

New Product: GEMArray® Express

Get reliable microarray results in a format designed for high throughput applications.

How It Works

The GEMArray® Express platform delivers easy handling, speed, and greater assay consistency for microarray-based experiments. It is especially suitable for projects with large numbers of samples. GEMArray Express utilizes an innovative 8-well Multi-Chamber HybPlate and is optimized for use with the inexpensive GEMArray Express Thermoshaker to process large numbers of GEMArrays with improved consistency and minimal hands-on time. In a single day, trained technicians can comfortably process 32 or more arrays, from sample labeling to the finished microarray images. GEMArray Express microarrays are available in both cataloged array and custom array formats.

- ❖ **pathway-focused design:** profiles 100-500 relevant, pathway specific genes
- ❖ **reliable and sensitive:** minimizes sample-to-sample and day-to-day processing variation; requires as little as 100 ng total RNA
- ❖ **speed and simplicity:** easy to handle one-day protocol processes 32 or more arrays in one day for higher-throughput applications

Application Example

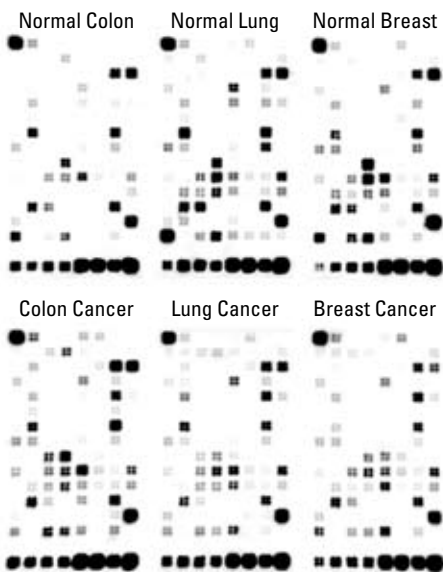


Figure 1. Differential gene expression between normal and cancer tissues. RNA was extracted from normal or cancer tissues. cRNAs were prepared using TrueLabeling-AMP™ 2.0. Two micrograms of biotin-labeled cRNA from each tissue were hybridized to the GEMArray Express Human Cancer PathwayFinder™ Microarray (EHS-033). The arrays were processed in a single GEMArray Express HybPlate.

Simplified one day protocol:

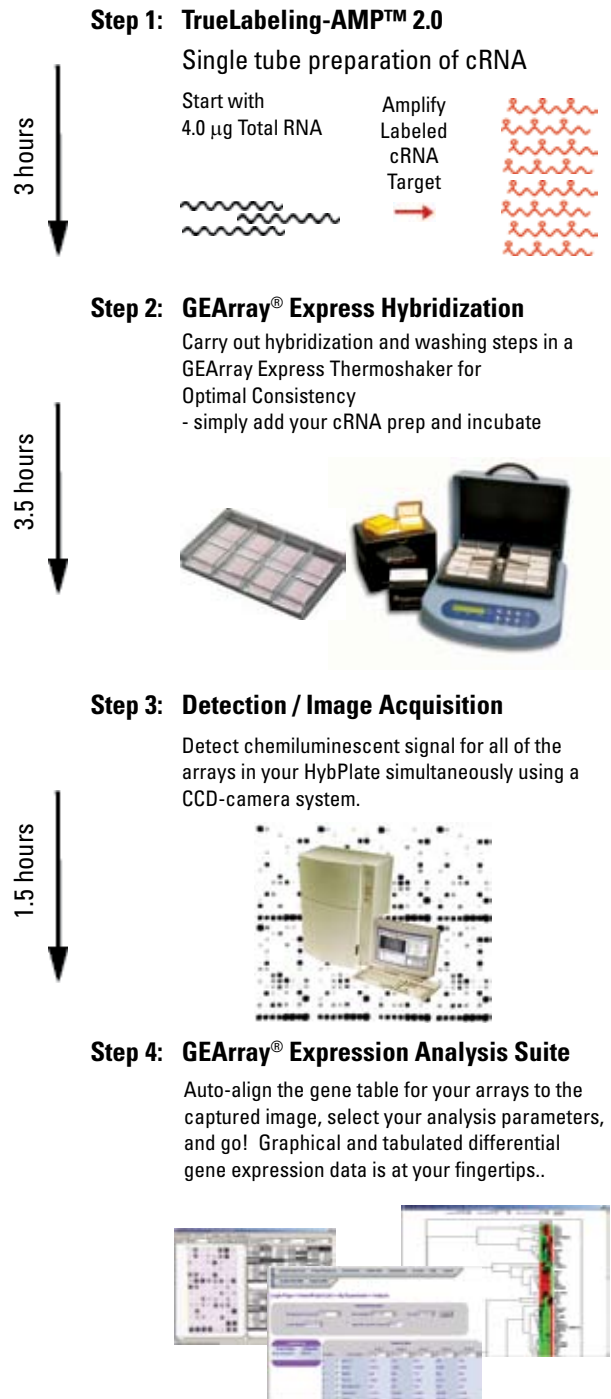


Table 1. Protocol comparison between GEArray Express and Oligo GEArray. The total amount of time for each experimental step is compared between the standard Oligo GEArray protocol and the GEArray Express protocol using GEArray Express Multi-Chamber HybPlates on a GEArray Express Thermoshaker. GEArray Express allows you to save time and effort for any number of arrays.

	GEArray Express	Oligo GEArray
cRNA Preparation	3 hours	6 hours
Hybridization and Wash	3.5 hours	12-16 hours
Post-hybridization Processing	0.75 hours	1.5 hours
Image acquisition	0.5 hours	0.5 hours
Total experiment time	~ 8 hours	20 – 24 hours
Total hands-on time	2.5 hours	4 hours

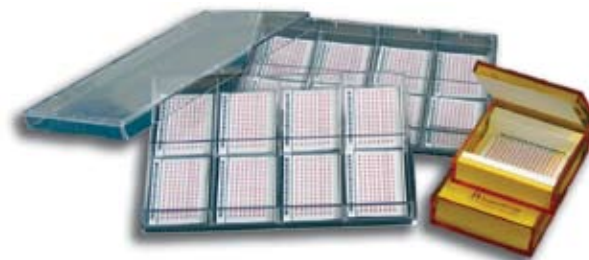


Figure 2: A convenient system for analyzing large numbers of samples. GEArray Express Arrays are shipped in a plastic storage box along with the GEArray Express Multi-Chamber HybPlates optimized for use in the GEArray Express System.

Ordering Guide for GEArray® Express

Step 1: Select the GEArray Express product covering your research topic.

Currently available GEArray Express Microarrays include:

Description	Cat. No.	Description	Cat. No.
Human Angiogenesis	EHS-024	Human Signal Transduction PathwayFinder™	EHS-014
Human Apoptosis	EHS-012	Human TGFβ BMP Signaling Pathway	EHS-035
Human Breast Cancer Biomarkers	EHS-402	Human Th1-Th2-Th3	EHS-034
Human Cardiovascular Disease Biomarkers	EHS-037	Human Toll-Like Receptor Signaling Pathway	EHS-018.2
Human Toxicology & Drug Resistance	EHS-401	Human Cancer PathwayFinder™	EHS-033
Human Wnt Signaling Pathway	EHS-043	Human Cell Cycle	EHS-020
Mouse Chemokines & Receptors	EMM-022	Human Common Cytokines	EHS-021
Mouse JAK / STAT Signaling Pathway	EMM-039	Human Inflammatory Cytokines & Receptors	EHS-011
Mouse Toll-Like Receptor Signaling Pathway	EMM-018.2	Human ECM & Adhesion Molecules	EHS-013
Rat Endothelial Cell Biology	ERN-015.2	Human NFκB Signaling Pathway	EHS-025

GEArray Express microarrays are available in sets of 4 or 24 shipped in a plastic box along with HybPlates and Plate Seals.

Bulk arrays: GEArray Express microarrays and reagent kits are also available in sets of 96 microarrays. (Contact a Sales Representative for Availability.)

Custom arrays: GEArray Express microarrays can be PERSONALIZED. Provide us with a list of genes and we will custom-print microarrays specific to your topic using our specially designed oligonucleotide probes.

Step 2: Select the reagents necessary to complete your GEArray Express experiment.

Purpose	Description	Cat. No.
RNA Isolation	ArrayGrade™ Total RNA Purification Kit	GA-013
Reagent Kits covering all steps of the array experiment	Oligo GEArray Reagent Kit (reagents for 12 arrays)	GA-034
	Oligo GEArray Starter Kit (reagents for 4 arrays)	GA-029
Analysis Software	GEArray Expression Analysis Suite (3 months)	GA-021
	GEArray Expression Analysis Suite (1 year)	GA-022

Step 3: Be sure to pick up a multi-use GEArray Express Thermoshaker.

Description	Number of Microwell Plates	Cat. No.
GEArray Express Thermoshaker	For 2 plates (up to 16 arrays at once)	GXE-TS2
	For 4 plates (up to 32 arrays at once)	GXE-TS4

HybPlates and plate seals are also available separately:

Description	Number Plates	Cat. No.
GEArray Multi-Chamber HybPlates	Four Multi-Chamber HybPlates and four Adhesive Foil Plate Seals for use with up to 32 arrays	GA-035