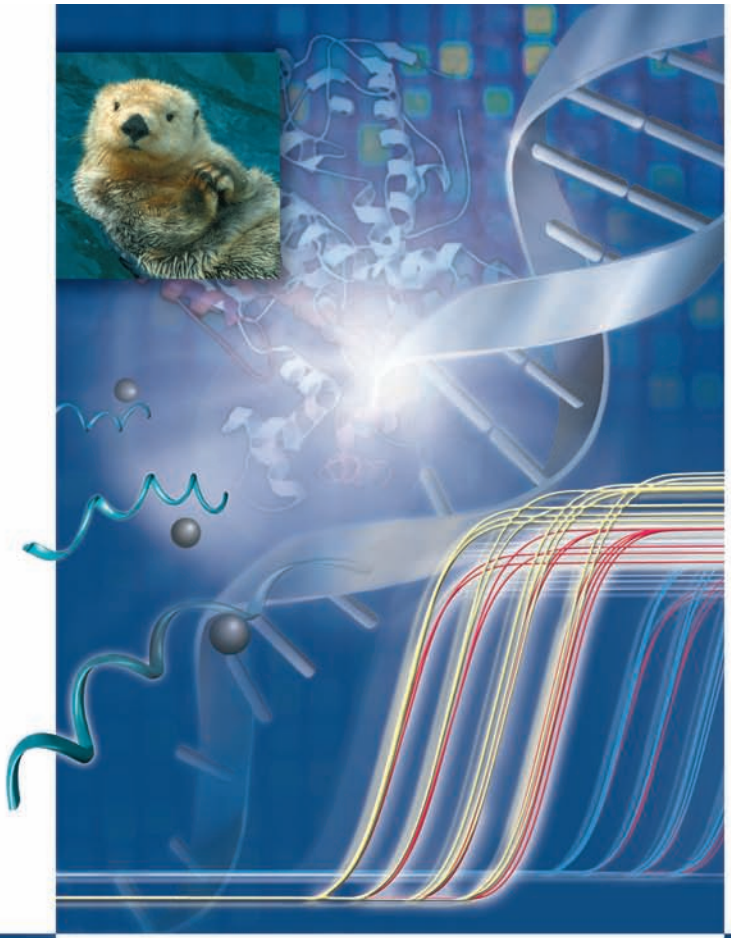
Gene Expression Analysis You Can Count On

Versatile RNA isolation tools for formalin-fixed paraffin-embedded tissue sections

Use the simple and efficient protocol of the **High Pure FFPE RNA Micro Kit** to maximize the RNA yield obtained from formalin-fixed paraffin-embedded (FFPE) tissue sections.
Benefit from an intuitive column design that delivers concentrated yields and very high purity. Achieve high sensitivity and low crossing point values for superb real-time qRT-PCR.



- **Use a fast and easy protocol to obtain contaminant free RNA from formalin/paraffin-treated material.** Process samples quickly with a straightforward protocol featuring on-column DNase I treatment, and a novel column design that prevents carryover contamination (see Figure 1).
- **Generate high level concentrated yields every time.** Obtain a highly concentrated (10 µl) eluate of purified RNA with excellent recovery (greater than 80%).
- **Obtain high-quality template RNA that is ideal for real-time and conventional qRT-PCR.** Isolate RNA fragments that deliver outstanding performance in qRT-PCR applications (see Figure 2).

Efficiently purify RNA from formalin-fixed paraffin-embedded (FFPE) tissue samples

Benefit from the High Pure FFPE RNA Micro Kit's novel spin-column format and optimized buffers to rapidly obtain highly purified RNA.

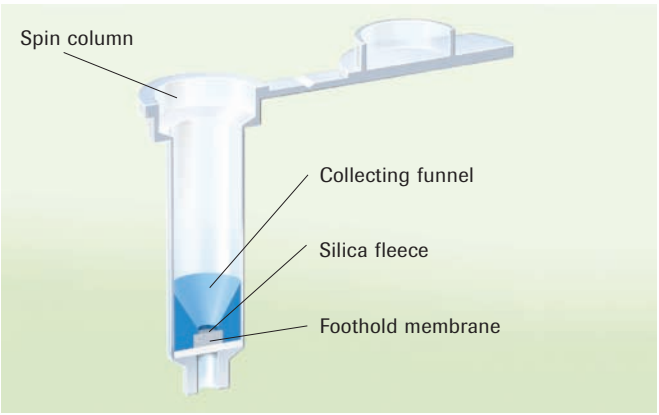


Figure 1: Avoid carryover contamination with an innovative column design. This cross-sectional view of the High Pure FFPE RNA Micro Kit column shows the special reducing device (blue area) that allows easy central loading of the sample for up to 500 µl of buffer. The reducing device's collection funnel is designed to prevent carryover contamination and creates a non-slip cavity for the column's silica membrane.

Obtain excellent performance in qRT-PCR

Generate high purity template RNA with optimal concentration for direct use in RT-PCR applications, such as relative quantification of mRNA with the LightCycler® Real-Time PCR System (see Figure 2).

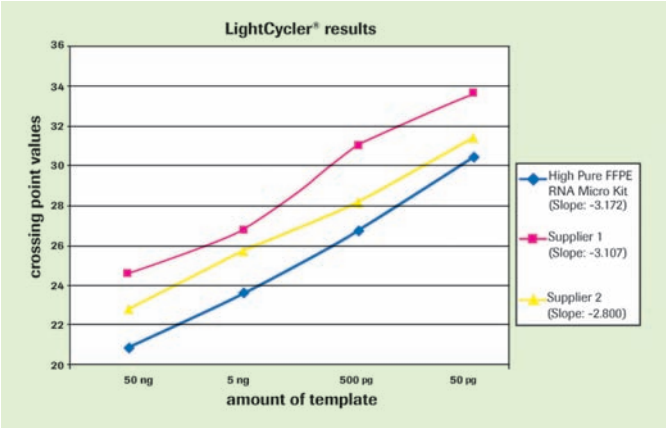


Figure 2: Isolate high-quality template RNA for excellent linearity in real-time qRT-PCR. Isolated RNA must be in sufficient quantity and quality to amplify the desired target region. RNA from the **High Pure FFPE RNA Micro Kit** shows a clear correlation between input RNA and the high sensitivity shown by early crossing points, compared to other suppliers' kits. This two-step qRT-PCR with a 3 log dilution used ß2 microtubulin-specific primers on the LightCycler® 1.5 Instrument with SYBR Green I detection.

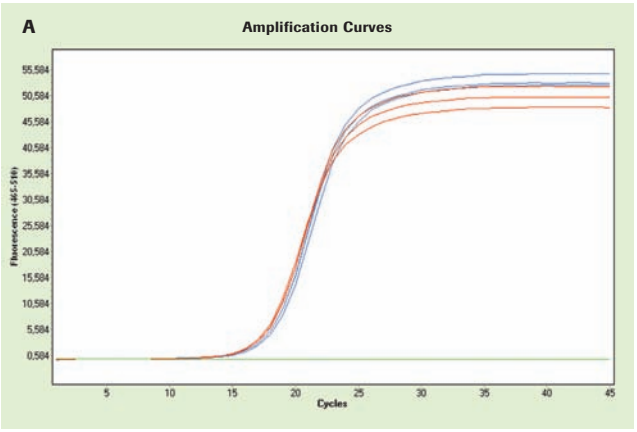
Product	Cat. No.	Pack Size
High Pure FFPE RNA Micro Kit	04 823 125 001	up to 50 isolations
High Pure RNA Paraffin Kit	03 270 289 001	up to 50 isolations
DNase I recombinant, RNase-free solution	04 716 728 001	10 KU DNase I solution (10 U/µl), recombinant from bovine pancreas, expressed in Pichia pastoris
Transcriptor First Strand cDNA Synthesis Kit	04 379 012 001 04 896 866 001 04 897 030 001	1 kit (50 reactions, incl. 10 control reactions) 100 reactions 200 reactions
LightCycler® FastStart DNA Master^{PLUS} SYBR Green I	03 515 869 001 03 515 885 001	96 reactions, 20 µl volume 480 reactions, 20 µl volume

For more information about Roche Applied Science's complete line of tools for the gene expression analysis workflow, please visit to our Gene Expression Analysis Special Interest site at:

www.gene-expression.roche.com

RNA for Smooth Curves and Pinpoint Accuracy in the qRT-PCR analysis

Perform qRT-PCR analysis you can count on.



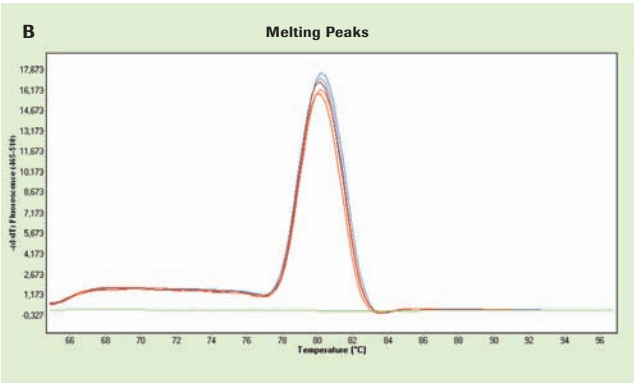


Figure 3: Obtain superb qRT-PCR results from FFPE material. RNA isolated from matched HeLA xenograft FFPE tissue using the **High Pure FFPE RNA Micro Kit** was analyzed by real-time qRT-PCR, using the ß2 microglobulin gene on the LightCycler® 480 Instrument **A.** Triplicate RNA samples, isolated from FFPE treated samples (**blue** lines), showed a mean crossing point (Cp) value of 17.9 +/- 0.1, whereas RNA from fresh-frozen tissue (**red** lines), showed a Cp of 17.5 +/- 0.2. The **green** line shows the no template control. **B.** The Melting curve analysis of the ß2 microglobulin qRT-PCR analysis shows the very high specificity of the ß2 microglobulin qRT-PCR assay.

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