# GeneChip<sup>™</sup> Poplar Genome Array

Catalog Numbers 900728, 900729, and 900730

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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.

# Product use

The Applied Biosystems<sup>™</sup> GeneChip<sup>™</sup> Poplar Genome Array is designed specifically to monitor gene expression of *Populus* species. The array consists of over 61,000 probe sets to interrogate 56,055 *Populus* species transcripts including 7,742 *Populus* UniGene clusters. The sequence information for this array was selected from public data sources including UniGene Build 6 (March 16, 2005), GenBank<sup>™</sup> mRNAs up to April 26, 2005 for all *Populus* species, and *P. trichocarpa* v1.1 gene models from the Populus Genome Project (DOE Joint Genome Institute, May 4, 2005).

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.

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<sup>™</sup> Scanner 3000 7G
- GeneChip<sup>™</sup> Fluidics Station 450
- GeneChip<sup>™</sup> Hybridzation Oven 645
- GeneChip<sup>™</sup> Command Console<sup>™</sup> (GCC) software

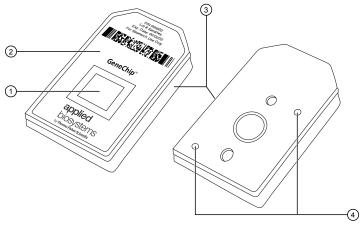
# **Critical specifications**

Item	Specification
Feature size	11 µm
Probe pairs/sequence	11
Array format	49
Hybridization controls	<i>bioB</i> , <i>bioC</i> , and <i>bioD</i> from <i>E. coli</i> , and <i>cre</i> from P1 Bacteriophage
Poly-A controls	dap, lys, phe, thr, and trp from B. subtilis
Housekeeping/control genes	5', middle, and 3' probe sets for GAPDH, EEF1A1 and ACTB
Hybridization volume	200 µL
	The total fill volume of the cartridge is 250 $\mu$ L.
Fluidics protocol	EukGE_WS2v5
	Fluidics Station 450/250 scripts are designated by the suffix "_450."
Library files	Poplar

### 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 ③ Notch
- Plastic cartridge

The cartridge array should be stored at  $2-8^{\circ}$ C. Refer to the expiration date on the package label. Do not use arrays or reagents after the expiration date.

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# **Ordering information**

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

Product	Description	Cat. No.
GeneChip <sup>™</sup> Poplar Genome Array	2 arrays	900728
	6 arrays	900729
	30 arrays	900730
Supporting products		
GeneChip™ 3' IVT PLUS Reagent Kit	10 reactions	902415
	30 reactions	902416
GeneChip <sup>™</sup> 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** 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-andconditions.html**. If you have any questions, please contact Life Technologies at **www.thermofisher.com/support**.

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#### Revision history: Pub. No. MAN0017687

Revision	Date	Description
A.0		Initial release in Thermo Fisher Scientific document control system.
		Supersedes legacy Affymetrix publication number 702113.
		Updated to the current document template, with associated updates to trademarks, logos, licensing, and warranty.

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