

# << Develosil Column >>

## TEST REPORT

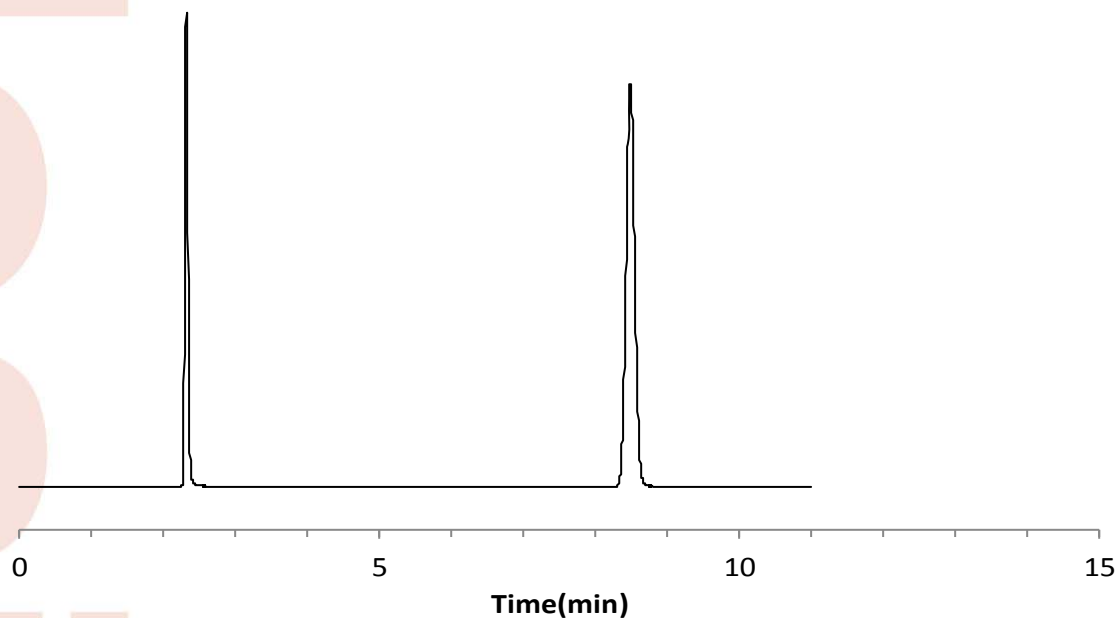
|                  |                |            |           |        |
|------------------|----------------|------------|-----------|--------|
| Packings         | Develosil      | ODS-UG,5μm | Batch No. | 301018 |
| Column size      | Inner diameter | 4.6 mm     | Length    | 250 mm |
| End fitting type | NW             |            |           |        |
| Mfg. No.         | 13091993C-VC   |            |           |        |

### Operating conditions

|              |   |                          |
|--------------|---|--------------------------|
| Mobile phase | : | Acetonitrile:water=70:30 |
| Flow rate    | : | 1.0 mL/min               |
| Column temp. | : | 30 °C                    |
| Pressure     | : | 6.9 MPa                  |
| Detection    | : | UV 254 nm                |

### Sample (Order of elution)

|   |             |
|---|-------------|
| 1 | Uracil      |
| 2 | Naphthalene |



Theoretical plate  
Asymmetry factor

(Last peak)  $5.54 \times (t_R/W_{0.5})^2 = 23571$   
(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.

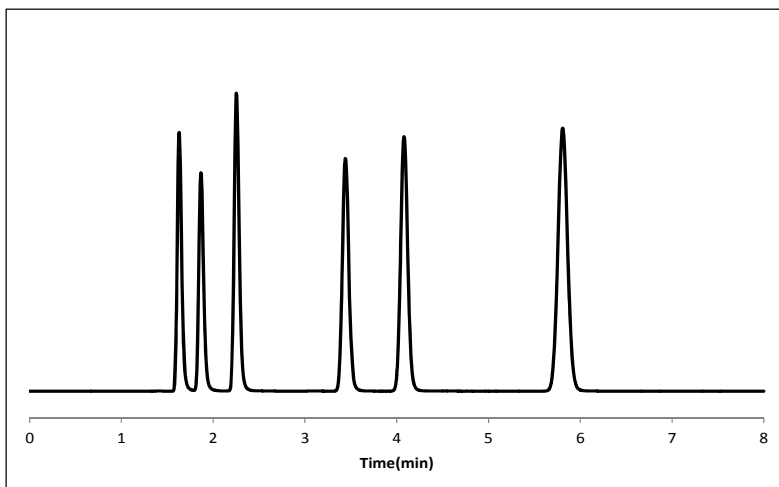
## Analysis of Develosil ODS-UG, 5um

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

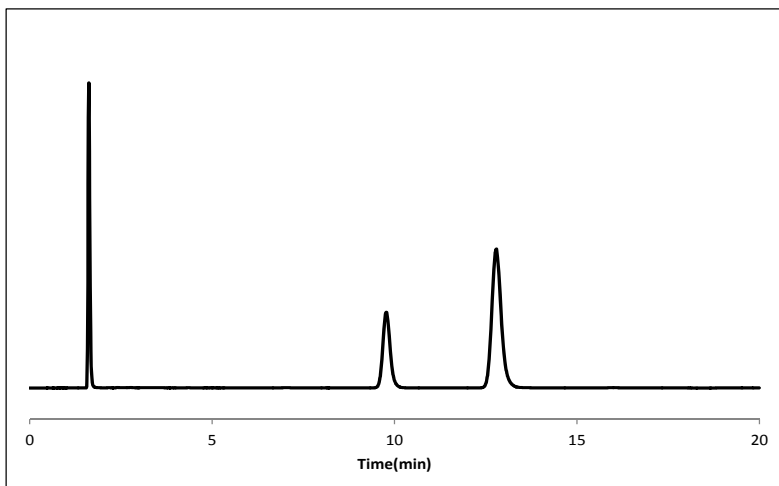
## Chromatographic Results for Develosil ODS-UG, 5um

### Separation Factor

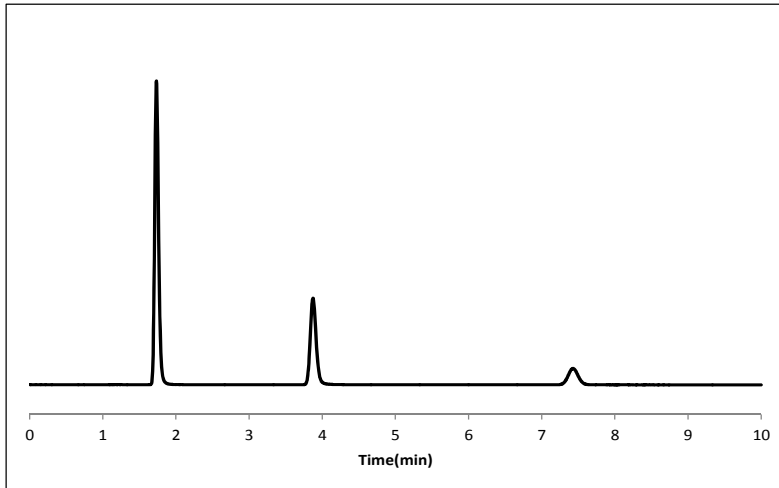
|                                     |      |
|-------------------------------------|------|
| $\alpha$ (Caffeine/Phenol)          | 0.39 |
| $\alpha$ (Toluene/Benzene)          | 1.71 |
| $\alpha$ (Methyl benzoate/Toluene)  | 0.43 |
| $\alpha$ (Triphenylene/o-Terphenyl) | 1.37 |
| $\alpha$ (Pyridine/Phenol)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



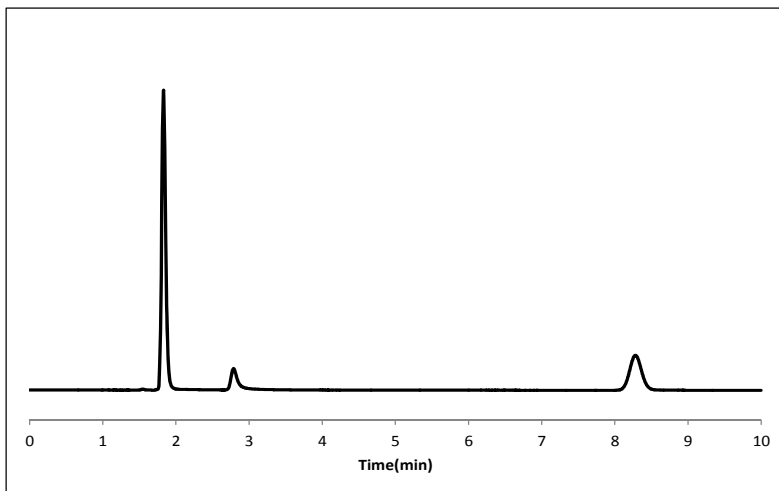
Column size :150x4.6mm I.D.  
 Mobile Phase :CH<sub>3</sub>OH/Water(70/30)  
 Flow rate :1.0ml/min  
 Detection :UV 254nm  
 Temperature :40°C  
 Sample 1:Uracil  
 2:Caffeine  
 3:Phenol  
 4:Methyl benzoate  
 5:Benzene  
 6:Toluene



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)