

RNA AMPLIFICATION AND BIOTIN LABELING SYSTEM

IMPROVED YIELD AND LOWER RNA INPUT

Single-round RNA Amplification and Biotin Labeling System

ENZ-42420-10

10 Reactions

HIGHLIGHT

- Improved RNA amplification with $\geq 50\%$ higher yield of aRNA product
- New formulation of cDNA binding buffer increases recovery of purified cDNA
- Input as low as 250ng of mRNA-rich high quality total RNA yields $\geq 10\mu\text{g}$ aRNA in less than 24 hours
- Shows > 0.99 concordance with previous version of RNA amplification system

The Single-Round RNA Amplification and Biotin Labeling System is our latest innovation for the production of biotin-labeled antisense RNA (aRNA) for microarray analysis. The new protocol and reagents provide results from total cellular RNA samples in less than 24 hours. This kit has been optimized to yield ample aRNA quantities for most microarray platforms (10 μg minimum) with just 250ng of total RNA input, and an input range up to 5,000ng. The new version of our Single-Round RNA Amplification and Biotin Labeling System results in higher yields from an improved cDNA purification system. Benefits of its superior performance across platforms are reduced variability, improved reproducibility and higher data quality.

The complete system is composed of reagents for cDNA synthesis, purification and *in vitro* transcript labeling.

New version provides higher yield of aRNA product

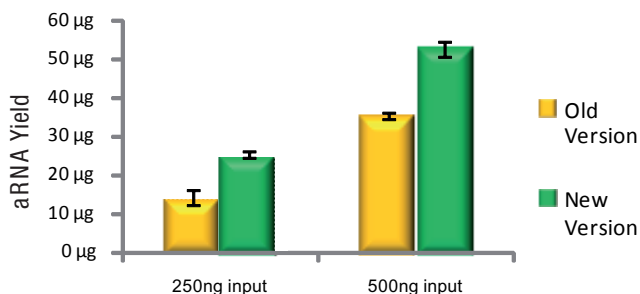


FIGURE 1: The old and new versions of the Single-round RNA Amplification and Biotin Labeling System were used to amplify 250 and 500ng of Universal Human Reference RNA (Stratagene #740000). Reactions were performed in triplicate. The average yields are plotted with standard deviation shown as error bars.

New cDNA purification system improves aRNA yield

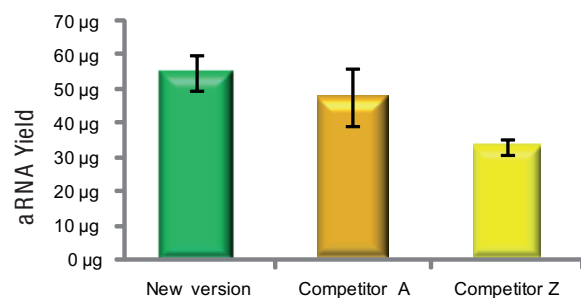


FIGURE 2: The Single-Round RNA Amplification and Biotin Labeling kit was used to amplify 500ng Human Reference RNA. cDNA was purified in triplicate using three different purification systems and subjected to *in vitro* transcription. The cDNA purified by Enzo Life Sciences' cDNA purification system gives higher yield of aRNA from the *in vitro* transcription reaction.

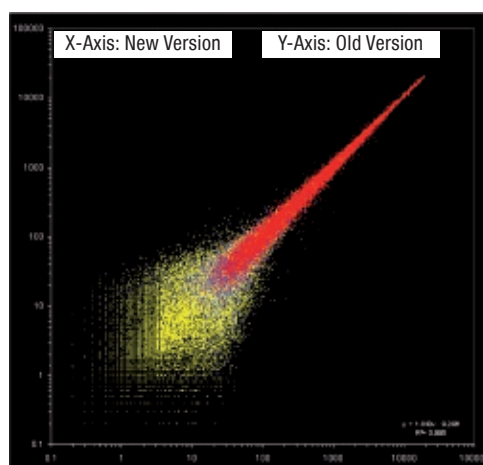


FIGURE 3: aRNA was generated from the old and new version of the kit in one experiment. Equal quantities of aRNA were hybridized to Affymetrix HU133 plus 2.0 expression arrays. Signal intensity obtained from the two arrays show a correlation value of 0.995.

RNA Amplification and Biotin Labeling System

Product	Prod. No.	Size
Single-round RNA Amplification and Biotin Labeling System	ENZ-42420-10	10 Reactions
Single-round RNA Amplification and Biotin Labeling System	ENZ-42421-100	100 Reactions
cDNA Purification Kit	ENZ-42407	10 Reactions
Control RNA	ENZ-42406-CR	10 μ l

Related Products

Product	Prod. No.	Size
BioArray™ High Yield™ RNA Transcript Labeling Kit (T7)	ENZ-42655-10	10 Reactions
BioArray™ High Yield™ RNA Transcript Labeling Kit (T7)	ENZ-42655-20	2 x 10 Reactions
BioArray™ High Yield™ RNA Transcript Labeling Kit (T7)	ENZ-42655-20A	20 Reactions
BioArray™ High Yield™ RNA Transcript Labeling Kit (T7)	ENZ-42655-40	40 Reactions
BioArray™ High Yield™ RNA Transcript Labeling Kit (T7)	ENZ-42655-100	100 Reactions

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