

## &lt;&lt; Develosil Column &gt;&gt;

## TEST REPORT

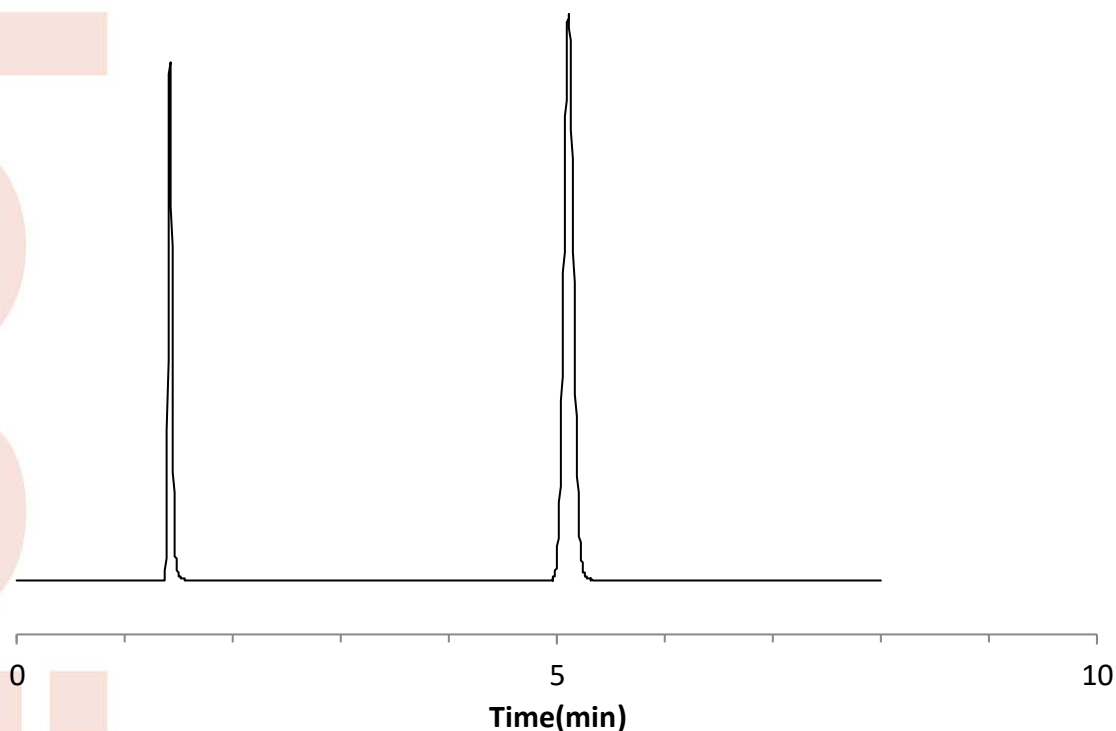
Packings	Develosil	ODS-UG, 5 μm	Batch No.	301018
Column size	Inner diameter	4.6 mm	Length	150 mm
End fitting type	NW			
Mfg. No.	25111965C-HF			

## Operating conditions

Mobile phase	:	Acetonitrile:water=70:30
Flow rate	:	1.0 mL/min
Column temp.	:	30 °C
Pressure	:	4.3 MPa
Detection	:	UV 254 nm

## Sample (Order of elution)

1	Uracil
2	Naphthalene



Theoretical plate	(Last peak)	$5.54 \times (t_R/W_{0.5})^2 = 13872$
Asymmetry factor	(10% Height of Last peak)	= 1.05

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

# Certificate of Analysis

Develosil ODS-UG, 5um

Batch # 301018

## Analytical Results for Develosil ODS-UG, 5um

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
Median Pore Diameter [ $\text{nm}$ ]	12.1

※Median Particle Size was measured using Coulter Multisizer III, and Surface Area, Pore Volume and Median Pore Diameter were measured using Coulter SA3100.

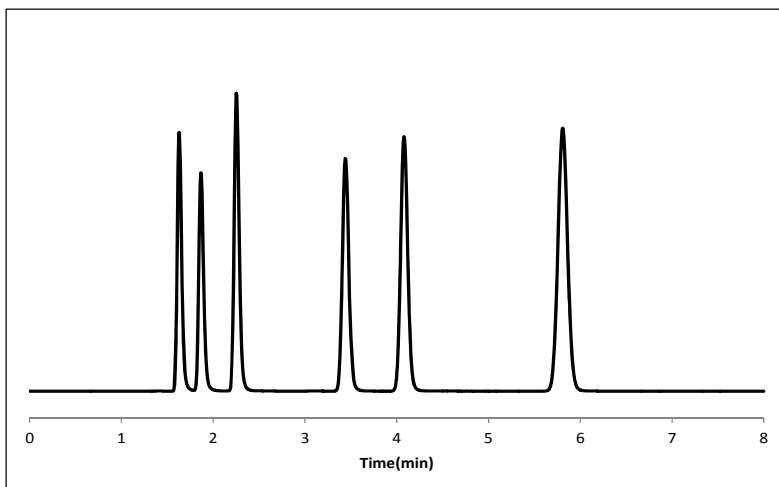
## Analysis of Develosil ODS-UG, 5um

Total carbon [%]	18.1
------------------	------

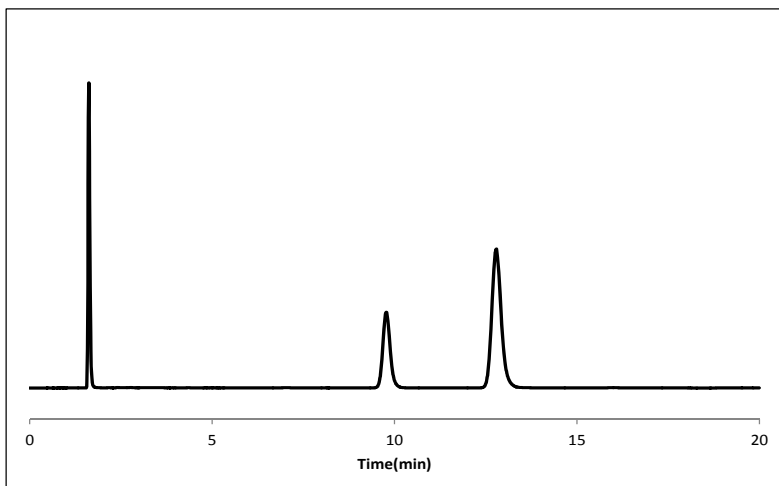
## Chromatographic Results for Develosil ODS-UG, 5um

### Separation Factor

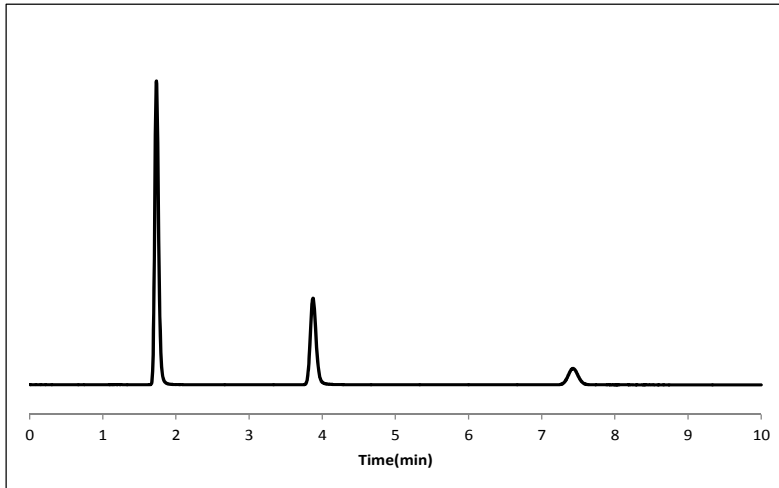
$\alpha$ (Caffeine/Phenol)	0.39
$\alpha$ (Toluene/Benzene)	1.71
$\alpha$ (Methyl benzoate/Toluene)	0.43
$\alpha$ (Triphenylene/o-Terphenyl)	1.37
$\alpha$ (Pyridine/Phenol)	0.38
$\alpha$ (Oxine-Copper/Caffeine)	0.15



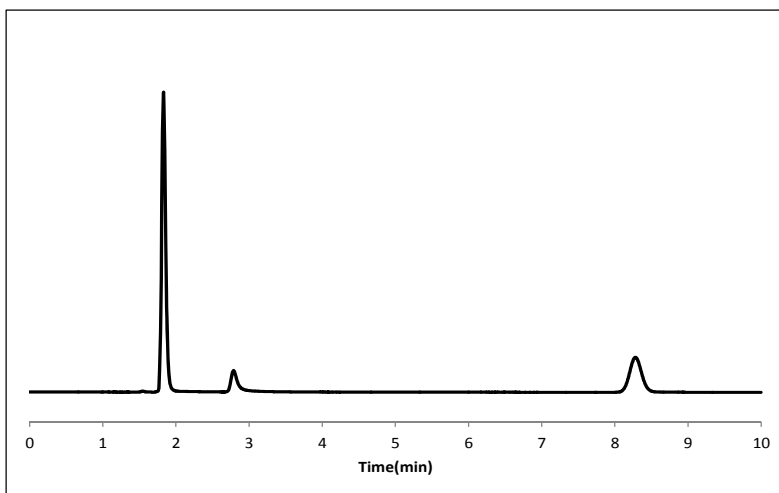
Column size :150x4.6mm I.D.  
 Mobile Phase :CH<sub>3</sub>OH/Water(70/30)  
 Flow rate :1.0ml/min  
 Detection :UV 254nm  
 Temperature :40°C  
 Sample 1:Uracil  
 2:Caffeine  
 3:Phenol  
 4:Methyl benzoate  
 5:Benzene  
 6:Toluene



Column size :150x4.6mm I.D.  
 Mobile Phase :CH<sub>3</sub>OH/Water(80/20)  
 Flow rate :1.0ml/min  
 Detection :UV 254nm  
 Temperature :40°C  
 Sample 1:Uracil  
 2:o-Terphenyl  
 3:Triphenylene



Column size :150x4.6mm I.D.  
Mobile Phase :CH<sub>3</sub>OH/Buffer(30/70)  
Flow rate :1.0ml/min  
Detection :UV 254nm  
Temperature :40°C  
Sample 1:Uracil  
2:Pyridine  
3:Phenol  
Buffer: 25mM Ammonium Phosphate (pH7.0)



Column size :150x4.6mm I.D.  
Mobile Phase :CH<sub>3</sub>OH/Buffer(20/80)  
Flow rate :1.0ml/min  
Detection :UV 254nm  
Temperature :40°C  
Sample 1:Uracil  
2:Oxine-Copper  
3:Caffeine  
Buffer: 25mM Ammonium Phosphate (pH2.0)