



BioLC columns

Revolutionize your oligonucleotide analysis with game-changing DNAPac RP columns

The semi-preparative format – ideal for nucleic acid purification

The Thermo Scientific™ DNAPac™ RP Column is a reversed-phase (RP) column specifically designed for separation of single- and double-stranded nucleic acids. The stationary phase is a unique supermacroporous 4 µm polymer particle, stable at both extreme pH (0 – 14) and temperature (up to 110 °C). The unique combination of small and large pore sizes in the DNAPac RP polymer enables efficient separation of small to large oligonucleotides, with one single column.

To support oligonucleotides and mRNA/DNA analysis at all stages of therapeutics development, the DNAPac RP columns are now offered in a range of formats, from analytical to semi-preparative scale. The semi-preparative biocompatible inert format offers smooth scalability from analytical to semi-preparative scale at high throughput.

Product features

- Designed for ion-pair reversed-phase (IP-RP) LC and LC/MS separations of both single-stranded oligonucleotides and double-stranded nucleic acids
- Unique selectivity of the DNAPac RP chemistry, now available for purification
- Bioinert hardware to eliminate analyte adsorption and avoid the need for column passivation
- Wide operating pH range and high-temperature stability (up to 110 °C)
- High resolution and high throughput

Scalability

The ability to transfer your analytical method to semi-preparative format without compromising resolution is an important component of successful scale-up. The DNAPac RP columns can perform high-resolution oligonucleotide separations (Figure 1) at analytical scale and maintain this resolution at semi-preparative scale.

The DNAPac RP semi-preparative columns can be operated at flow rates ranging from 5 to 10 mL/min. At these flow rates, DNAPac RP columns with their smaller particle size and unique pore structure still provide exceptional separations for purification purposes. In addition, low flow rates allow the use of a conventional HPLC system and the elution of samples at higher concentrations relative to high flow rate methods.

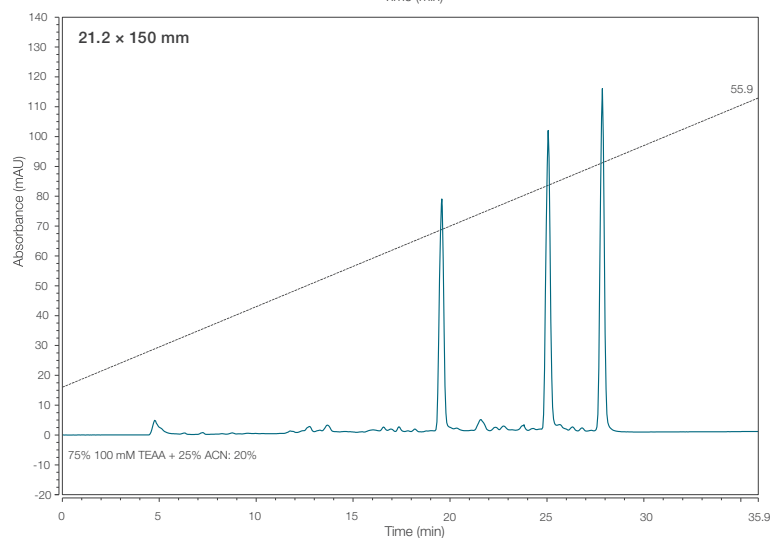
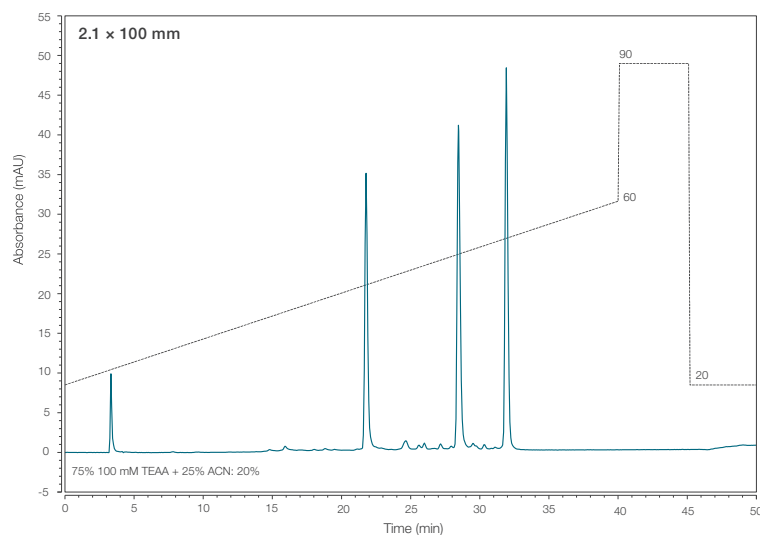


Figure 1. 10, 20 and 25 bp dsDNA method upscaling from 2.1 x 100 mm to semi-preparative DNAPac RP column (21.2 x 150 mm). Flow rate scaled from 0.08 to 8 mL/min, injection volume from 0.25 to 76.44 μ L. Sample concentration: 0.17 mg/mL. Mobile phase composition: A: 100 mM TEAA B: 75% A + 25% ACN. Gradient slopes indicated in the figure.

Ordering information

Description	Length (mm) I.D.	Cat. no
Thermo Scientific™ DNAPac™ RP semi-preparative column, 4 μ m	21.2 x 150 mm	080922-1521232
Thermo Scientific™ DNAPac™ RP semi-preparative guard cartridge, 4 μ m	21.2 x 10 mm	080922-0121232
Thermo Scientific™ Guard Cartridge Holder 21.2 mm I.D for prep columns	21.2 mm	950-00

Learn more at thermofisher.com/dnapac