

# << Develosil Column >>

## TEST REPORT

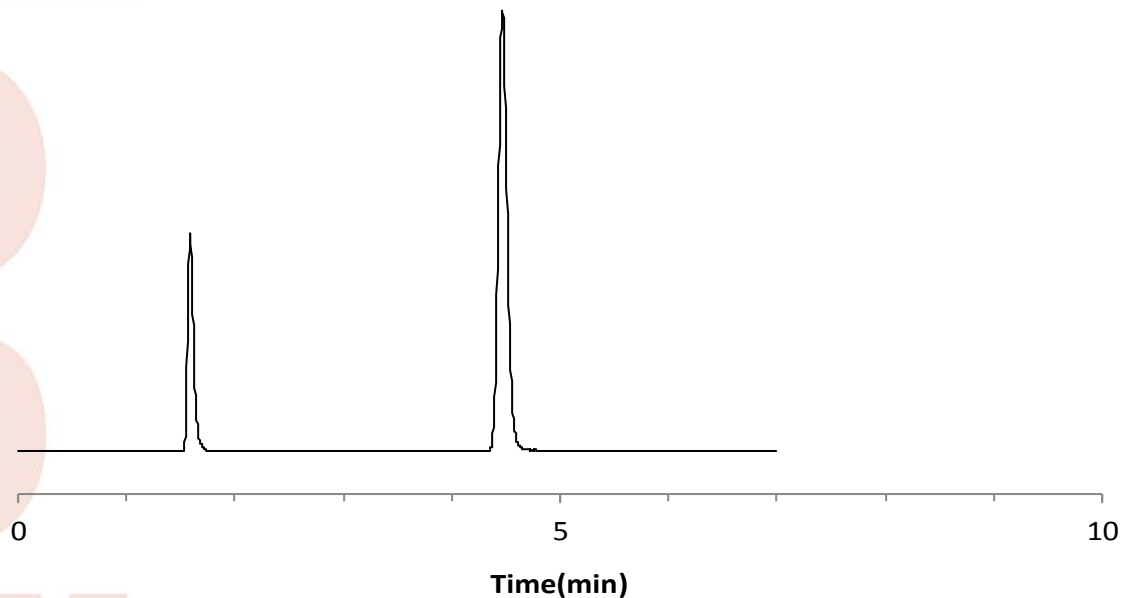
Packings	Develosil	C30-UG, 3 μm	Batch No.	270219
Column size	Inner diameter	2.0 mm	Length	150 mm
End fitting type	NW			
Mfg. No.	05022084C-RP			

### Operating conditions

Mobile phase	:	Acetonitrile:water=70:30
Flow rate	:	0.2 mL/min
Column temp.	:	30 °C
Pressure	:	7.5 MPa
Detection	:	UV 254 nm

### Sample (Order of elution)

- 1 Uracil
- 2 Naphthalene



Theoretical plate	(Last peak)	$5.54 \times (t_R/W_{0.5})^2 = 14571$
Asymmetry factor	(10% Height of Last peak)	= 1.14

Mobile phase at shipment: Acetonitrile:water=70:30

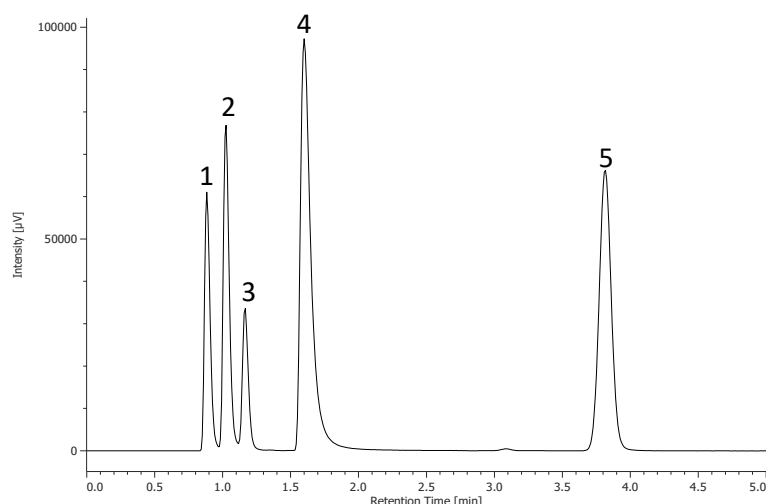
# Certificate of Analysis

Develosil<sup>®</sup> C30-UG, 3 $\mu$ m Batch# 270219

## Analytical Results for Develosil<sup>®</sup> C30-UG, 3 $\mu$ m

Analysis of Unbonded Silica Gel		Result
Median Particle Size	[ $\mu$ m]	3.19
Surface Area	[m <sup>2</sup> /g]	306
Pore Volume	[mL/g]	1.11
Average Pore Diameter	[nm]	12.5
Analysis of Bonded Silica Gel		
Total Carbon Content	[%]	17.9

## Chromatographic Results for Develosil<sup>®</sup> C30-UG, 3 $\mu$ m



### Sample:

1. Uracil
2. Caffeine
3. Phenol
4. Amitriptyline
5. Naphthalene

### Analytical Conditions;

Column: Develosil C30-UG, 3 $\mu$ m (4.6x75mm)  
 Mobile phase: Methanol/25mM Ammonium Phosphate, pH3.0=70/30  
 Flow rate: 1.0mL/min  
 Temperature: 40°C  
 Detection: UV254nm  
 Sample: 1.Uracil 2.Caffeine 3.Phenol 4.Amitriptyline 5.Naphthalene  
 Injection volume: 0.6 $\mu$ L

<i>k</i> Naphthalene	Result
Relative retention	2.94
<i>k</i> (Caffeine/Naphthalene)	0.05
<i>k</i> (Phenol/Naphthalene)	0.10
<i>k</i> (Amitriptyline/naphthalene)	0.24
<i>k</i> (Caffeine/Phenole)	0.52
Tailing Factor	
Amitriptyline	1.90

Approved Ikuo Yamamoto

Date: 2019.03.13