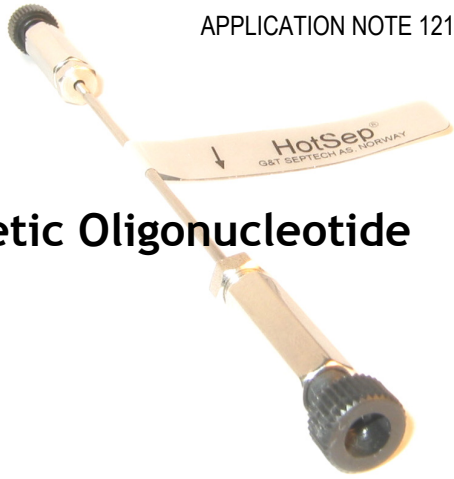
HotSep®

G&T SEPTECH

APPLICATION NOTE 121



Microbore HPLC:

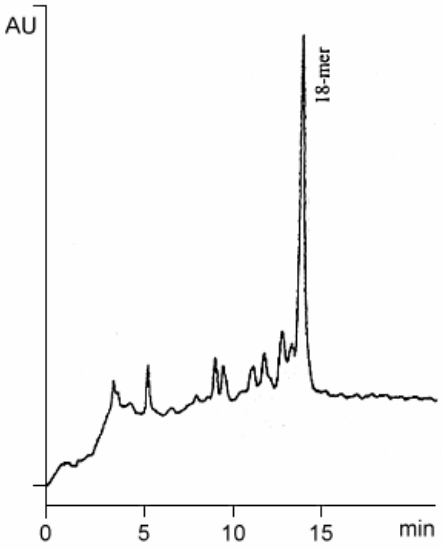
Kromasil C18 Separation of a Synthetic Oligonucleotide

App No 121

Synthetic Oligonucleotides

Reversed phase chromatography is commonly used to separate trityl-on from trityl-off oligonucleotides

Column	5µ Kromasil C18 100Å
Dimensions:	1 x 100 mm
Order No.:	S-121-1010
Mobile Phase:	A: 0.1 M TEAA, 0.1 mM Na_4EDTA, pH 7
	B: Same as A, but 50% MeCN added
Gradient:	4 to 10% in 20 mins
Flow Rate:	40 µL/min
Temp.:	30C
Detector:	UV @ 260 nm



Comments:

A complete turn of the DNA helix spans 10 base pairs, covering a distance of 34 Å (3.4 nm). An 18-mer stretched nucleotide spans approx. 60 Å and can therefore be separated on 100 Å materials.

Triethylamine (TEA) acts as an ion-pairing agent (interacts with negatively charged phosphate groups) and is a necessity for obtaining sufficient retention. EDTA is a metal-chelating agent that passivates metal surfaces or binds free metal ions such as Fe^{2+}.

ORDERING INFORMATION: HotSep® Kromasil C18, 5µ, 100Å

ID	5 cm	10 cm	15 cm	25 cm	Guard	Guard/5pk
1.0 mm	S-121-1005	S-121-1010	S-121-1015	S-121-1025	G-121-10-1	G-121-10-5
0.5 mm	S-121-0505	S-121-0510	S-121-0515	S-121-0525	G-121-05-1	G-121-05-5
0.3 mm	S-121-0305	S-121-0310	S-121-0315	S-121-0325	G-121-03-1	G-121-03-5
0.1 mm	---	S-121-0110	S-121-0115	---	---	---
75 µm	---	S-121-00710	S-121-00715	---	---	---

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