


# GeneChip™ *S. cerevisiae* Tiling 1.0R Array

For studying protein/DNA interactions or identifying novel transcripts in *S. cerevisiae*.

Catalog Number 900645

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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](http://thermofisher.com/support).

## Product use

The Applied Biosystems™ GeneChip™ *S. cerevisiae* Tiling 1.0R Array is designed for identifying novel transcripts or mapping sites of protein/DNA interaction in chromatin immunoprecipitation (ChIP) experiments. The GeneChip™ *S. cerevisiae* Tiling 1.0R Array is a single array comprised of over 3.2 million perfect match/mismatch probes tiled through the complete *Saccharomyces cerevisiae* genome.

Genome sequence information for the design of the GeneChip™ *S. cerevisiae* Tiling 1.0R Array was drawn from the October 2003 Stanford Yeast Genome Database files ([www.yeastgenome.org](http://www.yeastgenome.org)). The array also contains probes to interrogate a 2 micron circle plasmid (NCBI Accession J01347). Kevin Struhl and Zarnik Moqtaderi from Harvard Medical School provided assistance with the sequence selection and array design.

Oligonucleotide probes are synthesized *in situ* complementary to each corresponding sequence. Probes are tiled at an average resolution of 5 base pair, as measured from the central position of adjacent 25-mer oligos, creating an overlap of approximately 20 base pair on adjacent probes.

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

## Recommended tiling analysis software

- Applied Biosystems™ Tiling Analysis Software
- Integrated Genome Browser

The Tiling Analysis Software is available for download from our website. The Integrated Genome Browser, a visual analytics platform for genomics, is available as a free download from the <http://bioviz.org> website.

## Critical specifications

Item	Specification
Feature size	5 µm
Tiling resolution	5 base pair
Hybridization controls Tiling mRNA controls	<i>bioB</i> , <i>bioC</i> , <i>bioD</i> , and <i>cre</i> <i>B. subtilis</i> : <i>dap</i> , <i>lys</i> , <i>phe</i> , and <i>thr</i> <i>A. thaliana</i> : CAB, RCA, RBCL, LTP4, LTP6, XCP2, RCP1, NAC1, TIM, PRKASE
Array format	49
Fluidics protocol	Fluidics Station 450: FS450_0001 Fluidics Station 400: EukGE-WS2v5, and manually add Array Holding Buffer to the cartridge prior to scanning
Hybridization volume	200 µL The total fill volume of the cartridge is 250 µL.
Library files	Sc03b_MR_v03

## Accessory files

### Fluidics scripts

The fluidics script used depends on the array type, labeling protocol, and reagents used for cartridge processing. Refer to the GeneChip Fluidics Station Scripts support page to determine which fluidics script is appropriate for your application. The fluidics scripts can be downloaded from our website.

### Library files

Library files contain information about the probe array design characteristics, probe use and content, and scanning and analysis parameters. These files are unique for each probe array. Additional information can be located under the specific array product on our website.

## 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™ <i>S. cerevisiae</i> Tiling 1.0R Array	6 arrays	900645
<b>Supporting products</b>		
GeneChip™ Control Oligo B2, 3 nM	30 reactions	900301
GeneChip™ WT PLUS Reagent Kit	10 reactions	902280
	30 reactions	902281
GeneChip™ Hybridization, Wash, and Stain Kit	30 reactions	900720

## 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.

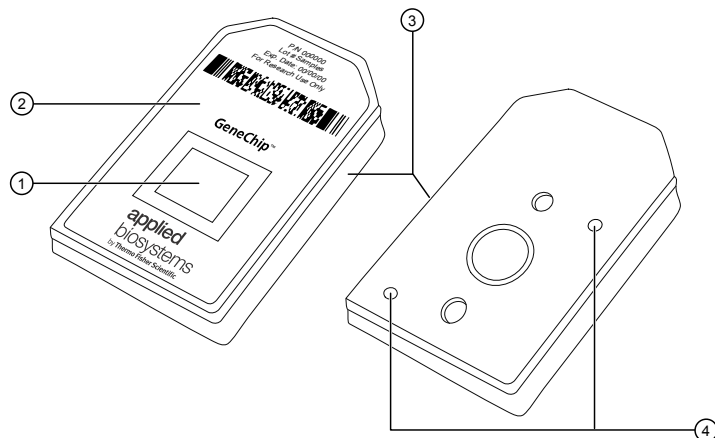


Fig. 1 Cartridge array.

- 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.

## 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).



Affymetrix Pte Ltd | 7 Gul Circle #2M-01 | Keppel Logistics Building | Singapore 629563

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**Revision history:** Pub. No. MAN0017692

Revision	Date	Description
A.0	30 April 2018	Initial release in Thermo Fisher Scientific document control system. Supersedes legacy Affymetrix publication number 702234. Updated to the current document template, with associated updates to trademarks, logos, licensing, and warranty.

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