

GeneChip® HT 3' IVT Express Kit

P/N 901253 (96-Reaction Format)
P/N 901225 (4 x 24-Reaction Format)

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

Introduction

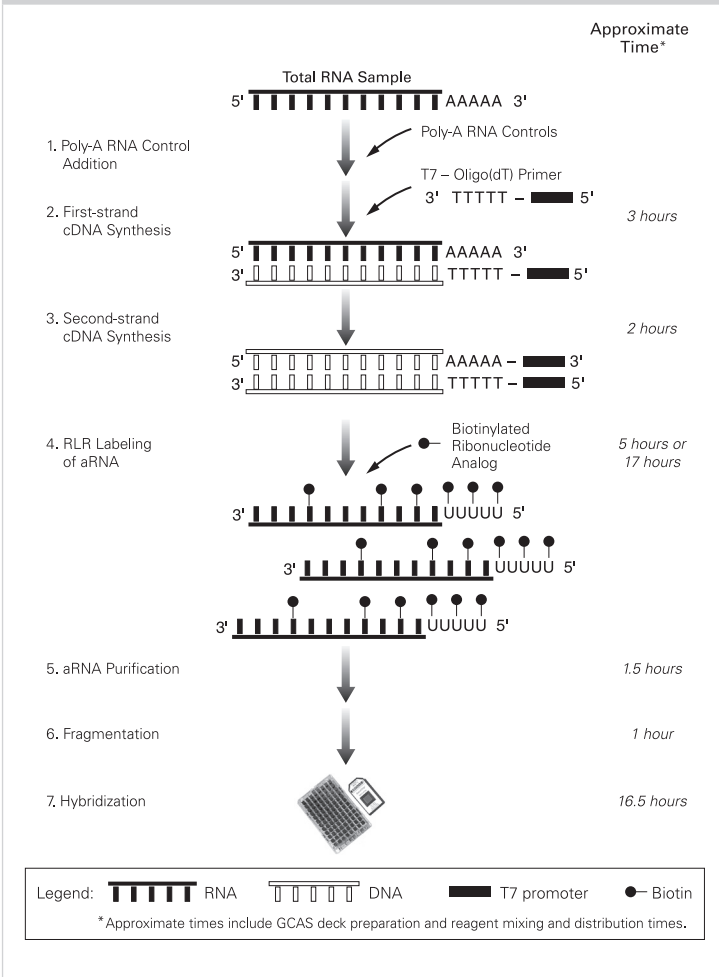
The GeneChip® HT 3' IVT Express Kit is the latest technology in RNA target preparation for microarray expression analysis. This kit features:

- Low RNA input requirements – from as little as 100 ng of total RNA for a single round of amplification.
- Streamlined workflow with the option to decrease target labeling time with appropriate inputs of total RNA.
- Master mixes 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 HT 3' IVT Express Kit is offered in two convenient configurations and generates target that can be hybridized to both cartridges and plates. There is a 96-reaction format, and a 4 x 24-reaction format. The 4 x 24-reaction format contains sufficient reagents for four separate runs of 24 samples each- the reagents are filled in separate tubes to remove freeze-thaw cycle impact. The 96-reaction format contains sufficient reagents for a single run of 96 samples. Please refer to www.affymetrix.com for a complete list of other automation providers supporting this assay.

Figure 1 depicts an overview of the GeneChip® HT 3' IVT Express Assay. 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 is then biotin incorporated and purified. Fragmentation of the biotin-labeled aRNA prepares the sample for hybridization onto GeneChip 3' expression arrays and plates. Detailed information is contained within the *GeneChip® HT 3' IVT Express Kit User Manual*, which can be found at www.affymetrix.com.

Figure 1. GeneChip® HT 3' IVT Express Labeling Assay



Kit Components

Table 1. GeneChip® HT 3' IVT Express Kit Components

Component	96 Rxn Format	4 x 24 Rxn Format
Box 1 of 2 (See individual components for storage conditions)		
aRNA Binding Buffer Concentrate	7.2 mL	1.8 mL, 4/box
RNA Binding Beads	1.44 mL	360 µL, 4/box
aRNA Wash Solution Concentrate	25 mL	7.5 mL, 4/box
aRNA Elution Solution	20 mL	5 mL, 4/box
5X Array Fragmentation Buffer	1.8 mL	1.8 mL, 4/box
Box 2 of 2 (Store at -20°C)		
First Strand Buffer Mix	541 µL	167 µL, 4/box
First Strand Enzyme Mix	143 µL	49 µL, 4/box
Second Strand Buffer Mix	644 µL	176 µL, 4/box
Second Strand Enzyme Mix	264 µL	76 µL, 4/box
IVT Labeling Buffer	1,266 µL, 2/box	661 µL, 4/box
IVT Enzyme Mix	771 µL	209 µL, 4/box
IVT Biotin Label	517 µL	143 µL, 4/box
Control RNA	10 µL	10 µL
Poly-A Control Stock	16 µL	16 µL
Poly-A Control Dilution Buffer	3.8 mL	3.8 mL
20X Hybridization Controls	1,125 µL, 2/box	1,125 µL, 2/box
Control OligoB2	750 µL	750 µL

Ordering Information

Table 2. GeneChip® HT 3' IVT Express Labeling Assay Product Ordering

P/N	Component	Size
901253 901225	GeneChip® HT 3' IVT Express Kit	96 Reactions 4 x 24 Reactions
900720	GeneChip® Hybridization, Wash and Stain Kit	30 Reactions
901530	GeneTitan® Hybridization, Wash and Stain Kit for 3' IVT Arrays	96 Reactions
901583	GeneTitan® Wash Buffers A & B Module	Wash Buffer A = 1,045 mL Wash Buffer B = 450 mL

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

P/N	Component	Size
901265	GeneChip® HT HG-U133+ PM and GeneChip® HT 3'IVT Express Kit	96 Reactions
901266	GeneChip® HT MG-430 PM and GeneChip® HT 3'IVT Express Kit	96 Reactions
901264	GeneChip® HT RG-230 PM and GeneChip® HT 3'IVT Express Kit	96 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 HT 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.

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