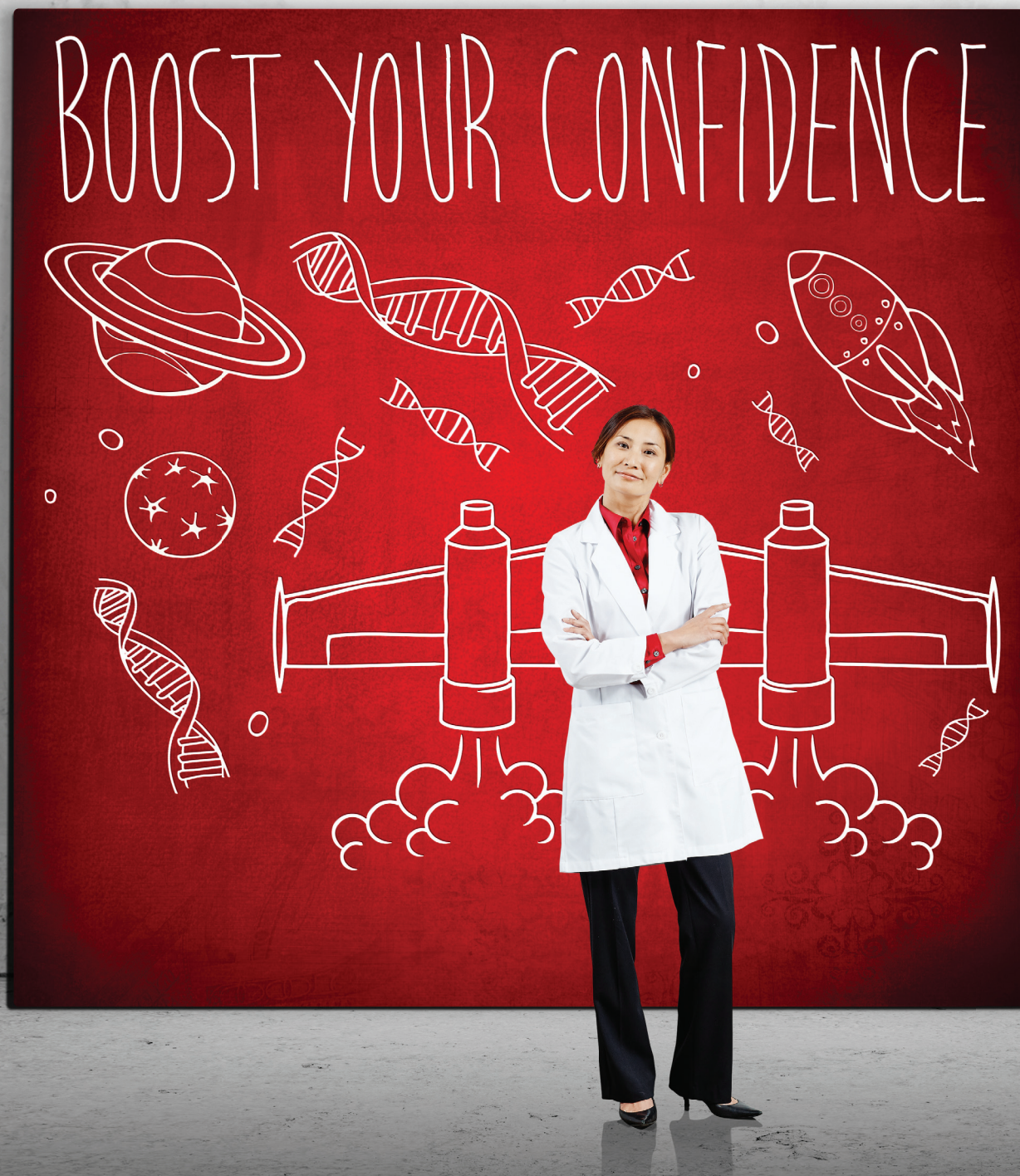


invitrogen



RNA isolation and purification

For every application, sample and RNA type

ThermoFisher
SCIENTIFIC



Isolate and purify RNA with confidence

Go ahead and push the limits of your research. We'll be there to support you with robust RNA kits, trusted RNA tools, and experienced technical support, all backed by nearly 30 years of leadership and innovation in RNA technologies.

RNA isolation is a crucial step in your journey. Be confident that you're getting started on the right foot.

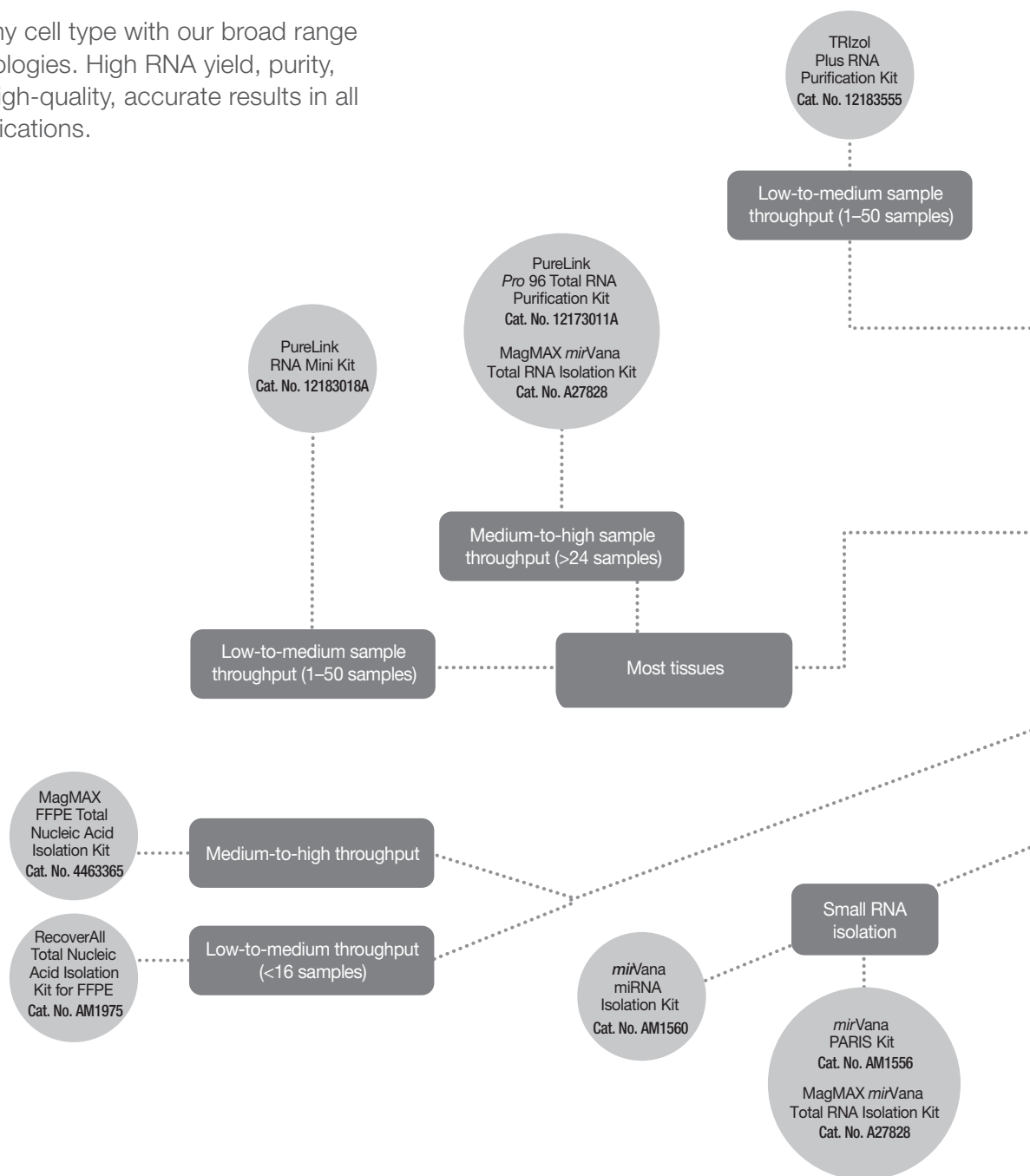
- Isolate from any sample type, for any application
- Obtain high-purity, intact RNA
- Achieve high yields, even from small sample quantities

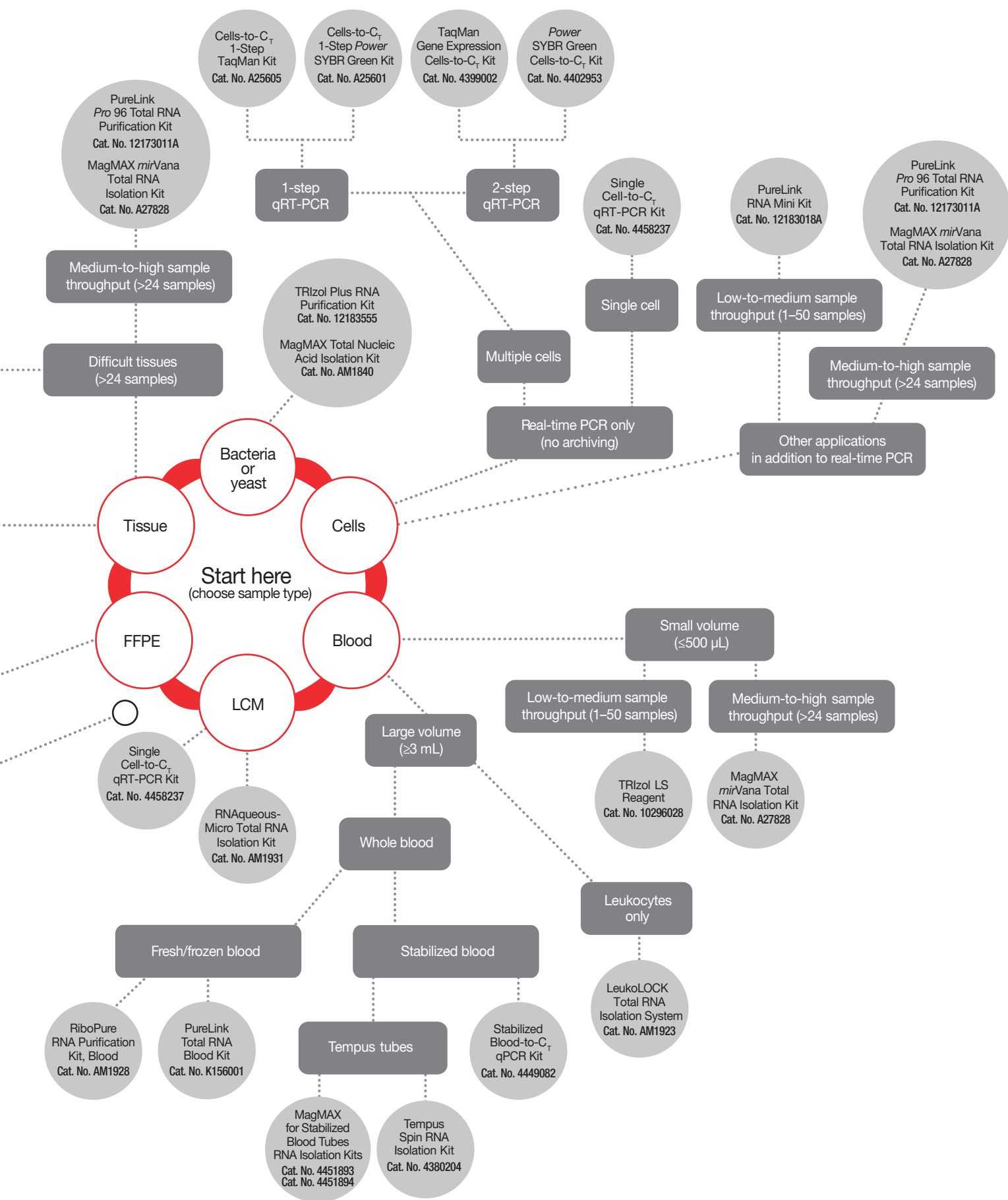
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RNA isolation technology guide

Purify RNA from virtually any cell type with our broad range of RNA extraction methodologies. High RNA yield, purity, and integrity help ensure high-quality, accurate results in all downstream research applications.





Automated RNA purification

Highly versatile, adaptable, and flexible system

Optimize and automate your RNA purification workflow with Applied Biosystems™ MagMAX™ kits and Thermo Scientific™ KingFisher™ magnetic particle processors.* A revolutionary particle separation technology—permanent magnetic rods and disposable tip combs with independent movement control—forms the basis of both KingFisher™ Flex and KingFisher™ Duo Prime instruments. When used with compatible bead-based reagents, such as MagMAX kits, these processors enable versatile automation of DNA and RNA extraction, isolation, and purification procedures.

Learn more and request a demo at thermofisher.com/kingfisher



High-throughput automated purification with the KingFisher Flex Magnetic Particle Processor

Using a carousel of 8 plate positions, the KingFisher Flex instrument is designed to process washing, incubation, and bead transfer steps with entire plates of samples from a variety of sources.

- High-throughput sample processing
- Volume ranges from 50–5,000 μL
- 24-tip and 96-tip manifold (for 24-well and 96-well plates)
- Accommodates up to 8 plates

*KingFisher products not available in all regions—please check with your sales representative for availability.

In addition to total RNA purification, KingFisher processors can accommodate DNA, protein, and cell separation.



Compact automated purification with the KingFisher Duo Prime Magnetic Particle Processor

This small footprint system is ideal for space-restricted laboratories. Using a carousel of 2 plate positions, the KingFisher Duo Prime Magnetic Particle Processor is designed to process washing, incubation, and bead transfer steps across partial plates of samples from a variety of sources.

- Compact mid-throughput sample processing
- Volume ranges from 30–5,000 μL
- 6-tip or 12-tip manifold (for 24-well and 96-well plates)
- Accommodates up to 2 plates

Simple, fast isolations with MagMAX kits

When MagMAX kits are used on the KingFisher Flex processor, labs will have a simple, fast system that is designed to provide pure RNA ready for downstream applications such as real-time PCR and next-generation sequencing. Benefits include:

- Nucleic acid extraction from larger sample input volumes
- Consistent, high-quality nucleic acid recovery from a wide variety of sample types
- Cross-contamination control due to bead transfer technology

Select the right MagMAX kit for your needs at [thermofisher.com/magmax](https://www.thermofisher.com/magmax)

Isolate total RNA, mRNA, small RNA, and viral RNA with MagMAX kits and KingFisher processors.

Total RNA purification

Quality, intact RNA—simple, high-yield workflows

Starting with high-quality, pure, and intact total RNA is critical to many experiments, including RT-PCR, qRT-PCR, array analysis, northern blots, nuclease protection assays, and RNA sequencing. The table to the right will help you choose the right product to purify total RNA from your specific sample type and sample size.

Invitrogen™ TRIzol™ reagents are the most cited nucleic acid purification reagents, with over 70,000 citations.

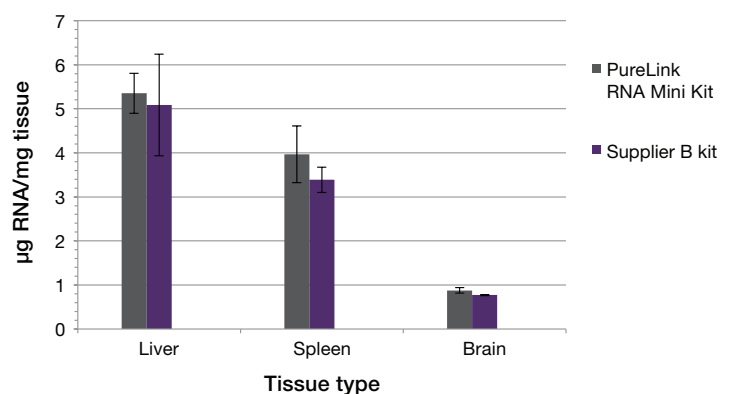
To view the complete portfolio, go to thermofisher.com/totalrna

“... we optimized a co-extraction method using TRIzol reagent, which is the most trusted reagent for total RNA extraction from fresh tissues, because it allows DNA/RNA phase separation and recovery from fresh tissues.”

Kotorashvili A et al. (2012) Effective DNA/RNA co-extraction for analysis of microRNAs, mRNAs, and genomic DNA from formalin-fixed paraffin-embedded (FFPE) specimens. *PLoS One* 7:e34683.

PureLink kits perform over a wide range of starting material

Total RNA from rat liver, spleen, and brain was purified using the PureLink RNA Mini Kit and supplier B kit according to manufacturer's instructions. In each case, the PureLink RNA Mini Kit provided equal or greater yields than the supplier B kits.



Which product is right for your research?

| | TRIzol reagents | PureLink kits | MagMAX kits | Cells-to-C _T kits |
|----------------------------|--|--|---|-----------------------------------|
| | Process a large amount of tissue | Fast isolation of RNA from a variety of samples | High-throughput purification of RNA and DNA | Process cells for gene expression |
| Prep time | 60 min | <20 min | 45 min | 10 min |
| Sample types | Most samples, particularly more difficult to lyse | Bacteria, liquid, blood, cells, yeast, plants, tissue | Cells, blood, plants | Cultured cells |
| Starting material | 100 mg of tissue or 10 ⁷ cells | 10 ⁸ cells, 200 mg of tissue, 250 mg of plant, 0.2 mL of blood, 5 x 10 ⁸ yeast, 10 ⁹ bacteria | 100 mg of tissue or 5 x 10 ⁸ cells | 1–100,000 cells |
| Yield | 1 x 10 ⁶ epithelial cells: 8–15 µg, tobacco leaf: 73 µg | Up to 350 µg | Variable depending on sample | NA |
| High-throughput compatible | — | ✓ | ✓ | ✓ |
| Technology | Organic extraction | Silica membrane spin column/ filter plate | Magnetic beads | Crude lysate |

Go to thermofisher.com/rnaselection to use our online kit selection guide.

Working with cultured cells?

Did you know you can go straight to qRT-PCR without RNA purification?

Visit thermofisher.com/cellstoc to learn more.

Transcriptome purification

Comprehensive, truly representative spectrum of RNA transcripts

Isolating high-quality RNA is a crucial first step in successful whole transcriptome analysis. Transcriptome enrichment and concentration prepare the sample for numerous downstream applications, including RNA-Seq, microarray analysis, library construction, and qRT-PCR.

Invitrogen™ RiboMinus™ Transcriptome Isolation Kits enrich RNA transcripts by depleting large ribosomal RNA molecules from the total RNA sample. This unique technology offers:

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

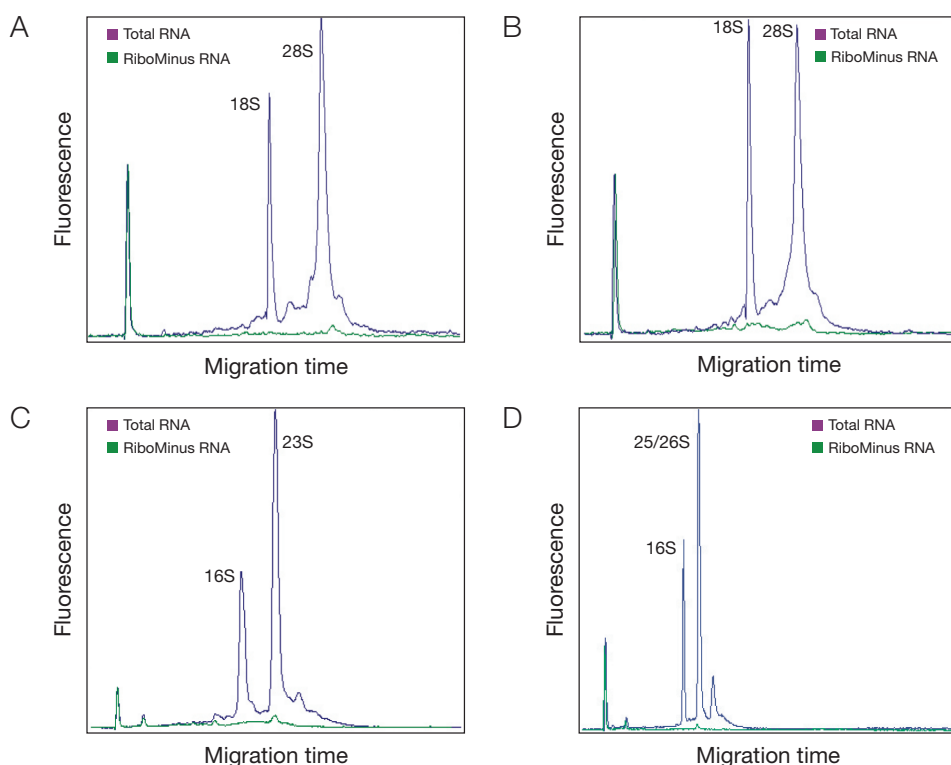


Figure 1. Invitrogen™ RiboMinus technology demonstrating greater than 95% rRNA depletion. **A.** Human total RNA was isolated from HeLa cells. **B.** Mouse total RNA isolated from mouse liver. **C.** Bacteria total RNA and isolated from *E. coli*. **D.** Yeast total RNA isolated from *S. cerevisiae*. Samples were analyzed using the Agilent™ 2100 Bioanalyzer™ instrument.

mRNA purification

Rapid, high-yield isolation of pure mRNA

Only 1–5% of the total RNA in a typical mammalian cell is poly(A) RNA or mRNA. We offer highly efficient technologies to purify mRNA directly from your starting sample or from isolated total RNA. The table below will help you choose the technology that is right for you.

Which mRNA purification product is right for your research?

| | Dynabeads mRNA Purification Kit | Dynabeads mRNA DIRECT Purification Kit | Dynabeads mRNA DIRECT Micro Kit | mRNA Catcher PLUS Purification Kit |
|------------------------------|--|--|--|--|
| | Rapid mRNA purification from total RNA | No purification, mRNA direct from crude samples | mRNA from micro-sized samples | High-throughput mRNA directly or enriched from total RNA |
| Prep time | 15 min | 15 min | 15 min | 90 min |
| Isolation from crude samples | — | ✓ | ✓ | ✓ |
| Enrichment from total RNA | ✓ | — | — | — |
| Sample type | Total RNA | Liquid, RNA, FFPE and fixed, yeast, blood, tissue, viral, plant, cells | Liquid, RNA, FFPE and fixed, yeast, blood, tissue, viral, plant, cells | Total RNA, blood, mammalian tissue, and cells |
| Starting material | 75 µg of total RNA | 2 x 10 ⁷ cells, 2–200 mg of tissue, 4–400 mg of plant | 1 x 10 ⁴ cells, 5 mg of tissue or plant | 100 to 1 x 10 ⁸ cells, 4 mg of tissue, 40 µL of whole blood, 100 ng–100 µg of total RNA |
| High-throughput compatible | ✓ | ✓ | ✓ | ✓ |
| Technology | Magnetic beads | Magnetic beads | Magnetic beads | Oligo dT affinity |

Two distinct approaches to purifying mRNA

- Extract total RNA, then enrich for mRNA. This allows for archival of total RNA samples and is the method used with the mRNA Catcher PLUS kit.
- Lyse the cells, then purify mRNA directly. This is typically faster than the first approach and is the method used with Dynabeads mRNA DIRECT kits.

Did you know?

Your mRNA purification workflow can be automated on a KingFisher magnetic particle processor.

Dynabeads mRNA purification has been cited in over 5,000 publications.

MicroRNA and small RNA purification

Rapid, quantitative recovery of small RNA

MicroRNA and other small RNAs have a substantial impact on biological processes including gene expression. However, traditional RNA isolation methods do not sufficiently recover these smaller RNAs. Our RNA experts have developed RNA isolation kits that provide rapid, quantitative recovery of small RNAs from a variety of sample types in as little as 10 minutes. The table below will help you choose the right product to purify small RNAs for your specific application.

The high-throughput capable Applied Biosystems™ MagMAX™ *mirVana*™ Total RNA Isolation Kit enables superior performance

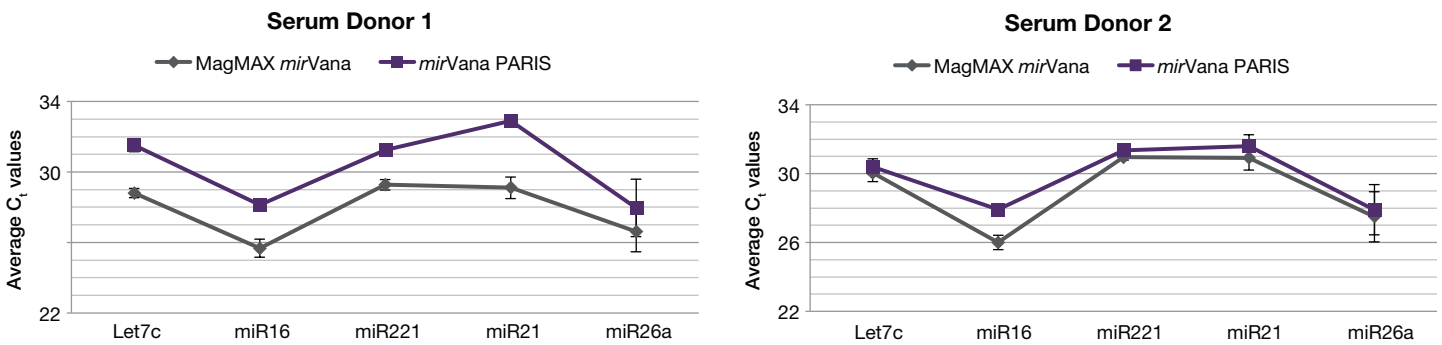
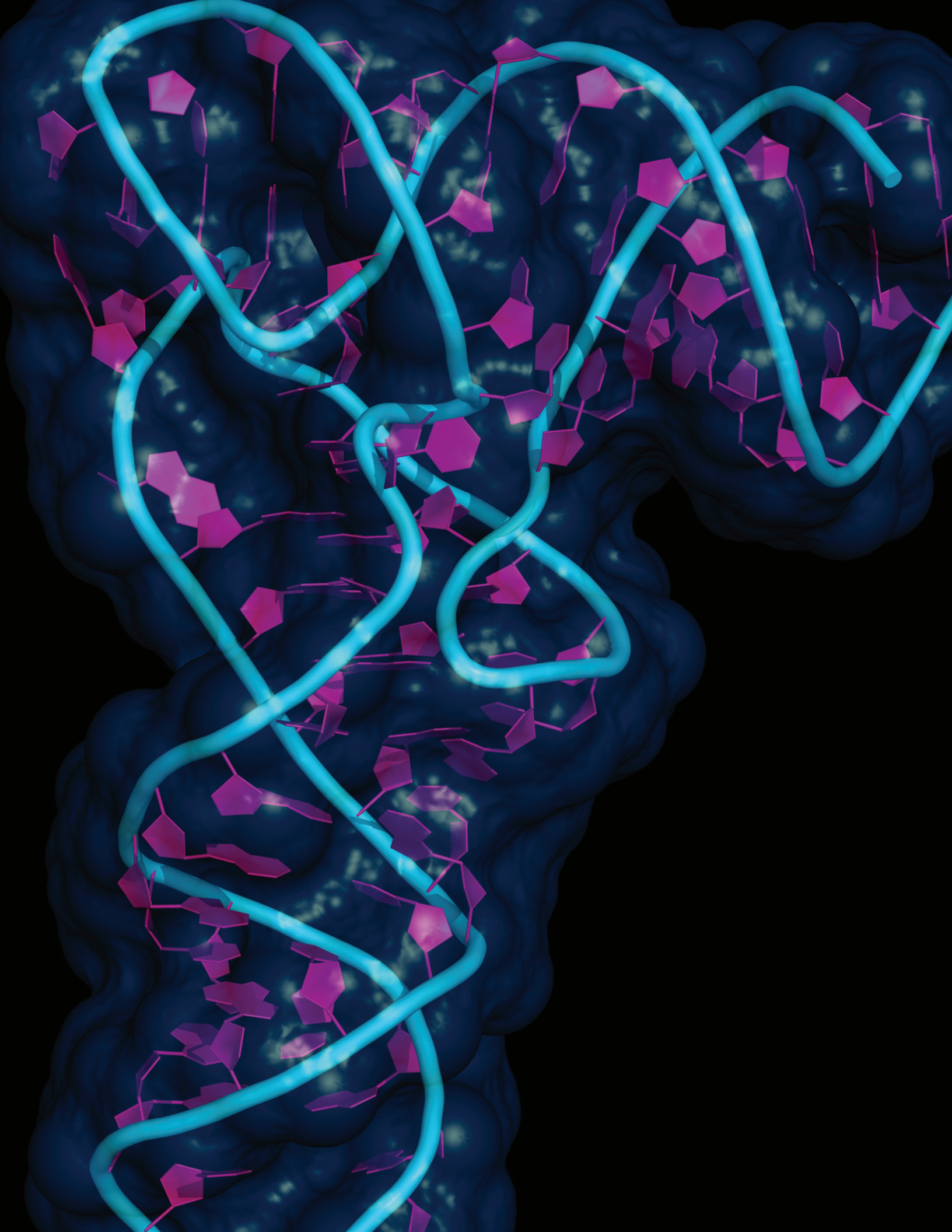


Figure 2. RNA was isolated from the serum of two donors and the levels of five microRNAs were measured by qRT-PCR. The MagMAX *mirVana* Total RNA Isolation Kit, a new magnetic bead-based technology, was benchmarked against the gold-standard Invitrogen™ *mirVana*™ PARIS™ RNA Kit.

Which product is right for your research?

| | <i>mirVana</i> miRNA Isolation Kit | MagMAX <i>mirVana</i> Total RNA Isolation Kit | TaqMan microRNA Cells-to-C _T Kit |
|----------------------------|--|---|---|
| | 30 min isolation from most samples | High-throughput, pure, concentrated microRNA | Complete kit, sample to qPCR from cells |
| Prep time | 30 min | <60 min | 10 min |
| Sample types | Bacteria, cells, yeast, plants, tissue, viral | Plasma/serum, whole blood, tissue, cells, urine | Cells |
| Starting material | 250 mg of tissue or 10 ⁷ cells | 100 mg of tissue or 5 x10 ⁶ cells | 10–100,000 cells |
| High-throughput compatible | — | ✓ | ✓ |
| Technology | Organic extraction and silica membrane spin column | Magnetic beads (phenol-free) | Crude lysate |



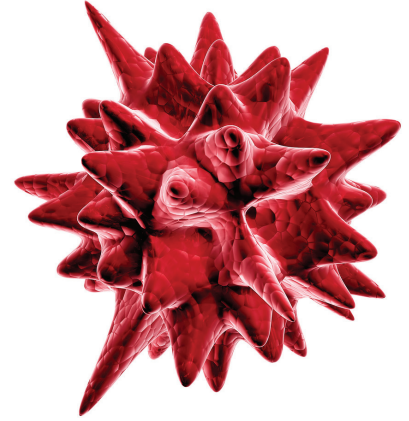
Viral RNA purification

Rapid, efficient purification from cell-free biological fluids

Successful viral analysis starts with the isolation of highly pure, concentrated viral RNA and DNA. Our advanced nucleic acid purification technologies for biological (animal, insect, plant, fungal, and bacterial) and environmental (water, air, and food) samples give you confidence in your sensitive downstream real-time PCR and northern blot assays.

Our viral nucleic acid isolation technologies offer superior:

- Recovery—typically >50% even at low concentrations
- Sensitivity and reproducibility
- High-throughput compatibility and integration into robotic platforms



Purification of adenovirus DNA with Invitrogen™ PureLink™ Viral RNA/DNA Mini Kit provides superior recovery and sensitivity

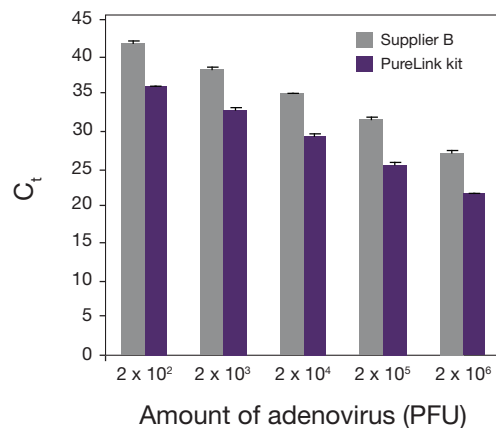
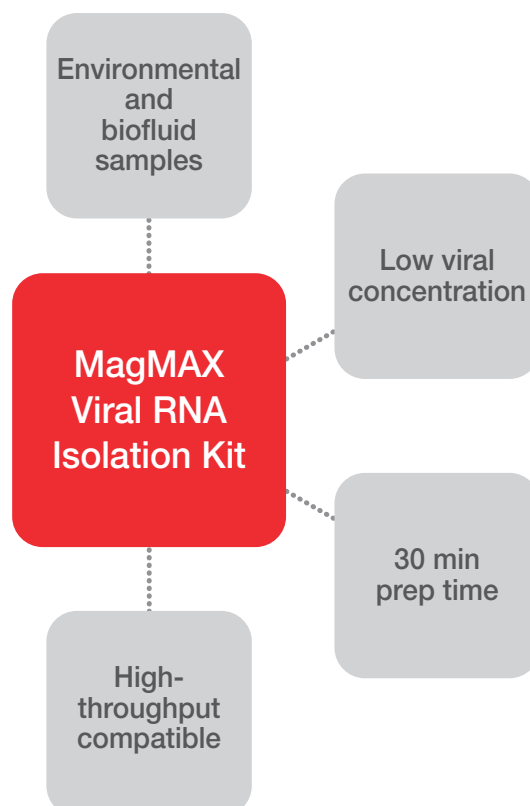
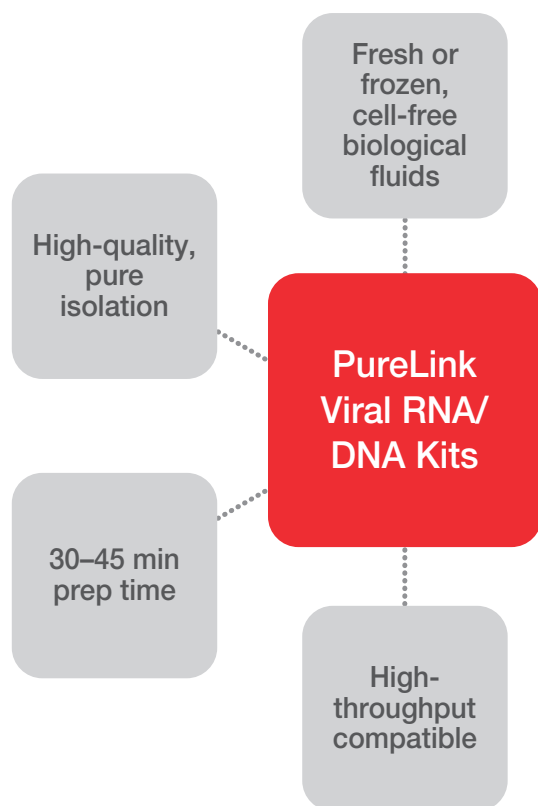


Figure 3. Serum samples (200 μ L) were spiked with adenovirus DNA at the indicated PFU and then DNA extraction was performed following the manufacturer's recommended procedure for the PureLink Viral DNA/RNA Mini Kit or supplier B kit.



View all our tools for viral RNA and DNA capture and purification, as well as qRT-PCR and qPCR analysis at thermofisher.com/viral

Select the right viral RNA isolation kit for your research at thermofisher.com/viralRNA

Real-time RT-PCR without RNA purification

Exceptional speed and accuracy in
measuring gene expression

Invitrogen™ Cells-to-C_T™ kits allow you to skip RNA purification by going straight from cultured cells, blood or single cell samples to measuring relative gene expression by real-time RT-PCR (qRT-PCR). Cells-to-C_T kits are available in both Applied Biosystems™ TaqMan™ and SYBR™ Green formats, and offer:

- Extraordinary ease and speed—96 samples can be processed for qRT-PCR in typically <10 min
- No tedious RNA purification—no columns, heating or centrifugation
- Superior performance—designed for consistent accuracy, reproducibility, and sensitivity, with 10–100,000 cells
- Validated kit workflows—complete sets of reagents preoptimized to work efficiently right out of the box

Skip RNA purification without compromising performance

Performance of the Invitrogen™ Cells-to-C_T™ 1-Step TaqMan Kit is tightly correlated with a traditional approach using purified RNA.

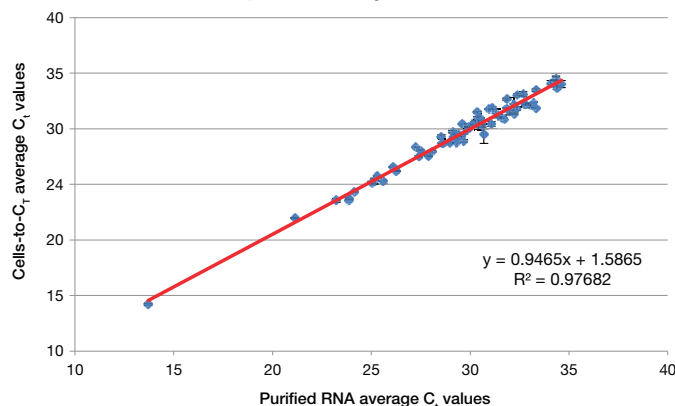


Figure 4. Data from 72 assays compares performance of the Cells-to-C_T 1-Step TaqMan Kit with a traditional approach using purified RNA. Lysate from 16,500 Jurkat cells was prepared for qRT-PCR on the Applied Biosystems™ 7900HT Fast Real-Time PCR System.

Sensitivity of the Cells-to-C_T 1-Step TaqMan Kit is better than a traditional approach using purified RNA.

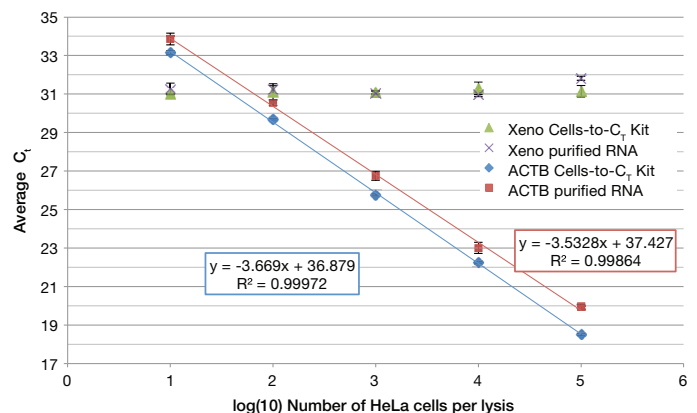
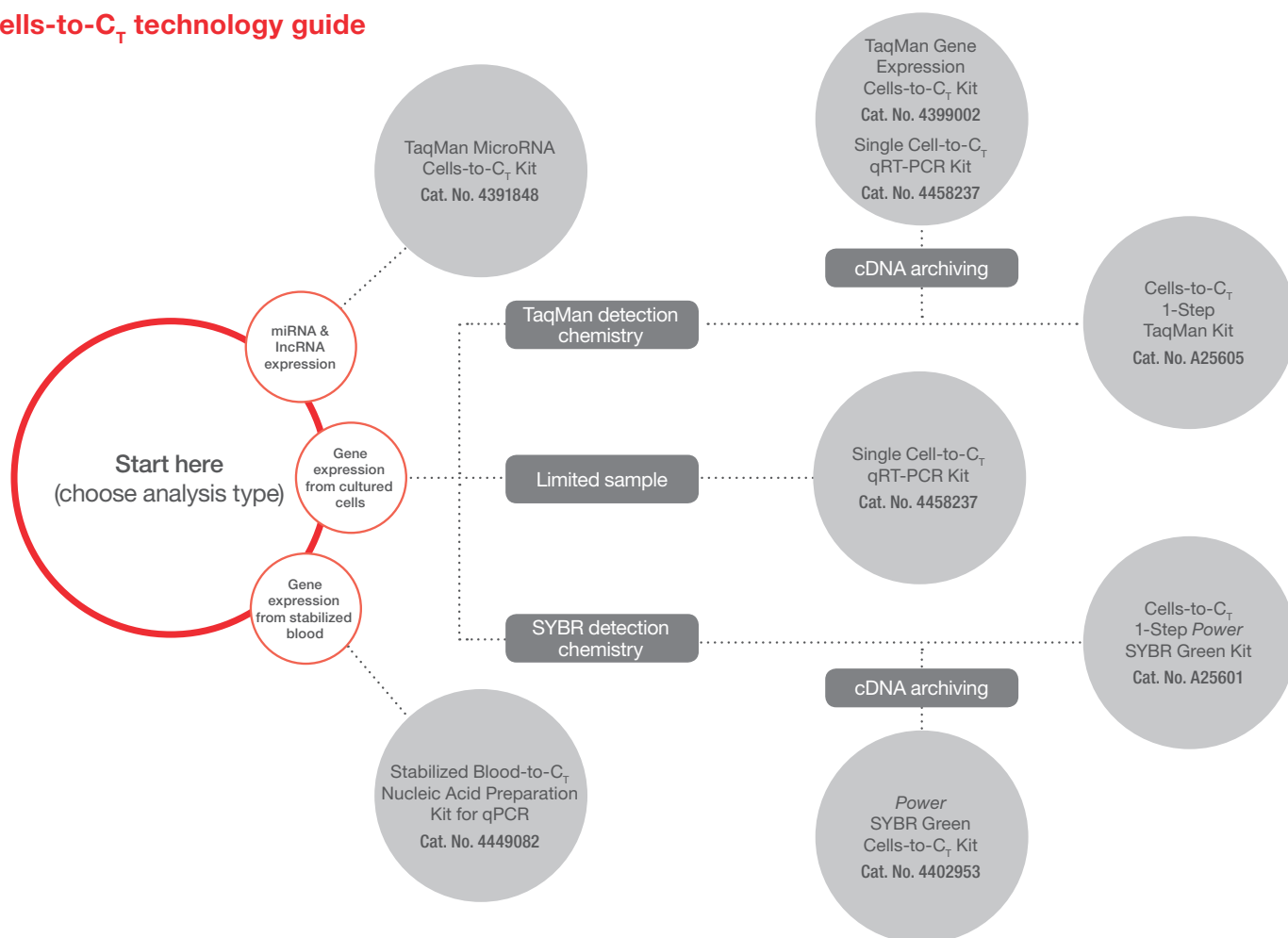


Figure 5. HeLa cells (10 to 100,000) were processed in triplicate using the Cells-to-C_T 1-Step TaqMan Kit or RNA purified with an RNA spin column method. Each set of samples was analyzed by qRT-PCR for beta-actin (ACTB) and XenoRNA™ targets using the Invitrogen™ Cells-to-C_T Control Kit on the 7900HT system.

Visit thermofisher.com/cellstoct to learn more

Cells-to-C_T technology guide



Find out how your Cells-to-C_T workflow can be automated at thermofisher.com/autocellstoct

Choose a 1-step kit, if you:

- Do not store cDNA
- Dispose of samples after one or a few uses
- Have many samples with one or a few targets
- Use liquid handling robotics
- Need to reduce the chance of cross contamination
- Need to reduce time to results

RNA lab essentials

For avoiding, detecting and inhibiting RNase

RNA can be difficult to work with as it is readily degraded by RNases that are found in a variety of environmental sources, such as bacteria and fungi, as well as flaked skin and hair. RNases are extremely robust enzymes that can retain functionality at room temperature, and even after freeze/thaw cycles and autoclaving. Consequently RNases are unaffected by many methods of decontamination, and strong chemical methods are often required to eliminate them from surfaces and solutions.

However some basic precautions, including the use of RNase-free plastics and reagents, maintaining a clean work surface and properly stabilizing tissue samples prior to storage will go a long way toward minimizing experimental inconsistencies and failures. Invitrogen™ RNA essentials are a staple in labs that handle RNA, giving researchers worldwide confidence in their results.

Even spleen tissue, an organ known for its high endogenous RNase content, can be stored without jeopardizing the quality or quantity of RNA subsequently isolated when the sample is stabilized with RNA/*later*.

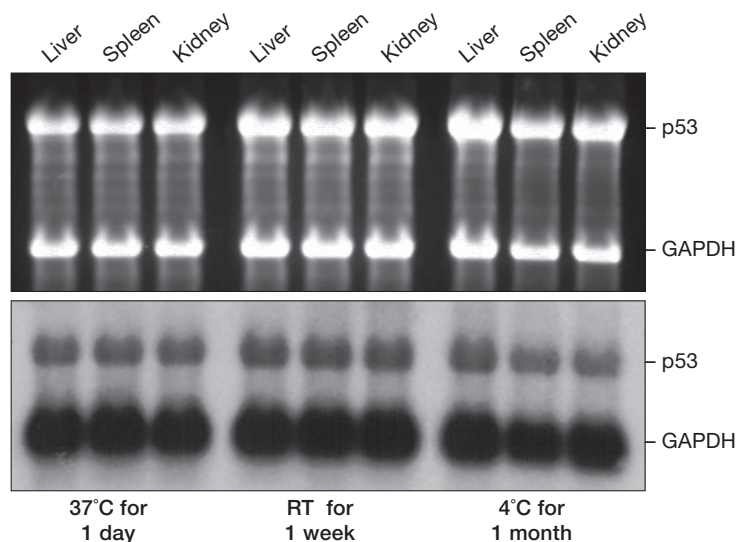


Figure 6. Northern blot of RNA from tissue treated with Invitrogen™ RNA/*later*™ Stabilization Solution. The dissected tissue was submerged in approximately 5 volumes of RNA/*later* solution at room temperature. Samples were stored at 37°C for one day, room temperature (25°C) for one week, or 4°C for one month. A northern blot (of gel in the top panel) that was hybridized with probes to p53 and GAPDH, demonstrates the integrity of RNA isolated from tissues treated with RNA/*later* solution and stored at different temperatures (bottom panel).



Nuclease-free tips and tubes

Pipette tips and tubes are an easily overlooked source of RNase contamination.

We offer a range of RNase-free plastic pipette tips, PCR tubes, microcentrifuge tubes and conical tubes. Each lot of Invitrogen™ tips and tubes undergoes rigorous testing and is certified to be nuclease-free. View products at thermofisher.com/nucleasefreeplastics



Nuclease-free water

Preparing reagents and resuspending precipitated RNA with the appropriate grade water is a crucial and often ignored first step for consistent experimental results. Even purified water can have a high pH and minerals that can interfere with certain types of reactions.

We offer several grades of nuclease-free water—diethylpyrocarbonate (DEPC)-treated water, nuclease-free water (not DEPC-treated), and RT-PCR-grade water—all rigorously tested for contaminating nonspecific endonuclease, exonuclease, and RNase activity. Learn more at thermofisher.com/nucleasefreewater



Surface decontamination

It's safe to assume that most laboratory surfaces are contaminated with RNases, since they're exposed to the bacteria, fungi, flaked skin, and hair present in the environment. Unfortunately, even trace quantities of RNases can lead to lower yields from in vitro transcription reactions, degradation during RNA purification protocols and variable results with qRT-PCR.

Fortunately, a suite of trusted products proven effective at eliminating RNase contamination from lab surfaces is available, including Invitrogen™ RNaseZap™ Decontamination Solution and Invitrogen™ RNase AWAY™ Decontamination Reagent. View all solutions at thermofisher.com/surfacedecontamination



Sample stabilization

In order to isolate high-quality RNA, the tissue has to be either processed immediately after harvest, snap-frozen or stabilized in an intermediary solution to preserve RNA integrity and allow for storage.

We offer several Invitrogen™ RNA/ater™ products designed specifically to stabilize and preserve the quality of RNA either at the point of collection or even post-collection. Learn more at thermofisher.com/stabilizeRNA

RNA quantitation

Sensitive, accurate, affordable

Invitrogen™ Qubit™ fluorometric quantitation comprises the easy-to-use Qubit™ 3 Fluorometer and sensitive Qubit™ quantitation assays. The assays utilize fluorescent dyes that are selective to the target of interest. These fluorescent dyes emit only when bound to the target molecules even at low concentrations. Unlike UV absorbance, which measures anything absorbing at 260 nm, including DNA, RNA, protein, or free nucleotides, the Qubit assays avoid overestimation, making it ideal for precious samples and challenging applications.

Key features of the Qubit 3 Fluorometer include:

- Powerful, dual-core processor quickly and accurately quantifies DNA, RNA or protein, in <5 seconds per sample
- Uses as little as 1 µL of sample
- Stores up to 1,000 sample results
- Large 5.7-inch state-of-the-art color touch screen for easy workflow navigation
- Ability to personalize your Qubit fluorometer with the assays you run most, add new assays or even create your own with MyQubit assays
- Language of your choice, including English, French, Spanish, German, Italian, simplified Chinese, and Japanese

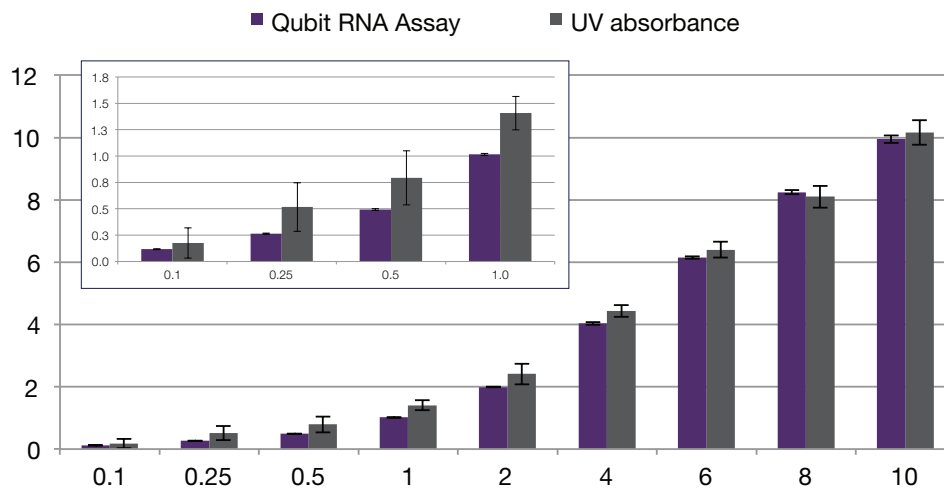
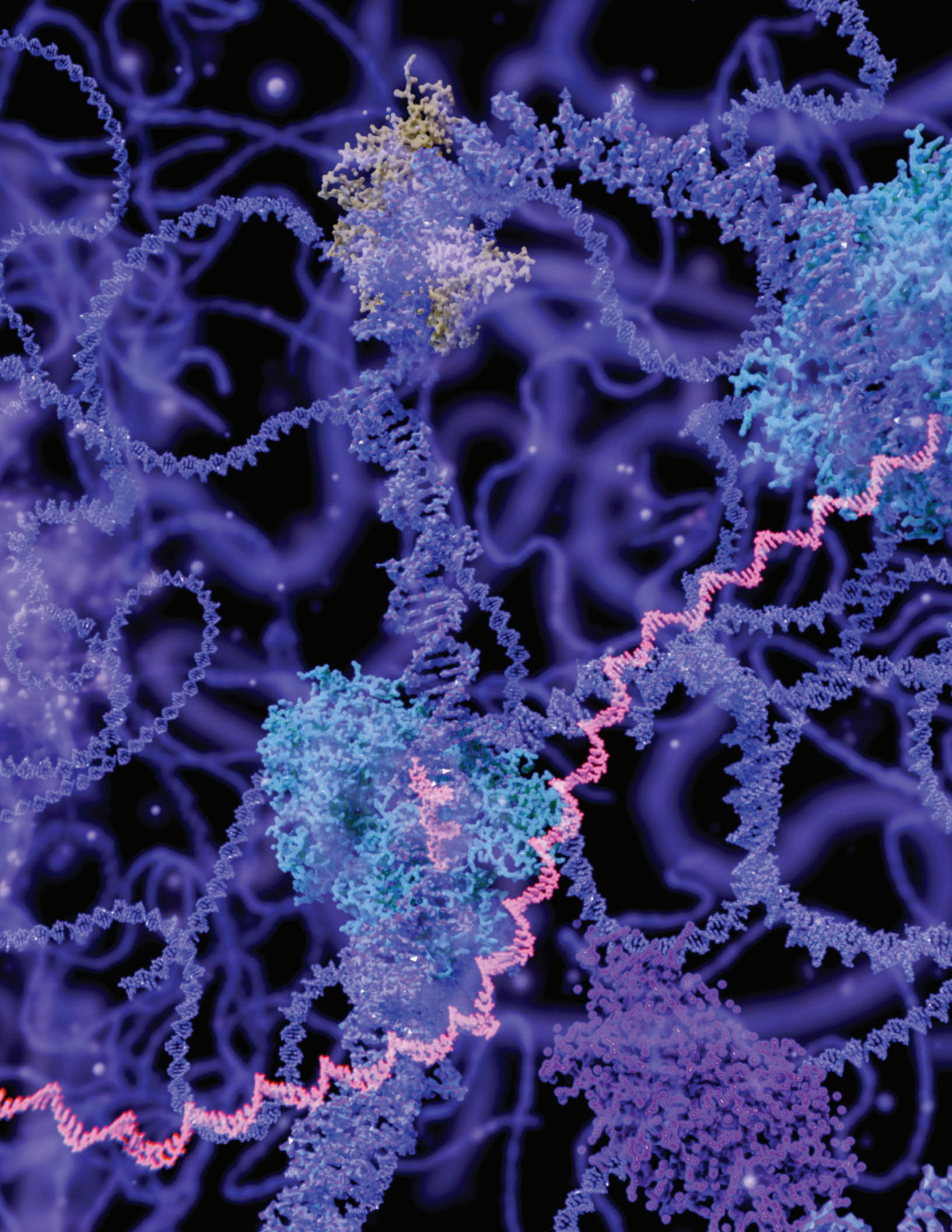


Figure 7. Accuracy and precision of the Qubit quantitation platform. Ten replicates of *E. coli* ribosomal RNA at concentrations from 0.1 to 10 ng/µL were assayed using an Invitrogen™ Qubit™ RNA assay on the Qubit 3 Fluorometer. The same concentrations of DNA were measured in ten replicates using a microvolume spectrophotometer. The concentrations indicated are the concentrations of DNA in the starting samples, before dilution in the Qubit assay tubes.

Visit thermofisher.com/qubit to learn more and request a demo



Ordering information

| Product | Quantity | Cat. No. |
|--|--------------|-----------|
| Automated RNA purification | | |
| KingFisher Flex Magnetic Particle Processor with 24 Deep-Well Head | 1 system | 5400640 |
| KingFisher Flex Magnetic Particle Processor with 96 Deep-Well Head | 1 system | 5400630 |
| KingFisher Duo Prime Magnetic Particle Processor | 1 system | 5400110 |
| Total RNA purification kits | | |
| TRIzol LS Reagent | 100 mL | 10296010 |
| | 200 mL | 10296028 |
| TRIzol Plus RNA Purification Kit | 50 preps | 12183555 |
| TRIzol Reagent | 100 mL | 15596026 |
| | 200 mL | 15596018 |
| TRIzol Max Bacterial RNA Isolation Kit | 100 preps | 16096020 |
| | 200 preps | 16096040 |
| PureLink RNA Mini Kit | 10 preps | 12183020 |
| | 50 preps | 12183018A |
| MagMAX-96 Total RNA Isolation Kit | 96 preps | AM1830 |
| MagMAX <i>mir</i> Vana Total RNA Isolation Kit | 96 preps | A27828 |
| Transcriptome purification kits | | |
| RiboMinus Transcriptome Isolation Kit, yeast | 6 preps | K155003 |
| RiboMinus Transcriptome Isolation Kit, bacteria | 12 preps | K155004 |
| RiboMinus Eukaryote System v2 | 12 preps | A15026 |
| RiboMinus Plant Kit for RNA-Seq | 8 preps | A1083808 |
| mRNA purification kits | | |
| Dynabeads mRNA Purification Kit | 2 mL | 61006 |
| Dynabeads mRNA DIRECT Purification Kit | 5 mL | 61011 |
| | 10 mL | 61012 |
| Dynabeads mRNA DIRECT Micro Purification Kit | 2 mL | 61021 |
| mRNA Catcher PLUS Purification Kit | 96 preps | K1570-02 |
| | 960 preps | K1570-03 |
| microRNA and small RNA purification kits | | |
| <i>mir</i> Vana miRNA Isolation Kit, with phenol | 40 preps | AM1560 |
| MagMAX <i>mir</i> Vana Total RNA Isolation Kit | 96 preps | A27828 |
| TaqMan MicroRNA Cells-to-C _T Kit | 100 preps | 4391848 |
| Viral RNA purification kits | | |
| PureLink Viral RNA/DNA Mini Kit | 50 preps | 12280050 |
| PureLink <i>Pro</i> 96 Viral RNA/DNA Purification Kit | 4 plates | 12280096A |
| MagMAX-96 AI/ND Viral RNA Isolation Kit | 384 preps | AM1835 |
| MagMAX-96 Viral RNA Isolation Kit | 96 preps | AM1836 |
| | 5 x 96 preps | AM1836-5 |
| MagMAX Viral RNA Isolation Kit | 50 preps | AM1939 |

| Product | Quantity | Cat. No. |
|--|-------------|----------|
| Cells-to-C_T kits | | |
| Cells-to-C _T 1-Step TaqMan Kit | 20 preps | A25605 |
| | 100 preps | A25603 |
| | 400 preps | A25602 |
| TaqMan Gene Expression Cells-to-C _T Kit | 40 preps | 4399002 |
| | 100 preps | AM1728 |
| | 400 preps | AM1729 |
| TaqMan MicroRNA Cells-to-C _T Kit | 100 preps | 4391848 |
| TaqMan Fast Cells-to-C _T Kit | 100 preps | 4399003 |
| Cells-to-C _T 1-Step <i>Power</i> SYBR Green Kit | 20 preps | A25601 |
| | 100 preps | A25600 |
| | 400 preps | A25599 |
| <i>Power</i> SYBR Green Cells-to-C _T Kit | 40 preps | 4402953 |
| | 100 preps | 4402954 |
| | 400 preps | 4402955 |
| Fast SYBR Green Cells-to-C _T Kit | 100 preps | 4402956 |
| | 400 preps | 4402957 |
| Single Cell-to-C _T qRT-PCR Kit | 50 preps | 4458237 |
| | 400 preps | 4458236 |
| Cells-to-C _T Stop Solution | 1 mL | 4402960 |
| Cells-to-C _T Bulk Lysis Reagents | 2,500 preps | 4391851C |
| Stabilized Blood-to-C _T Nucleic Acid Preparation Kit for qPCR, compatible with either PAXgene or Tempus Blood RNA Tubes | 50 preps | 4449079 |
| Stabilized Blood-to-C _T Nucleic Acid Preparation Kit for qPCR, compatible with PAXgene Blood RNA Tubes | 200 preps | 4449082 |
| Stabilized Blood-to-C _T Nucleic Acid Preparation Kit for qPCR, compatible with Tempus Blood RNA Tubes | 200 preps | 4449080 |
| SYBR Green Cells-to-C _T Control Kit | 100 preps | 4402959 |
| TaqMan Cells-to-C _T Control Kit | 100 preps | 4386995 |

| Product | Quantity | Cat. No. |
|--|--------------|----------|
| RNA lab essentials | | |
| RNase-free Tips (200 µL) | 10 racks | AM12650 |
| RNase-free Tips (1,000 µL) | 10 racks | AM12660 |
| Barrier (Filter) Tips (10 µL) (compatible with Eppendorf pipettors) | 10 racks | AM12635 |
| Barrier (Filter) Tips (20 µL) | 10 racks | AM12645 |
| Barrier (Filter) Tips (100 µL) | 10 racks | AM12648 |
| Barrier (Filter) Tips (200 µL) | 10 racks | AM12655 |
| Barrier (Filter) Tips (1,000 µL) | 10 racks | AM12665 |
| Thin-walled, frosted lid, RNase-free PCR Tubes (0.2 mL) | 1,000 tubes | AM12225 |
| PCR Tubes and Caps, RNase-free (0.2 mL, 8-strip format) | 125 strips | AM12230 |
| Thin-walled, dome cap, RNase-free PCR Tubes (0.5 mL) | 1,000 tubes | AM12250 |
| Thin-walled, frosted lid, RNase-free PCR Tubes (0.5 mL) | 1,000 tubes | AM12275 |
| RNase-free Microfuge Tubes (0.5 mL) | 1,000 tubes | AM12300 |
| Nonstick, RNase-free Microfuge Tubes (0.5 mL) | 500 tubes | AM12350 |
| RNase-free Microfuge Tubes (1.5 mL) | 500 tubes | AM12400 |
| RNase-free Microfuge Tubes (2.0 mL) | 500 tubes | AM12425 |
| Conical Tubes (15 mL) (racked) | 500 tubes | AM12500 |
| Conical Tubes (50 mL) (racked) | 200 tubes | AM12501 |
| DEPC-Treated Water | 10 x 50 mL | AM9906 |
| | 1 x 100 mL | AM9915G |
| | 5 x 100 mL | AM9916 |
| | 1 x 500 mL | AM9920 |
| | 1 x 1,000 mL | AM9922 |
| Nuclease-Free Water (not DEPC-Treated) | 4 x 1,000 mL | 4387937 |
| | 10 x 50 mL | AM9937 |
| | 1 x 100 mL | AM9938 |
| | 5 x 100 mL | AM9939 |
| | 1 x 500 mL | AM9930 |
| | 1 x 1,000 mL | AM9932 |
| | 4 x 1,000 mL | 4387936 |

| Product | Quantity | Cat. No. |
|---|-------------|----------|
| RNA lab essentials (continued) | | |
| RT-PCR Grade Water | 10 x 1.5 mL | AM9935 |
| UltraPure DNase/RNase-Free Distilled Water | 500 mL | 10977015 |
| | 10 x 500 mL | 10977023 |
| RNaseZap RNase Decontamination Solution | 250 mL | AM9780 |
| | 6 x 250 mL | AM9782 |
| | 4 L | AM9784 |
| RNaseZap RNase Decontamination Wipes | 100 sheets | AM9786 |
| RNaseZap RNase Decontamination Wipes Refill | 300 sheets | AM9788 |
| ElectroZap Electrode Decontamination Solution | 250 mL | AM9785 |
| RNase AWAY Decontamination Reagent | 250 mL | 10328011 |
| | 50 x 1.5 mL | AM7022 |
| | 20 x 5 mL | AM7023 |
| | 1 x 100 mL | AM7020 |
| | 1 x 250 mL | AM7024 |
| RNAlater Stabilization Solution | 1 x 500 mL | AM7021 |
| | 25 mL | AM7030 |
| | 10 x 25 mL | 4427575 |
| RNAlater-ICE Frozen Tissue Transition Solution | 10 x 1 mL | AM7000 |
| | 50 mL | AM7001 |
| Tempus Blood RNA Tube | 50 tubes | 4342792 |
| LeukoLOCK Total RNA Isolation System | 20 preps | AM1923 |
| RNA quantitation | | |
| Qubit 3 Fluorometer | 1 each | Q33216 |
| Qubit 3 Quantitation Starter Kit | 1 kit | Q33217 |
| Qubit RNA HS Assay Kit | 100 assays | Q32852 |
| | 500 assays | Q32855 |
| Qubit RNA BR Assay Kit | 100 assays | Q10210 |
| | 500 assays | Q10211 |
| Qubit microRNA Assay Kit | 100 assays | Q32880 |
| | 500 assays | Q32881 |

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