# RNA Isolation with the PAXgene® Tissue RNA Kit

- Isolation of intact RNA
- No enzyme inhibition
- Reliable quantitative real-time RT-PCR
- High-molecular-weight RNA
- Amplification of RNA up to 1 kb
- Highly reproducible


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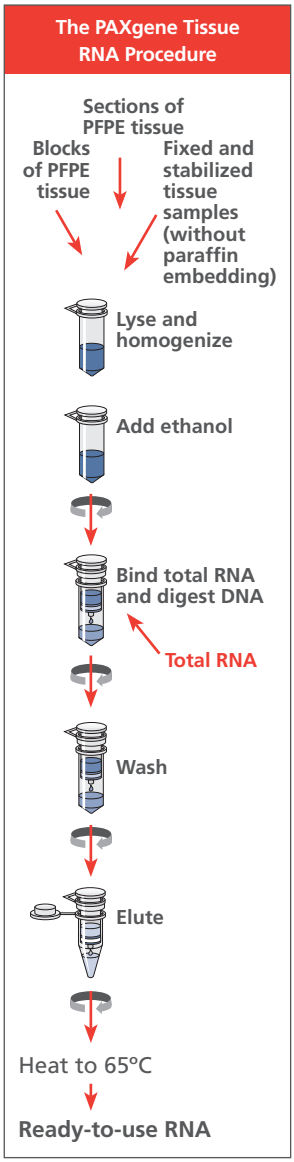
# For isolation and purification of total RNA from tissue samples fixed and stabilized using the **PAXgene** Tissue System




## RNA purification principle and procedure

Disruption and homogenization of the tissue sample is performed in binding buffer, Buffer TR1. After a centrifugation step to remove residual cell debris, ethanol is added to the lysate to provide appropriate binding conditions for RNA. The sample is then applied to a PAXgene RNA MinElute® spin column, where total RNA binds to the membrane and contaminants are efficiently washed away. Between the first and second wash steps, the membrane is treated with DNase I to remove trace amounts of bound DNA. After the wash steps, RNA is eluted in a low-salt elution buffer and denatured by heating.

☑ **Effective purification of total RNA before or after embedding in paraffin**

## RNA quality

Total RNA purified using the PAXgene Tissue RNA Kit is highly pure. Genomic DNA contamination is minimized, and purified RNA is ready to use in downstream applications with no detectable PCR inhibition.

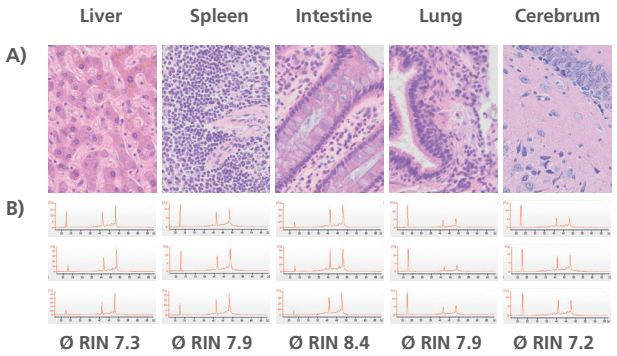



Figure 1

**Figure 1. Staining of human colorectal cancer tissue and electropherogram of RNA isolated with the PAXgene Tissue RNA Kit.** (A) Hematoxylin and eosin (H&E) staining of human colorectal cancer PAXgene Tissue fixed, paraffin-embedded (PFPE) of different organs and (B) RNA from sections of rat PFPE. Electropherogram and RNA integrity numbers (RIN) were determined on an Agilent® Bioanalyzer®.

☑ **High-quality RNA from tissues with preserved morphology**

**Figure 2. SYBR Green real-time RT-qPCR with 10 ng RNA from cryo preserved, formalin-fixed, paraffin-embedded (FFPE) tissue, or rat PFPE (modified according to Groelz et al. Exp Mol Pathol. 2013).**

Average Delta-$C_t$ values ($C_t$ = Ct[FFPE] - $C_t$[Cryo] or $C_t$ = $C_t$[PFPE] - $C_t$[Cryo]) from 6 different assays, with amplicons ranging from 109 to 465 bp.

☑ **RNA without chemical modifications**

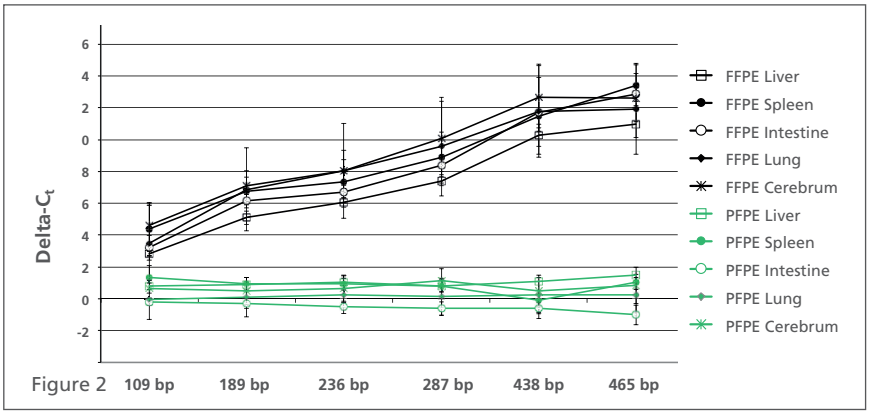



Figure 2

## Order Information: PAXgene Tissue RNA Kit (50) cat. no. 765134

To find the distributor closest to you: **www.preanalytix.com**

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