

# Develosil XG-C30

It is new series release from Develosil. Evolution of our product C30.  
Please realize it.

## 1. Specifications

### Silica base

This product uses a Silicagel with a few impurities

### The column which it is easy to use

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

### Stability

Develosil keeps high stability to undertake all processes in own company.

### To another one step ahead

As for this product, a pH range is wider than the conventional product.

### Characteristic of Develosil XG-C18

Surface area	300m <sup>2</sup> /g
Pore diameter	14nm
Pore volume	1.10mL/g
Ligand	Triacontyl (Mono)
Carbon content	19.50%
Endcapping	○
pH range	pH1.5-8

## 2. Product inspection of Develosil XG-C30

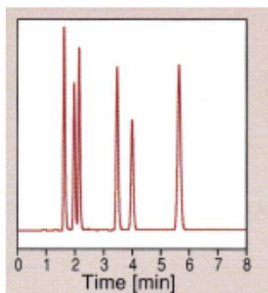
Develosil XG-C30 performs product inspection of five items.

I check the performance evaluation of each item and the unevenness of the gel lot.

### 1. Hydrogen bonding capacity • Hydrophobicity • Surface polarity

#### Conditions

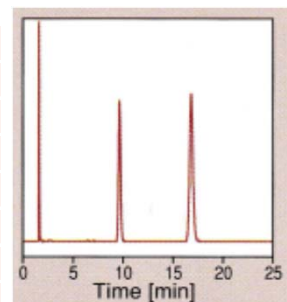
Column	Develosil XG-C30M (5μm)
Size	4.6x150mm
Mobile Phase	MeOH / Water = 70/ 30
Flow rate	1.0 ml / min
Temperature	40°C
Sample	1. Uracil 2. Caffeine 3. Phenol 4. Methyl benzoate 5. Benzene 6. Toluene



### 2. Steric selectivity

#### Conditions

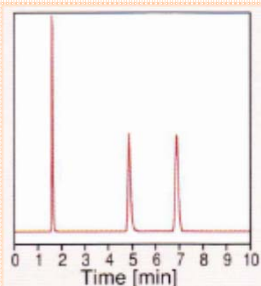
Column	Develosil XG-C30M (5μm)
Size	4.6x150mm
Mobile Phase	MeOH / Water = 80/ 20
Flow rate	1.0 ml / min
Temperature	40°C
Sample	1. Uracil 2. o-Terphenyl 3. Triphenylene



### 3. Basic compounds

#### Conditions

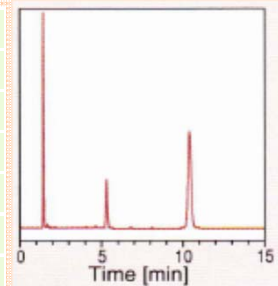
Column	Develosil XG-C30M (5μm)
Size	4.6x150mm
Mobile Phase	ACN/50mM Ammonium Acetate (pH7) =20/80
Flow rate	1.0 ml / min
Temperature	40°C
Sample	1. Uracil 2. Pyridine 3. Phenol



### 4. Coordinate compounds

#### Conditions

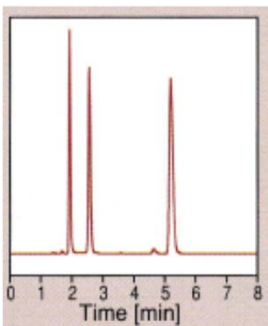
Column	Develosil XG-C30M (5μm)
Size	4.6x150mm
Mobile Phase	ACN / 0.2% Phosphoric acid=60 /40
Flow rate	1.0 ml / min
Temperature	40°C
Sample	1. Uracil 2. Toluene 3. Quinizarine



### 5. Acidic compounds

#### Conditions

Column	Develosil XG-C30M (5μm)
Size	4.6x150mm
Mobile Phase	ACN / 0.2% Phosphoric acid=2/98
Flow rate	1.0 ml / min
Temperature	40°C
Sample	1. Formic acid 2. Acetic acid 3. Propionic acid



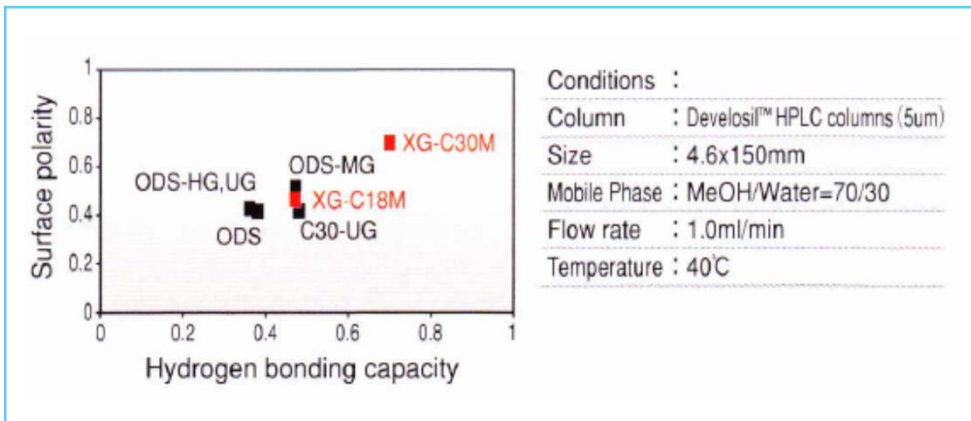
Each properties of matter are calculated by the following methods.

Hydrogen bonding capacity $\alpha=k'(\text{Caffeine}) / k'(\text{Phenol})$	Basic compounds $\alpha=k'(\text{Pyridine}) / k'(\text{Phenol})$
Hydrophobicity $\alpha=k'(\text{Toluene}) / k'(\text{Benzene})$	Coordinate compounds $\alpha=k'(\text{Quinizarine}) / k'(\text{Toluene})$
Surface polarity $\alpha=k'(\text{Methyl Benzoate}) / k'(\text{Toluene})$	Acidic compounds $\alpha=k'(\text{Formic acid}) / k'(\text{Acetic acid})$
Steric selectivity $\alpha=k'(\text{Triphenylene}) / k'(\text{o-Terphenyl})$	

We ship only the filler which cleared severe inspection of above five items as a product.

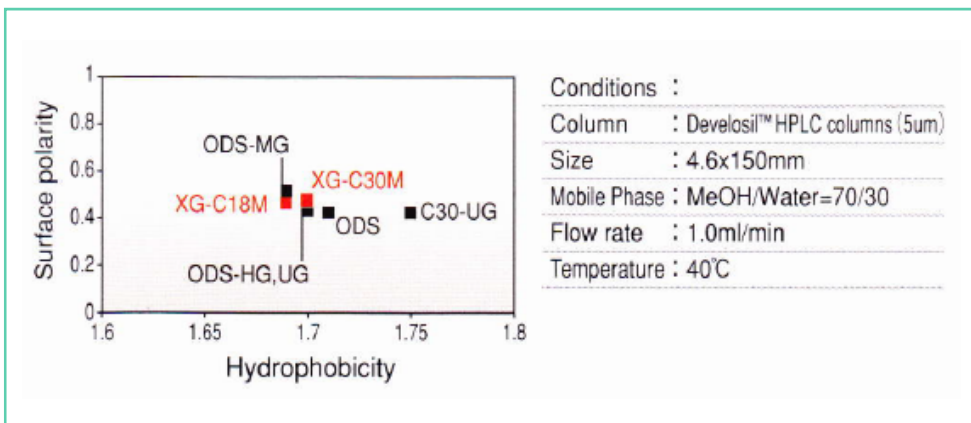
### 3. Positioning of Develosil XG-C30

■ Fig.1 Hydrogen bonding capacity – Surface polarity

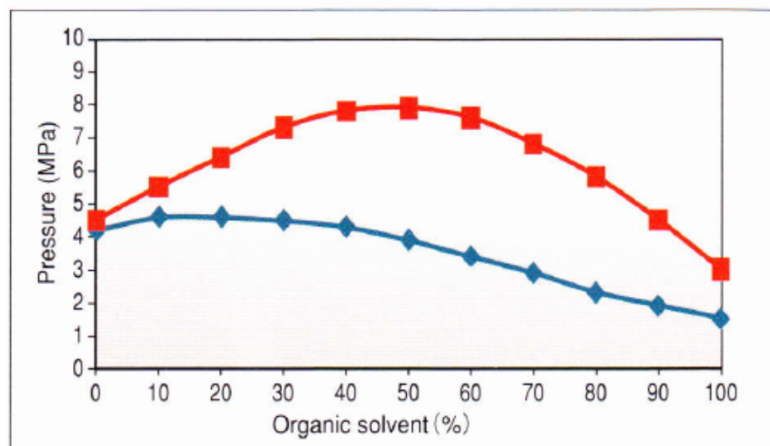


Develosil XG-C30M has a strong hydrogen bonding capacity. And show Develosil ODS-HG and UG equal hydrophobicity.

■ Fig.2 Hydrophobicity – Surface polarity



### 4. Column pressure of Develosil XG-C30



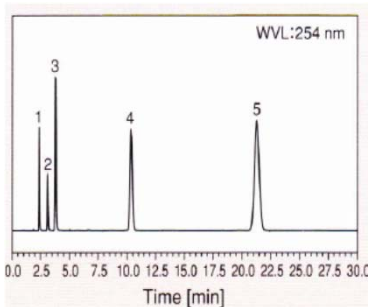
Conditions:

- Column : XG-C30M (5um)
- Size : 4.6x150mm
- Mobile Phase : Acetonitrile/Water (—)
- MeOH/Water (—)
- Flow rate : 1.0ml/min
- Temperature : 40°C

A shows low pressure in the series. Because column pressure is low, this column can change mobile phase widely.

### 5. Analysis example

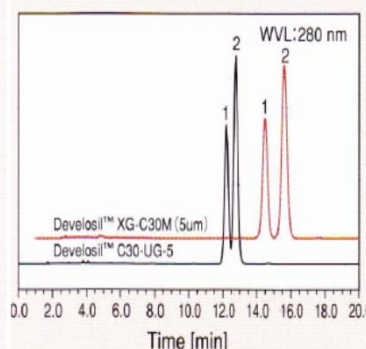
#### 1. Analysis of Pyridine



Conditions :

- Column : Develosil™ XG-C30M (5um)
- Size : 4.6x150mm
- Mobile Phase : Acetonitrile/0.1% Triethylamine=20/80
- Flow rate : 1.0ml/min
- Temperature : 40°C
- Detection : UV254nm
- Sample : 1.3-Aminopyridine (0.28mg/ml)
- 2.2-Aminopyridine (1.0mg/ml)
- 3.Pyridine (0.5ul/ml) / 4.2-Ethylpyridine (1.0ul/ml)
- 5.2-Propylpyridine (2.5ul/ml)
- Injection volume : 2.0ul

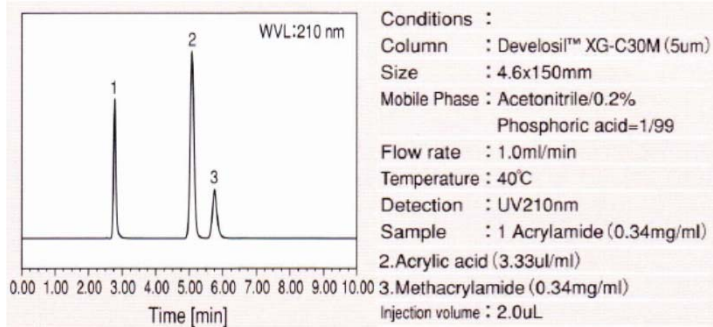
#### 2. Analysis of Vitamin D2 and D3



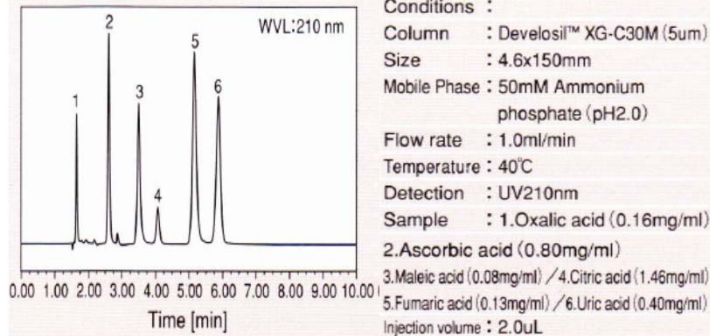
Conditions :

- Column : Develosil™ XG-C30M (5um)
- Develosil™ C30-UG-5
- Size : 4.6x150mm
- Mobile Phase : Acetonitrile
- Flow rate : 1.0ml/min
- Temperature : 40°C
- Detection : UV280nm
- Sample : 1.Vitamin D2 (1.34mg/ml)
- 2.Vitamin D3 (1.33ml/ml)
- Injection volume : 2.0ul

### 3. Analysis of Acylamide, Acrylic acid and Methacrylamide



### 4. Analysis of Acidic compounds



## Price List

### Conventional columns

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

Packing name	Column size (I.D. x Length)	Particle size	P/N	Price (yen)
XG-C30M	4.6x35mm	3	XG30M346035W	42,000
	4.6x50mm		XG30M346050W	44,000
	4.6x75mm		XG30M346075W	47,000
	4.6x100mm		XG30M346100W	52,000
	4.6x150mm		XG30M346150W	62,000
	4.6x250mm		XG30M346250W	72,000
	4.6x35mm	5	XG30M546035W	37,000
	4.6x50mm		XG30M546050W	40,000
	4.6x75mm		XG30M546075W	42,000
	4.6x100mm		XG30M546100W	47,000
	4.6x150mm		XG30M546150W	57,000
	4.6x250mm		XG30M546250W	67,000

#### Guard column for conventional

product name	P/N	Price (yen)
Guard cartridge (4pieces) 4.0x10mm	XG30540010C	18,000
Guard cartridge Holder 4.0x10mm	HO00040010C	9,500
Guard cartridge Set 4.0x10mm ※	XG30540010W	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-C30M	2.0x35mm	3	XG30M320035W	42,000
	2.0x50mm		XG30M320050W	44,000
	2.0x75mm		XG30M320075W	47,000
	2.0x100mm		XG30M320100W	52,000
	2.0x150mm		XG30M320150W	62,000
	2.0x250mm		XG30M320250W	72,000
	2.0x35mm	5	XG30M520035W	37,000
	2.0x50mm		XG30M520050W	40,000
	2.0x75mm		XG30M520075W	42,000
	2.0x100mm		XG30M520100W	47,000
	2.0x150mm		XG30M520150W	57,000
	2.0x250mm		XG30M520250W	67,000

#### Guard column for Semi-micro

product name	P/N	Price (yen)
Guard cartridge (4pieces) 1.5x10mm	XG30515010C	20,000
Guard cartridge Holder 1.5x10mm	HO00015010C	15,000
Guard cartridge Set 1.5x10mm ※	XG30515010W	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-C30M	10x150mm	5	XG30M5P1150W	150,000
	10x250mm		XG30M5P1250W	165,000
	20x150mm		XG30M5P2150W	250,000
	20x250mm		XG30M5P2250W	325,000

#### Prep guard column

Packing name	Column size (I.D. x Length)	Particle size	P/N	Price (yen)
XG-C30M	8.0x10mm (for I.D. 10mm)	5	XG30M580010W	20,000
	20x50mm		XG30M5P2050W	115,000

**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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