NucleoSEQ

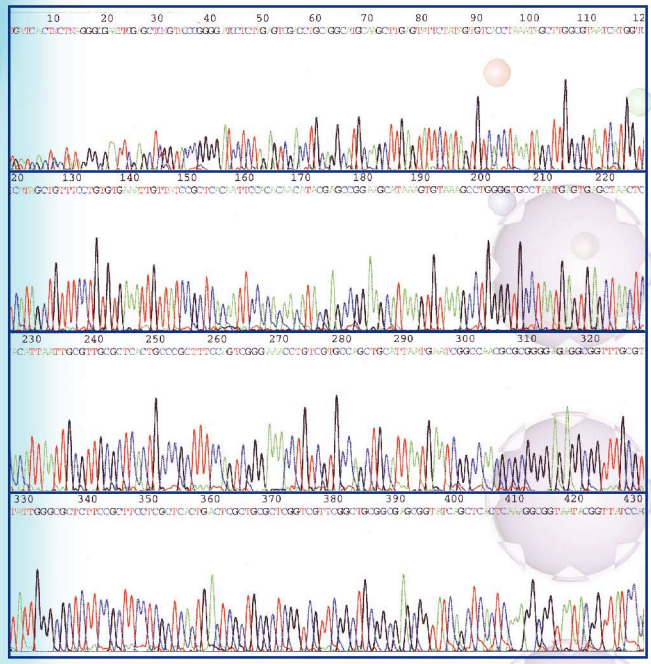
Dye Terminator Removal: NucleoSEQ

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 competetive 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.

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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 seqencing 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

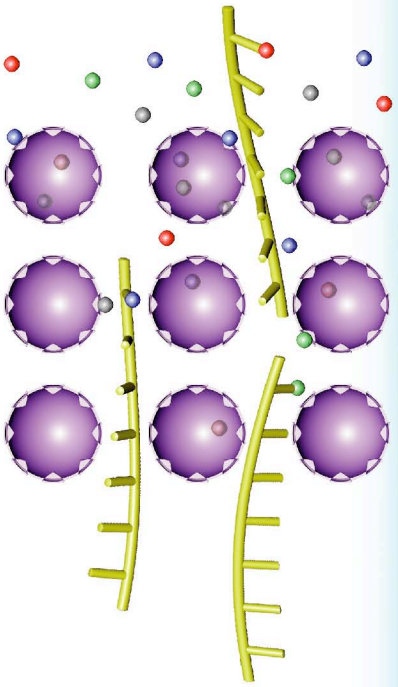
In order to achieve long-time storage life at room temperature, **NucleoSEQ** columns are prefilled with dry gel-filtration resin. The matrix can easily be hydrated by adding water followed by an incubation period (>30 min). Hydrated columns are ready to use and can be stored at 4°C for 14 days.

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.

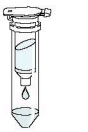
- ⇨ Filtration of viscous solutions
- ⇨ Filtration of swabs, e.g. buccal swabs
- ⇨ Desalting of protein solutions
- ⇨ ...



NucleoSEQ procedure

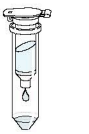
spin down dry gel resin

hydrate gel resin with water



spin down hydrated gel resin

sample loading



sample recovery

Ordering Information:

Product	Cat. No.
NucleoSEQ (10/50/250 preps)	**740523.10 / .50 / .250**
Receiver Columns 20 µm (10/50/250 columns)	**740522.10 / .50 / .250**

Distributed by:

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For more information regarding the use of MN products, please contact your local representative or visit MN directly under ***www.mn-net.com***.

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