BIOARRAY™ Low Input RNA Amplification and Biotin Labeling System

Lower RNA Input with High Yield – High Quality Biotin Labeling

The BIOARRAY™ Low Input RNA Amplification with Biotin Labeling System provides an optimized protocol and reagents for the production of biotin-labeled antisense RNA (*a*RNA) from total cellular RNA samples in less than 24 hours for array analysis. This kit has been improved to yield sufficient *a*RNA quantity for most microarray platforms (10 µg minimum) with total RNA input of as low as 20 ng and up to 500 ng. Entire amplification reaction can be performed in a single tube and the biotin-labeled *a*RNA can be purified using either magnetic beads or purification columns. The BIOARRAY™ Low Input *a*RNA Amplification and Biotin Labeling System has been optimized for superior performance with reduced variability and improved reproducibility and data quality. The complete system is composed of reagents for cDNA synthesis and *in vitro* transcript labeling.

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Ordering Information Order Online »

ENZ-42422-0010	10Reactions

Manuals, SDS & CofA View Online »

- Single tube reaction for amplification and labeling
- Generates sufficient *a*RNA for standard microarray analysis from as little as 20 ng of total input RNA
- Superior 3’/5’ transcript ratios demonstrating efficient *in vitro* transcription
- 3’/5’ ratios significantly better, as Enzo kit completes transcript through the 5’ end

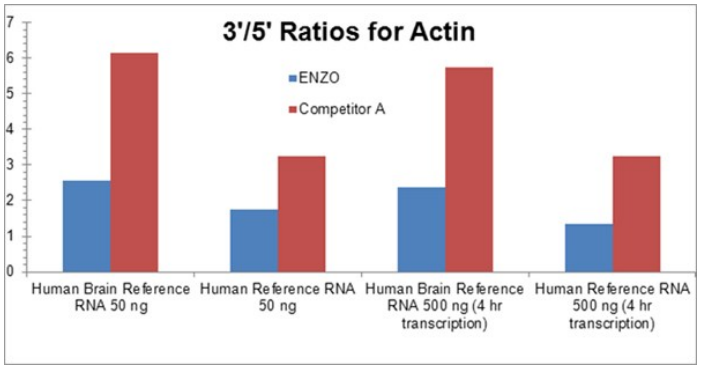


Figure 1: Quality assessment of aRNA obtained using BIOARRAY™ Low Input RNA Amplification and Biotin Labeling System. The 3'/5' ratios, on an Affymetrix U133a array, for housekeeping gene Actin obtained using Enzo kit are much lower than the ones from the competitor's indicating higher quality of aRNA obtained using Enzo kit.

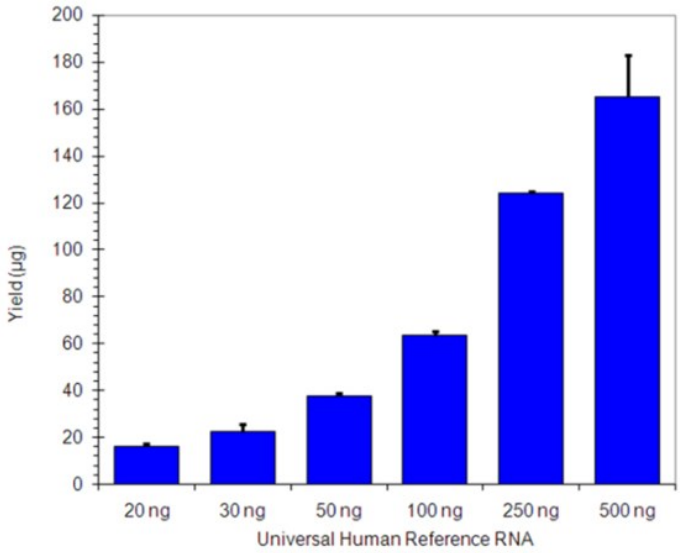


Figure 2: Universal Human Reference RNA ranging from 20 ng to 500 ng was amplified in triplicate using BIOARRAY™ Low Input RNA Amplification and Biotin Labeling System. The lowest amount of input (20 ng) generated enough labeled aRNA for Microarray Analysis.

Handling & Storage

Use/Stability	As indicated on product label or CoA when stored as recommended. Store at -20˚C in a non-frost free freezer.
Handling	Avoid freeze/thaw cycles.
Long Term Storage	-20°C
Shipping	Dry Ice

Regulatory Status

RUO - Research Use Only

Product Details

Application Notes

The BIOARRAY™ Low Input RNA Amplification with Biotin Labeling System provides an optimized protocol and reagents for the production of biotin-labeled antisense RNA (*a*RNA) from total cellular RNA samples in less than 24 hours for gene expression analysis.

Contents

40 µl, First Strand Buffer (FSB)
10 µl, First Strand Enzyme Mix (FSE)
30 µl, Second Strand Buffer Mix (SSB)
20 µl, Second Strand Enzyme Mix (SSE)
250 µl, Transcription Buffer Mix (TB)
75 µl, DTT (DTT)
75 µl, Enhancer Cocktail (EC)
50 µl, T7 RNA Polymerase (T7)
1 ml, Nuclease-free Water (W)

Quality Control

- *a*RNA yield must ≥ 20µg
- *a*RNA purity must range between an A_{260}/A_{280} ratio of 1.9 and 2.3
- *a*Median aRNA size must be equal to or greater than 1200 nt
- Affymetrix GeneChip criteria:
    - % Present calls ≥ 40%
    - Scale factors ≤ 3.0
    - 3’/5′ ratios for actin and GAPDH ~ 3.0 and 1.5 respectively

Technical Info / Product Notes

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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