

# << Develosil Column >>

## TEST REPORT

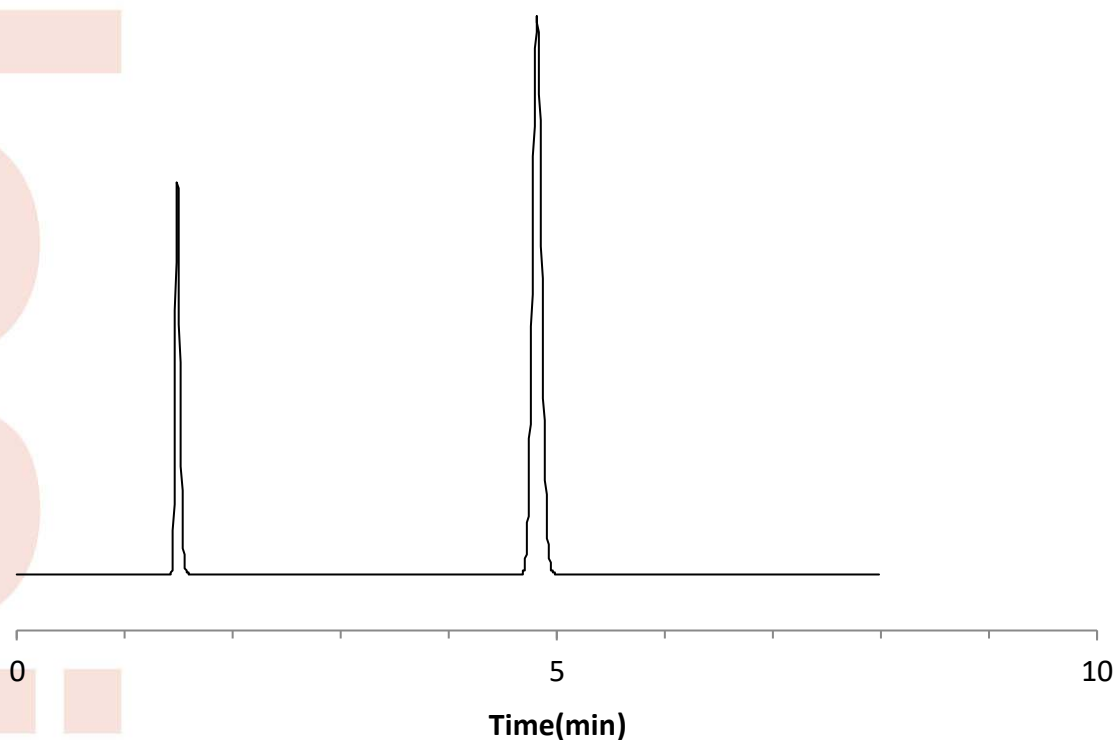
Packings	Develosil	RPAQUEOUS	Batch No.	140319
Column size	Inner diameter	4.6 mm	Length	150 mm
End fitting type	NW			
Mfg. No.	05121968C-UM			

### 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)	$5.54 \times (t_R/W_{0.5})^2 = 13891$
Asymmetry factor	(10% Height of Last peak)	= 1.04
Mobile phase at shipment:		Acetonitrile:water=70:30

# Certificate of Analysis



Develosil<sup>®</sup> RPAQUEOUS Batch# 140319

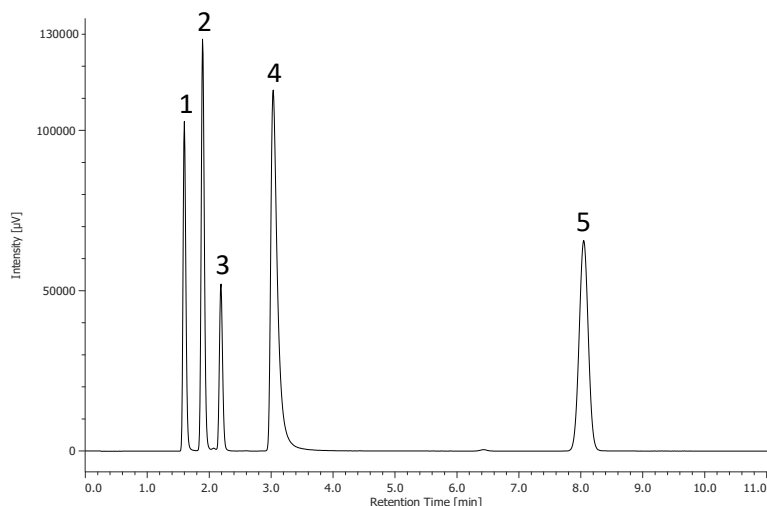
## Analytical Results for Develosil<sup>®</sup> RPAQUEOUS

Analysis of Unbonded Silica Gel		Result
Median Particle Size	[ $\mu\text{m}$ ]	5.16
Surface Area	[ $\text{m}^2/\text{g}$ ]	300
Pore Volume	[ $\text{mL}/\text{g}$ ]	1.07
Average Pore Diameter	[ $\text{nm}$ ]	12.1

Analysis of Bonded Silica Gel		Result
Total Carbon Content	[%]	18.4

## Chromatographic Results for Develosil<sup>®</sup> RPAQUEOUS



### Sample:

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

### Analytical Conditions;

Column: Develosil RPAQUEOUS (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 $\mu\text{L}$

	Result
<i>k</i> Naphthalene	6.44
Relative retention	
<i>k</i> (Caffeine/Naphthalene)	0.05
<i>k</i> (Phenol/Naphthalene)	0.09
<i>k</i> (Amitriptyline/naphthalene)	0.22
<i>k</i> (Caffeine/Phenol)	0.49
Tailing Factor	
Amitriptyline	1.89

Approved Ikuo Yamamoto

Date: 2019.04.01