



## Affymetrix® Mouse Gene 1.1 ST Array Strip

### Intended Use

The Affymetrix® Mouse Gene 1.1 ST Array Strip is designed for low and medium-throughput microarray expression analysis and enables researchers to perform studies with minimum hands-on processing time per sample. Each array strip consists of four microarrays and contains the same probe sets as the GeneChip® Mouse Gene 1.0 ST Cartridge Array. The Mouse Gene 1.1 ST Array Strip is offered as a part of the automated solution from Affymetrix including array strip hybridization, washing, staining and scanning on the GeneAtlas™ Instrument.

Each array is comprised of more than 770,000 unique 25-mer oligonucleotide probes that interrogate over 28,000 genes. Discovery content, such as transcript regions supported by more speculative sources including Expressed Sequence Tags (ESTs) and gene predictions, are not interrogated by the Affymetrix Mouse Gene 1.1 ST Array Strips. Design of the array was based on sequences and gene annotations obtained from the following sources and used to group probes from the GeneChip® Mouse Exon 1.0 ST Array into new gene-level probe sets. In some cases these sequences were used to select additional new probes.

- The February 2006 mouse genome sequence (UCSC mm8, NCBI v36).
- RefSeq NM (curated and provisional; not predicted) mRNA sequences (19,719 sequences) current to April 3, 2007.
- Genbank® complete coding sequence mRNAs (35,257 sequences) current to November 13, 2006.
- Mouse Ensembl transcripts current to April 3, 2007 (35,882 transcripts).
- Syntenically mapped full-length mRNAs and RefSeq NMs from human (68,820 sequences) and rat (20,409 sequences).

Identical to the cartridge array manufacturing process, the oligonucleotide probes on Affymetrix Mouse Gene 1.1 ST Array Strips are synthesized *in situ* using Affymetrix' photolithographic process. Affymetrix arrays strips are for research use only and not intended for use in diagnosis of disease.

Please refer to [www.affymetrix.com](http://www.affymetrix.com) for a complete list of supporting documentation for procedures regarding target preparation, target hybridization, washing, staining, and scanning.

### 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. Ambion® WT Expression Kit
2. GeneChip® WT Terminal Labeling Kit
3. GeneAtlas™ System

### Critical Specifications

Feature Size	5 µm
Total Number of Distinct Probes	770,317
Oligonucleotide Probe Length	25-mer Probes
Required Orientation of Labeled Targets to be Hybridized to the Array	Sense Target
Resolution (number of probes per gene)	27 (median)
Estimated Number of Genes	28,853
Gene-level Probe Sets with ENSEMBL Support	27,543
Gene-level Probe Sets with Putative Full-length Transcript Support (GenBank® and RefSeq)	19,434
Hybridization Volume	120 µL
Positive Controls (constitutively expressed genes)	1,324 putative exon-level probe sets from putative constitutive genes
Negative Controls	5,222 putative intron-level probe sets from putative constitutive genes
Hybridization Controls	<i>bioB</i> , <i>bioC</i> , <i>bioD</i> , <i>creX</i>
Background Probes	Antigenomic Set
Poly-A Controls	<i>dap</i> , <i>lys</i> , <i>phe</i> , <i>thr</i> , <i>trp</i>
Library Files	MoGene-1_1-st-v1 (or newer)

### Ordering Information

Affymetrix array strip kits include hybridization, imaging, and stain trays for use with the GeneAtlas Instrument.

P/N	Product Name	Description
901628	Affymetrix® Mouse Gene 1.1 ST Array Strip Kit <sup>1</sup>	1 Array Strip Kit (4 Arrays)
4411973	Ambion® WT Expression Kit <sup>2</sup>	10 Rxns
900670	GeneChip® WT Terminal Labeling Kit	10 Rxns

1. Each Array Strip Kit contains: 1 Array Strip, 3 Hybridization Trays, 1 Imaging Tray, 1 Wash A Tray and 1 Wash B Tray for the GeneAtlas Instrument.
2. Available for purchase at [www.Ambion.com](http://www.Ambion.com).

Affymetrix® products can be purchased directly from Affymetrix in the United States, and many European and Asian countries. For all other territories, please view a list of our distribution partners, which can be located at [www.affymetrix.com/site/contact/index.affx](http://www.affymetrix.com/site/contact/index.affx).

### Precautions

1. AFFYMETRIX ARRAY STRIPS 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 strips.

## Storage, Handling and Stability

The Affymetrix array strips 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 probe arrays or reagents after the expiration date.

### When Handling the Array Strip

Always remove the Array Strip from the pouch with gloved hands using caution not to damage or scratch the array surface.

### Array Strip Consumables

Figure 1. Affymetrix® Array Strip

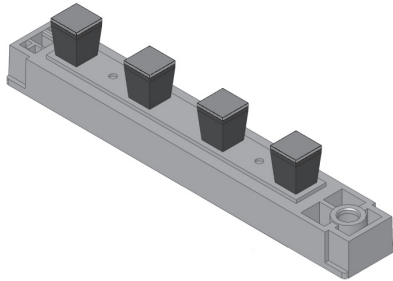


Figure 2. GeneAtlas™ Hybridization Tray

Clear Plastic

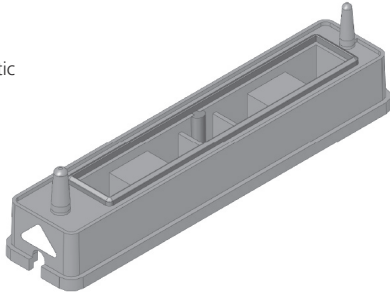


Figure 3. GeneAtlas™ Wash B Tray

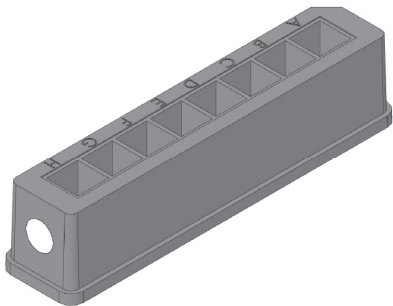


Figure 4. GeneAtlas™ Imaging Tray

Black Plastic

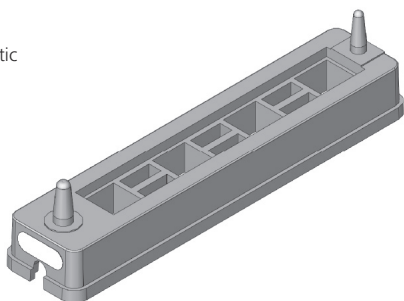
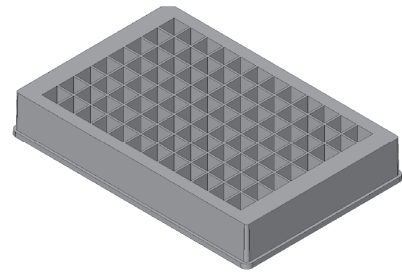


Figure 5. GeneAtlas™ Wash A and Stain Tray



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