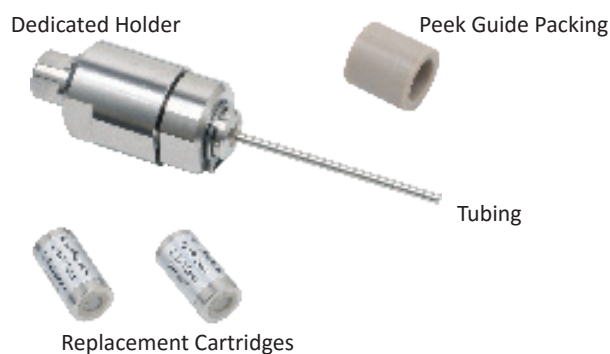


Guard Column for UHPLC

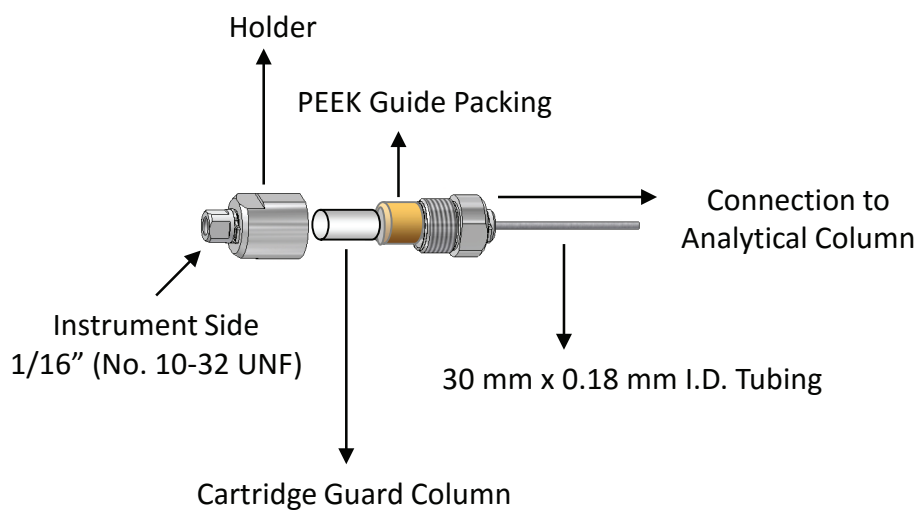


Guard Column for UHPLC cartridge system protect valuable UHPLC analytical columns from chemical contaminants and particulates. It is a simple to use cartridge system which includes a tubing installed to the holder offering minimized dead volume.

Physical Properties

- Silica : High Purity Spherical Silica Gel
- Particle Size : 2 μm , 3 μm
- Max. Operating Pressure : 80 MPa, 800 Bar
- Protection for : 1.0 ~ 3.0 mm I.D. Analytical Columns

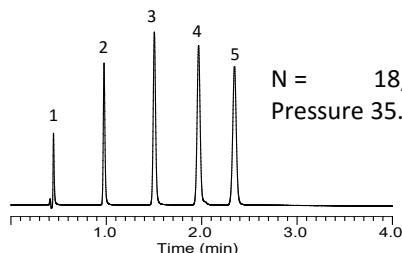
Installation of Guard Column for UHPLC



Reproducibility and Performance of Guard Column for UHPLC

The following illustrates the high reproducibility and efficiency of Guard Column for UHPLC. Guard Column for UHPLC effectively protect your valuable analytical columns without altering chromatographic results.

Chromatogram without Guard Column for UHPLC



N = 18,800
Pressure 35.0 MPa

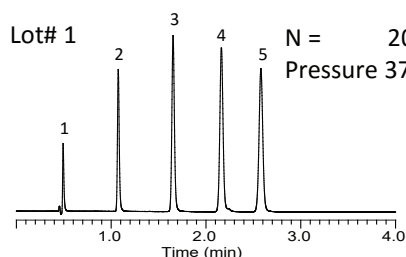
Conditions

Column : InertSustain C18
(2 μ m, 100 $\times$ 2.1 mm I.D.)
Eluent : CH₃CN/H₂O = 65/35, v/v
Flow Rate : 0.4 mL/min
Col.Temp. : 40 $^{\circ}$ C

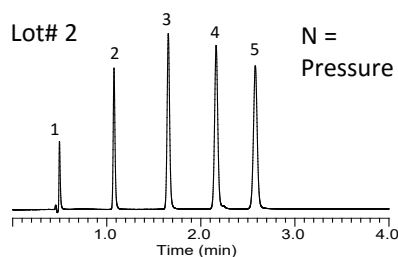
Sample :

1. Uracil
2. Acetophenone
3. Benzene
4. Toluene
5. Naphthalene

Chromatogram with Guard Column for UHPLC, 2.1 mm I.D. x 10 mm



N = 20,600
Pressure 37.9 MPa



N = 20,200
Pressure 38.1 MPa

Ordering Guide

InertSustain[®] C18

Length (mm)	I.D. (mm)	Replacement Cartridge (2 pcs)		Cartridge (2 pcs) + Holder (1 pcs) Set	
		Particle Size 2 μ m	Particle Size 3 μ m	Particle Size 2 μ m	Particle Size 3 μ m
10	1.5	5020-20314	5020-20306	5020-20365	5020-20357
	2.1	5020-20331	5020-20323	5020-20382	5020-20374
	3.0	5020-20348	5020-20340	5020-20399	5020-20391

InertSustain[®] C8

Length (mm)	I.D. (mm)	Replacement Cartridge (2 pcs)		Cartridge (2 pcs) + Holder (1 pcs) Set	
		Particle Size 2 μ m	Particle Size 3 μ m	Particle Size 2 μ m	Particle Size 3 μ m
10	1.5	5020-20315	5020-20307	5020-20366	5020-20358
	2.1	5020-20332	5020-20324	5020-20383	5020-20375
	3.0	5020-20349	5020-20341	5020-20400	5020-20392

InertSustain[®] Phenyl

Length (mm)	I.D. (mm)	Replacement Cartridge (2 pcs)		Cartridge (2 pcs) + Holder (1 pcs) Set	
		Particle Size 2 μ m	Particle Size 3 μ m	Particle Size 2 μ m	Particle Size 3 μ m
10	1.5	5020-20316	5020-20308	5020-20367	5020-20359
	2.1	5020-20333	5020-20325	5020-20384	5020-20376
	3.0	5020-20350	5020-20342	5020-20401	5020-20393

Inertsil® ODS-4

Length (mm)	I.D. (mm)	Replacement Cartridge (2 pcs)		Cartridge (2 pcs) + Holder (1 pcs) Set	
		Particle Size 2 µm	Particle Size 3 µm	Particle Size 2 µm	Particle Size 3 µm
10	1.5	5020-20309	5020-20300	5020-20360	5020-20351
	2.1	5020-20326	5020-20317	5020-20377	5020-20368
	3.0	5020-20343	5020-20334	5020-20394	5020-20385

Inertsil® ODS-3

Length (mm)	I.D. (mm)	Replacement Cartridge (2 pcs)		Cartridge (2 pcs) + Holder (1 pcs) Set	
		Particle Size 2 µm	Particle Size 3 µm	Particle Size 2 µm	Particle Size 3 µm
10	1.5	5020-20311	5020-20301	5020-20362	5020-20352
	2.1	5020-20328	5020-20318	5020-20379	5020-20369
	3.0	5020-20345	5020-20335	5020-20396	5020-20386

Inertsil® C8-4

Length (mm)	I.D. (mm)	Replacement Cartridge (2 pcs)		Cartridge (2 pcs) + Holder (1 pcs) Set	
		Particle Size 2 µm	Particle Size 3 µm	Particle Size 2 µm	Particle Size 3 µm
10	1.5	5020-20310	5020-20305	5020-20361	5020-20356
	2.1	5020-20327	5020-20322	5020-20378	5020-20373
	3.0	5020-20344	5020-20339	5020-20395	5020-20390

Inertsil® C8-3

Length (mm)	I.D. (mm)	Replacement Cartridge (2 pcs)		Cartridge (2 pcs) + Holder (1 pcs) Set	
		Particle Size 2 µm	Particle Size 3 µm	Particle Size 2 µm	Particle Size 3 µm
10	1.5	5020-20312	5020-20303	5020-20363	5020-20354
	2.1	5020-20329	5020-20320	5020-20380	5020-20371
	3.0	5020-20346	5020-20337	5020-20397	5020-20388

Inertsil® Ph-3

Length (mm)	I.D. (mm)	Replacement Cartridge (2 pcs)		Cartridge (2 pcs) + Holder (1 pcs) Set	
		Particle Size 2 µm	Particle Size 3 µm	Particle Size 2 µm	Particle Size 3 µm
10	1.5	5020-20313	5020-20304	5020-20364	5020-20355
	2.1	5020-20330	5020-20321	5020-20381	5020-20372
	3.0	5020-20347	5020-20338	5020-20398	5020-20389

Holder for Guard Column for UHPLC

Description	Cat.No.
Holder for Guard Column for UHPLC	5020-08630

* The size of the tubing installed to the holder is 30 mm x 0.18 mm I.D.

High Pressure VHP Fittings

Designed specifically for use in UHPLC systems and perfect for use within the increasingly demanding requirements of today's high performance analytical systems.

Manufactured from 316 Stainless Steel and a proprietary blend of PEEK polymer.

Description	Max. Pressure	Qty	Cat.No.
VHP-300	137 MPa	1 pcs	6010-77001
VHP-320	172 MPa	1 pcs	6010-77007



VHP-300



VHP-320

High Efficiency UHPLC Columns

Extended selectivity with rapid results can now be achieved by GL Sciences' UHPLC 2 µm columns. Symmetric peak shape with exceptional lot-to-lot and column-to-column reproducibility is available for UPLC® and UHPLC users.



InertSustain® C18

Particle Size	Length/I.D. (mm)	2.1	3.0
2 µm	30	5020-14351	5020-14361
	50	5020-14352	5020-14362
	75	5020-14353	5020-14363
	100	5020-14354	5020-14364
	150	5020-14355	5020-14365

InertSustain® C8

Particle Size	Length/I.D. (mm)	2.1	3.0
2 µm	30	5020-16235	5020-16240
	50	5020-16236	5020-16241
	75	5020-16237	5020-16242
	100	5020-16238	5020-16243
	150	5020-16239	5020-16244

InertSustain® Phenyl

Particle Size	Length/I.D. (mm)	2.1	3.0
2 µm	30	5020-16535	5020-16540
	50	5020-16536	5020-16541
	75	5020-16537	5020-16542
	100	5020-16538	5020-16543
	150	5020-16539	5020-16544

Particle Size	Length/I.D. (mm)	2.1	3.0
2 µm	30	5020-81200	5020-81210
	50	5020-81202	5020-81212
	75	5020-81203	5020-81213
	100	5020-81204	5020-81214
	150	5020-81205	5020-81215

Inertsil® ODS-3

Particle Size	Length/I.D. (mm)	2.1	3.0
2 µm	33	5020-84650	5020-84660
	50	5020-84652	5020-84662
	75	5020-84653	5020-84663
	100	5020-84654	5020-84664
	150	5020-84655	5020-84665

Particle Size	Length/I.D. (mm)	2.1	3.0
2 µm	30	5020-81280	5020-81290
	50	5020-81282	5020-81292
	75	5020-81283	5020-81293
	100	5020-81284	5020-81294
	150	5020-81285	5020-81295

Inertsil® C8-3

Particle Size	Length/I.D. (mm)	2.1	3.0
2 µm	30	5020-84930	5020-84935
	50	5020-84931	5020-84936
	75	5020-84932	5020-84937
	100	5020-84933	5020-84938
	150	5020-84934	5020-84939

Inertsil® Ph-3

Particle Size	Length/I.D. (mm)	2.1	3.0
2 µm	30	5020-85130	5020-85135
	50	5020-85131	5020-85136
	75	5020-85132	5020-85137
	100	5020-85133	5020-85138
	150	5020-85134	5020-85139

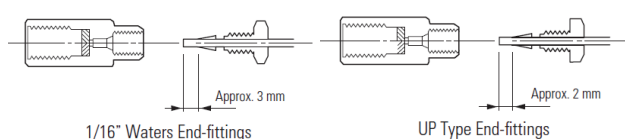
※ End-fittings are 1/16" Waters-compatible.

※ UHPLC compatible end-fittings are also available upon request for UHPLC systems (Ex: UPLC®) to avoid dead volume.

※ Indicate "UP Type end-fittings" when ordering. (Please note that UP type is not available for a 4.6 mm I.D. column)

※ UPLC® is a registered trademark of Waters Corporation.

End-fitting Format



※ The maximum operating pressure is 80 MPa, 800 Bar.

※ The maximum operating pressure of a 50 mm length column or shorter is 50 MPa for Inertsil ODS-3, C8-3, Ph-3.

※ All trademarks are the property of their respective owners.

※ We reserve the right to change specifications to make improvements without notice.

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