

# << Develosil Column >>

## TEST REPORT

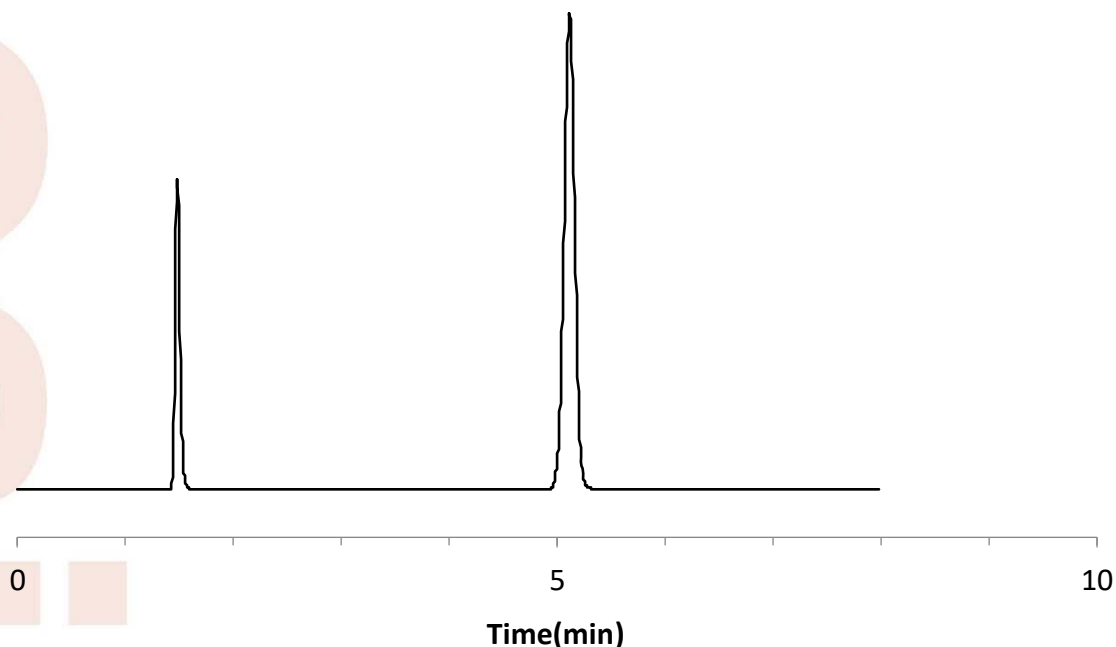
|                  |                |              |           |          |
|------------------|----------------|--------------|-----------|----------|
| Packings         | Develosil      | ODS-UG, 5 μm | Batch No. | 1Y270120 |
| Column size      | Inner diameter | 4.6 mm       | Length    | 150 mm   |
| End fitting type | NW             |              |           |          |
| Mfg. No.         | 16072070C-WY   |              |           |          |

### 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)               | $5.54 \times (t_R/W_{0.5})^2 = 12792$ |
| Asymmetry factor  | (10% Height of Last peak) | = 0.98                                |

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

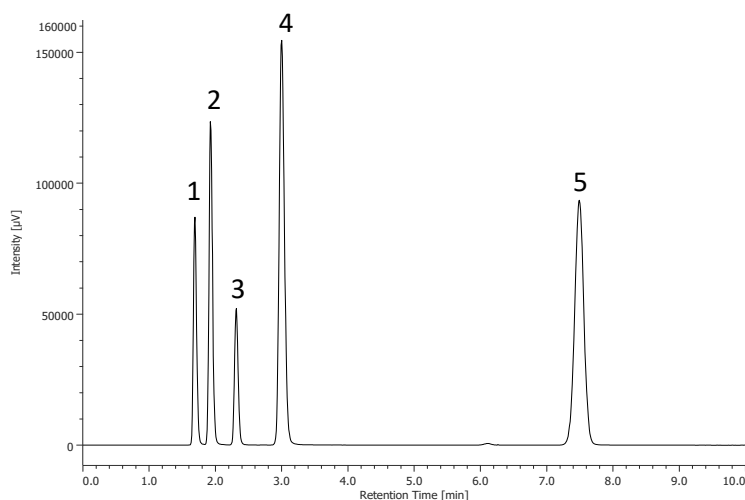
# Certificate of Analysis

Develosil® ODS-UG, 5µm Batch# 1Y270120

## Analytical Results for Develosil® ODS-UG, 5µm

|                                 |                     |        |
|---------------------------------|---------------------|--------|
| Analysis of Unbonded Silica Gel |                     | Result |
| Median Particle Size            | [µm]                | 4.95   |
| Surface Area                    | [m <sup>2</sup> /g] | 296    |
| Pore Volume                     | [mL/g]              | 1.06   |
| Average Pore Diameter           | [nm]                | 12.3   |
| Analysis of Bonded Silica Gel   |                     |        |
| Total Carbon Content            | [%]                 | 16.1   |

## Chromatographic Results for Develosil® ODS-UG, 5µm



### Sample:

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

### Analytical Conditions;

Column: Develosil ODS-UG, 5µm (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: 1.0µL

|                                      |        |
|--------------------------------------|--------|
| <i>k</i> Naphthalene                 | Result |
| Relative retention                   | 5.80   |
| <i>k</i> (Caffeine/Naphthalene)      | 0.04   |
| <i>k</i> (Phenol/Naphthalene)        | 0.11   |
| <i>k</i> (Amitriptyline/Naphthalene) | 0.23   |
| <i>k</i> (Caffeine/Phenol)           | 0.39   |
| Tailing Factor                       |        |
| Amitriptyline                        | 1.15   |

Approved Ikuo Yamamoto

Date: 2020.02.06