on the array, which represents one probe for each allele represented three or four times each. In addition, approximately 946,000 non-polymorphic probes are present on the array.

ACCESSORY FILES

Fluidics Protocol Required:

GenomeWideSNP6_450

Library Files Required:

GenomeWideSNP_6

Library files contain information about probe array design layout and other characteristics; probe use and content; and scanning and analysis parameters.

These files are unique for each probe array type. Library files are available from the Affymetrix web site at:

www.affymetrix.com/support/technical/libraryfilesmain.affx

The Genotyping Console™ software manual includes step-by-step instructions and data analysis workflow details for the Human SNP Array 6.0. Current Affymetrix software does not support analysis of the non-polymorphic probes. Please check the Affymetrix web site for additional updates.

ORDERING INFORMATION

P/N	Product Name	Description
ARRAYS		
901182	Affymetrix® Genome-Wide Human SNP Array 6.0	5 Arrays
901153	Affymetrix® Genome-Wide Human SNP Array 6.0	50 Arrays
901150	Affymetrix® Genome-Wide Human SNP Array 6.0	100 Arrays
SUPPORTING PRODUCTS		
901152	Affymetrix® Genome-Wide Human SNP Nsp/Sty Assay Kit 5.0/6.0	50 Reactions
901015	Affymetrix® Genome-Wide Human SNP Nsp/Sty Assay Kit 5.0/6.0	100 Reactions
901012	Reference Genomic DNA, 103	Sufficient for 2 Reactions

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PRECAUTIONS

1. AFFYMETRIX PROBE ARRAYS ARE FOR RESEARCH USE ONLY; NOT FOR 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 cartridges.

STORAGE, HANDLING AND STABILITY

The Affymetrix probe array consists of a square glass substrate mounted in a plastic cartridge (Figure 1). The glass contains an array of oligonucleotides that, when mounted, is on the inner glass surface. A chamber in the plastic housing directly under the glass acts as a reservoir where hybridization and washing occur.

Although the inner glass surface of the probe array is protected, any contamination or scratches on the outer surface of the glass can compromise the accuracy of the scan. Avoid touching the surface of the glass with your fingers. Skin oils and other substances, such as lotions or ink, can fluoresce. If the surface of the glass is noticeably dirty, it can be carefully cleaned with a non-abrasive laboratory tissue.

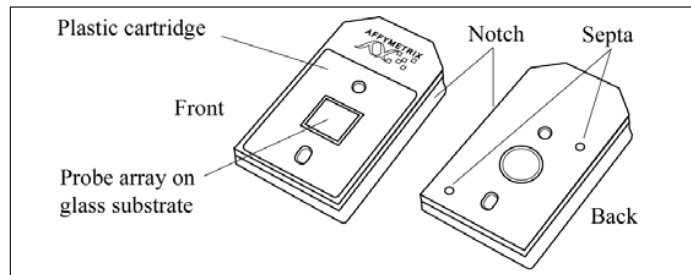


Figure 1. Affymetrix® Probe Array

The Affymetrix® probe arrays should be stored at 2° to 8°C. Refer to the expiration date on the package label. Do not use probe arrays or reagents after the expiration date.

CONTACT INFORMATION

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PATENTS

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