

TSKgel® DNA-NPR Anion Exchange Column

A Nonporous Resin Column for the Rapid Separation of Large Biomolecules

TSKgel
PRODUCT OVERVIEW

Introduction

Anion exchange chromatography is a widely used technique for separating negatively-charged DNA molecules. The TSKgel DNA-NPR column is a polymer-based anion exchange column designed for improved resolution of DNA molecules over a wide molecular weight range. The column contains 2.5µm, nonporous particles. Since rate-limiting pore diffusion is eliminated with nonporous particles, analysis time is often reduced by as much as 80% without loss in resolution. The combined power of small particle size and 7.5cm length greatly improves the resolving power for biomolecules, particularly for larger base pair fragments.

Basic Properties

Matrix:	hydroxylated methacrylic polymer
Column Size:	4.6mm ID x 7.5cm
Pore Size:	nonporous
Particle Size:	2.5µm
Ion Exchange Capacity:	>0.1 meq/mL

Product Highlights

- High resolution, especially for larger DNA molecules
- Effective separations up to 8000 base pairs
- Easy quantitation and recovery of sample
- An efficient, reproducible method for routine analysis of PCR and other DNA fragments
- Predictable results, with separation based on size, just as in gel electrophoresis

Applications

The TSKgel DNA-NPR column is ideal for the high resolution analysis of general DNA molecules, including synthetic oligonucleotides, PCR products, DNA digests, and plasmids (supercoiled vs. relaxed).

Figure 1 shows the rapid isolation and purification of plasmid DNA using the TSKgel DNA-NPR column. Backbone modifications of synthetic oligonucleotides can create difficult separations. Figure 2 shows the analysis of a synthetic 20-mer phosphodiester oligonucleotide with the dimethoxytrityl removed (DMT-off).

Figure 1. Separation of λDNA/HindIII Digest on TSKgel DNA-NPR

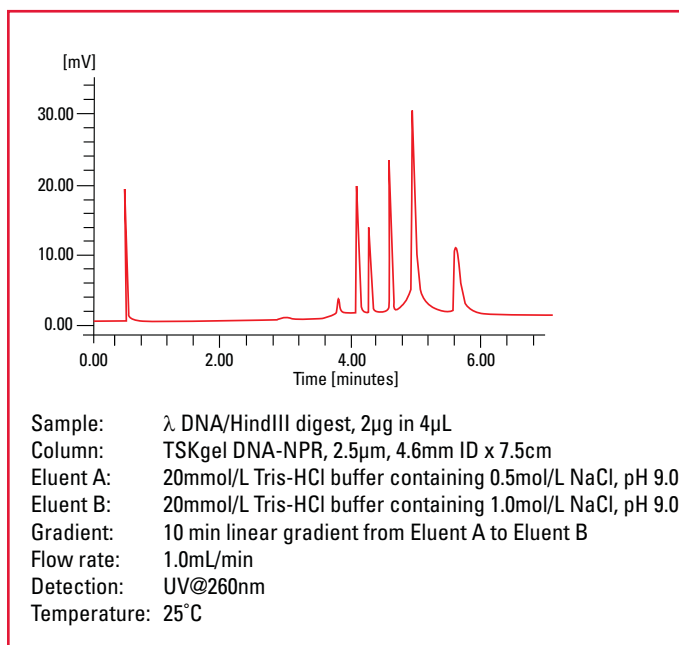
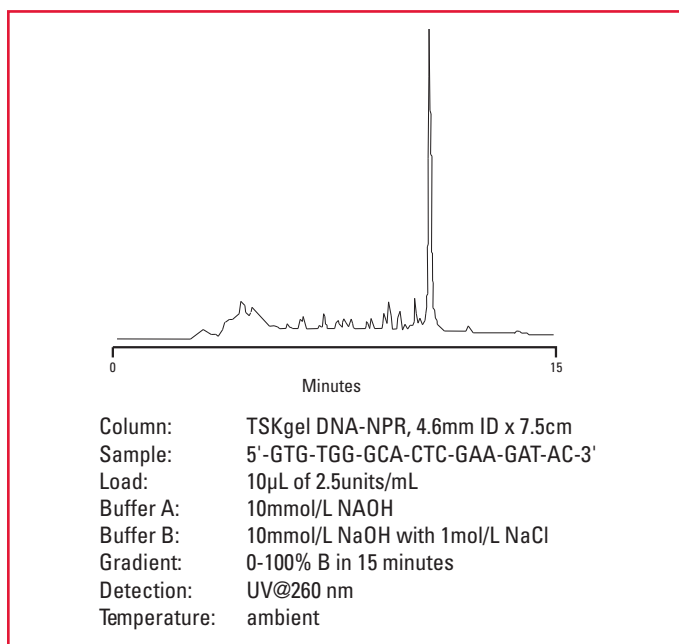


Figure 2. Separation of 20-mer Oligonucleotide on TSKgel DNA-NPR



Tosoh Bioscience and TSKgel are registered trademarks of Tosoh Corporation.

Ordering Information

Part #	Description	Matrix	Housing	ID (mm)	Length (cm)
18249	TSKgel DNA-NPR, 2.5µm, non-porous	Polymer	Stainless Steel	4.6	7.5
18253	TSKgel DNA-NPR guard column	Polymer	Stainless Steel	4.6	0.5



TOSOH

TOSOH BIOSCIENCE

TOSOH Bioscience LLC
3604 Horizon Drive, Suite 100
King of Prussia, PA 19406
Orders & Service: (800) 366-4875
Fax: (610) 272-3028
www.separations.us.tosohbioscience.com
email: info.tbl@tosoh.com