



GeneChip® Mouse Promoter 1.0R Array

Intended Use

The GeneChip® Mouse Promoter 1.0R Array is designed for chromatin immunoprecipitation (ChIP) experiments. The Mouse Promoter 1.0R Array is a single array comprised of over 4.6 million probes tiled to interrogate over 28,000 mouse promoter regions.

Sequences used in the design of the Mouse Promoter 1.0R Array were selected from NCBI version 33 of the mouse genome. Repetitive elements were removed by RepeatMasker. Promoter regions were selected using sequence information from 33,559 ENSEMBL genes (version 30_33f March 23, 2005), 18,167 RefSeq mRNAs (NCBI GenBank® April 7, 2005), and 27,707 complete-CDS mRNAs (NCBI GenBank® April 7, 2005). The sequences selected for the Mouse Promoter 1.0R Array are a subset of the content used in the whole-genome ChIP array set, the Mouse Tiling 2.0R Array Set (P/N 900852).

Oligonucleotide probes are synthesized in situ complementary to each corresponding sequence. Probes are tiled at an average resolution of 35 base pairs, as measured from the central position of adjacent 25-mer oligos, leaving a gap of approximately 10 base pairs between probes. Each promoter region covers approximately 6 kb upstream through 2.5 kb downstream of 5' transcription start sites. The Mouse Promoter 1.0R Array contains over 4.6 million Perfect Match probes to specifically interrogate genomic regions.

GeneChip probe arrays are for research use only and not intended for use in diagnosis of disease. Refer to the *Affymetrix® Chromatin Immunoprecipitation Assay Protocol* (P/N 702238) for procedures regarding target preparation, target hybridization, fluidics station setup, probe array scanning, and data analysis.

Instrumentation and Software Required

1. GeneChip® Scanner 3000 7G
2. Affymetrix® GeneChip® Command Console® (AGCC) version 3.1.1 or higher
3. GeneChip® Fluidics Station 400 or higher

Recommended Analysis Software

1. Affymetrix® Tiling Array Software (TAS)
2. Integrated Genome Browser

TAS and the Integrated Genome Browser are available for download from www.affymetrix.com

Accessory Files

Fluidics

The fluidics scripts can be downloaded from the Affymetrix web site. Additional information, including lists of steps in the fluidics protocol, can be found in the *Affymetrix® Chromatin Immunoprecipitation Assay Protocol*.

Library Files

Library files contain information about the probe array design layout and other characteristics, probe use and content, and scanning and analysis parameters. Tiling arrays are accompanied by .bmap files which associate each probe on the array with the genomic location. These files are unique for each probe array type. The library files can be downloaded from the following URL: www.affymetrix.com/support/technical/libraryfilesmain.affx.

Critical Specifications

Feature Size	5 µm
Tiling Resolution	35 base pair
Hybridization Controls Tiling mRNA controls	<i>bioB</i> , <i>bioC</i> , <i>bioD</i> , <i>cre</i> <i>B. subtilis</i> : <i>dap</i> , <i>lys</i> , <i>phe</i> , <i>thr</i> <i>A. thaliana</i> : CAB, RCA, RBCL, LTP4, LTP6, XCP2, RCP1, NAC1, TIM, PRKASE
Array Format	49
Fluidics Protocol	Fluidics Station 450: FS450_0001 Fluidics Station 400: EukGE-WS2v5, and manually add Array Holding Buffer to the cartridge prior to scanning
Hybridization Volume	200 µL. The total fill volume of the cartridge is 250 µL.
Library Files	Mm_PromP

Precautions

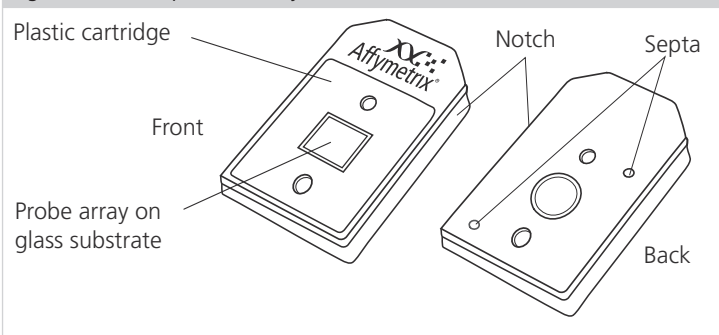
1. GENCHIP PROBE ARRAYS ARE FOR RESEARCH USE ONLY; NOT FOR DIAGNOSTIC PROCEDURES.
2. Avoid microbial contamination, which may cause erroneous results.
3. **WARNING: All biological specimens and materials with which they come into contact should be handled as if capable of transmitting infection and disposed 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 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. GeneChip® Probe Array



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.

Ordering Information

P/N	Product Name	Description
Arrays		
900889	GeneChip® Mouse Promoter 1.0R Array	2 Arrays
900890	GeneChip® Mouse Promoter 1.0R Array	6 Arrays
900891	GeneChip® Mouse Promoter 1.0R Array	30 Arrays
Supporting Products		
900301	Control Oligo B2 (also included in Hybridization Control Kit)	Sufficient for 30 Reactions
900720	GeneChip® Hybridization, Wash, and Stain Kit ¹	Sufficient for 30 Reactions
900721	Wash Buffer A	800 mL
900722	Wash Buffer B	600 mL

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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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; 6,261,776; 6,291,183; 6,346,413; 6,399,365; 6,420,169; 6,551,817; 6,610,482; 6,733,977; 6,955,915 and D430,024 and other U.S. or foreign patents. Products are manufactured and sold under license from OGT under 5,700,637 and 6,054,270.

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