

Selection guide

Simplify your total RNA purification with RNAspin kits



RNAspin

Premium quality RNA isolation kits

Get the reproducibility, yield and purity you need, with every experiment. Our kits accommodate a diverse range of application requirements and sample types, delivering RNA suitable for downstream applications, such as qRT-PCR and microarray analysis.

Our RNA isolation protocols retrieve high-quality RNA from cells, subcellular compartments and protein coat with minimal degradation.

Amersham™ RNAspin Mini Kit for sensitive downstream applications

- Total RNA isolation from diverse sample types.
- DNase I included for greater cost savings and for maximum yield of high-quality RNA.
- Prefilters included to reduce lysate viscosity.
- Isolates RNA from even small amounts of precious sample.
- Simple and convenient format, appropriate for all levels of expertise.

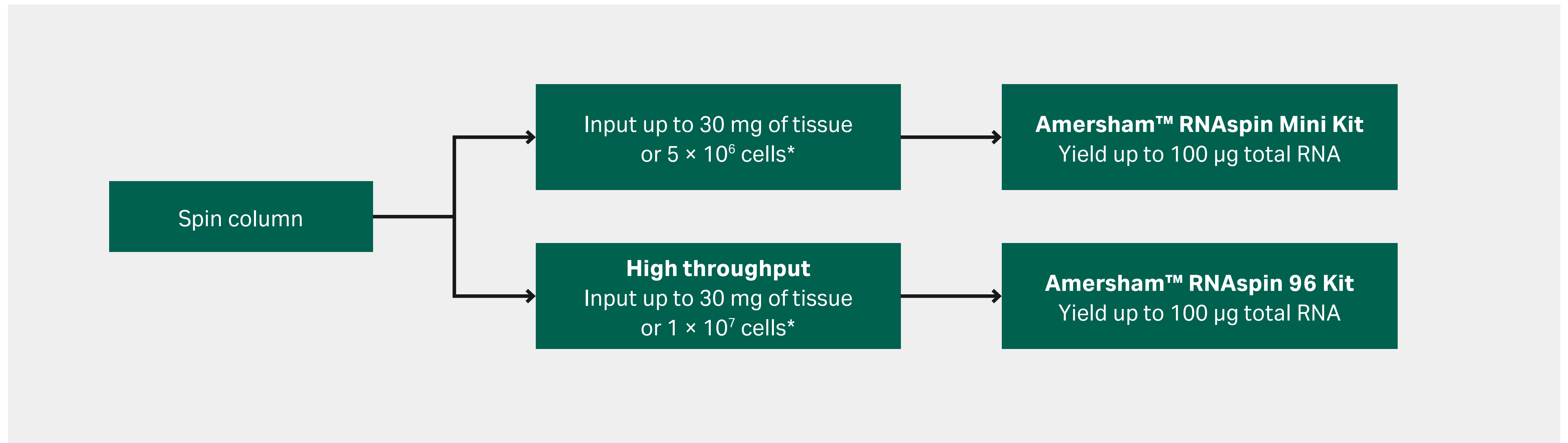
Amersham™ RNAspin 96 Kit for high-throughput sample preparation

- Total RNA isolation designed for reproducible and consistent purification for high-throughput.
- DNase I included for greater cost savings and for maximum yield of high-quality RNA.
- Prefilters included to reduce lysate viscosity sample preparation.
- Fast and efficient purification in 96-well format.



Selection guide for RNA purification kits

How do you purify your RNA?



*Values indicative for eukaryotic cells

Amersham™ RNAspin Mini Kit

Total RNA isolation from diverse sample types for sensitive downstream applications

RNA purification is often the first step of your experimental workflow, which is why the main focus of the Amersham™ RNAspin Mini Kit is the quality of the output RNA. Each step of our protocol has been finely tuned to obtain the best possible yields and purities. At the same time, a high level of convenience and simplicity in the format has been maintained.

By identifying key elements that affect the quality of preparation we provide a robust kit that can accommodate a diverse range of sample types, resulting in the extraction of RNA suitable for use in applications such as microarray analysis and quantitative or endpoint RT-PCR.

Our on-column DNase I digest improves purity by addressing issues of gDNA contamination. Yields are maximized by the inclusion of prefilters and a unique lysis buffer that is less susceptible to foaming.

DNase I removes genomic DNA, provides high-quality RNA

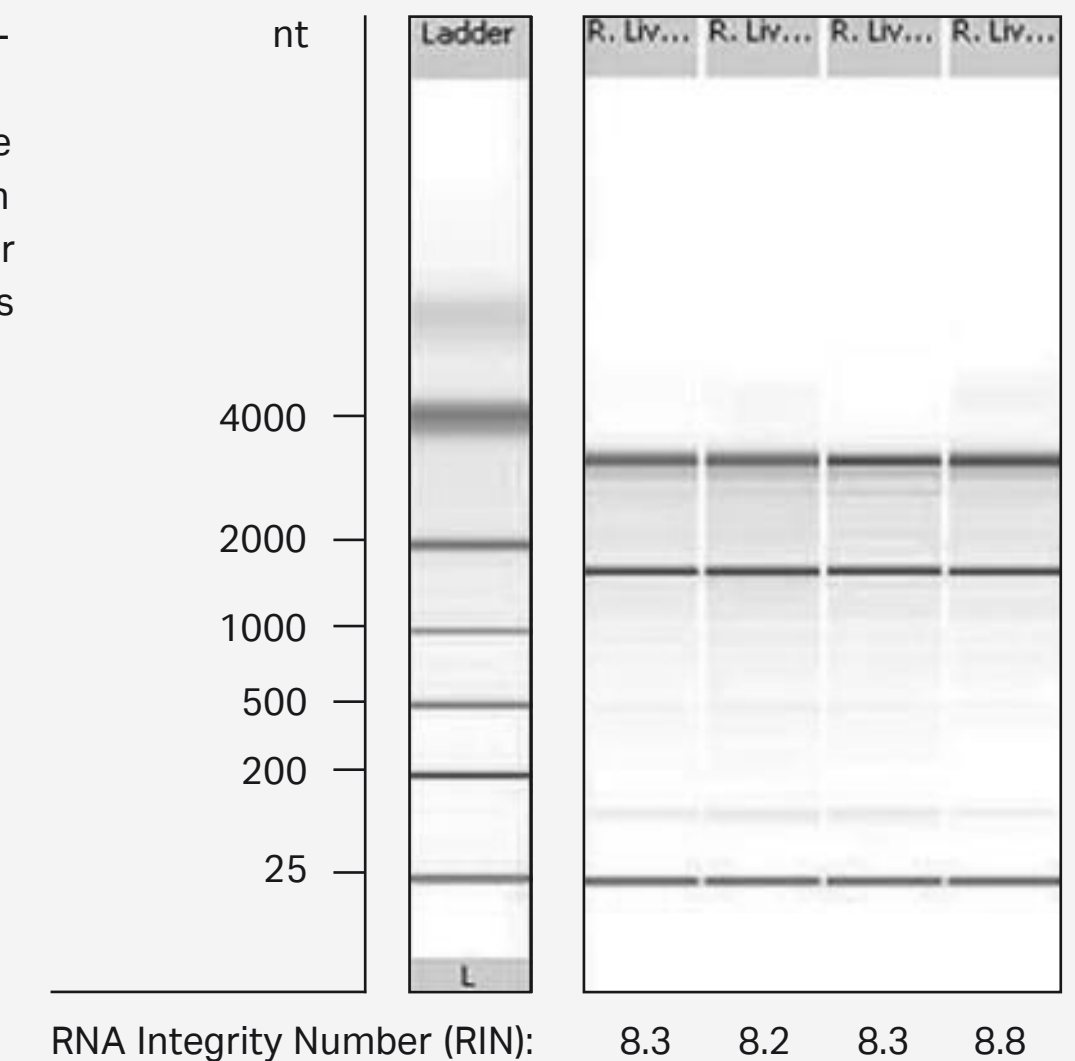
- DNase I is included for convenient on-column gDNA removal, leading to pure total RNA.
- Typical RNA integrity numbers (RIN) > 8.0.

Prefilters reduce lysate viscosity

- Especially important for hard-to-lyse cells, tissue, bacteria, or yeast.
- Improves yields and purity with no added cost.
- Avoids RNA loss in the cellular debris.
- Prevents the binding columns from clogging and ensures rapid flow rate, minimizing preparation time.

High-quality total RNA is generated time after time

The RNAspin Mini kits produce high-quality RNA: rRNA bands are sharp, with the 28S band being about twice as intense as the 18S band, and with good RIN values. Total RNA from four independent 20 mg rat liver samples was isolated with RNAspin Mini and evaluated using the Agilent™ 2100 Bioanalyzer™.



Isolates RNA from even small amounts of precious sample

- Extract total RNA from a small number of cells (e.g. ≥ 10 HeLa cells for RT-PCR).
- Effective column-binding capacity of 100 μg .

Simple, convenient format suitable for all levels of expertise

- Colored column rings allow for easy identification during the protocol.
- Elution volumes as low as 40 μL eliminate the need to concentrate sample.
- Well-established, silica-membrane technology.

Ordering information

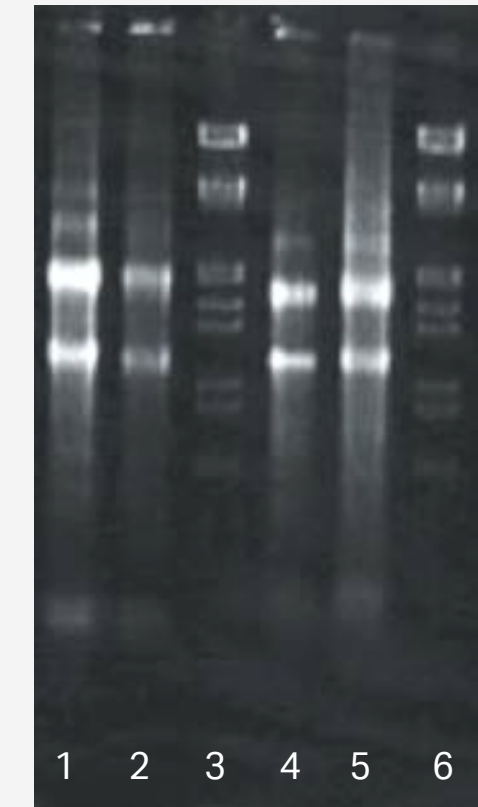
| Product | Pack size | Product code |
|----------------------------|-----------|--------------|
| Amersham™ RNAspin Mini Kit | 10 preps | 25050087 |
| | 20 preps | 25050070 |
| | 50 preps | 25050071 |
| | 250 preps | 25050072 |



Isolate total RNA from hard-to-lyse bacterial strains

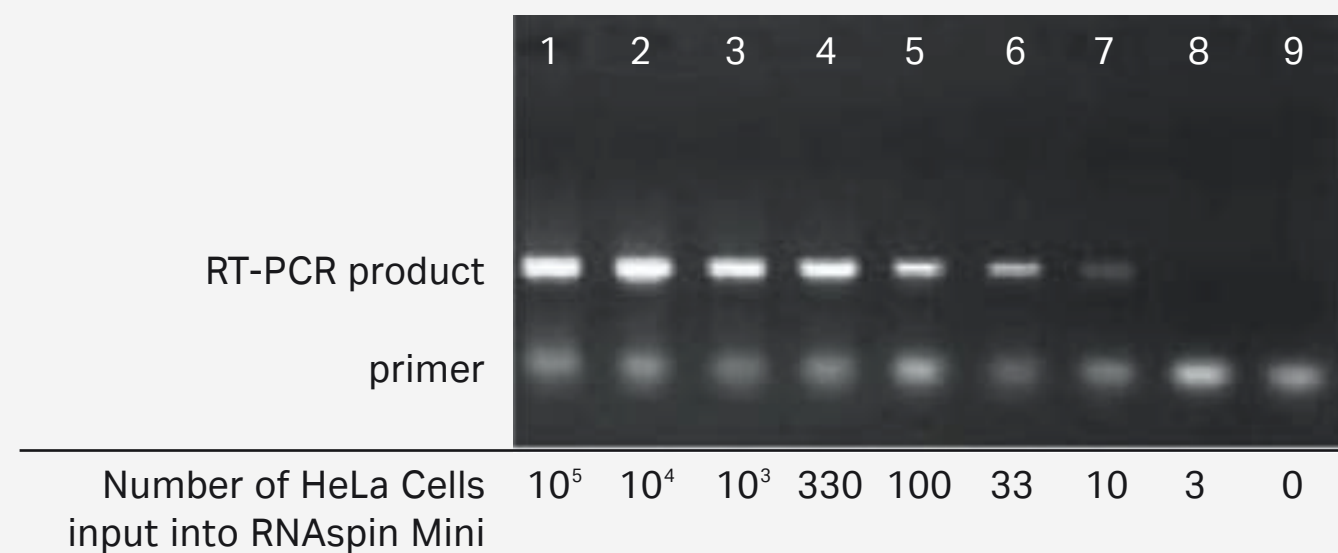
Amersham™ RNAspin Mini Kits are effective at isolating RNA from hard-to-lyse bacterial strains. Total RNA was purified from *Pseudomonas putida* (1,2) and *Paenobacillus polymyxa* (4,5), (3,6 = RNA ladder). An aliquot was analyzed on a 1.2% formaldehyde gel.

Courtesy of S. Meier-Bethke, Federal Biological Research Center for Agriculture and Forestry, Institute for Plant Virology, Microbiology and Biosafety, Braunschweig, Germany.



Isolated RNA, even from very small input amounts, performs well in downstream applications

RT-PCR of total RNA isolated with the RNAspin Mini standard protocol from 10⁵, 10⁴, 10³, 330, 100, 33, 10, 3, and 0 HeLa cells. The RT-PCR was done with 3 μL of total RNA each (elution volume 40 μL). The specific RT-PCR product, generated from β -actin primers, is 626 bp in length.



Amersham™ RNAspin 96 Kit

Reproducible total RNA isolation in a high-throughput format

As the pressure to publish forces you to look for faster ways to obtain more data, the answer is often to process an increased number of samples in parallel. With protocol run times that have been optimized to be as fast as possible, RNAspin 96 kits deliver the high throughput you need.

The diverse nature of high-throughput kits enhances the flexibility of the system. We can accommodate your requirements whether you process samples under vacuum, using centrifugation, manually, or with automation.

Fast, efficient purification in a 96-well format

- Parallel processing of 96 samples with high reproducibility in less than 70 min.
- Color-coded column rings allow for easy identification during the protocol.
- Simple, on-column lysis for small amounts of sample improves efficiency by avoiding mechanical homogenization.

Designed with automation in mind

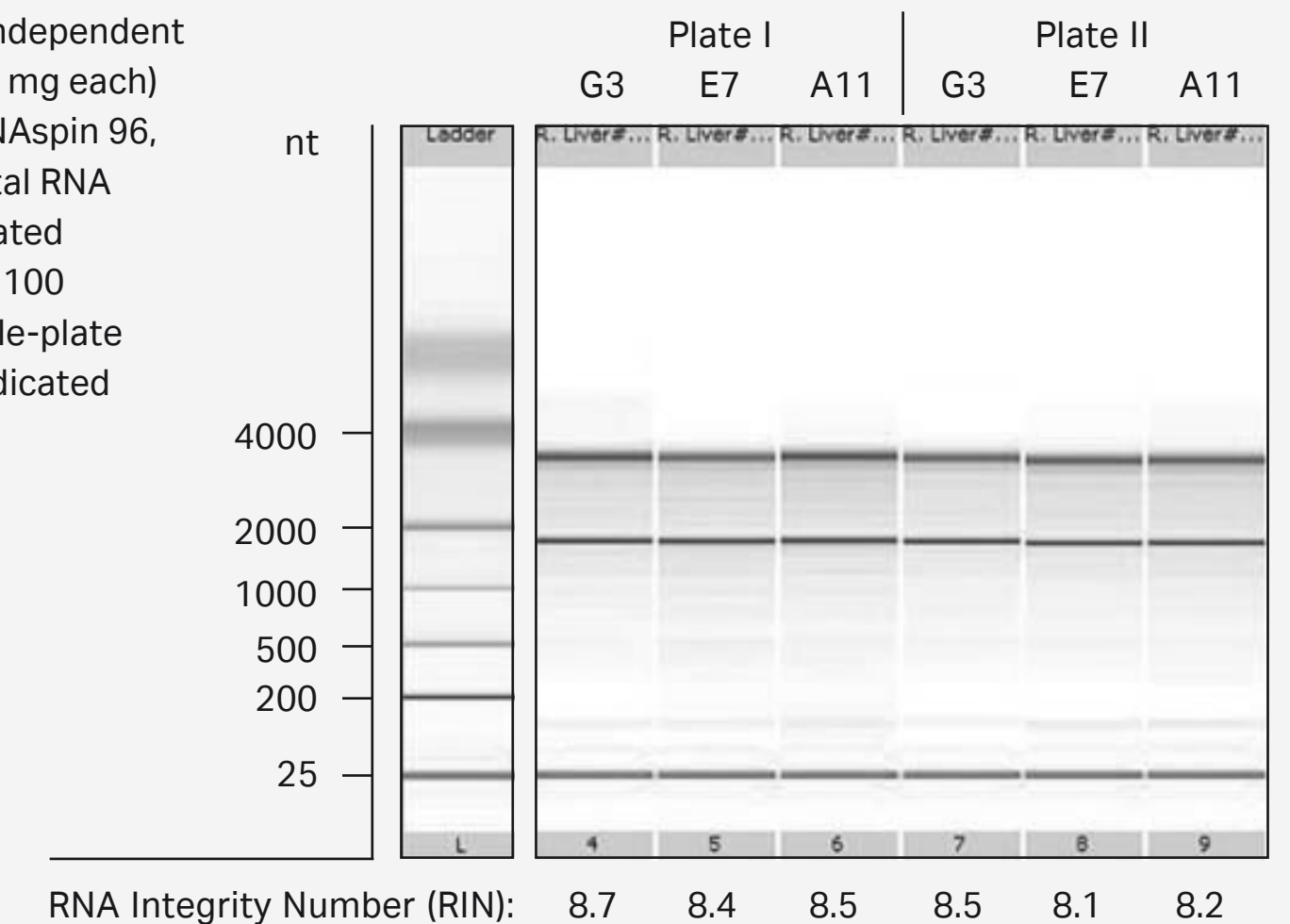
- Integrated wash plate eliminates risk of cross contamination.
- Flexible processing by vacuum or centrifugation.
- Compatibility with common liquid handling instruments enables fast integration.
- Minimized dead volume of binding plate reduces volume loss.

DNase I treatment to remove genomic DNA provides high-quality RNA

- DNase I is included for convenient on-column gDNA removal, leading to pure total RNA.
- Typical RIN > 8.0.

High-quality total RNA is produced consistently well-to-well

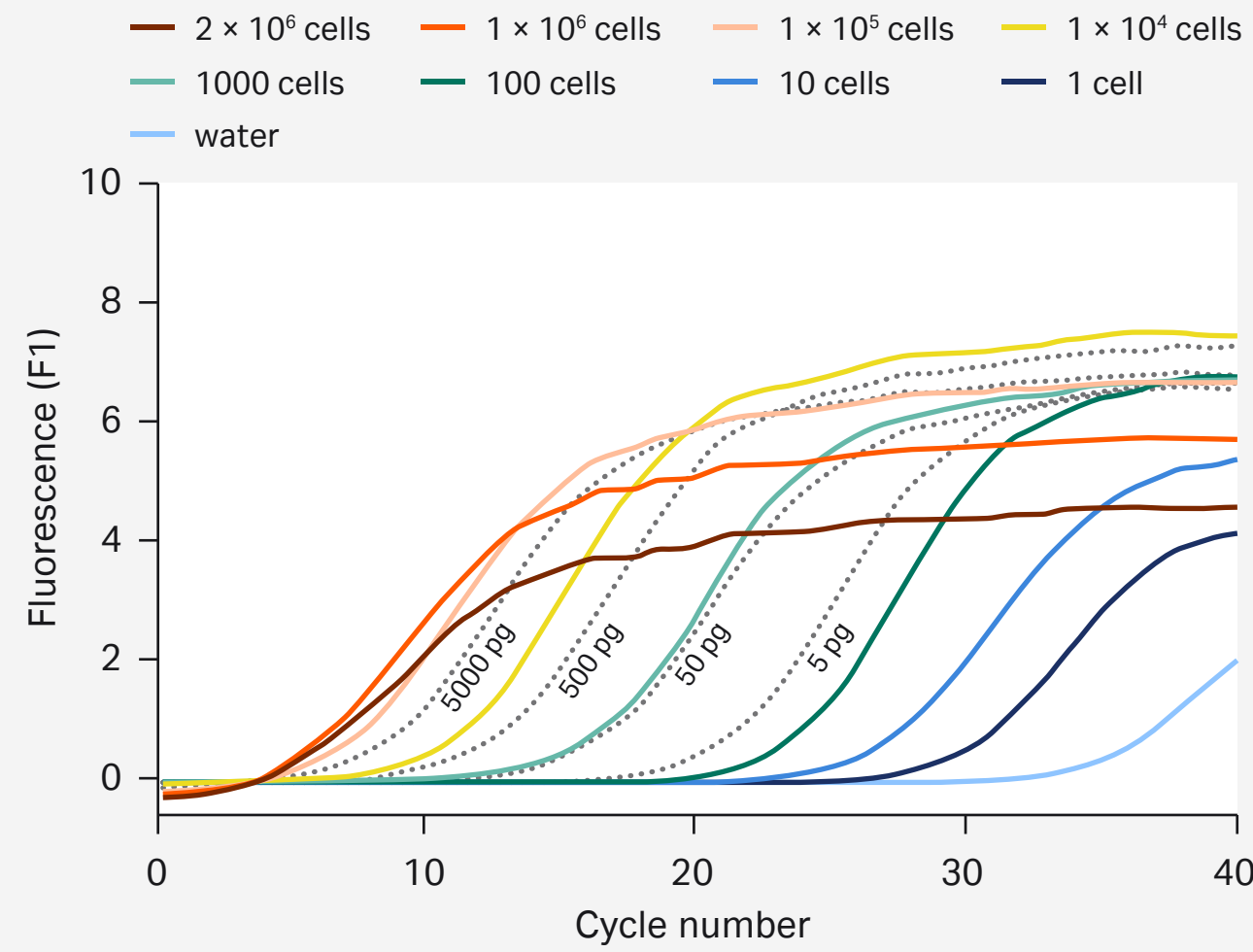
Total RNA from six independent rat liver samples (20 mg each) was isolated with RNAspin 96, and the resulting total RNA samples were evaluated using the Agilent™ 2100 Bioanalyzer™. Sample-plate well numbers are indicated above each lane.



Small input amounts also yield high-quality total RNA

Total RNA from the indicated numbers of HeLa cells has been purified on the MultiProbe™ II HT according to standard protocols and detected by RT-PCR (2 µL of the 100 µL eluate, primers specific for GAPDH). This shows that RNA could be isolated and amplified even from a small amount of cells.

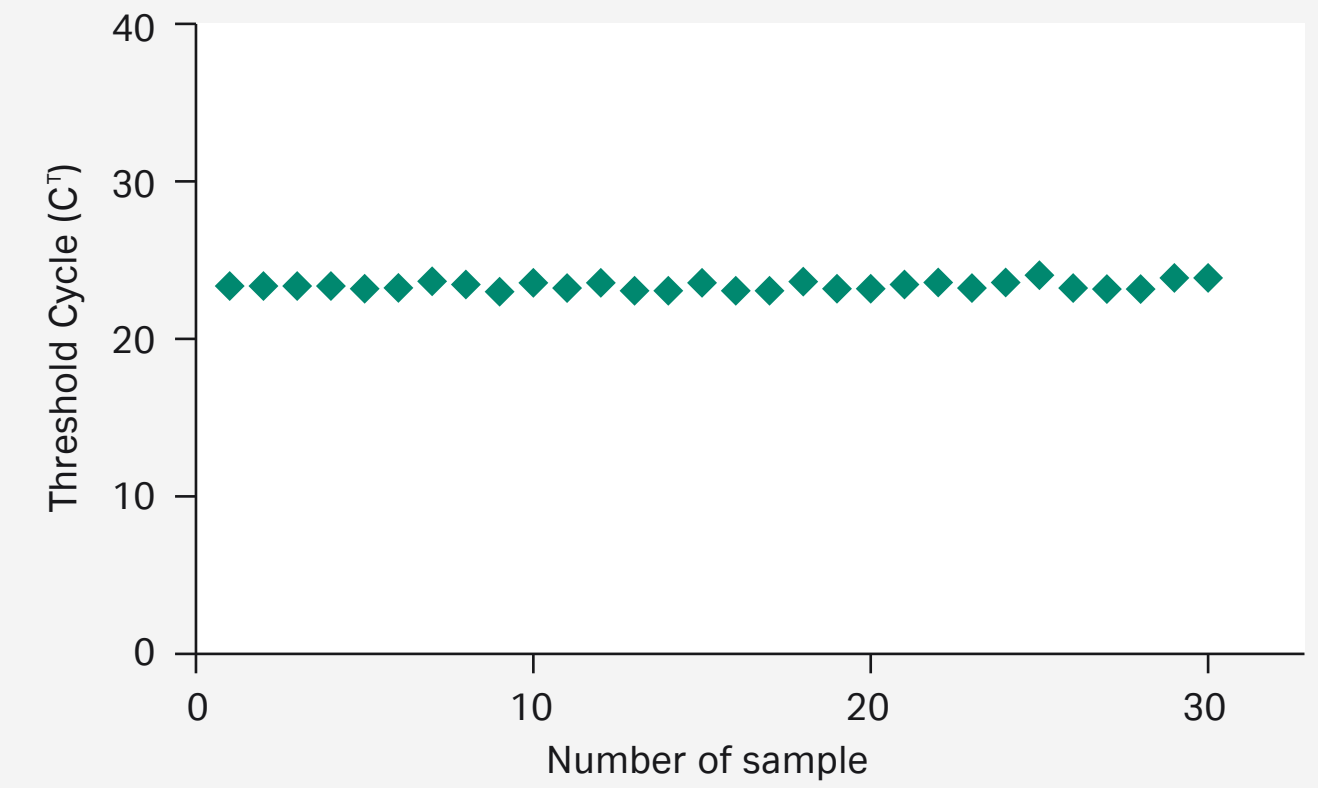
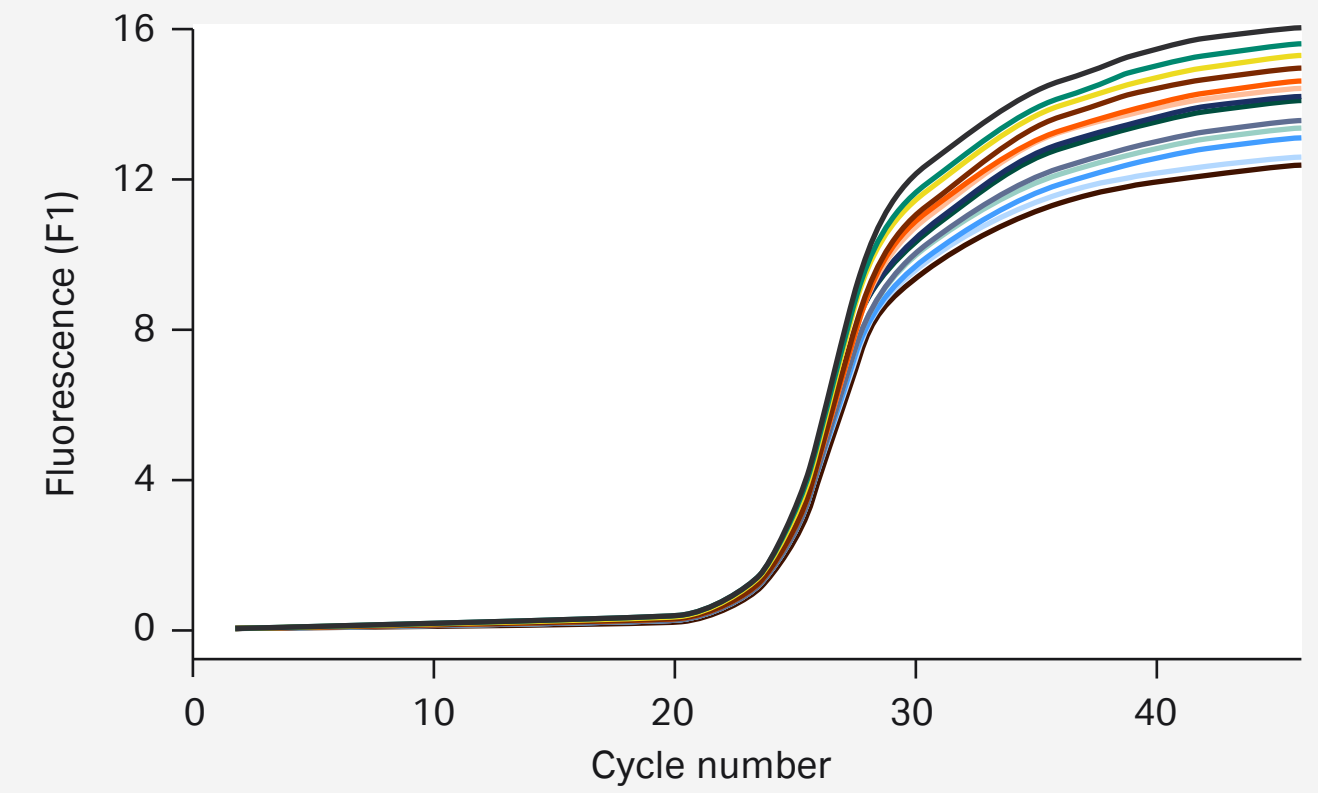
Standards: gDNA (amount as indicated).



Robust performance in downstream applications

Total RNA from 10 mg of liver tissue each was prepared using RNASpin 96 on a Biomek™ FX (Beckman Coulter). 1 µL out of the 80 µL eluate was used for LightCycler™ detection (GAPDH primer, SYBR™ Green).

Threshold cycles (CT) are shown for all samples. The mean threshold value was 22.04 ± 0.21 with a CV of 0.95%.



Ordering information

| Product | Pack size | Product code |
|--------------------------|--------------------|--------------|
| Amersham™ RNASpin 96 Kit | 4 × 96-well plates | 25050075 |



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CY24229-03Jan22-SG

