Certificate of Analysis

QuickClean Enzyme Removal Resin

Catalog No(s).	Amount	Lot Number
631770	0.5 ml	Specified on product label.

Description

A solid-phase matrix for phenol-free removal of protein from aqueous solutions of single or double-stranded nucleic acids. Efficiently removes enzymes and other proteins from reaction mixtures containing DNA or RNA in a brief vortex-and-spin step. No organic extraction or ethanol precipitation is required. Blue color facilitates the separation of resin-bound proteins from the nucleic acid solution after extraction.

Package Contents

- 0.5 ml QuickClean Resin

Storage Conditions

- Store at 4°C.

Important notes on resin storage:

- Do not autoclave or boil QuickClean.
- Protect QuickClean from long exposure to bright light.
- QuickClean is supplied as a 25% slurry. Do not allow QuickClean to dry out or buffer to evaporate.

Shelf Life

- 12 months from breaking bottle seal.

Storage Buffer

- Sterile, deionized H_2O containing 0.005% sodium azide.

Shipping Conditions

- Room temperature

Product Documents

Documents for Clontech® products are available for download at **www.clontech.com/manuals**
The following documents apply to this product:

- QuickClean Enzyme Removal Resin Protocol-at-a-Glance (PT3159-2)

Applications

- Remove restriction enzymes, ligases, *Taq* DNA polymerase, RNase, and DNase after reactions with DNA or RNA to prevent those enzymes from interfering with subsequent manipulations.
- Deproteinize DNA and RNA before electrophoresis on agarose gels. This will improve the resolution and clarity of bands when preparing for blot hybridization. If bands are to be cut out of the gel, deproteinization before electrophoresis will eliminate enzymes that may comigrate with the DNA fragments and coelute from the gel slices.

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Quality Control Data

HindIII enzyme solution (50 µl at 40 units) was extracted twice with QuickClean according to the instructions provided (PT3159-2). Lambda DNA was then added to each extracted solution and incubated at 37°C for 16 hr. Parallel reaction mixtures were set up using nonextracted enzyme solutions (positive control) and using plasmid DNA alone (negative control). Samples were analyzed by electrophoresis on an agarose gel. No digestion was observed in the reaction mixtures containing the extracted enzyme solution or the plasmid alone, whereas the positive control showed complete digestion of the DNA.

Sample Data

The effects of using one, two, or three QuickClean extractions on the enzyme activity of a DNase I solution are compared in Figure 1. Note that even one extraction with QuickClean removes nearly all of the DNase I activity, as evidenced by the strong band of nicked plasmid DNA and the lack of degradation products (Lane 3). Repeating the extraction once or twice (Lanes 4 and 5, respectively) removes residual DNase I activity, as evidenced by a correspondingly greater proportion of the plasmid in the supercoiled (unnicked) form.

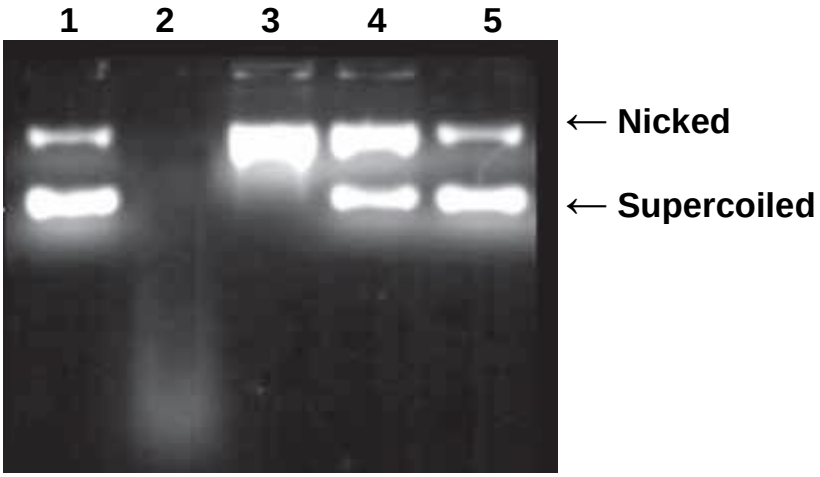

Figure 1. Effect of additional QuickClean extractions on residual DNase I activity. 1 µg of covalently closed circular plasmid DNA was subjected to digestion with the indicated solution of DNase I (0.4 units/µl initial concentration) in 25-µl reaction mixtures for 2 hr at 37°C. Samples were electrophoresed on an EtBr/1% agarose gel in TBE buffer. **Lane 1.** Plasmid DNA alone (no DNase I). **Lane 2.** Plasmid incubated with untreated DNase I solution. **Lanes 3, 4 & 5:** Plasmid incubated with DNase I that had been previously extracted with QuickClean one, two, or three times, respectively. Data courtesy of V. Evtushenko, Research Institute of Roentgenology and Radiology, St. Petersburg, Russia.

Notice to Purchaser

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NOTICE TO PURCHASER:

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