WaxFree™ RNA

Paraffin Sample RNA Extraction

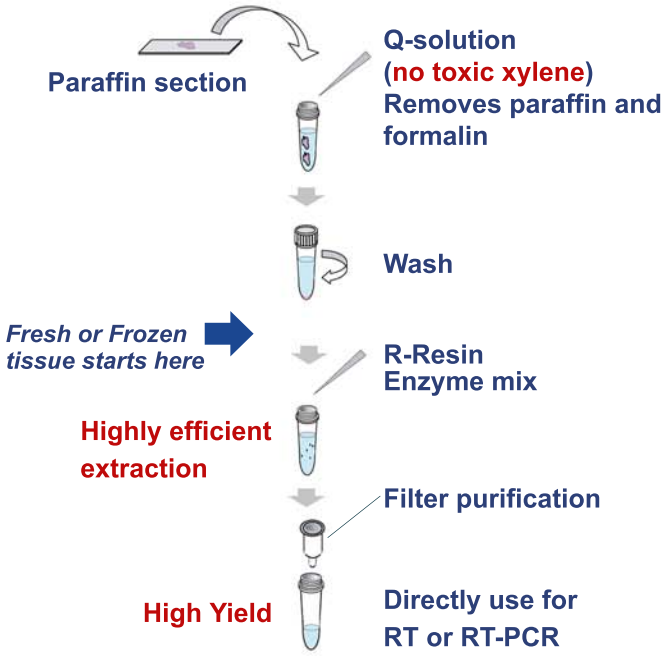
WaxFree™ RNA is a kit for RNA extraction from formalin-fixed paraffin-embedded (FFPE) tissues*. The kit uses a non-binding, non-elution RNA extraction method to efficiently extract RNA from tissues and eliminates the RNA loss commonly seen in traditional column or bead extraction methods. This simple extraction method takes less than 2 hours and achieves a maximal yield of RNA with optimized conditions for RT or RT-PCR.

*Can also apply to fresh and frozen tissue samples

Eliminate RNA loss

RNA loss is a major cause of extraction failure and commonly occurs during extraction of RNA from FFPE samples using column or magnetic bead methods. More than 30-40% of the RNA is lost due to insufficient binding of the RNA, or incomplete elution of the RNA from the column or beads. WaxFree™ RNA uses a non-binding, non-elution extraction method, eliminating RNA loss and maximizing the yield of RNA.

Simple Procedure



No toxic xylene
No column
No magnetic beads
No ethanol precipitation

Product Information

Catalog No.	Size
WR-50	50 extractions

For Research Use Only.
Not for use in diagnostic procedures.

1-888-825-6005
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High RNA Yield

WaxFree™ RNA kit maximizes extraction efficiency to achieve high yield of RNA in most FFPE tissues. RNA extracted from a FFPE section, size 1 x 1 cm (5 um thickness) is sufficient to perform more than 10 RT-PCR reactions or more than 50 real time PCR reactions.

Ready for RT or RT PCR

The Q-solution and WaxFree™ resin remove enzyme inhibitors from FFPE tissues, such as formalin residue. In addition, the extraction buffer optimizes the final RNA extract for RT or RT-PCR conditions. The final extract can be directly used for RT, RT-PCR or real time PCR reactions without further purification.

Easy procedure and fast extraction

The entire procedure can be completed in less than 2 hours. This fast procedure allows both sample RNA extraction and testing in the same day.

Non-Toxic reagents

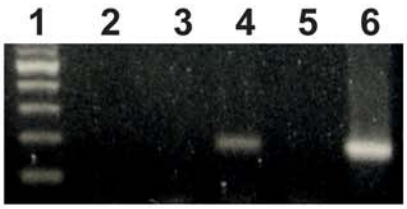
All of the reagents are non toxic. No toxic xylene for de-paraffinization.

Advantages for Sample Normalization and Quantitation

For gene expression studies, the RNA extracted from different samples should be normalized before performing a quantitative assay. This will minimize errors caused by variations of input tissue sample amounts. An advantage of the WaxFree™ kit is the OD_{260} value of the final RNA extract can be used for sample normalization. The OD_{260} value of the final RNA extracts represents the true value of the tissue amount used for the extraction.

Examples 1

The RNA is extracted from a lung tissue FFPE section (5um thickness, size 1 x 1 cm) using the WaxFree™ RNA kit. 20 ul of the final RNA extract is used for a total 50 ul RT reaction to convert the RNA to cDNA. 15 ul of the RT product is used as a template for 50 ul PCR. The target gene is EGFR and the PCR primers are designed between exons 19 and 20. The figure below is the PCR results:

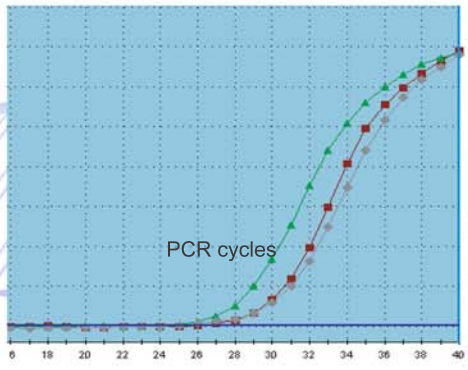


The PCR amplicon size was 195bp

Lane 1 100 bp DNA ladder
Lane 2 PCR Control: No template
Lane 3 PCR template: Genomic DNA control (negative control)
Lane 4 PCR template: WaxFree™ RNA extract
Lane 5 PCR template: WaxFree™ RNA extract without tissue section (negative control).
Lane 6 PCR template: Commercial Total RNA (Positive control)

Examples 2

1 ul RT products from above is applied to a 30 ul real time PCR for quantitative analysis.



Consistent Performance
High Reproducibility

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