

Dye Terminator Removal: NucleoSEQ

Unincorporated dye terminators will negatively affect analysis of sequencing results. Excess of dye terminators causes so-called "dye blobs" resulting in a partly unreadable sequence.

NucleoSEQ will remove unincorporated dye terminators. The subsequent analysis is of high quality with long reading length and minimized background.

Your reasons to use NucleoSEQ

- ⇒ gel-filtration technology optimized for efficient removal of dye terminators, e.g. BigDye™ Terminators
- ⇒ convenient single spin columns
- ⇒ time saving, no ethanol precipitation necessary
- ⇒ long-term storage at room temperature
- ⇒ cost efficient alternative to competitive products

Cleanup of sequencing reactions with NucleoSEQ columns ensures high-quality sequencing results.



Sequencing profile of plasmid DNA (pGEM®-T Easy). Plasmid DNA was purified using **NucleoSpin® Plasmid**. Sequencing reaction was performed with ABI PRISM® BigDye™ Terminator Cycle Sequencing kit, purified with **NucleoSEQ**, and analyzed on an ABI 310 sequencer.

Principle

NucleoSEQ columns are designed for fast, effective and cost efficient clean-up of sequencing reactions. The spin columns are prefilled with a dry size exclusion matrix which allows an efficient removal of dye terminators, e.g. BigDye™ Terminators: The gel-filtration material consists of spheres with uniform pores and separates molecules according to molecular weight. After applying the sequencing reaction to the **NucleoSEQ** column, small dye terminators and other impurities e.g. salts, nucleotides, primers, traces of organic solvents are retained into the pores while labeled DNA fragments are excluded and recovered in the flow-through with high yield.

Handling

In order to achieve long-time storage life at room temperature, **NucleoSEQ** columns are prefilled with dry gel-filtration resin. The matrix can easily be hydrated by adding water followed by an incubation period (>30 min). Hydrated columns are ready to use and can be stored at 4°C for 14 days.

A first short centrifugation step removes remaining storage buffer. After loading the sample onto the column and a second centrifugation step, the DNA fragments of interest are recovered in the flow-through.

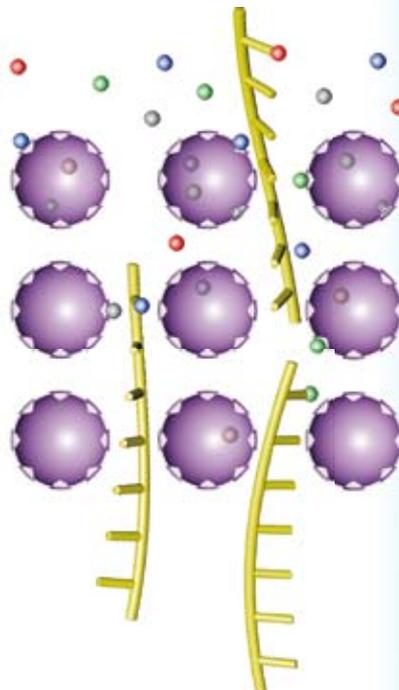
Receiver Columns 20 µm

Receiver columns are micro spin-columns with an inserted hydrophobic frit of 20 µm pore size. They can be used for general filtration purposes as well as for retaining chromatographic resins (e.g. **NucleoSil**® C18, Sephadex® G25, G50, or Sephacryl® S200). Receiver columns 20 µm are delivered with a closed outlet inserted into a collection tube and are for use with suitable bench-top centrifuges.

- ⇒ Filtration of viscous solutions
- ⇒ Filtration of swabs, e.g. buccal swabs
- ⇒ Desalting of protein solutions

Trademarks:

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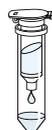
NucleoSEQ procedure



spin down dry gel resin



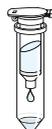
hydrate gel resin with water



spin down hydrated gel resin



sample loading



sample recovery

Ordering Information

Catalogue No	Quantity
NucleoSEQ	
NZ74052310	10 preps
NZ74052350	50 preps
NZ740523250	250 preps
Receiver Columns 20µm	
NZ74052210	10 columns
NZ74052250	50 columns
NZ740522250	250 columns



Fisher Scientific

Part of Thermo Fisher Scientific

Tel: 01509 231166

Fax: 01509 231893

Email: fsuk.sales@thermofisher.com

www.fisher.co.uk

NucleoSEQ