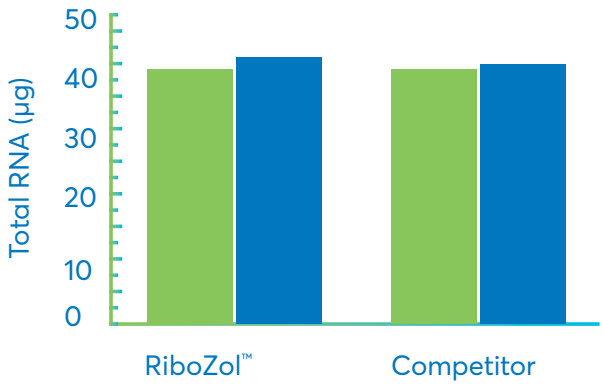
VWR Life Science RiboZol™ RNA Purification Reagents

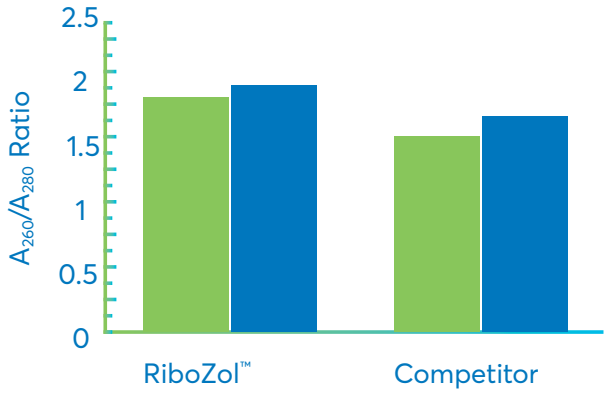
01. **HIGH YIELDS FROM MOST CELL LINES**

02. **COMPATIBLE WITH DOWNSTREAM APPLICATIONS**

03. **RAPID AND SIMPLE PROTOCOLS**



RiboZol extracted RNA yields from two different cell lines. RNA was extracted from HeLa cell cultures (green) 1x106 cells and from CaSki cultures (blue) 1x106 cells according to standard procedures. Total RNA yields were determined by OD260. Data provided by Eunmi Ho, Catholic University, Korea.



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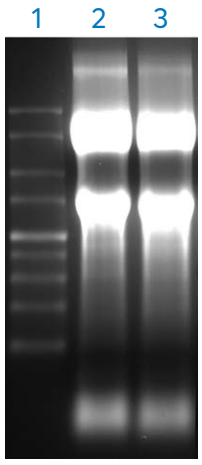


RiboZol Extracted RNA. Total RNA was extracted from K562 cells (1x106 cells) with RiboZol RNA Extraction Reagent. RNA pellets were resuspended in RiboReserve™ RNA storage buffer. Samples were electrophoresed on a 1.2% Agarose I™ formaldehyde gel. Lane 1: RiboReady™ 1 Kb RNA Ladder; Lanes 2 & 3: RiboZol extracted RNA samples.

VWR LIFE SCIENCE RIBOZOL™

The VWR Life Science ready-to-use RNA extraction reagent is optimized to produce high quality RNA from a variety of biological samples. RiboZol is a ready-to-use single phase phenol solution for the isolation of total RNA from even the most difficult cell and tissue types. The sample is disrupted directly into RiboZol to inhibit RNase activity and prevent RNA degradation during purification. RNA obtained by RiboZol purification procedures is compatible with a variety of downstream applications.

- Isolate intact, un-degraded total RNA from even the most difficult cell and tissue types
- Extract total RNA in less than 1 hour from most samples with an easy-to-follow protocol
- Achieve consistent results and excellent recovery of small RNAs
- Compatible with a variety of applications, including Northern analysis, dot blots, cloning, InVitro translation, PolyA+ election, and RT-PCR

Size, mL	Cat. No.	Unit
30	**97064-952**	Each
100	**97064-948**	Each
200	**97064-950**	Each

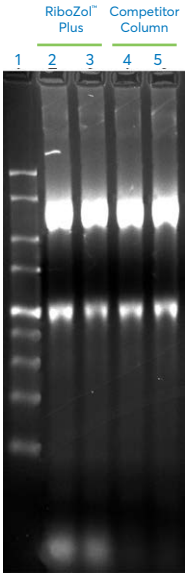


FIGURE 1. RiboZol Plus Kit enhances recovery of small RNA species. 5x106 K562 cells were isolated with RiboZol RNA extraction reagent, and further purified with RiboZol Plus purification kit columns (lane 2-3) or Competitor's purification kit columns (lanes 4-5).

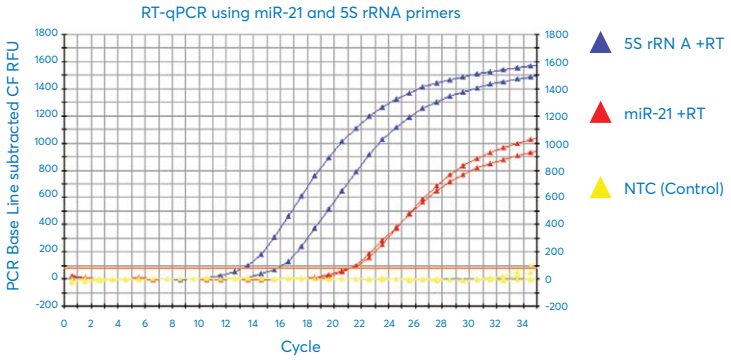


FIGURE 2. RT-qPCR using miR-21 and 5S rRNA primers. Amplification of 5S rRNA and miR-21 RNA purifiied with RiboZol Plus. RNA from 1x106 HeLa cells was extracted and purified using RiboZol Plus RNA purification kit. 2µl RNA was used in a 20µl RT reaction with either a 5S reverse primer or miR-21 stem-loop reverse primer. 2µl of the RT reaction was analyzed by qPCR using BioRad's iQ™ SYBR® Green Master mixes.

VWR LIFE SCIENCE RIBOZOL™ PLUS RNA PURIFICATION KIT

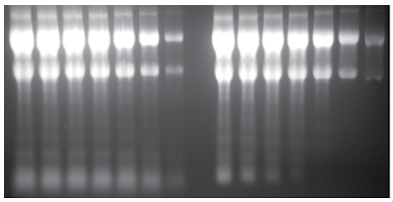
VWR Life Science RiboZol Plus RNA Purification Kit purifies and recovers all sizes and species of RNA, including large RNAs such as ribosomal RNA (rRNA) or messenger RNA (mRNA), and small RNAs less than 200 nucleotides including microRNAs (miRNA) and small inhibitory RNAs (siRNA). The kit combines the benefits of organic RNA extraction using RiboZol RNA extraction reagent with the ease and convenience of spin column technology. RiboZol RNA extraction reagent extracts total RNA from cells or tissue, including difficult sample types. Column chromatography employs a proprietary resin as the separation matrix to eliminate the time-consuming isopropanol precipitation step of the standard RiboZol RNA purification procedure. Up to 35µg of total RNA may be concentrated per column. The RiboZol Plus RNA purification kit provides sufficient material for 50 total RNA purification procedures.

With the RiboZol Plus RNA purification kit, biological samples are first disrupted directly into the RiboZol RNA extraction reagent. Chloroform is added to the homogenate, which is then centrifuged to separate the three solution phases. RNA is recovered in the upper aqueous phase, then diluted with ethanol, and applied to the spin column. RNA binds to the column while contaminating proteins, DNA, and nucleotides are removed during the washing step with the included RiboZol washing buffer. Purified RNA is then eluted with the included RiboZol elution buffer. Multiple purifications can be completed in less than one hour with ≥ 90% recovery.

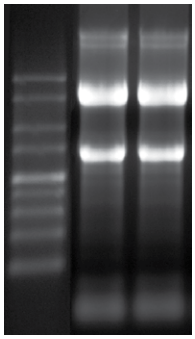
Total RNA purified with the RiboZol RNA purification kit is compatible with most downstream applications including Northern blot and dot blot analysis, RNAse protection assays, microarray analysis, molecular cloning, and mRNA isolation. DNase treatment is recommended for maximum removal of DNA prior to sensitive downstream applications such as quantitative RT-PCR.

- Save time
- Reduce hazardous chemical use
- Enhance recovery of total RNA including microRNA species
- Kit includes two 30mL vials of RiboZol extraction reagent, 22mL RiboZol washing buffer, 6mL RiboZol elution buffer, 50 spin columns, and 50 collection tubes

Description	Cat. No.	Unit
VWR Life Science RiboZol Plus RNA Purification Kit	**97064-954**	Each



Total RNA was purified from K562 cells with RiboZol™ RNA extraction reagent. Samples were denatured at 65°C (149°F) for 10 minutes in RNA EZ-Vision® loading buffer containing either 0.003% ethidium bromide or RNA EZ-Vision dye. The denatured RNA was loaded onto a 2% formaldehyde denaturing agarose gel (Agarose I™, 97062-244) and resolved for 1.5 hours at 5.1 V/cm. Bands were visualized by UV illumination and image capture was performed with a Syngene GBox-HR Gel Doc System with a SYBR® Green filter.



RNA isolated from K562 cells using RiboZol was quantitated and stored in RiboReserve. The RNA was separated on a 2% denaturing agarose gel in 1X MOPS.

VWR LIFE SCIENCE RNA EZ-VISION® LOADING BUFFER, 1.5X

RNA EZ-Vision is a non-mutagenic fluorescent dye for staining RNA bands resolved on denaturing agarose gels containing formaldehyde. Supplied in a 1.5X loading buffer, RNA EZ-Vision dye stains RNA during the denaturation immediately prior to gel loading. The dye comigrates with the RNA samples during electrophoresis and provides immediate band visualization upon illumination with UV light. No post run staining or destaining is needed. The loading buffer includes formamide and bromophenol blue tracking dye.

- Ideal for environments needing to reduce use of ethidium bromide
- Recommended for denaturing agarose gels with formaldehyde
- Sensitive to 150ng of RNA
- Compatible with downstream applications including Western blots

Size	Cat. No.	Unit
2 x 1.5 mL	**97064-294**	Each

VWR LIFE SCIENCE RIBORESERVE™ RNA STORAGE SOLUTION

RiboReserve RNA storage solution is recommended for resuspension or reconstitution of RNA pellets after isolation from cells or tissues. Since RNA is easily degraded by abundant exogenous or endogenous RNases, it is essential that the solution be maintained in a safe environment long term storage. The low pH (pH 6.4) and chelating component (sodium citrate) of RiboReserve RNA storage solution helps to stabilize the RNA in solution. The solution is guaranteed sterile and RNase-free for reliable performance. It may be used after the final step of ethanol precipitation and washing following extraction with organic reagents such as RiboZol™ RNA extraction reagent. RiboReserve RNA storage solution will not inhibit downstream reactions such as RT-PCR, transcription or translation reactions, and Northern blots.

Size	Cat. No.	Unit
50 mL	**97063-260**	Each

VWR LIFE SCIENCE NUCLEASELIMINATOR™

DNase and RNase contamination ruins expensive samples and time-consuming protocols in research laboratories every day. NucleasEliminator can help protect your investment by removing and deactivating even high concentrations of nuclease contamination from glass or plastic surfaces. Simply wipe, immerse, or fill the surface or vessel to be decontaminated with NucleasEliminator, incubate five minutes at room temperature, and rinse thoroughly with nuclease-free water. NucleasEliminator is safe to use on all surfaces at the laboratory bench ranging from glassware, microcentrifuge tubes, pipette tips, and electrophoresis units. A 100mL bottle of the ready-to-use liquid will treat up to 100 microcentrifuge tubes or 25 casting trays for agarose electrophoresis. It is also available as a spray or a wipe.

- Effectively removes and deactivates nuclease contamination, even at high concentrations
- Safe on all laboratory glass and plasticware
- Stable at room temperature for at least two years

Size	Cat. No.	Unit
NucleasEliminator Ready-to-Use Liquid		
100 mL	**97064-070**	Each
500 mL	**97063-076**	Each
NucleasEliminator Spray Bottle		
50 mL	**97063-078**	Each
NucleasEliminator Wipes		
Pack of 25 Wipes	**97063-074**	Each

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