

Develosil XG-C18

It is new series release from Develosil. An original new technique is included in this column. Develosil XG-C18 supports the wide field including medicine and agriculture and the food.

1. Specifications

Silica base

This product uses a Silicagel with a few impurities.

Usability

As for this column, equilibrium is early and the pressure is low, too.

Stability

The Develosil series produces it from a Silicagel to a column in the company.

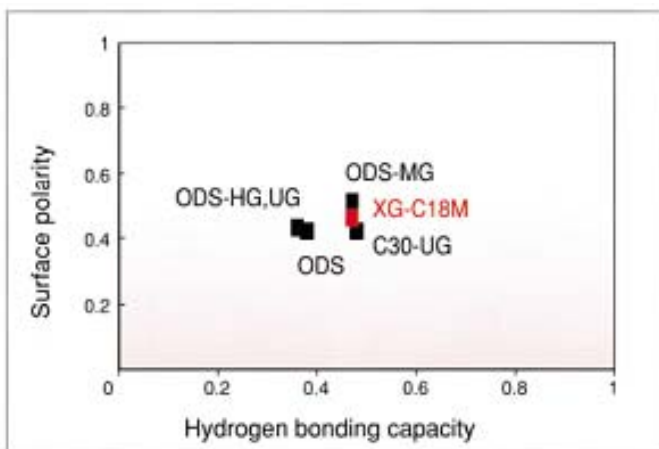
We carry out severe quality control in all processes.

Characteristic of Develosil XG-C18

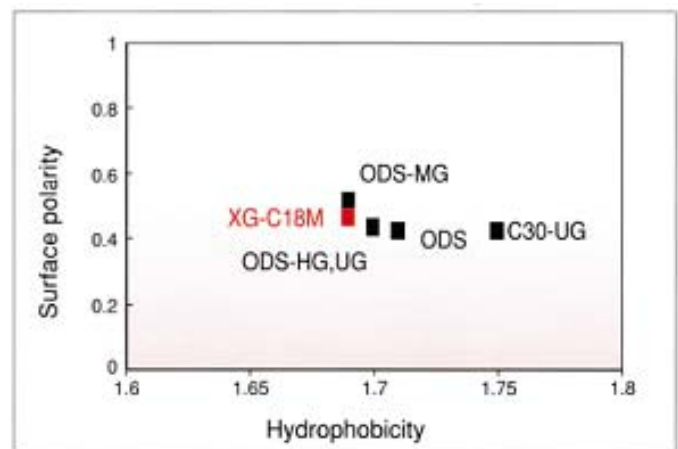
Surface area	300m ² /g
Pore diameter	14nm
Pore volume	1.10mL/g
Ligand	Octadecyl (Mono)
Carbon content	19%
Endcapping	○
pH range	pH1.5-8

2. Product inspection of Develosil XG-C18

1. Hydrogen bonding capacity – Surface polarity

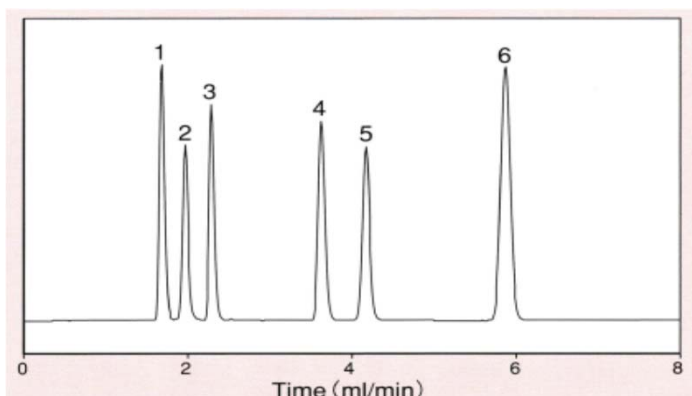


2. Hydrophobicity – Surface polarity



The parameter mentioned above was calculated that the following selectivity.

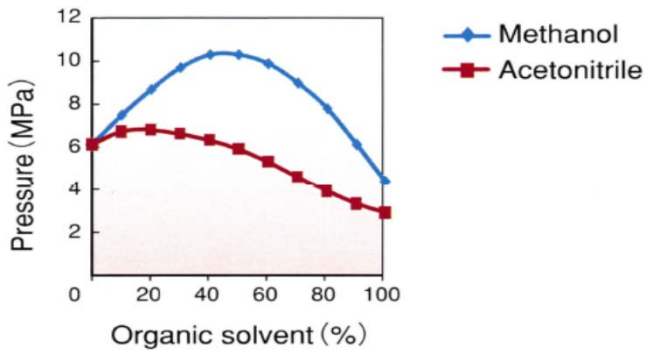
- Hydrogen bonding capacity α (Caffeine / Phenol)
- Hydrophobicity α (Toluene / Benzene)
- Surface polarity (Methyl Benzoate / Toluene)



Conditions

Column	Develosil XG-C18M (5um)	
Size	4.6x150mm	
Mobile Phase	Methanol / Water = 70 / 30	
Flow rate	1.0 ml / min	
Temperature	40°C	
Detection	UV254nm	
Sample	1. Uracil (t ⁰)	2. Caffeine
	3. Phenol	4. Methyl Benzoate
	5. Benzene	6. Toluene

3. Column pressure of Develosil XG-C18

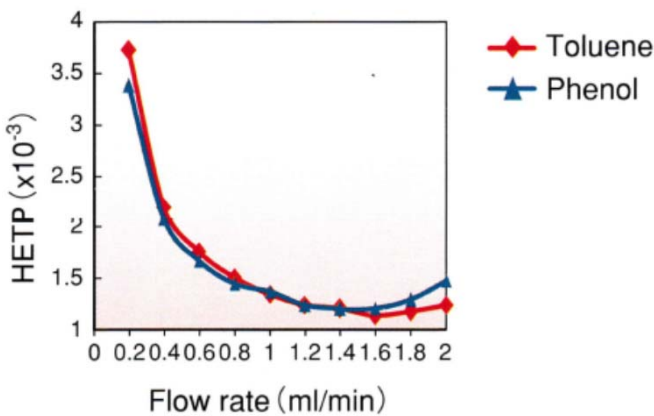


Conditions	
Column	Develosil XG-C18M (5um)
Size	4.6x150mm
Mobile Phase	Methanol / Water
	Acetonitrile / Water
Flow rate	1.0 ml / min

Develosil XG series shows low pressure. Follows are enabled

- Flow rate up
- High composition of the pressure is usable

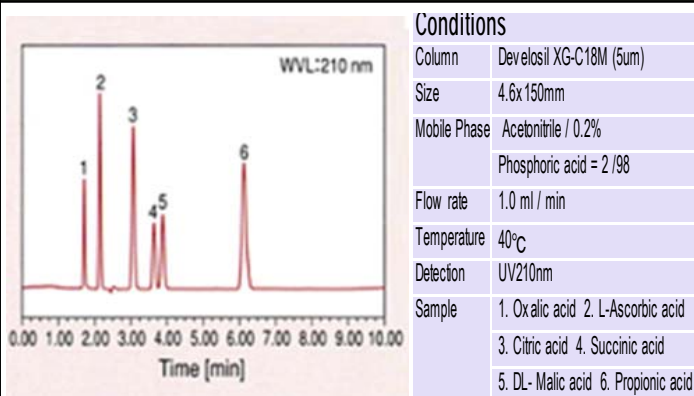
4. van Deemter plot of Develosil XG-C18



Conditions	
Column	Develosil XG-C18M (5um)
Size	4.6x150mm
Mobile Phase	(Toluene) Acetonitrile / Water = 50 / 50 (Phenol) Acetonitrile / Water = 10 / 90
Temperature	40°C
Detection	UV25nm
Sample	Toluene (0.01 mL / mL) Phenol (0.05 mg / mL)
Injection volume	1.0 uL

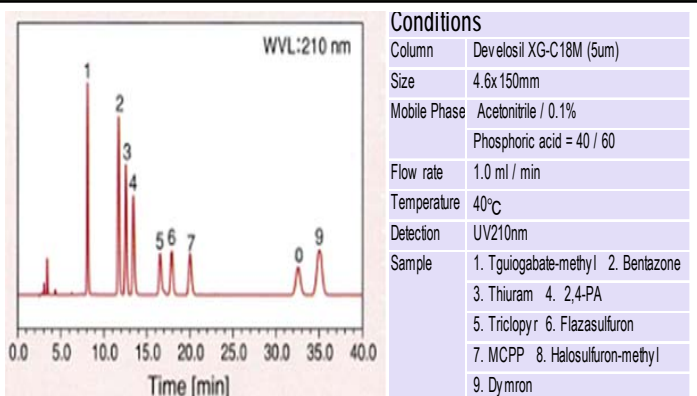
5. Analysis example

1. Analysis of Organic acid



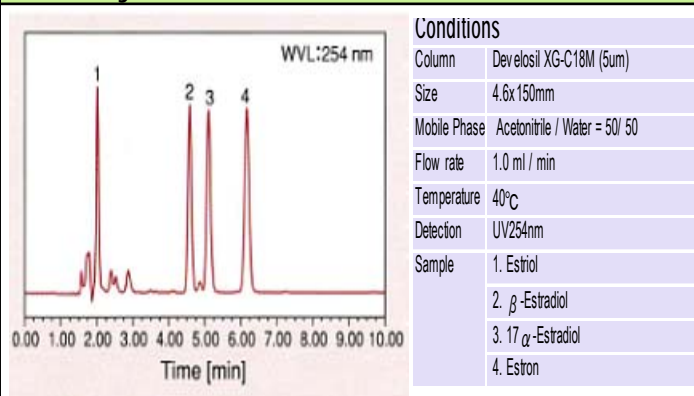
Conditions	
Column	Develosil XG-C18M (5um)
Size	4.6x150mm
Mobile Phase	Acetonitrile / 0.2% Phosphoric acid = 2 / 98
Flow rate	1.0 ml / min
Temperature	40°C
Detection	UV210nm
Sample	1. Oxalic acid 2. L-Ascorbic acid 3. Citric acid 4. Succinic acid 5. DL-Malic acid 6. Propionic acid

2. Analysis of pesticide

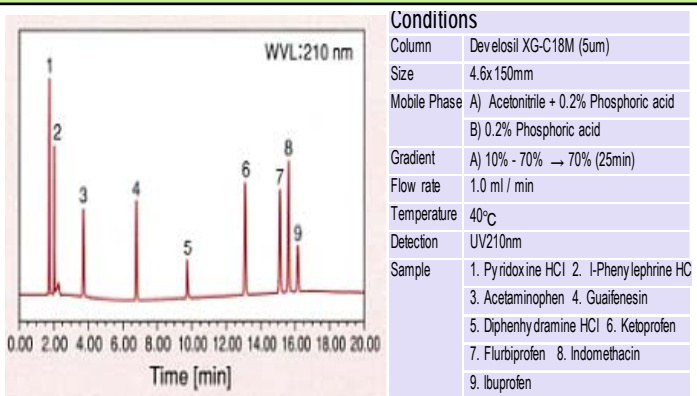


Conditions	
Column	Develosil XG-C18M (5um)
Size	4.6x150mm
Mobile Phase	Acetonitrile / 0.1% Phosphoric acid = 40 / 60
Flow rate	1.0 ml / min
Temperature	40°C
Detection	UV210nm
Sample	1. T. Guigabate-methyl 2. Bentazone 3. Thiuram 4. 2,4-PA 5. Triclopyr 6. Flazasulfuron 7. MCP 8. Halosulfuron-methyl 9. Dymron

3. Analysis of steroid



Conditions	
Column	Develosil XG-C18M (5um)
Size	4.6x150mm
Mobile Phase	Acetonitrile / Water = 50 / 50
Flow rate	1.0 ml / min
Temperature	40°C
Detection	UV254nm
Sample	1. Estradiol 2. β-Estradiol 3. 17α-Estradiol 4. Estron



Conditions	
Column	Develosil XG-C18M (5um)
Size	4.6x150mm
Mobile Phase	A) Acetonitrile + 0.2% Phosphoric acid B) 0.2% Phosphoric acid
Gradient	A) 10% - 70% → 70% (25min)
Flow rate	1.0 ml / min
Temperature	40°C
Detection	UV210nm
Sample	1. Pyridoxine HCl 2. I-Phenylephrine HC 3. Acetaminophen 4. Guafenesin 5. Diphenhydramine HCl 6. Ketoprofen 7. Flurbiprofen 8. Indomethacin 9. Ibuprofen

6. Price List

I.D. 2.0mm, 3.0mm, 4.0mm same price

Conventional columns

Packing name	Column size (I.D. x Length)	Particle size	P/N	Price (yen)
XG-C18M	4.6x35mm	3	XG18M346035W	32,000
	4.6x50mm		XG18M346050W	34,000
	4.6x75mm		XG18M346075W	37,000
	4.6x100mm		XG18M346100W	41,000
	4.6x150mm		XG18M346150W	47,000
	4.6x250mm		XG18M346250W	61,000
	4.6x35mm	5	XG18M546035W	30,000
	4.6x50mm		XG18M546050W	32,000
	4.6x75mm		XG18M546075W	35,000
	4.6x100mm		XG18M546100W	39,000
	4.6x150mm		XG18M546150W	45,000
	4.6x250mm		XG18M546250W	59,000

■ Guard column for conventional

product name	P/N	Price (yen)
Guard cartridge (4pieces) 4.0x10mm	XG18540010C	18,000
Guard cartridge Holder 4.0x10mm	HO00040010C	9,500
Guard cartridge Set 4.0x10mm ※	XG18540010W	14,000

※ Guard cartridge set = Holder (1piece) + cartridge 4.0x10mm (1piece)

Semi-micro columns

Packing name	Column size (I.D. x Length)	Particle size	P/N	Price (yen)
XG-C18M	2.0x35mm	3	XG18M320035W	32,000
	2.0x50mm		XG18M320050W	34,000
	2.0x75mm		XG18M320075W	37,000
	2.0x100mm		XG18M320100W	41,000
	2.0x150mm		XG18M320150W	47,000
	2.0x250mm		XG18M320250W	61,000
	2.0x35mm	5	XG18M520035W	30,000
	2.0x50mm		XG18M520050W	32,000
	2.0x75mm		XG18M520075W	35,000
	2.0x100mm		XG18M520100W	39,000
	2.0x150mm		XG18M520150W	45,000
	2.0x250mm		XG18M520250W	59,000

■ Guard column for Semi-micro

product name	P/N	Price (yen)
Guard cartridge (4pieces) 1.5x10mm	XG18515010C	20,000
Guard cartridge Holder 1.5x10mm	HO00015010C	15,000
Guard cartridge Set 1.5x10mm ※	XG18515010W	20,000

※ Guard cartridge set = Holder (1piece) + cartridge 1.5x10mm (1piece)

Prep columns

Packing name	Column size (I.D. x Length)	Particle size	P/N	Price (yen)
XG-C18M	10x150mm	5	XG18M5P1150W	140,000
	10x250mm		XG18M5P1250W	156,000
	20x150mm		XG18M5P2150W	245,000
	20x250mm		XG18M5P2250W	320,000

■ Prep guard column

Packing name	Column size (I.D. x Length)	Particle size	P/N	Price (yen)
XG-C18M	8.0x10mm (for I.D. 10mm)	5	XG18M580010W	20,000
	20x50mm		XG18M5P2050W	100,000

note:

Guard cartridge Set : When using it for the first time. It can be used immediately.

Guard cartridge (4pieces) : Cartridge for exchange

Guard cartridge Holder : If there is not a cartridge for exchange, I cannot use it.

Please contact the following, when you wish the size which has not been published to the above price list.

【Contact】

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