



## GeneChip® Wheat Genome Array

### Intended Use

The GeneChip® Wheat Genome Array contains 61,127 probe sets representing 55,052 transcripts for all 42 chromosomes in the wheat genome. By providing comprehensive coverage of the wheat genome, the GeneChip Wheat Genome Array is an important tool for plant genetics and agricultural strain improvement.

Sequence information for this array includes public content from the bread wheat *Triticum aestivum* UniGene Build #38 (build date April 24, 2004). Also included are ESTs from the wheat species *T. monococcum*, *T. turgidum*, and *Aegilops tauschii*, and GenBank® full-length mRNAs from all species through May 18, 2004.

GeneChip probe arrays are for research use only and not intended for use in diagnosis of disease. Please visit [www.affymetrix.com](http://www.affymetrix.com) for a complete list of supporting documentation including procedures regarding target preparation, target hybridization, fluidics station setup, probe array scan, and data analysis.

### Instrumentation and Software Required

1. GeneChip® Scanner 3000 enabled for High-Resolution Scanning\*
2. GeneChip® Command Console® Software (AGCC)
3. GeneChip® Fluidics Station

\*GeneChip Scanner 3000 High-Resolution Update is standard on all instruments shipped starting in September 2003 with serial number series 502. Previous versions, serial number series 501, will require the 00-0110 GeneChip Scanner 3000 High-Resolution Update to be installed.

Critical Specifications	
Feature Size	11 µm
Probe Pairs/Sequence	11
Array Format	49
Hybridization Controls	<i>bioB</i> , <i>bioC</i> , <i>bioD</i> from <i>E. coli</i> and <i>cre</i> from P1 Bacteriophage
Poly-A Controls	<i>dap</i> , <i>lys</i> , <i>phe</i> , <i>thr</i> , <i>trp</i> from <i>B. subtilis</i>
Housekeeping/Control Genes	eukaryotic translation Wheat genes from the commercial GeneChip® TEST3 Array, including Ubiquitin, 18SrRNA, G-6-PDH, cytochrome P450, and sucrose synthase. Additionally, there are newly selected control probe sets for actin, ef1a, and GAPDH.
Hybridization Volume	200 µL. The total fill volume of the cartridge is 250 µL.
Fluidics Protocol	EukGE-WS2v5 Fluidics Station 450/250 scripts are designated by the suffix "_450."
Library Files	Wheat

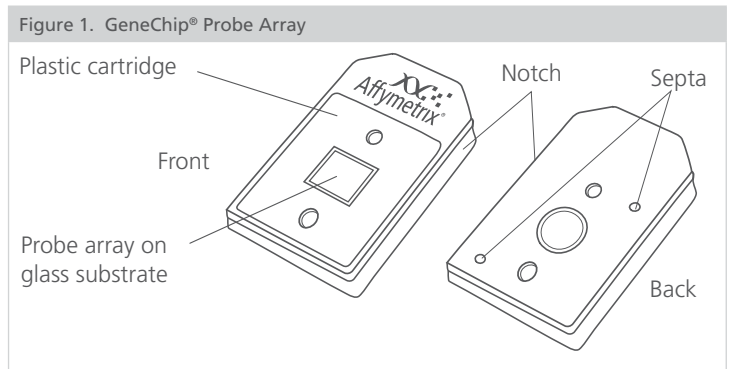
### Precautions

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.

### Ordering Information

P/N	Product Name	Description
<b>Arrays</b>		
900558	GeneChip® Wheat Genome Array	2 Arrays
900559	GeneChip® Wheat Genome Array	6 Arrays
900560	GeneChip® Wheat Genome Array	30 Arrays
<b>Supporting Products</b>		
901228	GeneChip® 3' IVT Express Kit	Sufficient for 10 Reactions
901229		Sufficient for 30 Reactions
900720	GeneChip® Hybridization, Wash, and Stain Kit <sup>1</sup>	Sufficient for 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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