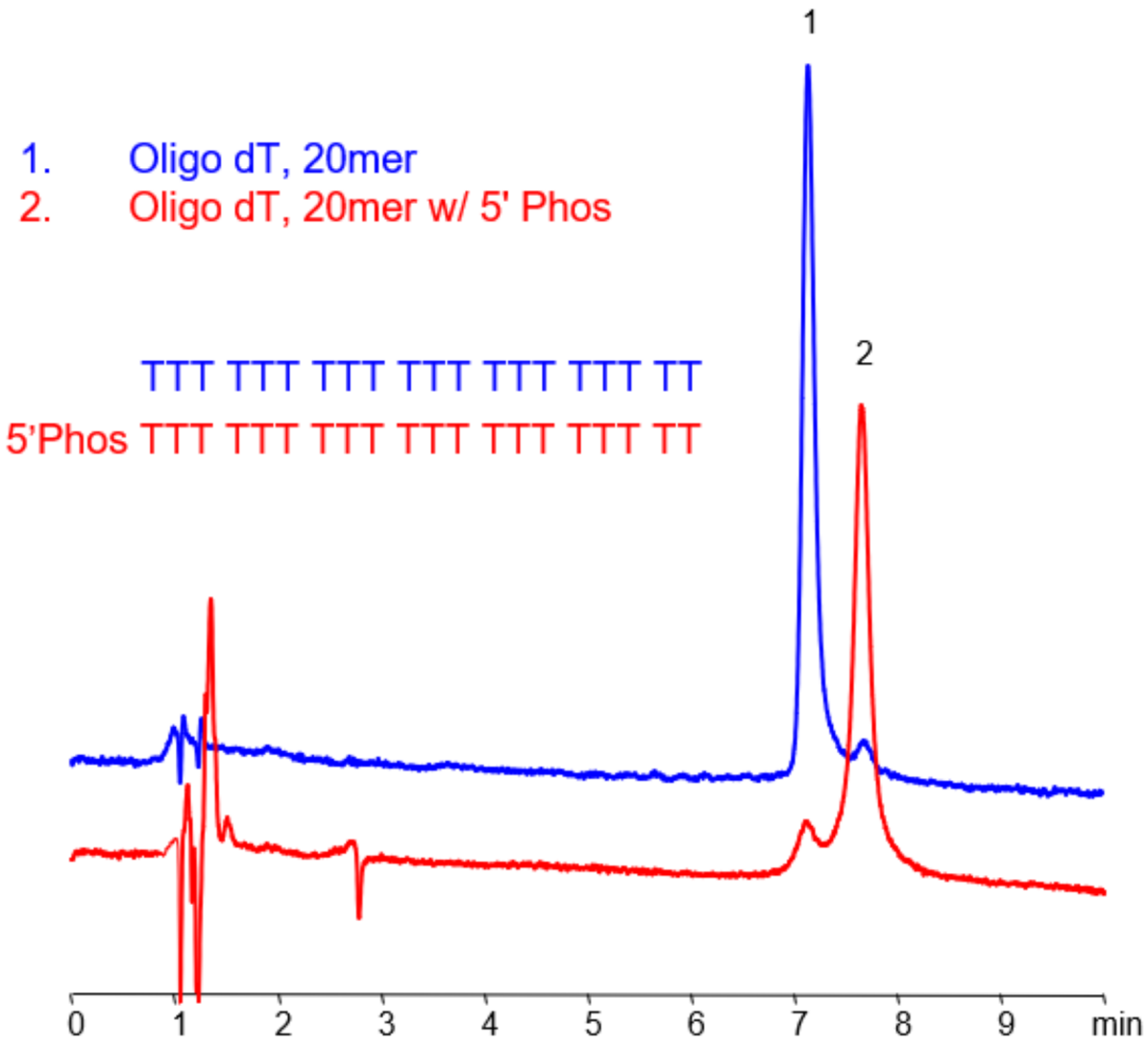
HPLC Method for Analysis of Oligonucleotides dt 20mer with 5′ phosphate on BIST A Column

https://sielc.com/hplc-method-for-analysis-of-oligo20ph

Chromatogram



Column:	BIST A
Column size:	4.6 × 100 mm, 5 µm
Column part number:	TA-46.100.0510.C
Mobile phase:	Gradient MeCN - 60-30%, 10 min
Buffer:	Mg acetate - 20 mM pH 4.0
Flow rate:	1.0 mL/min
Detection:	UV 260 nm

Description

· Separation type: Bridge Ion Separation Technology, or BIST™ by SIELC Technologies · HPLC Method for Analysis of Oligonucleotides on BIST A Column by SIELC Technologies

A 20 mer oligonucleotide is a short DNA molecule that is 20 nucleotides in length. Oligonucleotides of this length are commonly used in molecular biology research for a variety of applications, including PCR, DNA sequencing, gene expression analysis, and gene editing.

This is an example of an oligonucleotide sequence with a 5′ phosphate group. The sequence is a single-stranded DNA molecule that consists of a stretch of thymine (T) nucleotides, and its length is 20 nucleotides. The “5’Phos” notation indicates the presence of a phosphate group attached to the 5′ end of the oligonucleotide.

The sequence of the oligonucleotide is: · 5′ Phos TTT TTT TTT TTT TTT TTT TT

The 5′ phosphate group is often added to oligonucleotides used in various molecular biology techniques, such as DNA sequencing or cloning, to improve their stability and to facilitate their ligation to other DNA molecules. The presence of the phosphate group can also affect the efficiency of enzymatic reactions, such as ligation or phosphorylation.

Method Parameters

Mobile Phase	Gradient MeCN – 60-30%, 10 min
Buffer	Mg acetate pH 4.0 – 20 mM
Flow Rate	1.0 ml/min
Detection	UV 260 nm
Class of Compounds	Oligonucleotides
Analyzing Compounds	Oligonucleotides

HPLC Column Used

BIST A, 4.6 x 100 mm, 5 µm, 100 A, surface coated

Order this column at hplc-shop.de →