



Specifically qualified HPLC columns for GLP/GMP compliance validation

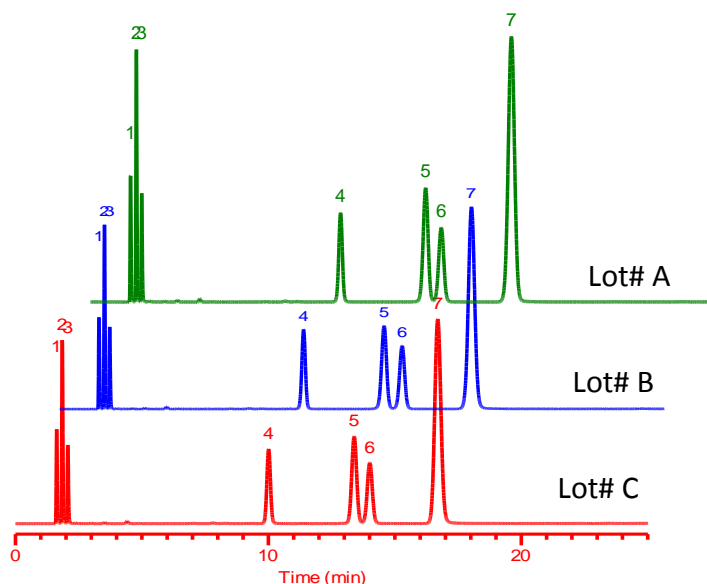
Inertsil™ ODS-3V "3 μm"

Eagerly-awaited Inertsil ODS-3V "3 μm" is now available from GL Sciences Inc.

Inertsil ODS-3V "3 μm" is delivered with a manufacturers' Validation Certificate showing the detailed results of every QA and QC step in manufacturing.

Now reduce the dispersion risk of intermediate precision assay in your validation study with Inertsil ODS-3V "3 μm".

Selectivity Test



Conditions:

Column	: Inertsil ODS-3V (3 μm, 150 x 4.6 mm I.D.)
Eluent	: CH ₃ OH/H ₂ O=80/20
Flow Rate	: 1.0 mL/min
Col. Temp.	: 40°C
Detection	: UV254 nm
Injection Vol.	: 5 μL
Sample:	
1. Uracil	0.005 mg/mL
2. Caffeine	0.04 mg/mL
3. Phenol	0.08 mg/mL
4. Butylbenzene	1.12 mg/mL
5. Amylbenzene	1.37 mg/mL
6. <i>o</i> -Terphenyl	0.04 mg/mL
7. Triphenylene	0.014 mg/mL

Inertsil™ ODS-3V 3 μm Ordering information

Length/ID (mm)	2.1 (EUR)	3.0 (EUR)	4.0 (EUR)	4.6 (EUR)
50	5020-30112 383	5020-30122 383	5020-30132 383	5020-30142 383
75	5020-30113 398	5020-30123 398	5020-30133 398	5020-30143 398
100	5020-30114 415	5020-30124 415	5020-30134 415	5020-30144 415
150	5020-30115 448	5020-30125 448	5020-30135 448	5020-30145 448
250	5020-30116 492	5020-30126 492	5020-30136 492	5020-30146 492

Longtime Seller Inertsil™ ODS-3V 5 μm Ordering information

Length/ID (mm)	3.0 (EUR)	4.0 (EUR)	4.6 (EUR)
150	5020-01821 383	5020-01811 383	5020-01801 383
250	5020-01822 429	5020-01812 429	5020-01802 429

Manufacturer's Validation Certificate Sheet

Each Inertsil™ ODS-3V 3µm receives the following validation certificate sheet

<Physical Properties>

Silica:	High Purity Spherical Silica Gel
Particle Size:	3µm
Surface Area:	450 m ² / g
Pore Size:	100 Å
Pore Volume:	1.05 mL/g
Bonded Phase:	Octadecyl groups
End-capping:	Complete
Carbon Loading:	15 %
USP Code:	L1

Column Performance Report

Cat.No. 5020-30145
Serial No. 1M199001

Acquired : 11/01/13 10:26:01
User : OYAMA

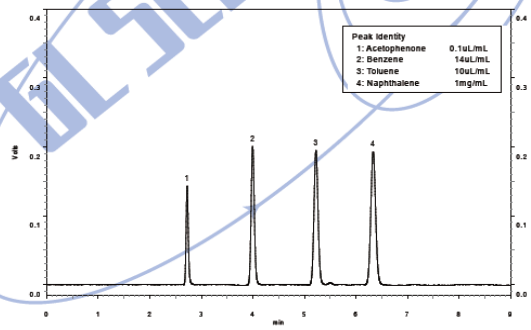
Channel A Method

Column Specification
Column Packing
Material Lot.No.
Column Dimension
Guarantee

Inertsil ODS-3V 3 [µm]
VQ3-3229
4.6 I.D. x 150 [mm]
N = 19,000
Asy = 0.95 ~ 1.10

Test Condition

Mobile Phase : CH3CN / H2O = 65 / 35
Flow Rate : 1.0 [mL/min]
Pressure : 9.0 [MPa]
Column Temp. : 40 [°C]
Detector UV : 254 [nm]
Sample Size : 1.0 [µL]



Channel A Results

Peak No.	Name	Time	W1/2	N=S.54 (t/W1/2)^2	Asy=W0.05/2f
4	Naphthalene	6.33	0.102	21200	1.05



GL Sciences Inc.

Manufacturer's Validation Certificate

Inertsil ODS-3V 3µm Lot.No.VQ3-3229

Inspected by furukawa

Analysis of Silica Gel

Median Particle Size [µm]
Surface Area [m²/g]
Median Pore Diameter [Å]
Pore Volume [mL/g]
Atomic Emission [ppm]
Fe
Na
Al
Ti

Specification

3.0 - 3.5
420 - 450
94 - 102
1.00 - 1.15
< 10
< 10
< 10
< 1

Result

3.2
436
101
1.10
2.0
1.4
1.4
< 0.5

Scanning Electron Microscopy
Particle Shape
Surface Condition

propriety
propriety

pass
pass

Analysis of Inertsil ODS-3V

Carbon Content [%]
Pressure Durability [MPa]

14.0 - 15.5
30

14.2
pass

Chromatographic Results

Data 1 : k'_{Phenol} / k'_{Phenol}
Data 2 : k'_{Formic Acid} / k'_{Acetic Acid}
Data 3 : k'_{Octane-Copper} / k'_{Octane}
Data 4 : k'_{Amphetamine} / k'_{Propylamine}
Data 4 : k'_{Naphthalene} / k'_{Toluene}
Data 4 : k'_{Octane} / k'_{Phenol}

0.38 - 0.48
0.25 - 0.30
0.07 - 0.14
1.45 - 1.50
1.25 - 1.35
0.45 - 0.55

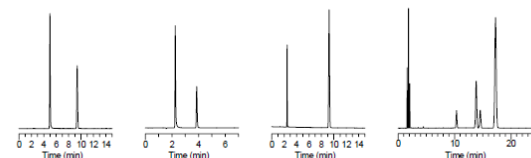
0.44
0.29
0.12
1.48
1.28
0.53

Data 1

Data 2

Data 3

Data 4



Col.Size : 150-4.6mm I.D. Eluent : CH₃CN/H₂O=60/40 Flow Rate : 1.0mL/min Col. Temp. : 40°C Detector : UV254nm Sample Size : 1.0µL Sample : 1)Phenol 0.1mg/mL 2)Phenol 0.4mg/mL

Col.Size : 150-4.6mm I.D. Eluent : 0.1M(N) H₃PO₄ Flow Rate : 1.0mL/min Col. Temp. : 40°C Detector : UV254nm Sample Size : 1.0µL Sample : 1)Formic Acid 0.1% 2)Acetic Acid 0.1%

Col.Size : 150-4.6mm I.D. Eluent : CH₃CN/20mM H₃PO₄ Flow Rate : 1.0mL/min Col. Temp. : 40°C Detector : UV254nm Sample Size : 1.0µL Sample : 1)Octane-Copper 0.2mg/mL 2)Octane 0.4mg/mL

Col.Size : 150-4.6mm I.D. Eluent : CH₃CN/H₂O=80/20 Flow Rate : 1.0mL/min Col. Temp. : 40°C Detector : UV254nm Sample Size : 4.0µL Sample : 1)Phenol 0.05mg/mL 2)Phenol 0.08 mg/mL 3)Phenol 0.12 mg/mL 4)Propylamine 0.12 mg/mL 5)Toluene 0.04 mg/mL 6)Amphetamine 0.17 mg/mL 7)Naphthalene 0.01mg/mL

- The specification and the column type are subject to change without notice due to continual improvements.
- All brand names and product names are trademarks or registered trademarks of GL Sciences Inc.

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