DNA Isolation with the PAXgene® Tissue DNA Kit

- Effective purification of genomic DNA
- High-quality DNA from tissues with preserved morphology
- DNA without chemical modifications

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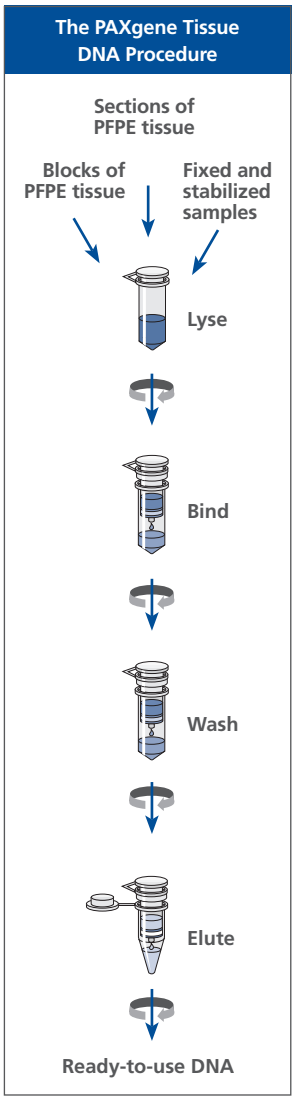
For isolation and purification of genomic DNA from tissue samples stabilized using the **PAXgene** Tissue System



DNA purification principle and procedure

Tissue sample lysis is performed in lysis buffer, Buffer TD1, with proteinase K digestion. Binding conditions are adjusted with Buffer TD2 and ethanol to provide optimal DNA-binding conditions, and the lysate is loaded onto a PAXgene DNA spin column. During centrifugation, DNA is selectively bound to the silica membrane, and contaminants pass through. Remaining contaminants and enzyme inhibitors are removed in two efficient wash steps with wash buffers TD3 and TD4. DNA is then eluted in low-salt elution Buffer TD5 and is ready for use.

☑ **Effective purification of genomic DNA before or after embedding in paraffin**

DNA quality

Total DNA purified using the PAXgene Tissue DNA Kit is highly pure. DNA has A_{260}/A_{280} ratios of 1.7–1.9, and absorbance scans show a symmetrical peak at 260 nm, confirming the high purity of genomic DNA. Contamination is minimized, and purified DNA is ready to use in downstream applications, with no detectable PCR inhibition.

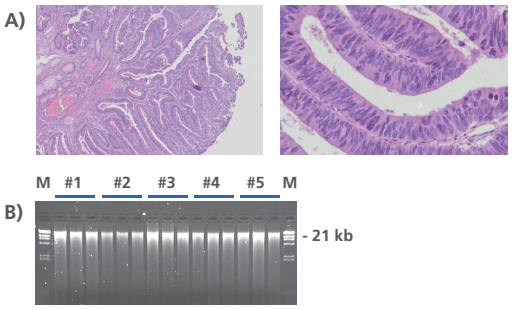


Figure 1

Figure 1. Staining of human colorectal cancer tissue and improved PCR of DNA isolated with the PAXgene Tissue DNA Kit.
(A) Hematoxylin and eosin (H&E) staining of human colorectal cancer PFPE and (B) DNA from sections of human colorectal cancer PAXgene Tissue fixed, paraffin-embedded (PFPE). Agarose gel electrophoresis using 0.8 % TBE buffered gels with 200 ng genomic DNA isolated in triplicate from five cases (#1–5) of human colorectal cancer. M: markers.

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

Figure 2. Multiplex and long-range PCR of DNA from human colorectal cancer PFPE (modified according to Viertler et al., J Mol Diagn. 2012).
(A) Multiplex PCR of eight different genomic DNA fragments ranging from 222 to 955 bp. (B) Long-range PCR of a 5 kb genomic DNA fragment.

☑ **DNA without chemical modifications can be used for demanding downstream applications**

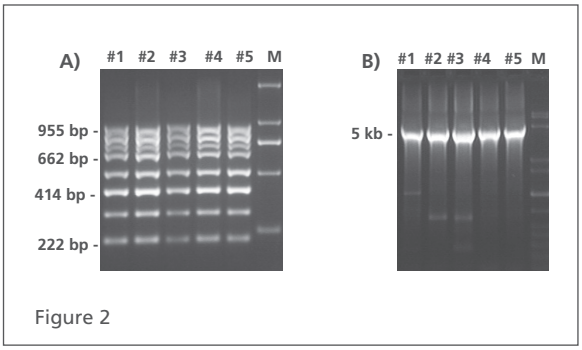


Figure 2

Order Information: PAXgene Tissue DNA Kit (50) cat. no. 767134

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THE BETTER THE SOURCE, THE MORE TO EXPLORE.