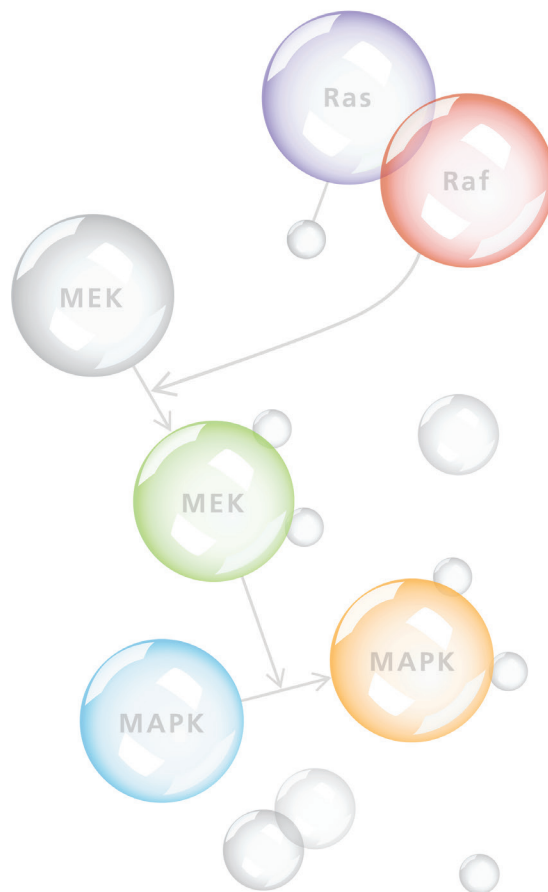


Discover how easy microarrays can be
GeneAtlas® System





A **personal** microarray system

Virtually every life scientist would like a whole-genome view of complex biological questions. Many, however, are limited by budget or inhibited by the complexity of microarray systems and are forced to outsource their experiments or use less powerful technologies, such as qRT-PCR, with a limited view of the genome.

Now every researcher can bring the power of Affymetrix microarrays to their lab with **GeneAtlas® System**—a complete personal solution for processing Affymetrix microarrays.

GeneAtlas® System

This is different

GeneAtlas System takes a different approach to microarray experiments. It comes with everything you need to get biologically relevant results in an exceptionally easy-to-use package and at an unmatched price.

GeneAtlas System pioneers easy installation, including:

- Requirement for only 3 feet of standard lab bench space
- Simplified setup limited to standard PC industry cables and cords
- User-managed verification enables next-day use

GeneAtlas System improves microarray analysis by providing:

- The simplest microarray workflow
- Unmatched affordability
- Integrated analysis software specifically designed for life science researchers
- A whole-genome view at prices comparable to low-plex technologies

GeneAtlas System enables you to:

- Take control of your precious samples
- Reduce the cost of your experiment
- Decrease time to results and publication



The first **easy-to-use,** **affordable** microarray solution

Array strips

Affymetrix® Array Strips are designed exclusively for GeneAtlas® System—the first personal microarray system to allow four samples to be processed in parallel. The array strip format is at the heart of GeneAtlas System's ease of use. The novel array design reduces the workflow to basic lab techniques and eliminates the expertise required for other microarray technologies. This unique format also avoids many problems associated with slide-based microarrays including seal breakage and chamber leaking that result in sample cross contamination and failed experiments.

The array strip format helps you to:

- Reduce complexity to simple pipetting steps
- Interrogate four samples in parallel
- Protect your precious samples
- Perform whole-genome human, mouse, rat, and model organism expression analysis

Affymetrix® 3' IVT Array Strips for the GeneAtlas® System

Affymetrix® 3' IVT Array Strips are easy-to-use, low-cost versions of the most popular and widely cited microarrays for human, mouse, and rat whole-genome expression analysis (GeneChip® Human Genome U133, Human Genome U219, MG-430 PM, and RG-230 PM Arrays). These 3' IVT Array Strips are designed exclusively for GeneAtlas® System—the first personal microarray system that combines affordability, simplified workflow, ease of use, and excellent performance while leveraging industry-standard expression array designs.

Affymetrix® Gene 1.1 ST Array Strips for whole-transcriptome analysis

Affymetrix® Gene 1.1 ST Array Strips have been developed for the analysis of human, mouse, rat, and a wide range of model and applied research organisms. These organisms are the latest additions to the growing family of Affymetrix® gene expression microarrays offering whole-transcript coverage allowing you to obtain the most complete and accurate picture of gene expression.

Available for the following organisms:

- | | | |
|---------------------|----------------------------------|------------------------|
| ▪ Human | ▪ <i>Drosophila melanogaster</i> | ▪ Porcine |
| ▪ Mouse | ▪ <i>Drosophila simulans</i> | ▪ Rabbit |
| ▪ Rat | ▪ <i>Drosophila yakuba</i> | ▪ Rhesus |
| ▪ Arabidopsis | ▪ Equine | ▪ Rice (ssp. japonica) |
| ▪ Bovine | ▪ Feline | ▪ Rice (ssp. indica) |
| ▪ <i>C. elegans</i> | ▪ Guinea pig | ▪ Soybean |
| ▪ Canine | ▪ Marmoset | ▪ Tomato |
| ▪ Chicken | ▪ Medicago | ▪ Zebra Finch |
| ▪ Cynomolgus | ▪ Ovine | ▪ Zebrafish |

Visit www.affymetrix.com/GeneAtlas for the most recent list of array designs, applications, and protocols available on GeneAtlas® System.

The simplest microarray workflow



Move seamlessly from processing arrays to getting answers

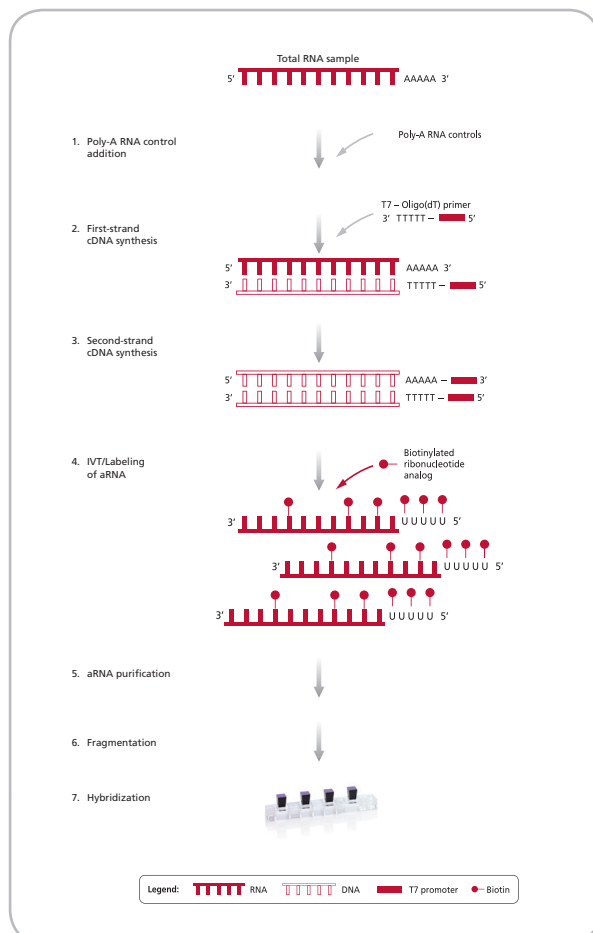
Processing of microarrays begins with the proven technology of Affymetrix® target preparation assays



The target preparation assays offer:

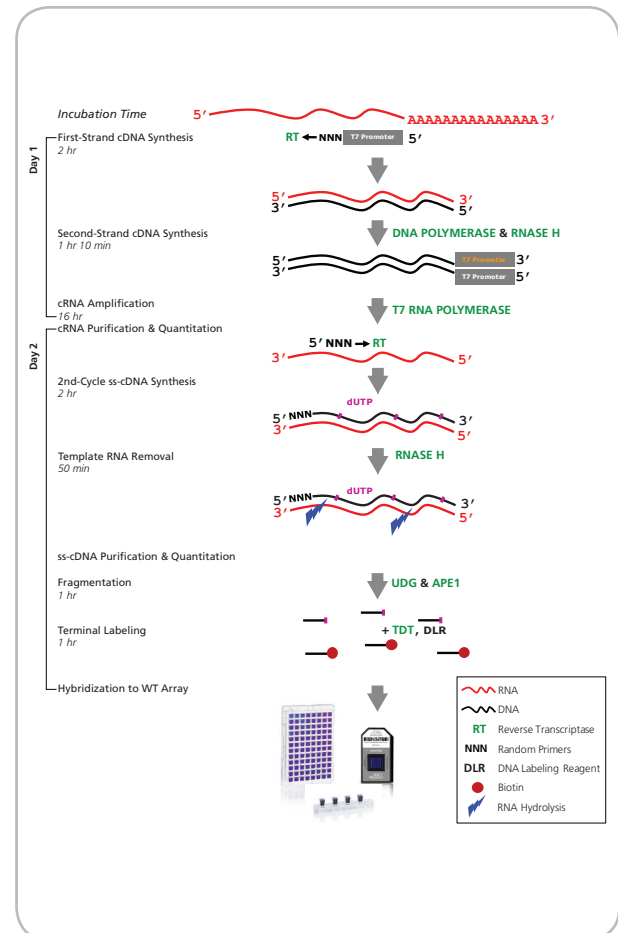
- A streamlined and simplified workflow for reduced hands-on time
- Lower required starting material—as low as 50 ng total RNA input
- Higher signal-to-noise ratio for detecting more rare transcripts
- Magnetic bead-based purification for enhanced recovery

3' IVT Express Labeling Assay

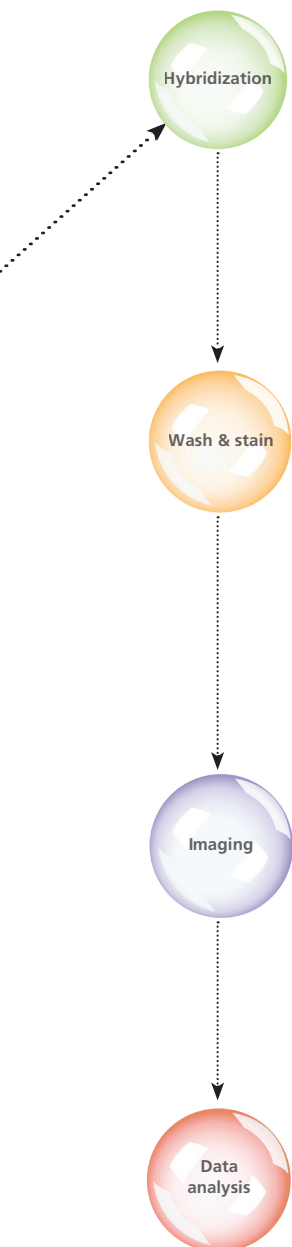


The 3' IVT Express Labeling Assay is only for applications using 3' IVT array strips.

WT PLUS Labeling Assay



The WT PLUS Labeling Assay is only for applications using whole-transcript array strips.



Hybridization occurs following a single pipetting step and insertion of the strip into the hybridization tray

The robust hybridization assembly offers a number of advantages:

- Under five minutes of total hands-on time
- Avoids fragile slide-based design
- Eliminates error-prone gaskets and user-created hybridization chambers



Array strip and hybridization assembly

Array washing and staining is performed by the automated fluidics station following insertion of the strip

Wash and stain features include:

- Simple reagent filling
- Intuitive software interface
- Robotic arm for automated wash and stain processing

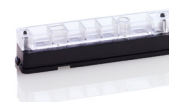


Fluidics station

Transfer of the strip assembly into the imaging station's drawer starts the imaging process

The imaging station:

- Operates automatically via software
- Limits user intervention to a single step
- Processes four samples in as little as 30 minutes



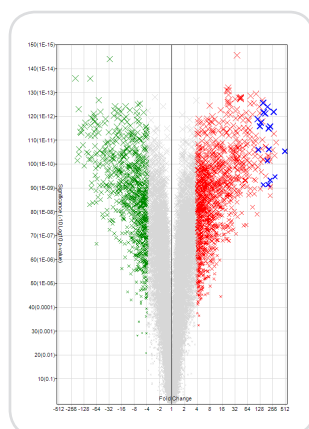
Imaging-ready assembly



Imaging station

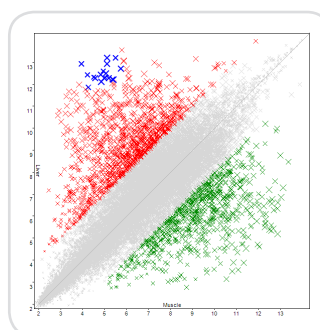
Powerful software converts the data into biologically relevant results

Utilize Affymetrix® Transcriptome Analysis Console (TAC) Software to generate differential expression analysis and visualization for easy interpretation.



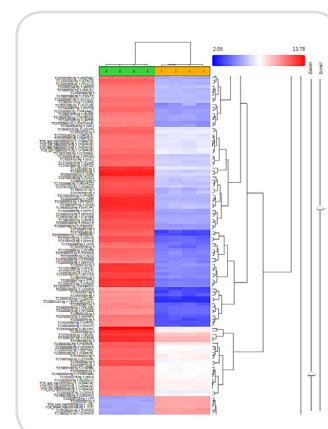
Volcano plot

Visualize significant fold-changes between conditions.



Scatter plot

Visualize significant changes in signal between conditions.



Hierarchical clustering

Arrange samples and genes into groups based on their expression levels.

Affymetrix® Transcriptome Analysis Console (TAC) Software

Easy-to-use software for differential expression analysis and visualization

A NEW analysis solution that transforms data to insight

The Affymetrix platform remains the gold standard for robust comprehensive expression analysis, and for the first time we are providing extensive software tools to take you from microarray data to identifying what is differentially expressed.

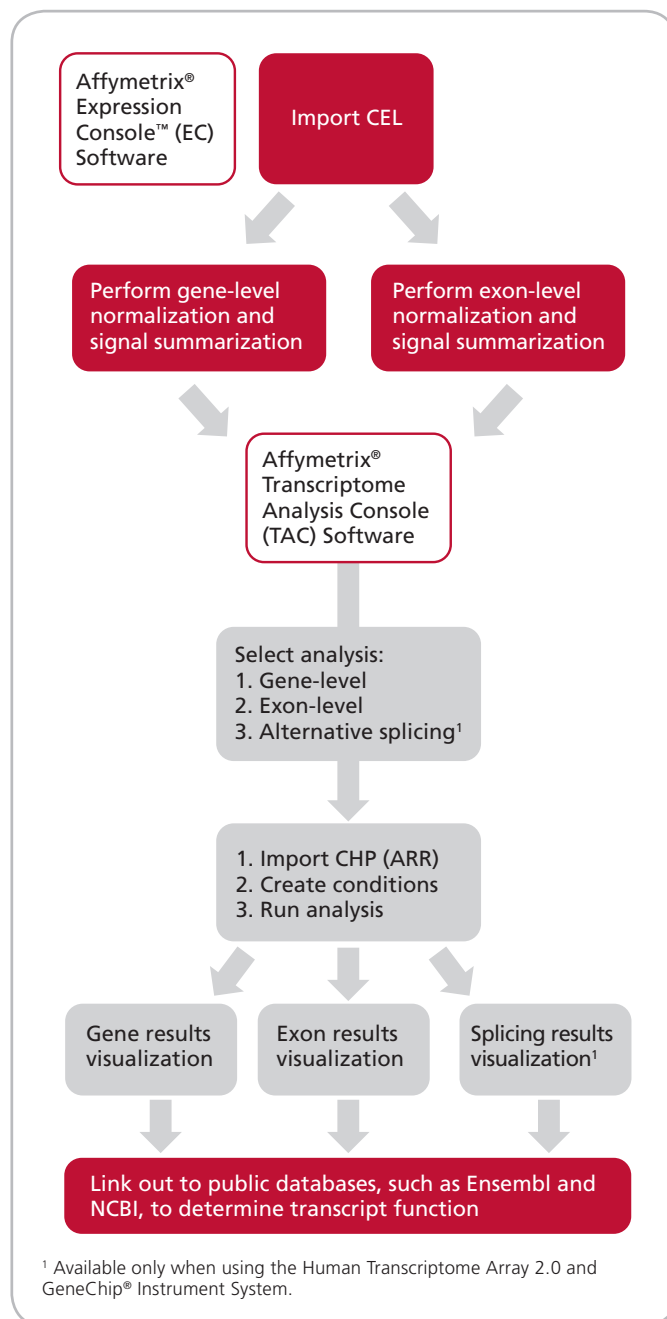
Detailed analysis is now at the fingertips of every researcher—regardless of access to bioinformatics resources. The new Affymetrix® Transcriptome Analysis Console (TAC) Software takes the normalized and summarized data from Affymetrix Expression Console™ Software to the next level, providing differential expression analysis and visualization for easy interpretation.

Researchers now have a cost-free solution to quickly analyze their data, enabling discovery and understanding into the biological diversity underpinning their research. These tools were designed with the end user in mind and enable an investigator to analyze and explore data at their own pace. Combined with the comprehensive coverage of Affymetrix' high-density microarray solutions and Expression Console Software, TAC Software provides an easy-to-use, integrated solution to go from raw data to biological results in just a few clicks.

Easy-to-use TAC Software provides:

- Sample grouping and cluster visualization
- Statistical tests for differential expression
- Detailed summary view of comparisons
- Direct links to available public annotations

Data workflow



GeneAtlas® System includes:

- Fluidics station
- Imaging station
- Hybridization station
- External barcode reader
- Computer workstation and monitor
- GeneAtlas® Instrument Control Software
- Installation kit

Ordering information

Part No.	Description
00-0394	GeneAtlas® System for Academic Customers – 115V
00-0393	GeneAtlas® System for Academic Customers – 230V
00-0375	GeneAtlas® System for Industrial Customers – 115V
00-0392	GeneAtlas® System for Industrial Customers – 230V

Required products

When ordering GeneAtlas System, please select the appropriate power cord set for your location in addition to the system part number.

Part No.	Description
00-0383	North America Power Cord Set
00-0384	Italy Power Cord Set
00-0385	Australia Power Cord Set
00-0386	UK Power Cord Set
00-0387	Europe (Shuko) Power Cord Set
00-0388	Japan Power Cord Set
00-0389	Switzerland Power Cord Set
00-0390	Denmark Power Cord Set
00-0391	India Power Cord Set

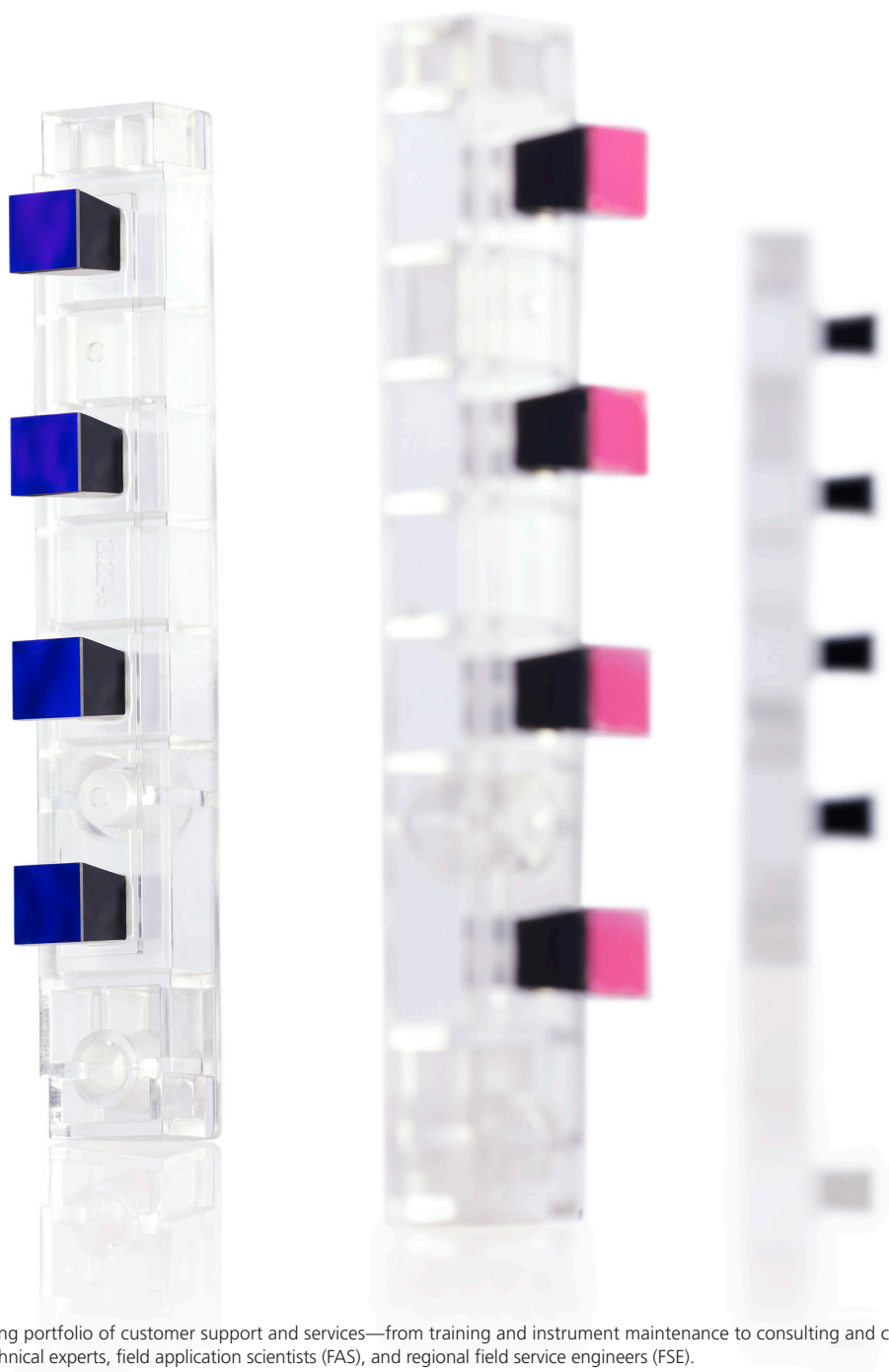
For 3' IVT and WT array strip ordering information visit www.affymetrix.com/GeneAtlas.

This is **different.**



www.affymetrix.com/GeneAtlas

"For Research Use Only. Not for use in diagnostic procedures."



World-class support

Affymetrix offers an expanding portfolio of customer support and services—from training and instrument maintenance to consulting and compliance—led by our world-class team of multilingual technical experts, field application scientists (FAS), and regional field service engineers (FSE). For more information please visit www.affymetrix.com/service.

Affymetrix, Inc. Tel: +1-888-362-2447 ■ Affymetrix UK Ltd. Tel: +44-(0)-1628-552550 ■ Affymetrix Japan K.K. Tel: +81-(0)3-6430-4020
Panomics Solutions Tel: +1-877-726-6642 panomics.affymetrix.com ■ USB Products Tel: +1-800-321-9322 usb.affymetrix.com

www.affymetrix.com Please visit our website for international distributor contact information.

For Research Use Only. Not for use in diagnostic procedures.

P/N B103 Rev. 4

©Affymetrix, Inc. All rights reserved. Affymetrix®, Axiom®, Command Console®, CytoScan®, DMET™, GeneAtlas®, GeneChip®, GeneChip-compatible™, GeneTitan®, Genotyping Console™, myDesign™, NetAffx®, OncoScan™, Powered by Affymetrix™, PrimeView™, Procarta®, and QuantiGene® are trademarks or registered trademarks of Affymetrix, Inc. All other trademarks are the property of their respective owners.

Products may be covered by one or more of the following patents: U.S. Patent Nos. 5,445,934; 5,744,305; 5,945,334; 6,140,044; 6,399,365; 6,420,169; 6,551,817; 6,733,977; 7,629,164; 7,790,389 and D430,024 and other U.S. or foreign patents. Products are manufactured and sold under license from OGT under 5,700,637 and 6,054,270.