

GeneChip® HT One-Cycle cDNA Synthesis Kit

For use with the GeneChip®
Array Station

P/N 900687
(96 eukaryotic reactions)
Manufactured by Invitrogen for
Affymetrix



INTRODUCTION

The GeneChip® HT One-Cycle cDNA Synthesis Kit is optimized specifically for eukaryotic target preparation when using the GeneChip® Array Station. It contains sufficient reagents for completing 96 cDNA synthesis reactions when following the detailed procedures described in the *GeneChip® Expression Analysis Technical Manual (For Cartridge Arrays Using the GeneChip Array Station)*. The latest update of the Technical Manual (P/N 702064) is available at www.affymetrix.com. The double-stranded cDNA is then purified and serves as a template in the subsequent *in vitro* transcription (IVT) reaction for complementary RNA (cRNA) amplification and biotin labeling. The biotinylated cRNA targets are then cleaned-up, fragmented, and hybridized to GeneChip® brand expression arrays.

KIT COMPONENTS

GeneChip® HT One-Cycle cDNA Synthesis Kit

Volume	Component
130 µL	T7-Oligo(dT) Primer, 50 µM
460 µL	5X 1st Strand Reaction Mix
230 µL	DTT, 0.1M
460 µL	dNTP, 10 mM
120 µL	SuperScript™ II
3,300 µL	5X 2nd Strand Reaction Mix
440 µL	<i>E. coli</i> DNA Polymerase I
110 µL	<i>E. coli</i> DNA Ligase
110 µL	RNase H
280 µL	T4 DNA Polymerase
60 µL	5X T4 DNA Polymerase Buffer

GeneChip® HT One-Cycle cDNA Synthesis Kit

OTHER NECESSARY REAGENTS NOT PROVIDED WITH THE KIT

Nuclease-free water is also necessary for performing the One-Cycle cDNA Synthesis reaction. We recommend nuclease-free water from Ambion, P/N 9932.

ADDITIONAL AFFYMETRIX® REAGENTS

The following reagents are necessary for performing the GeneChip expression assay.

Affymetrix Reagents	P/N	Steps	Size
GeneChip® Eukaryotic Poly-A RNA Control Kit	900433	Step 1	~ 100 rxns
GeneChip® HT IVT Labeling Kit	900688	Step 5	96 rxns
GeneChip® Eukaryotic Hybridization Control Kit	900454 or 900457	Step 8	30 rxns, 150 rxns

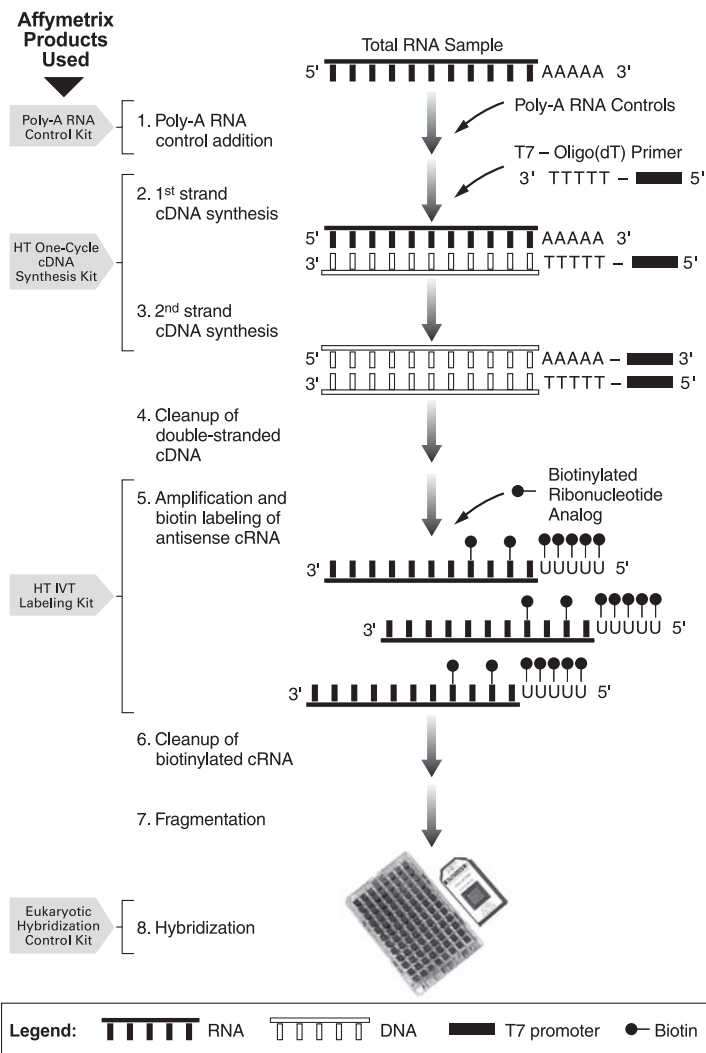


Figure 1. One-Cycle Target Labeling Assay

STORAGE

The kit should be kept at -20°C in a non-frost-free freezer.

FUNCTIONAL TESTING

Each lot is functionally tested with the GeneChip expression assay.

SAFETY INFORMATION

Material Safety Data Sheet(s) will be 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.

For detailed safety information regarding the operation of the GeneChip Array Station, please refer to the *GeneChip® Array Station User's Manual* (P/N 701859).

CONTACT INFORMATION

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TRADEMARKS

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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.

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