

FFPE RNA/DNA Purification Kit

Norgen's FFPE RNA/DNA Purification Kit provides a rapid method for the isolation and purification of total RNA (including microRNA) and genomic DNA from formalin-fixed paraffin-embedded (FFPE) tissue samples. Alternatively, the kit can be used to isolate total RNA alone or genomic DNA alone from FFPE tissue samples through varying the protease digestion time and performing optional RNase or DNase digestions. Using formalin to fix tissues leads to crosslinking of the nucleic acids and proteins, and the process of embedding the tissue samples can also lead to fragmentation of the nucleic acids over time. Norgen's FFPE RNA/DNA Purification Kit provides conditions that allow for the partial reversing of the formalin modifications, resulting in a high quality and yield of nucleic acids.



With Norgen's FFPE RNA/DNA Purification Kit, the purification is based on spin column chromatography using Norgen's proprietary resin as the separation matrix. The kit is able to purify all sizes of RNA, from large mRNA and ribosomal RNA down to microRNA (miRNA) and small interfering RNA (siRNA), depending on the age of the FFPE tissue as fragmentation of the RNA is known to occur over time. The RNA is preferentially purified from other cellular components without the use of phenol or chloroform. The purified RNA and genomic DNA are of the highest integrity, and can be used in a number of downstream applications including qPCR, qRT-PCR, reverse transcription PCR, primer extension, mutation screening, expression array assays, microarray analyses, sequencing, Southern blotting and SNP analysis.

Kit Specifications			
Column Binding Capacity (RNA)	50 µg	Maximum Amount of Staring Material:	
Column Binding Capacity (gDNA)	15 µg	Paraffin Slices	5 slices 20 µm thick
Size of RNA Purified	All sizes	Unsectioned Block	25 mg

FFPE RNA/DNA Purification Kit Benefits

High quality and integrity of the isolated nucleic acid	Both the purified total RNA and/or genomic DNA are of the highest quality and integrity, and can be used in any sensitive downstream application (Figures 1 and 2).
Isolate a diversity of RNA species	All RNA species can be isolated, from large mRNA and ribosomal RNA down to microRNA (miRNA) and small interfering RNA (siRNA).
High yields	Norgen's FFPE RNA/DNA Purification Kit allows for the purification of high yields of total RNA or DNA (Figure 1).
Rapid procedure	Isolate total RNA and/or genomic DNA from FFPE tissue sections using a rapid spin column format.
Versatile procedure	The kit allows for the purification of either pure total RNA, pure genomic DNA or both RNA and genomic DNA through the use of tailored protease digestion times.

FFPE RNA/DNA Purification Kit

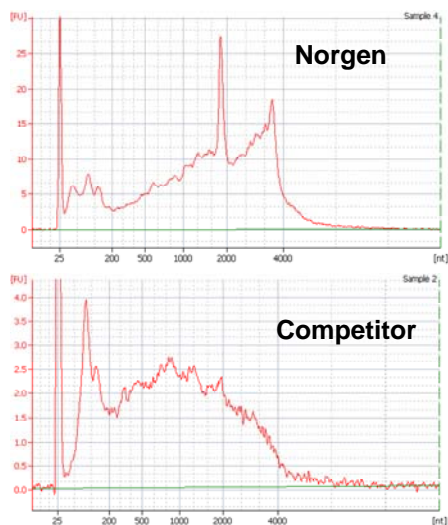


Figure 1. High Quality and Yield of Total RNA

Total RNA was isolated from equal amounts of an FFPE kidney sample using Norgen's FFPE RNA/DNA Purification Kit and a leading competitors kit. The purified RNA was then resolved on an Agilent Bio-Analyzer. As it can be seen, Norgen not only isolated higher yields of total RNA, but the RNA was also of a higher quality as evidenced by the higher RIN values obtained with Norgen's RNA.

FFPE RNA/DNA Purification Kit Contents

1. Digestion Buffer
2. Binding Solution
3. Enzyme Incubation Buffer
4. Wash Solution
5. Elution Buffer
6. Proteinase K
7. Spin Columns
8. Collection Tubes
9. Elution Tubes
10. Product Insert

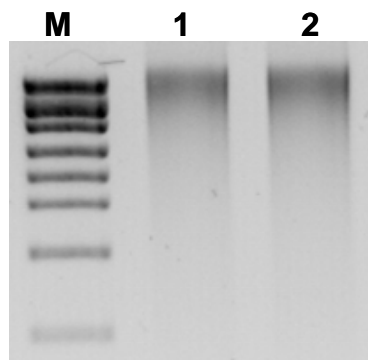


Figure 2. High Quality Genomic DNA

Genomic DNA was isolated from an FFPE kidney tissue sample using Norgen's FFPE RNA/DNA Purification Kit in duplicate and run on a 1.5% agarose gel. From observing the gel it can be seen that the kit isolates high yields of intact genomic DNA. Lane M is Norgen's HighRanger 1kb DNA Ladder, and Lanes 1 and 2 contain the purified DNA samples.

Storage Conditions

All solutions should be kept tightly sealed and stored at room temperature. The Proteinase K should be stored in aliquots at -20°C upon reconstitution. These reagents should remain stable for at least 2 years in their unopened containers.

Customer-Supplied Reagents and Equipment

- Benchtop microcentrifuge
- 95-100% ethanol
- Xylene, histological grade
- β -mercaptoethanol (optional)
- Ethanol

Shipping Conditions

The FFPE RNA/DNA Purification Kit is shipped at room temperature.

Cat #	Description	Quantity
25000	FFPE RNA/DNA Purification Kit	50 preps