

<< Develosil Column >>

TEST REPORT

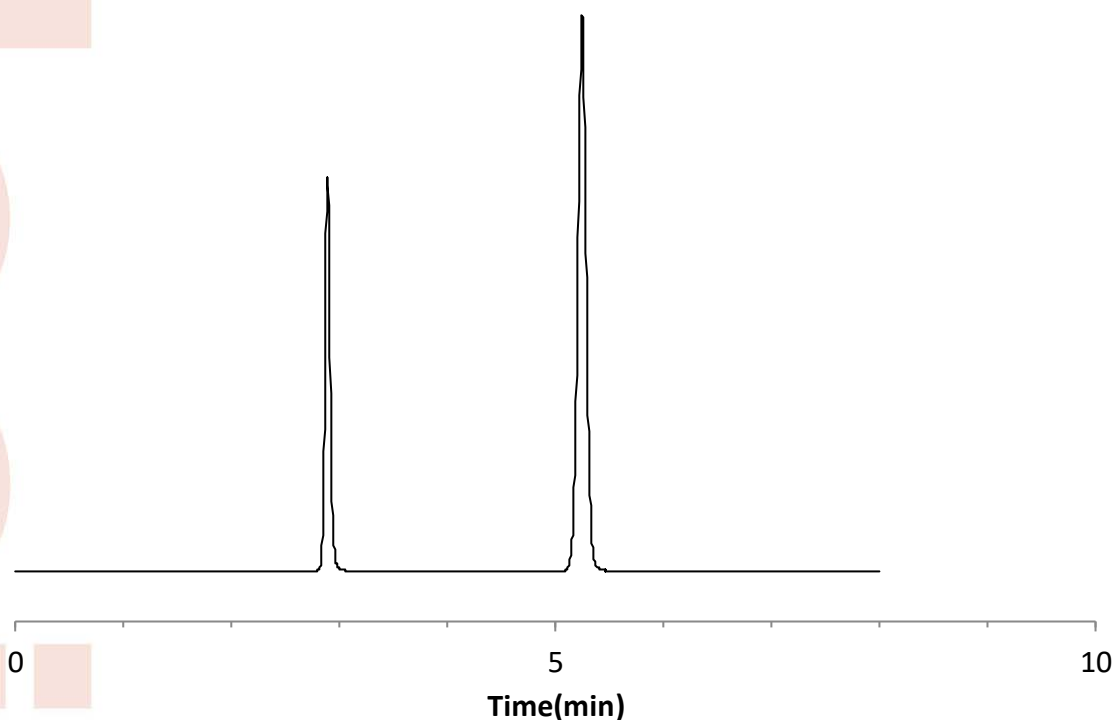
Packings	Develosil	TMS-UG, 5 μm	Batch No.	140915
Column size	Inner diameter	4.6 mm	Length	250 mm
End fitting type	NW			
Mfg. No.	06121984C-FF			

Operating conditions

Mobile phase	:	Acetonitrile:water=70:30
Flow rate	:	1.0 mL/min
Column temp.	:	30 °C
Pressure	:	4.8 MPa
Detection	:	UV 254 nm

Sample (Order of elution)

1	Uracil
2	Naphthalene



Theoretical plate	(Last peak)	$5.54 \times (t_R/W_{0.5})^2 = 21270$
Asymmetry factor	(10% Height of Last peak)	= 0.99
Mobile phase at shipment:	Acetonitrile:water=70:30	

Certificate of Analysis

Develosil TMS-UG-5

Batch # 140915

Analytical Results for Develosil TMS-UG-5

Analysis of Unbonded Silica Gel	Result
Median Particle Size [μm]	5.17
Surface Area [m^2/g]	307
Pore Volume [ml/g]	1.11
Median Pore Diameter [nm]	13.58

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

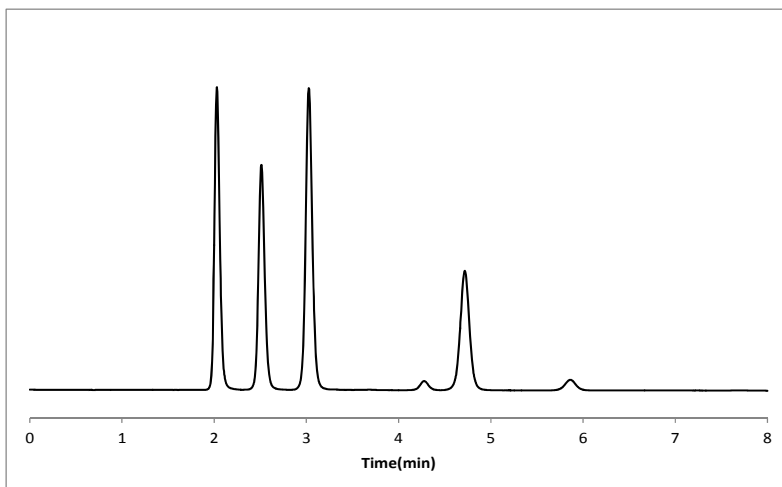
Analysis of Develosil TMS-UG-5

Total carbon [%]	4.45
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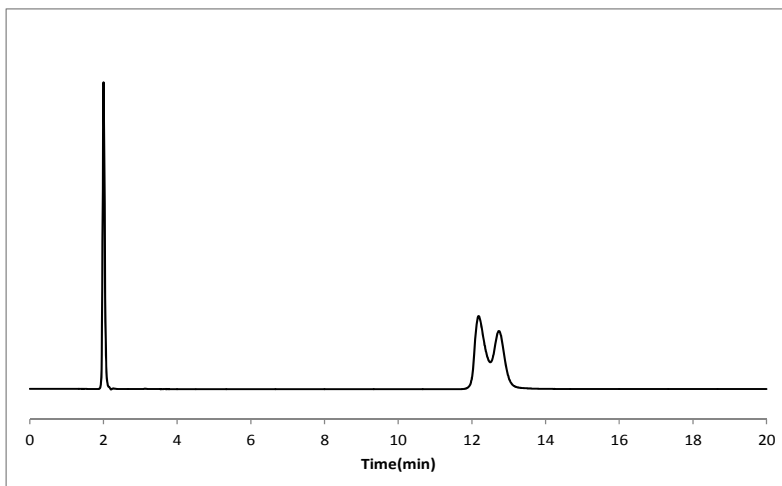
Chromatographic Results for Develosil TMS-UG-5

Separation Factor

α (Caffeine/Phenol)	0.48
α (Toluene/Benzene)	1.70
α (Methyl benzoate/Toluene)	0.70
α (Triphenylene/o-Terphenyl)	0.95
α (Pyridine/Phenol)	0.54
α (Oxine-Copper/Caffeine)	0.09
α (Formic acid/Acetic acid)	0.19



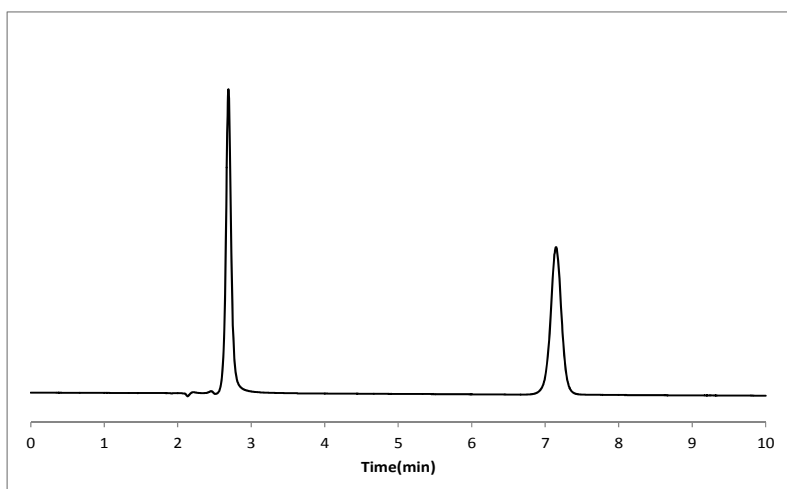
Column size :150x4.6mm I.D.
 Mobile Phase :CH₃OH/Water(50/50)
 Flow rate :1.0ml/min
 Detection :UV 254nm
 Temperature :40°C
 Sample 1:Uracil
 2:Caffeine
 3:Phenol
 4:Benzene
 5:Methyl benzoate
 6:Toluene



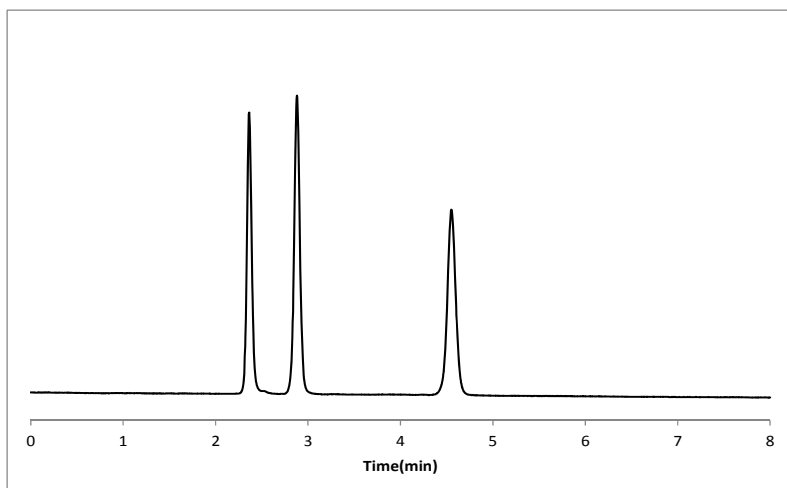
Column size :150x4.6mm I.D.
 Mobile Phase :CH₃OH/Water(60/40)
 Flow rate :1.0ml/min
 Detection :UV 254nm
 Temperature :40°C
 Sample 1:Uracil
 2:Triphenylene
 3:o-Terphenyl



Column size :150x4.6mm I.D.
 Mobile Phase :CH₃OH/Water(20/80)
 Flow rate :1.0ml/min
 Detection :UV 254nm
 Temperature :40°C
 Sample 1:Uracil
 2:Pyridine
 3:Phenol



Column size :150x4.6mm I.D.
 Mobile Phase :CH₃CN/0.2%H₃PO₄(10/90)
 Flow rate :1.0ml/min
 Detection :UV 254nm
 Temperature :40°C
 Sample 1:Oxine-Copper
 2:Caffeine



Column size :150x4.6mm I.D.
 Mobile Phase :CH₃CN/0.2%H₃PO₄(2/98)
 Flow rate :1.0ml/min
 Detection :UV 210nm
 Temperature :40°C
 Sample 1:Formic acid
 2:Acetic acid
 3:Propionic acid