

# << Develosil Column >>

## TEST REPORT

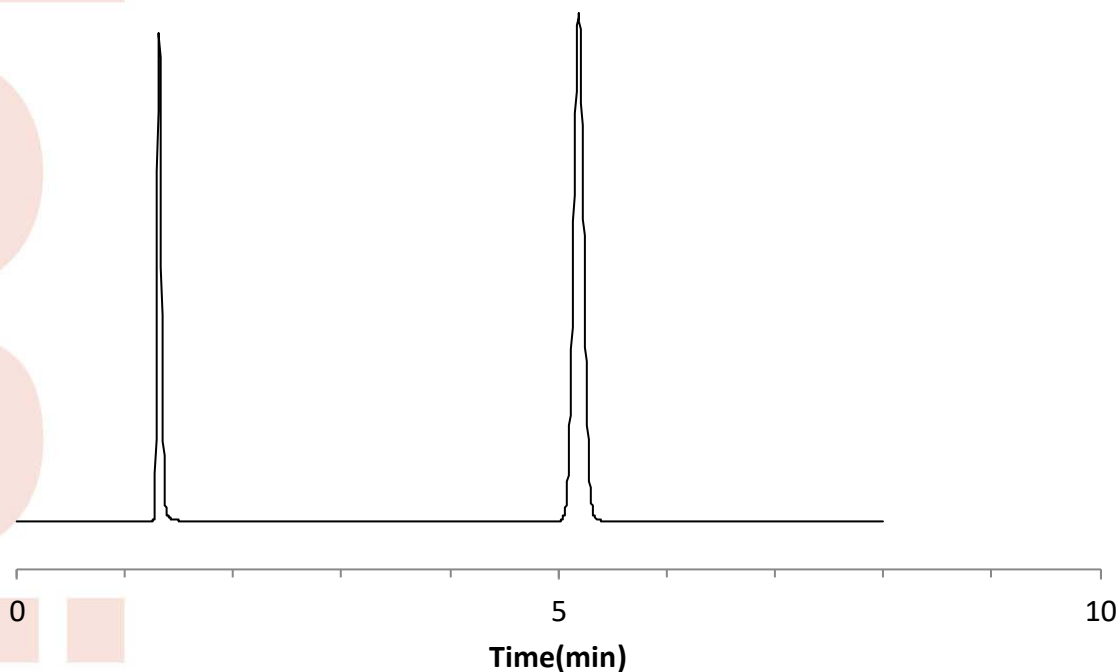
Packings	Develosil	ODS, 5 μm	Batch No.	110416
Column size	Inner diameter	4.6 mm	Length	150 mm
End fitting type	NW			
Mfg. No.	16101964C-KZ			

### Operating conditions

Mobile phase	:	Acetonitrile:water=70:30
Flow rate	:	1.0 mL/min
Column temp.	:	30 °C
Pressure	:	4.4 MPa
Detection	:	UV 254 nm

### Sample (Order of elution)

1	Uracil
2	Naphthalene



Theoretical plate	(Last peak)	$5.54 \times (t_R/W_{0.5})^2 = 13660$
Asymmetry factor	(10% Height of Last peak)	= 0.98
Mobile phase at shipment:	Acetonitrile:water=70:30	

# Certificate of Analysis

Develosil ODS-5

Batch # 110416

## Analytical Results for Develosil ODS-5

Analysis of Unbonded Silica Gel		Result
Median Particle Size	[ $\mu\text{m}$ ]	<b>5.09</b>
Surface Area	[ $\text{m}^2/\text{g}$ ]	<b>351</b>
Pore Volume	[ $\text{ml}/\text{g}$ ]	<b>1.06</b>
Median Pore Diameter	[ $\text{nm}$ ]	<b>10.9</b>

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

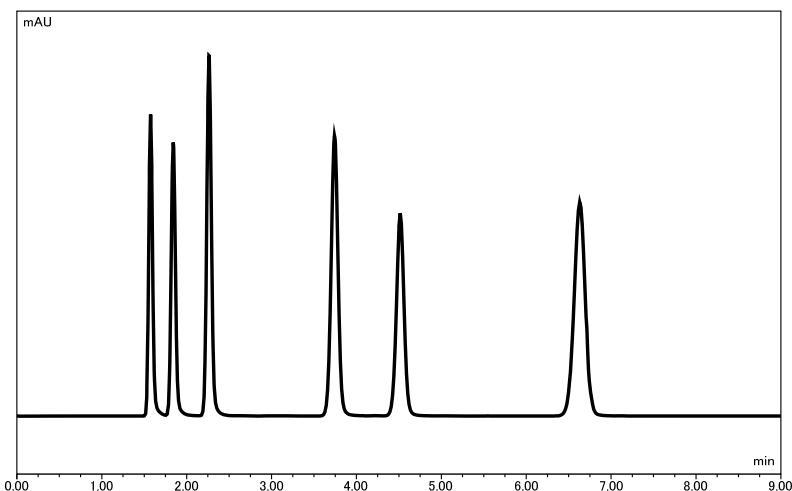
## Analysis of Develosil ODS-5

Total carbon	[%]	<b>20.7</b>
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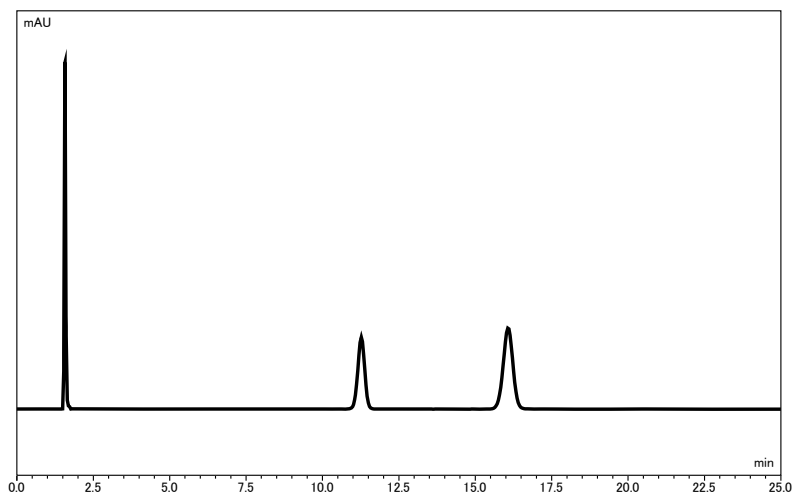
## Chromatographic Results for Develosil ODS-5

### Separation Factor

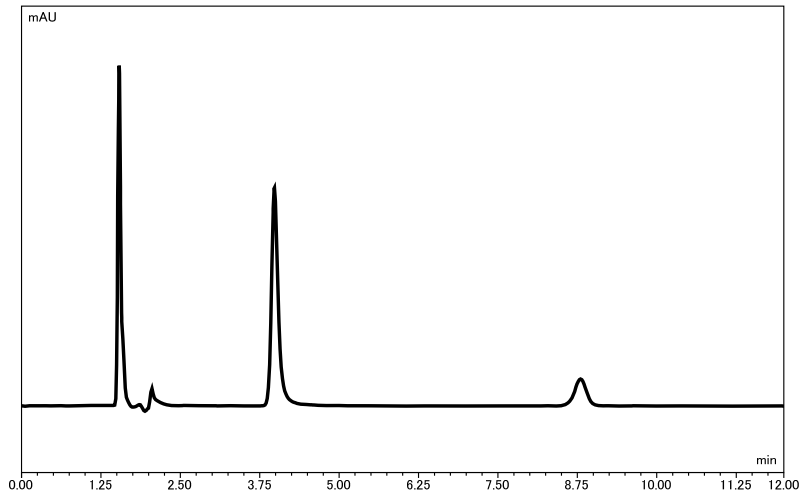
$\alpha$ (Caffeine/Phenol)	<b>0.38</b>
$\alpha$ (Toluene/Benzene)	<b>1.72</b>
$\alpha$ (Methyl benzoate/Toluene)	<b>0.43</b>
$\alpha$ (Triphenylene/O-Terphenyl)	<b>1.50</b>
$\alpha$ (Pyridine/Phenol)	<b>0.34</b>



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-Terphenylene  
 3:Triphenylene



Column size :150x4.6mm I.D.  
Mobile Phase :CH<sub>3</sub>CN/Buffer(20/80)  
Flow rate :1.0ml/min  
Detection :UV 254nm  
Temperature :40°C  
Sample 1:Uracil  
2:Pyridine  
3:Phenol  
Buffer: 25mM Ammonium Phosphate (pH7.0)