

Transcriptome enrichment without ribosomal RNA for improved microarray analysis

RiboMinus™ Transcriptome Isolation Kits

- Comprehensive, ribosomal RNA-free, whole transcriptome analysis
- Increased representation of RNA transcript species
- Variety of sample formats (human/mouse, yeast, and bacterial)

RiboMinus™ Transcriptome Isolation Kits use a novel purification system that enriches RNA transcripts by depleting large ribosomal RNA molecules from a total RNA sample. These kits use a 5'-biotin-labeled Locked Nucleic Acid (LNA™) probe specific for large rRNA to remove 95–98% of rRNA molecules from human, mouse, bacterial, or yeast total RNA (Figure 1). Depletion of rRNA enriches the representation of non-poly(A)-tailed RNA, preprocessed RNA, small tRNAs, siRNA, snRNA, microRNA, fragmented mRNA, and other regulatory RNAs that cannot be purified via polyA⁺ selection methods.



Figure 1—Greater than 95% rRNA depletion from human, mouse, yeast, and bacterial samples. Agilent 2100 Bioanalyzer data demonstrating rRNA depletion. **A.** Human total RNA and RiboMinus™ RNA isolated from HeLa cells. **B.** Mouse total RNA and RiboMinus™ RNA isolated from mouse liver. **C.** Bacteria total RNA and RiboMinus™ RNA isolated from *E. coli*. **D.** Yeast total RNA and RiboMinus™ RNA isolated from *S. cerevisiae*.

RNA Purification

The purified RNA is concentrated and suitable for numerous downstream applications, including microarray analysis (Figure 2), library construction, and qRT-PCR.

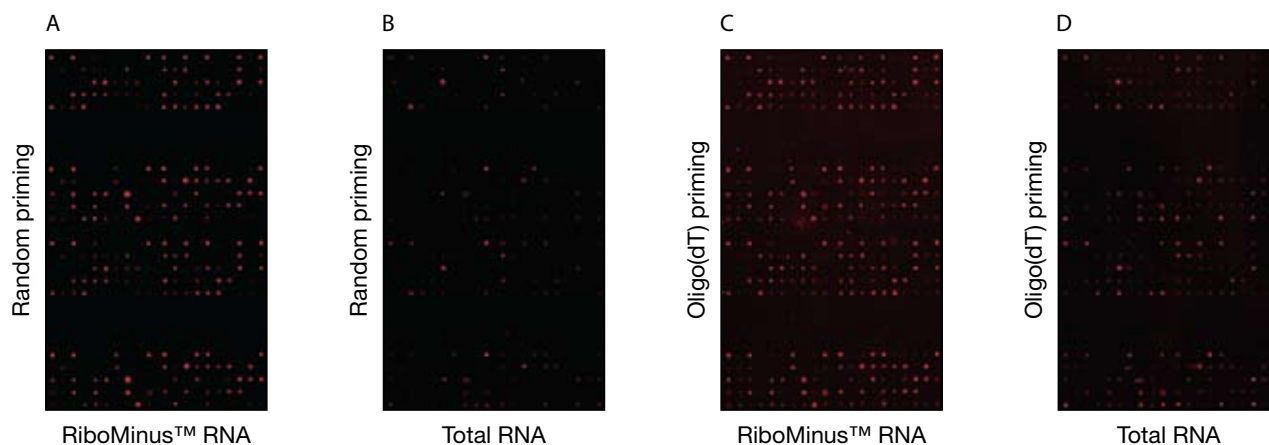


Figure 2—Improved microarray intensities from RNA enriched using the RiboMinus™ Transcriptome Isolation Kit. The arrays were assayed with 0.5 µg of either RiboMinus™ enriched RNA or total RNA. Arrays using RNA enriched with the RiboMinus™ Transcriptome Isolation Kit yielded better overall spot intensity and a higher signal-to-background ratio than those using total RNA. **A.** Random priming of mRNA isolated using the RiboMinus™ Transcriptome Isolation Kit **B.** Random priming of total RNA **C.** Oligo(dT) priming of mRNA isolated using the RiboMinus™ Transcriptome Isolation Kit **D.** Oligo(dT) priming of total RNA.

Ordering information

For a comprehensive and truly representative spectrum of RNA transcripts present in the transcriptome, order RiboMinus™ Transcriptome Isolation Kits today.

Product	Quantity	Cat. no.
RiboMinus™ Transcriptome Isolation Kit (Human/Mouse)	6 preps	K1550-02
RiboMinus™ Transcriptome Isolation Kit (Yeast)	12 preps	K1550-03
RiboMinus™ Transcriptome Isolation Kit (Bacteria)	12 preps	K1550-04
Related products		
RiboMinus™ Concentration Module	6 preps	K1550-05
Magna-Sep™ Magnetic Particle Separator	1 each	K1585-01
For current prices, visit www.invitrogen.com/rnapreps .		



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