

# RapidClean™

Fast, convenient, phenol-free purification  
of DNA and RNA samples



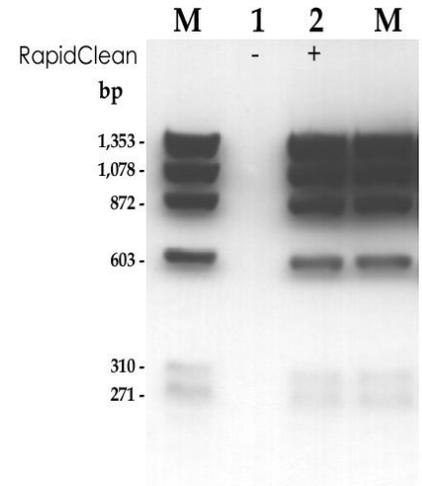
**RapidClean™** is a novel affinity resin designed to remove all protein from aqueous solutions of single- or double- stranded nucleic acids, providing an alternative to hazardous and lengthy phenol-chloroform procedures. The RapidClean resin binds and removes protein in a 5-minute protocol that combines convenience, speed, and nucleic acid recovery rates in excess of 95%.

# RapidClean™

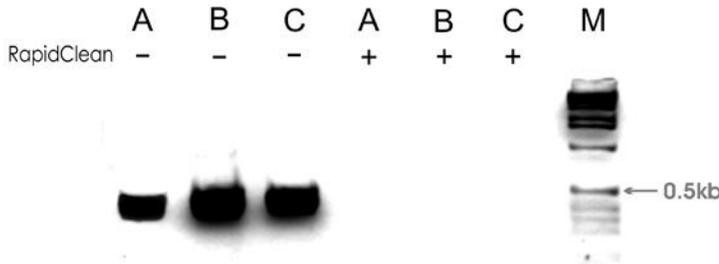
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## Remove Exonuclease

**Extraction with RapidClean completely removes Exonuclease III.**  $\phi$ X174/HaeIII DNA (lane M) is digested by a 40 min incubation at 37°C with 10 units of Exonuclease III (lane 1), but no digestion occurs when the incubation mix is extracted twice with RapidClean before addition of the  $\phi$ X174/HaeIII DNA target (lane 2).



## Remove DNA Polymerase

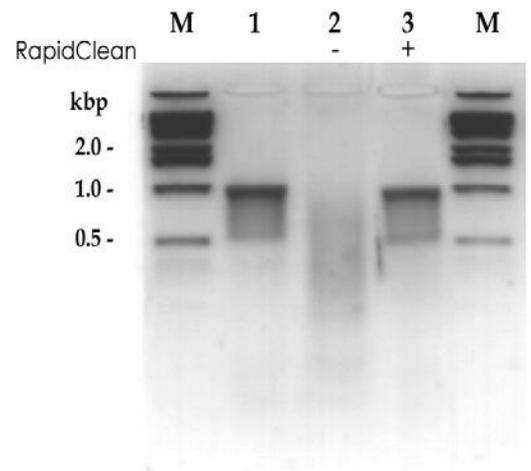


**RapidClean completely removes DNA polymerase.**

No Taq DNA Polymerase activity remains after extraction with RapidClean. PCR reactions using polymerase from three different vendors (A, B, C) were extracted (+) or not extracted (-) using RapidClean, and then subjected to 30 PCR cycles. No amplified product was detected in the samples extracted with RapidClean.

## Remove DNA Glycosylase

**RapidClean completely removes Uracil DNA glycosylase.** After two extractions with RapidClean, no UDG activity is detected after a 7 minute incubation at 95°C. Lane M: 1kb DNA ladder. Lane 1: dU-DNA fragment incubated without UDG. Lane 2: dU-DNA fragment incubated with UDG reaction mix. Lane 3: Identical to Lane 2, but the UDG reaction mix was extracted with RapidClean prior to the addition of the dU-DNA fragment.

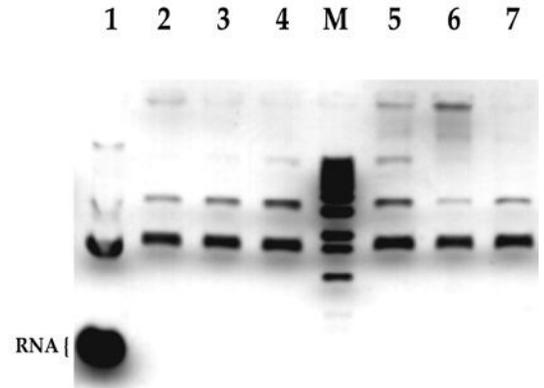


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## Purification Equivalent to Phenol-Chloroform

**RapidClean purifies plasmid DNA as efficiently as phenol-chloroform extractions.** Crude plasmid pellet containing pUC119 plasmid DNA was ethanol precipitated, suspended in TE buffer (lane 1), treated with RNase (lanes 2 and 5), and extracted with RapidClean once (lane 3) or twice (lane 4), or extracted with phenol-chloroform once (lane 6) or twice (lane 7).



## Remove DNA Ligase



**RapidClean completely removes T4 DNA ligase.** No detectable ligase activity remains in a reaction mix after extraction with RapidClean (lane 2). EcoRI digested  $\lambda$ -DNA (lane C, Control) was incubated for 16 hours at room temperature with T4 DNA ligase (lane 1) or with the same mixture extracted with RapidClean (lane 2).



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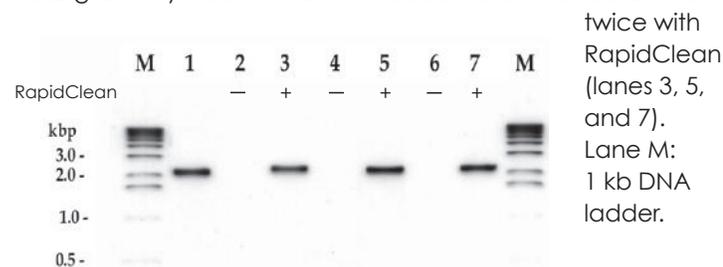
**RapidClean Resin** arrives as a ready-to-use 10x slurry; its blue color makes the protein pellet easy to see when pipetting. **RapidClean Kit** includes RapidClean Resin and spin filters to aid in resin removal.

## Features

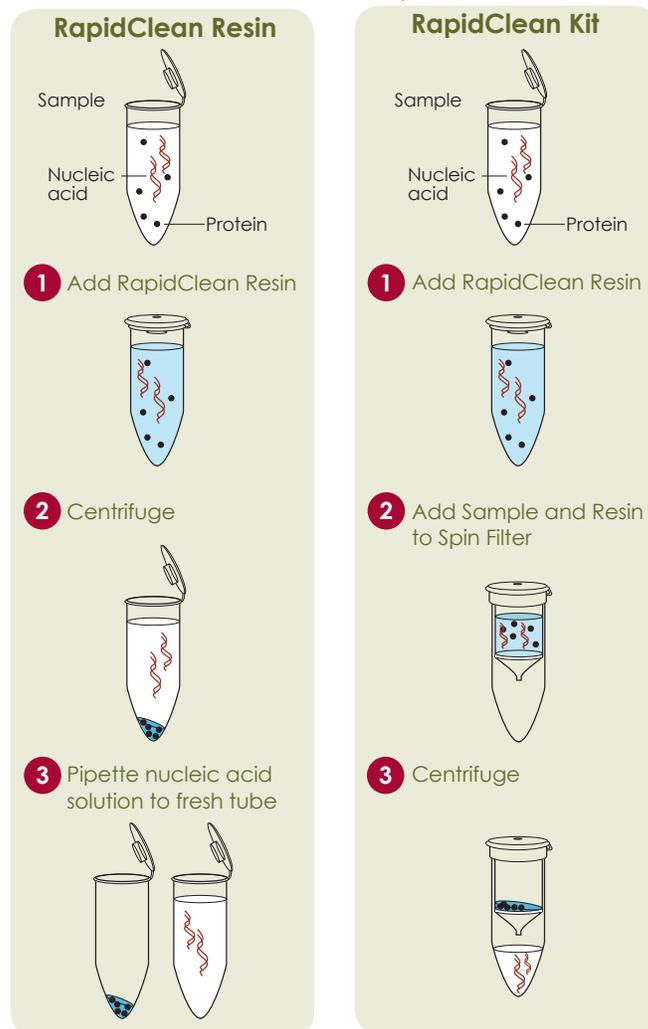
- Complete removal of proteins from aqueous solutions of nucleic acids
- Protocol less than 5 minutes, start to finish
- Non-toxic alternative to phenol-chloroform extraction
- Nucleic acid recovery rates >95%
- Recovery of nucleic acids from 5 nucleotides to greater than 40 kb
- Suitable for DNA, RNA, cDNA, microRNA, oligonucleotides

### Extraction with RapidClean completely removes DNase I, Mung Bean Nuclease, and S1 nuclease activity.

M12mp18 ssDNA (lane 1) is completely digested by 30 minute incubations at 37°C with DNase 1 (lane 2), Mung Bean Nuclease (lane 4) or S1 nuclease (lane 6), but no residual nicking activity is observed if the reactions are first extracted



## Nucleic Acid Cleanup Procedure



## Ordering Information

Catalog Number	Product	Size
K-01001-010	RapidClean™ Kit	10 RXNS
K-01001-025	RapidClean™ Kit	25 RXNS
R-14011-250	RapidClean™ Resin	250 µl
R-14011-B10	RapidClean™ Resin	1 ml

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