



GeneChip® PrimeView™ Human Gene Expression Array

Intended Use

The GeneChip® PrimeView™ Human Gene Expression Array is a single GeneChip® brand array comprised of more than 530,000 probes covering over 36,000 transcripts and variants, which, in turn, represent more than 20,000 genes mapped through UniGene or via RefSeq annotation.

Sequences used in the design of the array were selected from the UniGene database 219 (build date March 30, 2009), RefSeq version 36 (13 July 2009) and full-length human mRNA's from GenBank® (downloaded May 12, 2009).

The EST and mRNA sequences used in the design were clustered and assembled to create consensus sequences that represent alternative splice forms, and each assembly was then analyzed for orientation and alternative 3' end evidence. Content was chosen to cover ALL the well-annotated genes and transcripts from RefSeq v36 (the NM_ accession type), and, by leveraging all available EST and mRNA evidence that fall into the same clusters, to rigorously detect alternate 3' ends of those well-annotated genes. In addition, over 1,000 probe sets represent transcripts that have no official gene symbol in UniGene, but are based on predicted RefSeq sequences and UniGene clusters with good evidence of actual transcription (i.e., contain full-length mRNAs or multiple EST's that designate the same 3' end).

The majority of the content (over 43,000 probe sets) directly covers RefSeq "NM_" sequences with 11 probes per set, and the remainder of probe sets contain 9 probes.

The array contains the exact same 100 normalization control probe sets as U133.

The oligonucleotide probes on the GeneChip PrimeView Human Gene Expression Array are synthesized *in situ* using Affymetrix' photolithographic process. GeneChip probe arrays are for research use only and not intended for use in diagnosis of disease.

Please refer to www.affymetrix.com for a list of supporting manuals for procedures regarding target preparation, target hybridization, washing, staining, and array scanning.

Accessory Files

Fluidics

The Fluidics Script used depends on the labeling protocol, hybridization and stain reagents used. Refer to the Fluidics Script Support page to determine the appropriate fluidics protocol for this array, GeneChip® instrument system, and reagents used. The Fluidics Scripts can be downloaded from the following URL: www.affymetrix.com/support/technical/fluidics_scripts.affx

Library Files

Library files contain information about the 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. The library files may be downloaded from the following URL: www.affymetrix.com/support/technical/libraryfilesmain.affx

Critical Specifications

Feature Size	11 µm
Probes/Sequence	9 to 11 Perfect Match Probes
Hybridization Controls	<i>bioB, bioC, bioD, cre</i>
Poly-A Controls	<i>dap, lys, phe, thr</i>
Normalization Controls	100 Probe Sets
Housekeeping/Control Genes	GAPDH, beta-Actin
Hybridization Volume	130 µL
Library Files	PrimeView
Fluidics Script	FS450_0002

Instrumentation and Software Required

1. GeneChip® Scanner 3000 7G
2. GeneChip® Fluidics Station 450
3. GeneChip® Hybridization Oven 645
4. Affymetrix GeneChip® Command Console® Software (AGCC)

Ordering Information

P/N	Product Name	Description
Arrays		
901837	GeneChip® PrimeView™ Human Gene Expression Array	10 Arrays
901838	GeneChip® PrimeView™ Human Gene Expression Array	30 Arrays
901839	GeneChip® PrimeView™ Human Gene Expression Array and GeneChip® 3' IVT Express Kit Bundle	10 Arrays 10 Reactions
901840	GeneChip® PrimeView™ Human Gene Expression Array and GeneChip® 3' IVT Express Kit Bundle	30 Arrays 30 Reactions
Supporting Products		
901228	GeneChip® 3' IVT Express Kit	10 Reactions
901229	GeneChip® 3' IVT Express Kit	30 Reactions
900454	GeneChip® Hybridization Control Kit	30 Reactions
900457	GeneChip® Hybridization Control Kit	150 Reactions
900301	Control Oligo B2, 3nM (included in Hybridization Control Kit)	30 Reactions
900720	GeneChip® Hybridization, Wash, and Stain Kit ¹	30 Reactions

¹ Each kit contains one (1) Hybridization Module, one (1) Stain Module, three (3) bottles of Wash Buffer A and one (1) bottle of Wash Buffer B, sufficient for 30 reactions. Individual kit components may be ordered separately.

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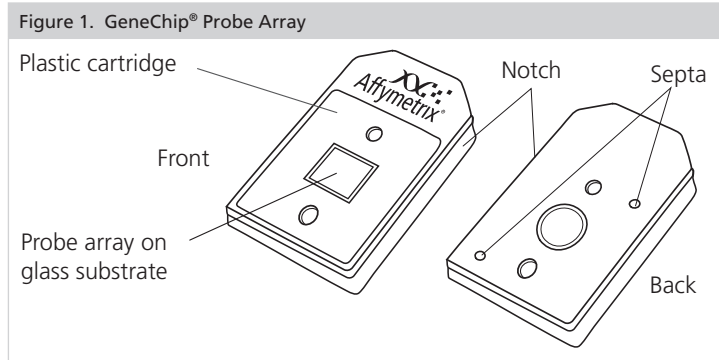
Precautions

1. GENECHIP 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 GeneChip 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.



The GeneChip® 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.

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www.affymetrix.com

Patents

Products may be covered by one or more of the following patents: U.S. Patent Nos. 5,445,934; 5,744,305; 5,945,334; 6,140,044; 6,399,365; 6,551,817; 6,733,977; 7,629,164; 7,790,389 and D430,024 and other U.S. or foreign patents. Products are manufactured and sold under license from OGT under 5,700,637.

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