

# GeneChip™ Maize Genome Array

Catalog Numbers 900614, 900615, and 900616

Pub. No. 701885 Rev. 4

**WARNING!** Read the Safety Data Sheets (SDSs) and follow the handling instructions. Wear appropriate protective eyewear, clothing, and gloves. Safety Data Sheets (SDSs) are available from [thermofisher.com/support](http://thermofisher.com/support).

## Product use

The Applied Biosystems™ GeneChip™ Maize Genome Array contains probe sets to detect transcripts from *Zea mays*. The GeneChip™ Maize Genome Array includes 17,555 probe sets to monitor approximately 14,850 *Zea mays* transcripts, which in turn represent 13,339 genes. Approximately 12,113 UniGene clusters are represented. In addition, 162 coding sequences from the mitochondrial genome (AY506529.1) and 111 coding sequences from the chloroplast genome (X86563.2) are included on the array. The sequence information for this array was selected from NCBI's GenBank™ (up to September 29, 2004) and *Zea mays* UniGene Build #42 (July 23, 2004).

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

Visit our website 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

- GeneChip™ Scanner 3000 7G
- GeneChip™ Fluidics Station 450
- GeneChip™ Hybridization Oven 645
- GeneChip™ Command Console™ (GCC) software

## Critical specifications

Item	Specification
Feature size	11 μm
Probe pairs/sequence	15
Array format	100
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> , and <i>trp</i> from <i>B. subtilis</i>
Housekeeping/control genes	Maize genes from the commercial GeneChip™ Test3 Array, including GAPDH, Actin, Cyclophilin 1, Ubiquitin, and 18S rRNA. Additionally there are newly selected control probe sets for Actin, ef1a, and GAPDH.
Hybridization volume	130 μL The total fill volume of the cartridge is 160 μL.
Fluidics protocol	Midi_euk2v3 Fluidics Station 450/250 scripts are designated by the suffix "_450."
Library files	Maize

## Storage, handling, and stability

This cartridge array consists of a square glass substrate mounted in a plastic cartridge. 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 nonabrasive laboratory tissue.

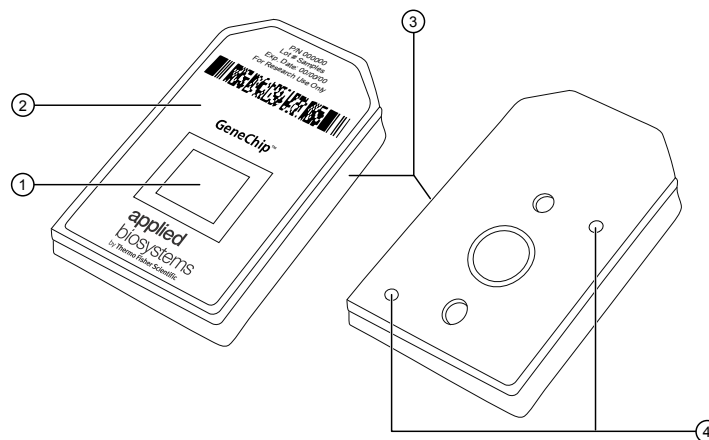


Fig. 1 Cartridge array.

- ① Probes on a glass substrate
- ② Plastic cartridge
- ③ Notch
- ④ Septa

The cartridge array should be stored at 2–8°C. Refer to the expiration date on the package label. Do not use arrays or reagents after the expiration date.

## Ordering information

Unless otherwise indicated, all materials are available through [thermofisher.com](http://thermofisher.com). MLS: Fisher Scientific ([fisherscientific.com](http://fisherscientific.com)) or other major laboratory supplier.

Product	Description	Cat. No.
GeneChip™ Maize Genome Array	2 arrays	900614
	6 arrays	900615
	30 arrays	900616
Supporting products		
GeneChip™ 3' IVT PLUS Reagent Kit	10 reactions	902415
	30 reactions	902416
GeneChip™ Hybridization, Wash, and Stain Kit <sup>[1]</sup>	30 reactions	900720

<sup>[1]</sup> Each kit contains 1 Hybridization Module, 1 Stain Module, 3 bottles of Wash Buffer A, and 1 bottle of Wash Buffer B, sufficient for 30 reactions. Individual kit components may be ordered separately.

## Customer and technical support

Visit [thermofisher.com/support](http://thermofisher.com/support) for the latest in services and support, including:

- Worldwide contact telephone numbers
- Product support, including:
  - Product FAQs
  - Software, patches, and updates
  - Training for many applications and instruments
- Order and web support
- Product documentation, including:
  - User guides, manuals, and protocols

- Certificates of Analysis
- Safety Data Sheets (SDSs; also known as MSDSs)

**Note:** For SDSs for reagents and chemicals from other manufacturers, contact the manufacturer.

### Limited product warranty

Life Technologies Corporation and/or its affiliate(s) warrant their products as set forth in the Life Technologies' General Terms and Conditions of Sale found on Life Technologies' website at [www.thermofisher.com/us/en/home/global/terms-and-conditions.html](http://www.thermofisher.com/us/en/home/global/terms-and-conditions.html). If you have any questions, please contact Life Technologies at [www.thermofisher.com/support](http://www.thermofisher.com/support).



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**Revision history:** Pub. No. 701885

Revision	Date	Description
4	17 November 2017	Update document to current template.
3	20 April 2009	Baseline for revision history.

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