

# << Develosil Column >>

## TEST REPORT

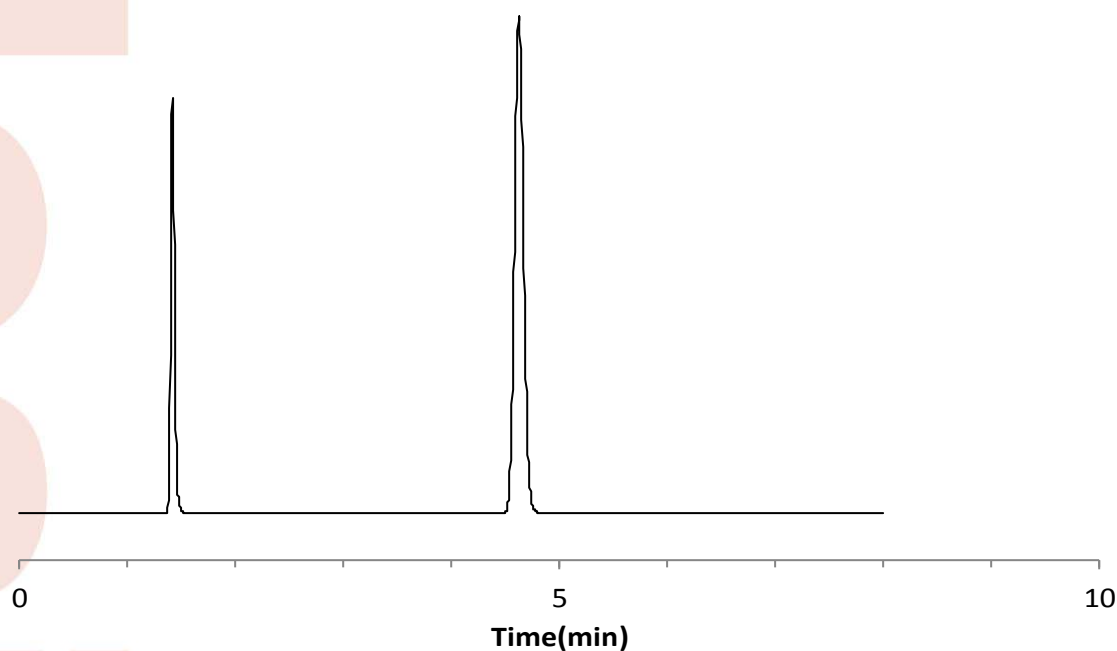
Packings	Develosil	C30-UG, 5 μm	Batch No.	1Y050314
Column size	Inner diameter	4.6 mm	Length	150 mm
End fitting type	NW			
Mfg. No.	07032060C-SH			

### Operating conditions

Mobile phase	:	Acetonitrile:water=70:30
Flow rate	:	1.0 mL/min
Column temp.	:	30 °C
Pressure	:	3.7 MPa
Detection	:	UV 254 nm

### Sample (Order of elution)

- 1 Uracil
- 2 Naphthalene



Theoretical plate	(Last peak)	$5.54 \times (t_R/W_{0.5})^2 = 14182$
Asymmetry factor	(10% Height of Last peak)	= 1.04

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

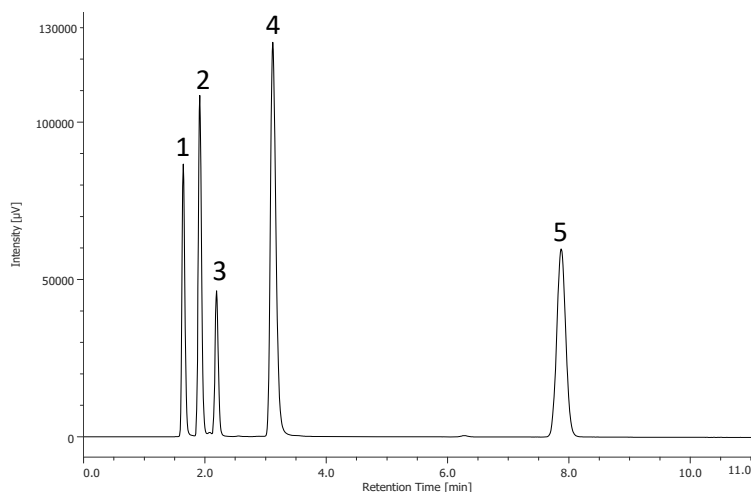
# Certificate of Analysis

Develosil<sup>®</sup> C30-UG, 5 $\mu$ m Batch# 1Y050314

## Analytical Results for Develosil<sup>®</sup> C30-UG, 5 $\mu$ m

Analysis of Unbonded Silica Gel		Result
Median Particle Size	[ $\mu$ m]	5.17
Surface Area	[m <sup>2</sup> /g]	298
Pore Volume	[mL/g]	1.11
Average Pore Diameter	[nm]	13.3
Analysis of Bonded Silica Gel		
Total Carbon Content	[%]	20.7

## Chromatographic Results for Develosil<sup>®</sup> C30-UG, 5 $\mu$ m



### Sample:

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

### Analytical Conditions;

Column: Develosil C30-UG, 5 $\mu$ m (4.6x150mm)  
 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: 1.0 $\mu$ L

<i>k</i> Naphthalene	Result
	6.24
Relative retention	
<i>k</i> (Caffeine/Naphthalene)	0.04
<i>k</i> (Phenol/Naphthalene)	0.09
<i>k</i> (Amitriptyline/Naphthalene)	0.24
<i>k</i> (Caffeine/Phenol)	0.51
Tailing Factor	
Amitriptyline	1.32

Approved Ikuo Yamamoto

Date: 2019.09.24