

GeneChip® 3' IVT Express Kit

P/N 901228 (10 reactions)
P/N 901229 (30 reactions)

Manufactured for Affymetrix, Inc.,
by Ambion, Inc.



INTRODUCTION

The GeneChip® 3' IVT Express Kit is the latest technology in RNA target preparation for microarray expression analysis. This kit features:

- Low RNA input requirements- from as little as 50 ng of total RNA for a single round of amplification.
- Streamlined workflow with the option to decrease target labeling time to a single day with appropriate inputs of total RNA.
- Master mixes, consumables included and a simple protocol for ease of use, convenience and a high rate of success.
- A complete kit that includes Poly-A RNA controls and hybridization controls.

The GeneChip 3' IVT Express Kit is offered in two convenient sizes, a 10 reaction size and a 30 reaction size. The kit can be purchased alone or bundled with select 3' IVT arrays (see Table 3).

Figure 1 illustrates the GeneChip 3' IVT Express Kit workflow. Total RNA undergoes reverse transcription to synthesize first-strand cDNA. This cDNA is converted to double-stranded cDNA template during second-strand cDNA synthesis. *In vitro* transcription synthesizes aRNA that gets biotin incorporated and purified. Fragmentation of the biotin-labeled aRNA prepares the sample for hybridization onto GeneChip 3' expression arrays.

Please refer to the *GeneChip® 3' IVT Express Kit User Manual* (P/N 702646) for additional detailed information, available online at www.affymetrix.com.

GeneChip® 3' IVT Express Labeling Assay

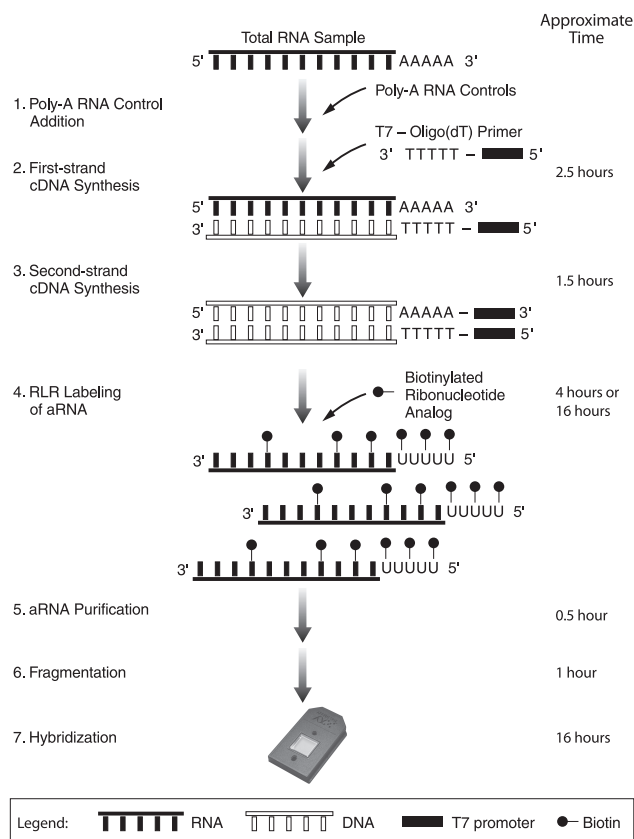


Figure 1. GeneChip 3' IVT Express Labeling Assay

KIT COMPONENTS

Table 1. GeneChip® 3' IVT Express Kit

Component	10 Rxn Kit Volume/Qty	30 Rxn Kit Volume/Qty
BOX 1 OF 2		
aRNA Binding Buffer Concentrate	600 µL	1.8 mL
RNA Binding Beads	120 µL	360 µL
aRNA Wash Solution Concentrate	10 mL	10 mL
aRNA Elution Solution	5 mL	5 mL
Nuclease-free Water	10 mL	10 mL
5X Array Fragmentation Buffer	1 mL	1 mL
8-Strip PCR Tubes and Caps (0.2 mL)	10 each	20 each
U-bottom Plate	1 each	2 each
Reservoir	1 each	1 each
BOX 2 OF 2		
First Strand Buffer Mix	44 µL	132 µL
First Strand Enzyme Mix	11 µL	33 µL
Second Strand Buffer Mix	55 µL	165 µL
Second Strand Enzyme Mix	22 µL	66 µL
IVT Labeling Buffer	220 µL	660 µL
IVT Biotin Label	44 µL	132 µL
IVT Enzyme Mix	66 µL	198 µL
Control RNA	10 µL	10 µL
Nuclease-free Water	1.75 mL	1.75 mL
Poly-A Control Stock	16 µL	16 µL
Poly-A Control Dilution Buffer	3.8 mL	3.8 mL
20X Hybridization Controls	450 µL	450 µL
Control OligoB2	150 µL	150 µL

OTHER REAGENTS NOT PROVIDED WITH THE KIT

For hybridization, washing and staining of the targets prepared using the GeneChip® 3' IVT Express Kit onto GeneChip arrays, users should purchase the GeneChip® Hybridization, Wash, and Stain Kit (P/N 900720 30 reactions).

ORDERING INFORMATION

Table 2.
GeneChip 3' IVT Express Kits

P/N	Component	Size
901228	GeneChip® 3' IVT Express Kit	10 Reactions
901229		30 Reactions

Table 3.
Other Products Bundled with the GeneChip® 3' IVT Express Kit

P/N	Component	Size
901226	GeneChip® Human Genome U133 Plus 2.0 Array and 3' IVT Express Kit	10 Reactions
901227		30 Reactions
901230	GeneChip® Mouse Genome 430 2.0 Array and 3' IVT Express Kit	10 Reactions
901231		30 Reactions
901232	GeneChip® Rat Genome 230 2.0 Array and 3' IVT Express Kit	10 Reactions
901233		30 Reactions

Affymetrix® products can be purchased directly from Affymetrix in the United States, and many European and Asian countries. For all other territories, please view a list of our distribution partners, which is located at: www.affymetrix.com/site/contact/index.affx.

STORAGE, HANDLING AND STABILITY

The components of the GeneChip 3' IVT Express Kit are separated into two boxes with each box requiring separate storage conditions:

- Box 1 of 2 – please see individual components for storage conditions.
- Box 2 of 2 – must be kept at –20 °C in a frost-free freezer.

SAFETY INFORMATION

A Material Safety Data Sheet(s) (MSDS) is available at www.affymetrix.com. The MSDS(s) are sent only on the first shipment, unless a substantial revision occurs. If the product is a kit or is supplied with more than one material, please refer to the MSDS for each component for hazard information.

FUNCTIONAL TESTING

Every lot is rigorously tested for performance.

CONTACT INFORMATION

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PATENTS

Use of this kit in accordance with these instructions in preparing targets for GeneChip® probe arrays may be covered by U.S. patent numbers 5,545,522; 5,716,785; 5,891,636 and 6,291,170. Those who do not use this kit to prepare targets for GeneChip® probe arrays may be required to obtain a license under these patents. Products may be covered by U.S. Patent No. 6,864,059.

TRADEMARKS

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