

For HPLC/UHPLC



**Develosil® FlexFire C1**

**NOMURA CHEMICAL CO., LTD**



## Develosil® FlexFire C1

### Excellent column with unexpected surprises!!

What kind of image is it for C1 column?

Develosil has been developing the C1 column since its inception. And I was able to find some drawbacks. Many researchers will think that "C1 column has short retention" and "durability". We think this is the image of everyone's C1 column.

However, this problem is not valid for the newly developed FlexFire C1. By exchanging "short retention" with "low adsorption", the superiority of its sensitivity can be understood. Furthermore, we realize that it is an extremely excellent column in view of the reduction in time.

Use of FlexFire C1 is a must if you want surprising results.

### Spec of FlexFire C1

	FlexFire C1
Particle size	1.6µm, 2.6µm, 5µm
Chemistry	Trimethyl
Surface area	340m <sup>2</sup> /g
Pore volume	1.0mL/g
Pore diameter	11nm
Carbon	5.5%
End-cap	あり
pH	pH1-9
Temperature	~80°C
Max pressure	1.6µm: 800bar (=80Mpa=11,603psi)
	2.6µm: 600bar (=60Mpa=8,702psi)
	5µm: 300bar (=30Mpa=4,351psi)

#### Conditions:

Column: FlexFire C18, 1.6µm (2.0x50mm)

FlexFire C1, 1.6µm (2.0x50mm)

Mobile phase: Acetonitrile/25mM HCOONH<sub>4</sub>, pH3.0=40/60

Flow rate: 0.5mL/min

Temperature: 40°C

Detection: UV254nm

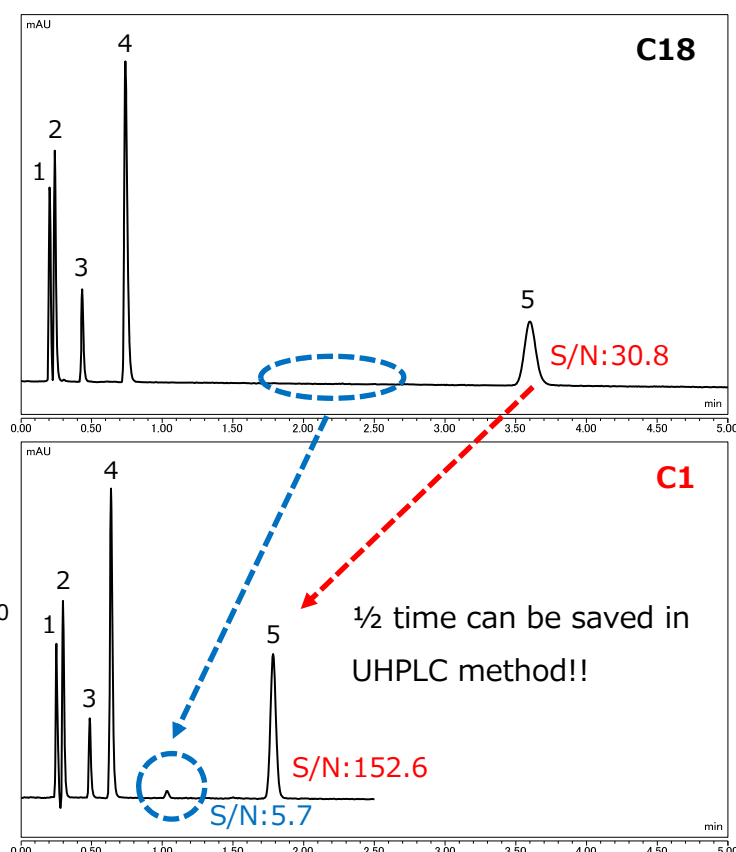
Sample: 1.Uracil 2.Caffeine 3.Phenol

4.Amitriptyline 5.Naphthalene

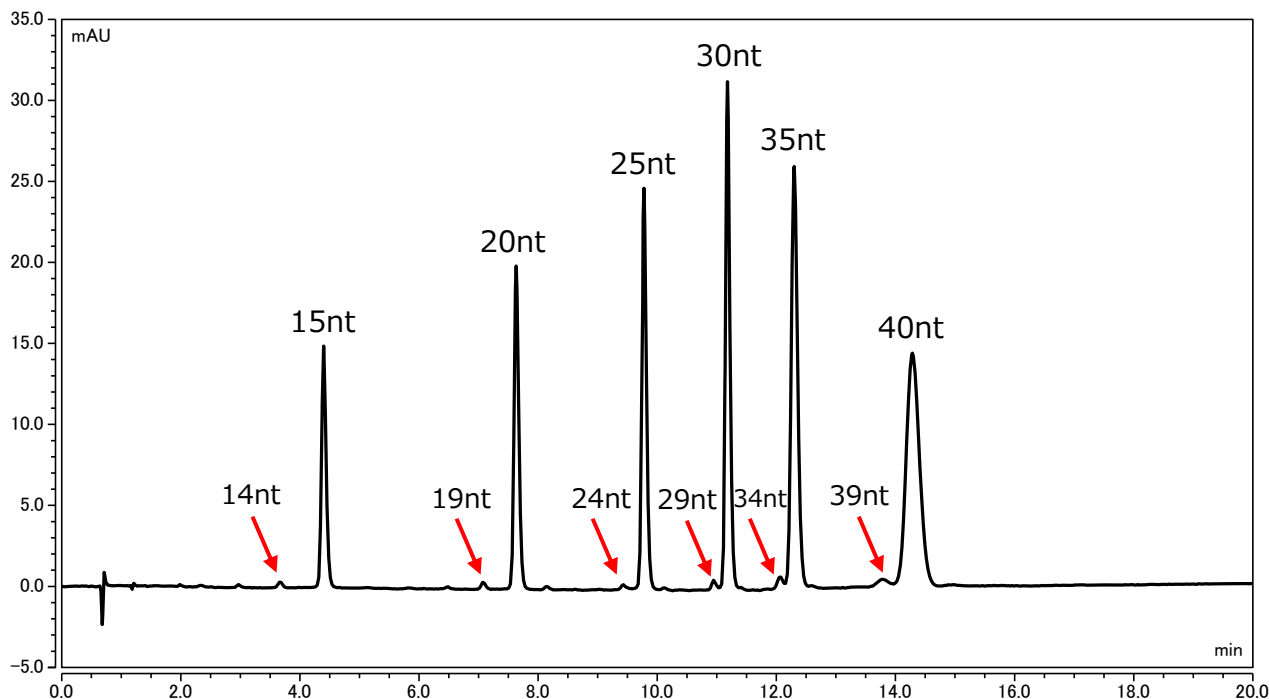
Injection volume: 0.16µL

#### ■ Time reduction by C1

columnA short alkyl chain, C1, can weaken too much retention. This saves analysis time without changing the method. In addition, the transfer of methods to UHPLC further accelerates the reduction in analysis time.



## Analysis of Nucleic acid oligomer



### Conditions;

Column: Develosil FlexFire C1, 1.6 $\mu$ m (2.0x50mm)

Mobile phase: A) 15mM TEA + 400mM HFIP

B) Mobile phase A)/Methanol=50/50

Flow rate: 0.2mL/min

Temperature: 40°C

Detection: UV260nm

Sample: Oligonucleotide Ladder

Injection Volume: 0.16 $\mu$ L

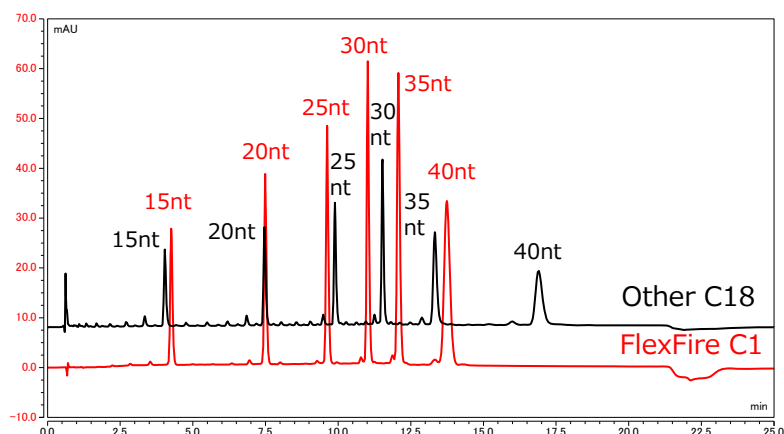
Gradient:

min	mL/min	%A	%B	Curve
0.00	0.2	65	35	5
10.0	0.2	46	54	5
20.0	0.2	46	54	5
20.1	0.2	65	35	5

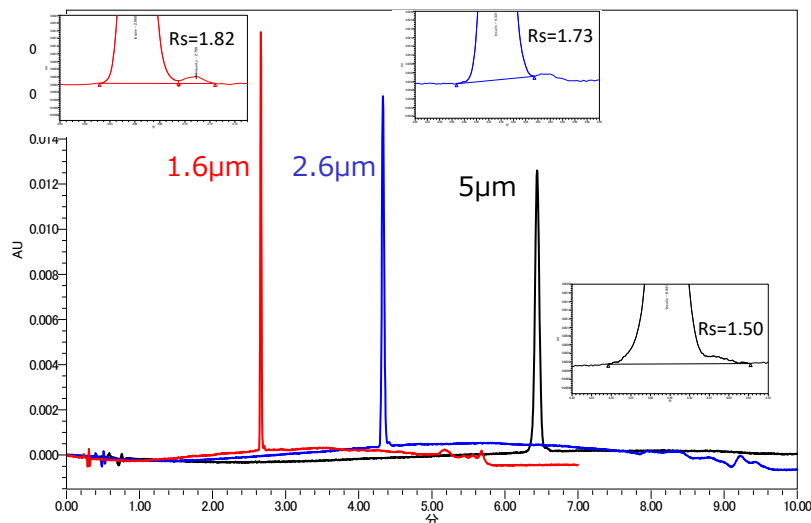
System: Thermo Fisher SCIENTIFIC Vanquish\_H

ERC Model 310 SF Degasser

FlexFire C1 can be used to analyze nucleic acid oligomers that are often analyzed with C18. Not only the time is shortened, but the separation of the n-1 peak is also good.



## Analysis of Insulin



### Conditions;

Column: Develosil FlexFire C1, 1.6µm (2.0x50mm)  
 Develosil FlexFire C1, 2.6µm (2.0x50mm)  
 Develosil FlexFire C1, 5µm (2.0x50mm)

Mobile phase: A) 10mM HCOONH<sub>4</sub>  
 B) Acetonitrile  
 ※Gradient Method

Flow rate: 0.5mL/min  
 0.3mL/min  
 0.2mL/min

Temperature: 40°C

Detection: UV260nm

Sample: Insulin

Injection Volume: 0.16µL

Analysis of insulin constructed by a method that does not use an ion-pairing reagent shows the separation of impurities by using a finely divided packing material.

System: Waters ACQUITY UPLC H-Class PLUS

## Order information

Product	Particle	Size (i.d.XL)	Sutainless	Metal-Free
FlexFire C1	1.6µm	2.0x35mm	304-I20035W	304-I20035MFW
		2.0x50mm	304-I20050W	304-I20050MFW
		2.0x75mm	304-I20075W	304-I20075MFW
		2.0x100mm	304-I20100W	304-I20100MFW
		2.0x150mm	304-I20150W	304-I20150MFW
		2.0x250mm	-	-
	2.6µm	2.0x35mm	304-L20035W	304-L20035MFW
		2.0x50mm	304-L20050W	304-L20050MFW
		2.0x75mm	304-L20075W	304-L20075MFW
		2.0x100mm	304-L20100W	304-L20100MFW
		2.0x150mm	304-L20150W	304-L20150MFW
		2.0x250mm	304-L20250W	304-L20250MFW
	5µm	2.0x35mm	304-520035W	304-520035MFW
		2.0x50mm	304-520050W	304-520050MFW
		2.0x75mm	304-520075W	304-520075MFW
		2.0x100mm	304-520100W	304-520100MFW
		2.0x150mm	304-520150W	304-520150MFW
		2.0x250mm	304-520250W	304-520250MFW

### ■ Contact us



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