



GeneChip® Tomato Genome Array

Intended Use

The GeneChip® Tomato Genome Array is designed specifically to monitor gene expression of *Lycopersicon esculentum*. The array consists of over 10,000 probe sets to interrogate over 9,200 tomato transcripts. The sequence information for this array was selected from public data sources including UniGene Build 20 (October 2004) and GenBank® mRNAs up to November 5, 2004.

Oligonucleotide probes are synthesized *in situ* complementary to each corresponding sequence. Eleven pairs of oligonucleotide probes are used to measure the level of transcription of each sequence represented.

GeneChip probe arrays are for research use only and not intended for use in diagnosis of disease. Please visit 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	169
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	Tomato genes from Test3 Array: 17S rRNA, 25S rRNA, glutathione S-transferase, phytochrome B2, ubiquitin. Additional new control probe sets: beta-actin, elongation factor 1, GAPDH
Hybridization Volume	80 µL. The total fill volume of the cartridge is 100 µL.
Fluidics Protocol	Mini_euk2v3 Fluidics Station 450/250 scripts are designated by the suffix "_450."
Library Files	Tomato

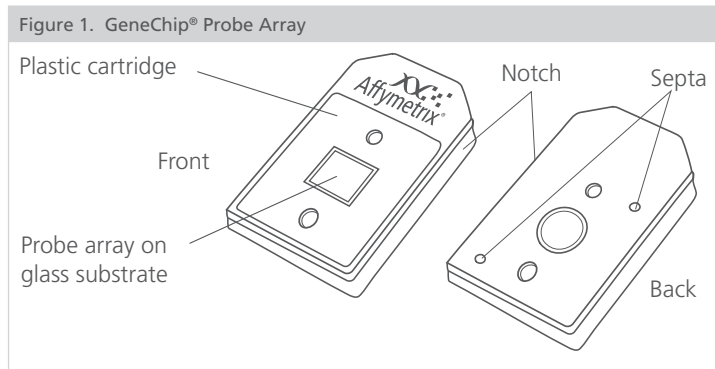
Precautions

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
Arrays		
900737	GeneChip® Tomato Genome Array	2 Arrays
900738	GeneChip® Tomato Genome Array	6 Arrays
900739	GeneChip® Tomato Genome Array	30 Arrays
Supporting Products		
901228	GeneChip® 3' IVT Express Kit	Sufficient for 10 Reactions
901229		Sufficient for 30 Reactions
900720	GeneChip® Hybridization, Wash, and Stain Kit ¹	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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