Make it crystal clear

rapid and convenient removal of genomic DNA for high-purity RNA

Features

- **Efficient** – complete dsDNA and ssDNA digestion and proprietary technology for DNase I removal
- **Rapid** – single step sufficient for complete DNase I removal
- **Safe** – no need for toxic organic extractions or RNA-damaging heating steps

New proprietary technology for convenient removal of gDNA from RNA sample in a simple two-step procedure

Thermo Scientific™ RapidOut™ Kit delivers RNA free from DNA contamination. After the RapidOut procedure, RNA is ready to use in different applications, including endpoint or real-time PCR, cloning, microarray analysis, and Northern blot. It is especially recommended for sensitive applications, like expression analysis of low expression genes.

First, the RNA sample is treated with an RNase-free, recombinant DNase I to degrade DNA to levels below the limit of detection by routine PCR.

Subsequently, DNase I is removed from the reaction mixture by irreversible binding of the enzyme to the proprietary DNase Removing Reagent (DRR) included in the kit. DRR-DNaseI complex is then pelleted at the bottom of the tube by centrifugation. The purified RNA is collected as a supernatant.

Simple two-step protocol

Fisher Scientific

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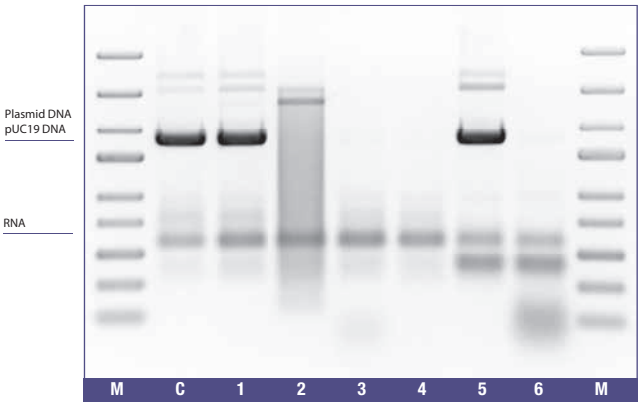
Product information

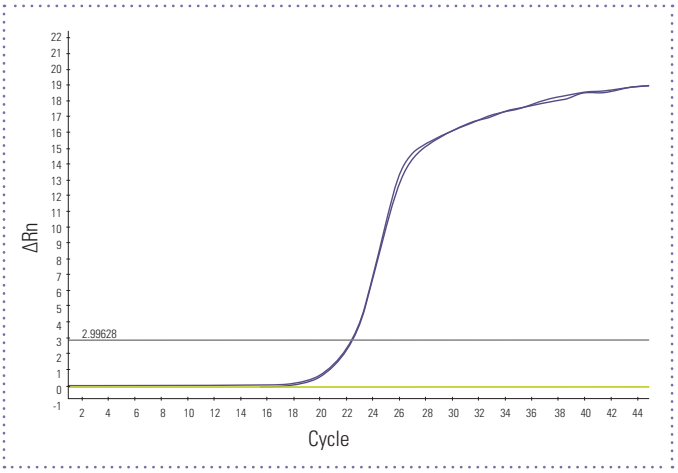
Complete removal of DNase I

First, a 200 nt RNA was treated with DNase I that was subsequently removed using DRR.
To evaluate the efficiency of DNase I removal, a plasmid DNA was added to the purified RNA sample and incubated for 15 minutes at 37 °C. The integrity of plasmid DNA after incubation shows absence of DNase I.
The RapidOut Kit successfully removed the DNase I *(see intact plasmid DNA in lane 1)*.
Residual DNases, present in RNA samples after treatment with other suppliers' kits or resins, resulted in degradation of plasmid DNA *(see lanes 2,3,4)*.



▲
The assay has sensitivity to detect as low as 10^{-6} u of DNase I.
M – Thermo Scientific™ ZipRuler™ Express DNA Ladder 2,
C – pUC 19 DNA and RNA control,
1 – Thermo Scientific RapidOut DNA Removal Kit,
2 – Vendor A,
3 – Vendor B,
4 – Vendor C,
5 – thermal inactivation of DNase I (EDTA, 10 min 65 °C),
6 – thermal inactivation of DNase I (EDTA, 10 min 65 °C),
prior incubation with pUC19 DNA, 1/10 of reaction volume of 10 x DNase I buffer with Mg^{2+} added.

Genomic DNA contamination is reduced below detectable levels



Jurkat RNA was purified with Thermo Scientific™ GeneJet™ RNA Purification Kit (*Cat #K0731/2*) and combined with gDNA. This mixture was treated with DNase I and the resulting pure RNA was used in qPCR.
Blue curve – amplification signal from genomic DNA present in the RNA sample prior to the RapidOut procedure.
Green curve – absence of the signal in the qPCR demonstrates the absence of gDNA in the RNA sample after the RapidOut procedure.

Free sample
Want to try before you buy? Contact your sales representative.

Ordering information

- Find out more at **thermoscientific.com/rapidout**

Cat. No	Description	Quantity
K2981	RapidOut DNA Removal Kit	50 preps

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