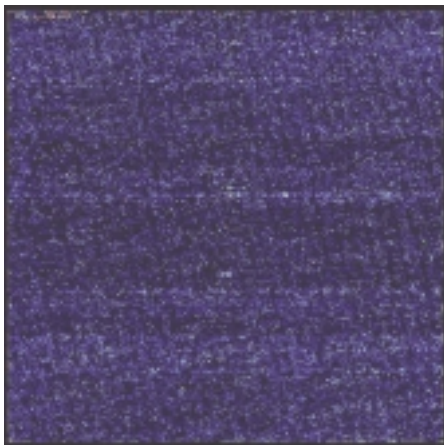




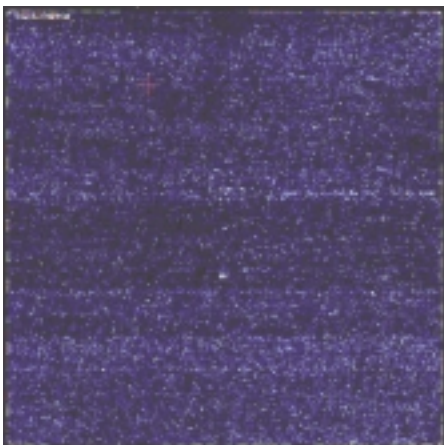
# Data Sheet

## GeneChip® Mouse Expression Set 430

The GeneChip® Mouse Expression Set 430 (Mouse 430) is a powerful tool that analyzes the transcribed mouse genome in order to explore human biology and disease processes using the widely used mouse model organism.



**Figure 1.** Mouse 430A GeneChip probe array image (.DAT file).



**Figure 2.** Mouse 430B GeneChip probe array image (.DAT file).

### Comprehensive Coverage of the Transcribed Mouse Genome

- Two array set provides comprehensive coverage of the transcribed mouse genome
- Analyzes the expression level for over 39,000 transcripts and variants, including over 34,000 well substantiated mouse genes
- Comprised of more than 45,000 probe sets and 981,228 distinct oligonucleotide features
- The recently published and publicly available draft of the mouse genome and leading public mouse databases were used to refine sequences and provide a higher quality of data output
- Sophisticated bioinformatics tools available through the NetAffx™ Analysis Center to decrease the time to biologically meaningful results

### Array Profile

Sequences used in the design of the array were selected from GenBank®, dbEST, and RefSeq. The sequence clusters were created from the UniGene database (Build 107, June 2002) and then refined by analysis and comparison with the publicly available draft assembly of the mouse genome from the Whitehead Institute Center for Genome Research (MGSC, April 2002). The GeneChip Mouse Expression Array 430A includes representation of the RefSeq database sequences and probe sets related to sequences previously represented on the GeneChip Murine Genome U74Av2 Array. The GeneChip Mouse Expression Array 430B contains probes sets from refined EST clusters and clusters containing non-EST sequences.

Oligonucleotide probes complementary to each corresponding sequence are synthesized *in situ* on the arrays. Eleven pairs of oligonu-

cleotide probes are used to measure the level of transcription of each sequence represented on the GeneChip Mouse Expression Set 430.

### Normalization Controls

The Mouse Set 430 includes a set of mouse maintenance genes to facilitate the normalization and scaling of array experiments. This set of genes is represented on both arrays, and serves as a tool to normalize or scale your data prior to performing data comparison. These normalization genes show consistent levels of expression over a diverse set of tissues.

### Relationship to GeneChip Murine Genome U74v2 Set

Most sequences previously represented on the GeneChip Murine Genome U74Av2 Array are represented on the GeneChip Mouse Expression Array 430A. Due to the dynamic nature of public databases, probe sets for these sequences will not be identical and in some cases will be represented by a completely new probe set. As a result, data generated with different versions of the mouse arrays may not always produce concordant results.

### RELATED PUBLICATIONS

Busch, Anna K. *et al.* Expression Profiling of Palmitate- and Oleate-Regulated Genes Provides Novel Insights Into the Effects of Chronic Lipid Exposure on Pancreatic [beta]-Cell Function. *Diabetes* 51(4): 977-987 (2002).

Han, S. Y. *et al.* Differential gene regulation by specific gain-of-function JNK1 proteins expressed in Swiss 3T3 fibroblasts. *J Biol Chem* 26: 26 (2002).

Ueda, H. R. *et al.* A transcription factor response element for gene expression during circadian night. *Nature* 418(6897): 534-9 (2002).

## Critical Specifications

Number of arrays in set	Two
Number of transcripts	39,015
Number of genes	34,323
Number of probe sets	45,037
Feature size	18 µm
Oligonucleotide probe length	25-mer
Probe pairs/sequence	11
Control sequences included:	
Hybridization controls:	<i>bioB, bioC, bioD, and cre</i>
Poly-A controls:	<i>dap, lys, phe, and thr</i>
Normalization control set:	100 probe sets represented on both A and B arrays
Housekeeping/Control genes:	GAPDH, beta-Actin, transferrin receptor, pyruvate carboxylase
Detection sensitivity	1:100,000*

\*As measured by detection of pre-labeled transcripts derived from murine cDNA clones in a complex mouse background.

## Supporting Products

Part Number	Product Name	Description
900182	Enzo® BioArray™ HighYield™ Transcript Labeling Kit	Sufficient for 10 reactions
900299	Eukaryotic Hybridization Control Kit	Sufficient for 30 reactions
900371	GeneChip® Sample Cleanup Module	Sufficient for 30 reactions
900375	T7-Oligo(dT) Promoter Primer Kit	Sufficient for 150 reactions

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
### AFFYMETRIX, INC.

3380 Central Expressway  
Santa Clara, CA 95051 USA  
Tel: 1-888-DNA-CHIP (1-888-362-2447)  
Fax: 1-408-731-5441  
[sales@affymetrix.com](mailto:sales@affymetrix.com)  
[support@affymetrix.com](mailto:support@affymetrix.com)

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## Ordering Information

### Mouse Expression Set 430

GeneChip® Mouse Expression Set 430

**900416** Contains 5 Mouse 430A and 5 Mouse 430B Arrays

**900443** Contains 30 Mouse 430A and 30 Mouse 430B Arrays

GeneChip® Mouse Expression Array 430A

**900412** Contains 5 Mouse 430A Arrays

**900413** Contains 30 Mouse 430A Arrays

GeneChip® Mouse Expression Array 430B

**900414** Contains 5 Mouse 430B Arrays

**900415** Contains 30 Mouse 430B Arrays

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+44 (0) 1628 552550

#### Japan

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### AFFYMETRIX JAPAN K.K.

Mita NN Bldg., 16 F  
4-1-23 Shiba, Minato-ku,  
Tokyo 108-0014 Japan  
Tel: +81-(0)3-5730-8200  
Fax: +81-(0)3-5730-8201  
[salesjapan@affymetrix.com](mailto:salesjapan@affymetrix.com)  
[supportjapan@affymetrix.com](mailto:supportjapan@affymetrix.com)

### AFFYMETRIX UK Ltd

Voyager, Mercury Park,  
Wycombe Lane, Wooburn Green,  
High Wycombe HP10 0HH  
United Kingdom  
Tel: +44 (0) 1628 552550  
Fax: +44 (0) 1628 552585  
[saleseurope@affymetrix.com](mailto:saleseurope@affymetrix.com)  
[supporteurope@affymetrix.com](mailto:supporteurope@affymetrix.com)