BIOARRAY HIGHYIELD® RNA Transcript Labeling Kit (T7)

The gold standard in transcript labeling, for use with Affymetrix® GeneChip® microarrays.

The BIOARRAY HIGHYIELD® RNA Transcript Labeling System is the gold standard transcript labeling system and is intended for use with Affymetrix® GeneChip® brand eukaryotic expression microarrays.

The BIOARRAY HIGHYIELD® RNA Transcript Labeling Kit (T7) has been developed for the production of large amounts of hybridizable biotin-labeled RNA targets by *in vitro* transcription from bacteriophage T7 RNA polymerase promoters. Using T7 RNA polymerase and biotin-labeled nucleotides, large amounts of single stranded nonradioactive RNA molecules can be produced in vitro. Because of the nature of transcription reactions, many RNA copies of the template DNA are produced. Because RNA-DNA hybrids have a higher melting temperature than corresponding DNA-DNA hybrids, single-stranded RNA targets offer higher target avidity and greater sensitivity than DNA probes. RNA targets offer selectivity unavailable with DNA targets−being single stranded, they are strand specific and hybridize more effectively to probes because the target population does not self-hybridize.

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ENZ-42655-40	40Reactions

Manuals, SDS & CofA View Online »

- Produces large amounts of RNA from template DNA
- Incorporates biotin during transcription

Handling & Storage

Use/Stability	Stable for at least one year after receipt when stored as recommended.
Long Term Storage	-20°C
Shipping	Dry Ice

Regulatory Status

RUO - Research Use Only

Product Details

Contents

10X HY Reaction Buffer
10X Biotin-Labeled Ribonucleotides
10X DTT
10X RNase Inhibitor Mix
20X T7 RNA Polymerase

Specificity

Yield: Each lot is shown to generate 50 µg of cRNA when transcribed from a double stranded cDNA library generated from 2 µg total RNA (mixed tissue) in a single round of amplification.

Incorporation: Each lot is tested to ensure at least 10 % of incorporated nucleotides are biotin labeled.

RNase activity: Insignificant amounts of RNase (less than 100 fg RNase A activity in 1 µL of reagent) are detected.

% P value and 3'/5' ratio: The cRNA synthesized by the kit is tested on Affymetrix HU133A 2.0 chip and shown to give > 35% P-calls, with 3'/5' ratios for both β-actin and GAPDH of < 2.5.

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ENZO LIFE SCIENCES, INC.
Phone: 800.942.0430
info-usa@enzolifesciences.com

European Sales Office
ENZO LIFE SCIENCES (ELS) AG
Phone: +41 61 926 8989
info-eu@enzolifesciences.com

Belgium, The Netherlands & Luxembourg
Phone: +32 3 466 0420
info-be@enzolifesciences.com

France
Phone: +33 472 440 655
info-fr@enzolifesciences.com

Germany
Phone: +49 7621 5500 526
info-de@enzolifesciences.com

UK & Ireland
Phone (UK customers): 0845 601 1488
Phone: +44 1392 825900
info-uk@enzolifesciences.com

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