NUCLEIC ACID PURIFICATION

PCR Kleen™ Spin Columns

- Purify PCR products >200 bp from reaction mixture components in 4 min
- Provide purified DNA ready for downstream applications
- Accommodate sample loads of 25–100 µl
- Require no matrices or binding steps

Rapid PCR Product Purification

Amplification of DNA by the polymerase chain reaction (PCR) is a central technique in many molecular biology laboratories. Purification of the initial DNA template is a critical first step. PCR Kleen spin columns are a proven, superior choice for elimination of PCR impurities. These prepacked spin columns allow convenient purification of DNA and PCR products >200 bp directly from reaction mixtures. An easy, rapid 4 min protocol eliminates nucleotides (dNTPs, ddNTPs), enzymes (nucleases, polymerases), ethanol, salts, primers, and primer-dimers <32 bp in length. Use of the columns also eliminates the need to cut DNA fragments out of agarose gels.

Convenient Method

PCR Kleen spin columns eliminate the need for time-consuming matrix binding and wash buffer steps, gravity columns, dialysis membranes, electroelution devices, phenol extraction, and alcohol precipitation to isolate PCR products.

Rapid Procedure

Simply transfer 25–100 µl of the amplification mixture to a PCR Kleen spin column and centrifuge in a microcentrifuge for 3 min. Purified DNA fragments are eluted into the collection tube, eliminating contaminants for easy disposal.

Efficient Separation

The columns rapidly recover DNA >200 bp from reaction mixture components (enzymes, nucleotides, primers, and primer-dimers <32 bp in length) that can decrease downstream cloning efficiencies (Figure 1).

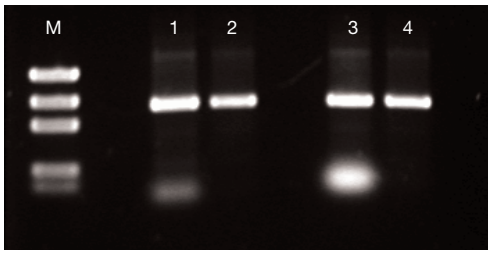

Fig. 1. Effective, rapid removal of primer-dimers from PCR reactions. Two PCR reaction mixtures were purified with PCR Kleen spin columns. Lane 1, a mixture of 2 µg of a 660 bp DNA fragment with 100 ng of a 25-mer primer-dimer; lane 3, a mixture of 2 µg of a 660 bp DNA fragment with 500 ng of a 25-mer primer; lane 2, primer-dimer purification; lane 4, primer purification; M, DNA markers. Reaction products and purified samples (10 µl each) were analyzed on a 1.5% agarose gel.

Effective Results

Purified DNA is immediately available for PCR, subcloning, restriction digestion, ligation, nucleotide sequencing, and other downstream applications.

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Specifications

Method	Size exclusion chromatography in spin column
Application	Removal of nucleic acids <32 bases and other reaction mixture components from PCR products >200 bp
Capacity	25–100 µl
Equilibration buffer	10 mm Tris, 1 mM EDTA, pH 7.4
Sample preparation time	<4 min
Yield	50–80% recovery

Ordering Information

Catalog #	Description
732-6300	**PCR Kleen Spin Columns**, 25

For more information, request bulletin 2950, or go to **www.bio-rad.com/nasampleprep/**

Practice of the polymerase chain reaction (PCR) may require a license.

BIO-RAD

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Life Science Group

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Bulletin 2311 US/EG Rev D *06-0715 0107 Sig 1106*