

Shim-pack Scepter LC Columns



Excellent stability & performance could be achieved under a wide range of LC conditions

Excellent stability and performance could be achieved under a wide range of LC conditions with Shim-pack Scepter™ LC columns, which are the next generation organic silica hybrid based columns. With different chemistry characteristics, Shim-pack Scepter columns are effective for method development/scouting with suitability for use in a wide variety of applications.

With different particle sizes (1.9 μm, 3 μm, 5 μm) and different column dimensions, Shim-pack Scepter LC columns are fully scalable between UHPLC, HPLC and preparative LC making method transfer seamless between different laboratory instrumentation.

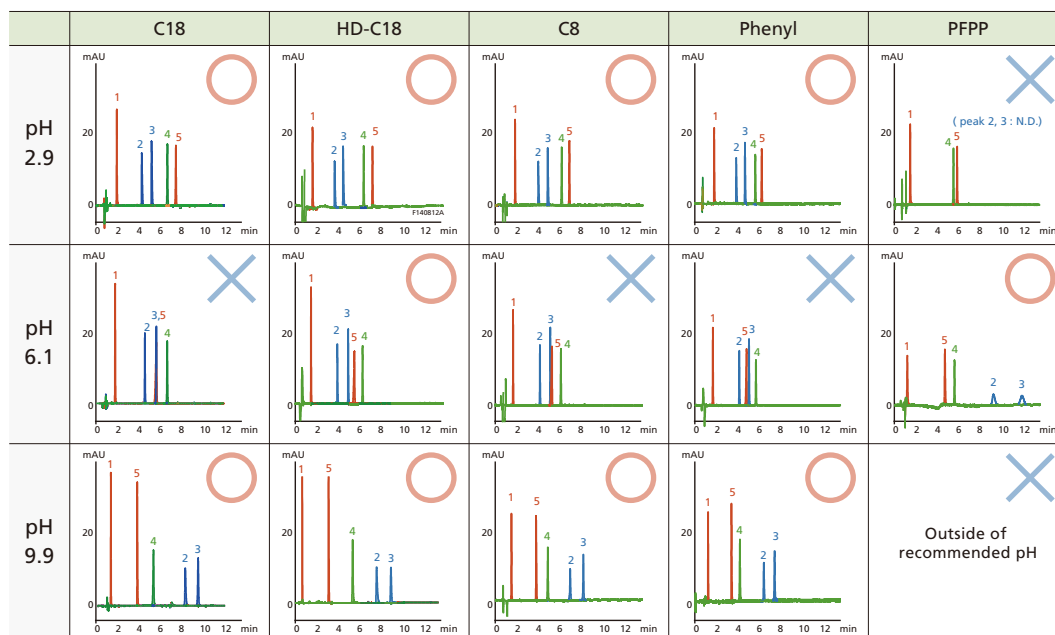
Shim-pack Scepter Chemistries

Shim-pack Scepter	Reversed Phase						HILIC
	C18	HD-C18	C8	C4	Phenyl	PFPP	Diol-HILIC
Ligand Type	Trifunctional C18 Generic Purpose Type	Trifunctional C18 High Density Type	Trifunctional C8	Trifunctional C4	Trifunctional Phenylbutyl	Trifunctional Pentafluorophenylpropyl	Trifunctional Dihydroxypropyl
Particle	Organic Silica Hybrid						
Particle Size	1.9 μm, 3 μm, 5 μm						
Pore Size	12 nm	8 nm	12 nm	30 nm	12 nm		
End Capping	Proprietary					None	
pH Range	1 - 12			1 - 10		1 - 8	2 - 10
100% aqueous condition	Yes	No	No	Yes	Yes	Yes	N/A
USP Classification	L1	L1	L7	L26	L11	L43	L20

Method Scouting Utilize excellent stability & performance under a wide range of LC conditions

With excellent stability under a wide range of LC conditions, Shim-pack Scepter LC columns are effective for method scouting combining mobile phase pH and organic modifier.

Comparison of Chromatograms using Gradient condition with Acetonitrile



■ Analytes

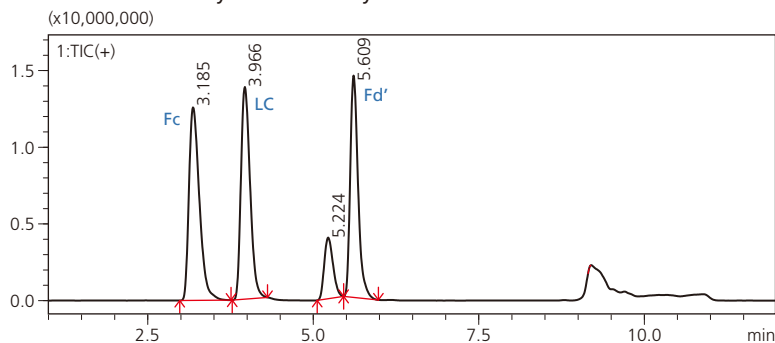
1. Saccharin (pKa = 2.2)
2. Dextromethorphan (pKa = 8.3)
3. Amitriptyline (pKa = 9.4)
4. N-Butyl paraben (pKa = 8.3)
5. Ibuprofen (pKa = 4.4)

Shim-pack Scepter C4-300 Columns

NEW

Shim-pack Scepter C4-300 columns support protein analysis of molecular weight up to about 150,000, and the hybrid organic silica substrate material makes them well-suited for analyzing antibodies even under acidic and high-temperature conditions. Because they provide excellent peak shape even when using formic acid with poor ion pair effect as a mobile phase, they are also useful for high sensitivity analysis in an LC-MS system.

Monoclonal Antibody Subunit Analysis



System : Nexera™ X2/ LCMS-8060
 Column : Shim-pack Scepter C4-300, 3µm, 2.1 × 50mm
 Mobile phase A : 0.1 % formic acid in Water
 Mobile phase B : 0.1% formic acid in Acetonitrile
 Gradient : 1%B (1 min)→25%B (1.1 min)→ 40%B (8 min)→
 95%B (8.1 min-10min)→ 1 % (10.1 min)
 Flow rate : 0.3 mL/min
 Column Temp. : 50 °C
 Sample : IdeZ digested + DTT treated Adalimumab 0.2 mg/mL
 Inj. Vol. : 1 µL

Ordering Information

Shim-pack Scepter Analytical Columns

Chemistry			C18			HD-C18			C8		
Particle Size (µm)	Length (mm)	ID (mm)	2.1	3	4.6	2.1	3	4.6	2.1	3	4.6
	1.9	50		227-31012-03	227-31013-01		227-31026-03	227-31027-01		227-31033-03	227-31034-01
75			227-31012-04	227-31013-02		227-31026-04	227-31027-02		227-31033-04	227-31034-02	
100			227-31012-05	227-31013-03		227-31026-05	227-31027-03		227-31033-05	227-31034-03	
150			227-31012-06	227-31013-04		227-31026-06	227-31027-04		227-31033-06	227-31034-04	
3	50		227-31014-03	227-31015-01	227-31016-02	227-31028-03	227-31029-01	227-31030-02	227-31035-03	227-31036-01	227-31037-02
	75		227-31014-04	227-31015-02	227-31016-03	227-31028-04	227-31029-02	227-31030-03	227-31035-04	227-31036-02	227-31037-03
	100		227-31014-05	227-31015-03	227-31016-04	227-31028-05	227-31029-03	227-31030-04	227-31035-05	227-31036-03	227-31037-04
	150		227-31014-06	227-31015-04	227-31016-05	227-31028-06	227-31029-04	227-31030-05	227-31035-06	227-31036-04	227-31037-05
5	250				227-31016-06			227-31030-06			227-31037-06
	50		227-31017-03	227-31018-01	227-31020-02	227-31021-02	227-31022-01	227-31024-02	227-31038-03	227-31039-01	227-31041-02
	75		227-31017-04	227-31018-02	227-31020-03	227-31021-03	227-31022-02	227-31024-03	227-31038-04	227-31039-02	227-31041-03
	100		227-31017-05	227-31018-03	227-31020-04	227-31021-04	227-31022-03	227-31024-04	227-31038-05	227-31039-03	227-31041-04
5	150		227-31017-06	227-31018-04	227-31020-05	227-31021-05	227-31022-04	227-31024-05	227-31038-06	227-31039-04	227-31041-05
	250				227-31020-06			227-31024-06			227-31041-06

Chemistry			C4			Phenyl			PFPP		
Particle Size (µm)	Length (mm)	ID (mm)	2.1	3	4.6	2.1	3	4.6	2.1	3	4.6
	1.9	50		227-31175-03	227-31176-01		227-31063-03	227-31064-01		227-31053-03	227-31054-01
75			227-31175-04	227-31176-02		227-31063-04	227-31064-02		227-31053-04	227-31054-02	
100			227-31175-05	227-31176-03		227-31063-05	227-31064-03		227-31053-05	227-31054-03	
150			227-31175-06	227-31176-04		227-31063-06	227-31064-04		227-31053-06	227-31054-04	
3	50		227-31177-03	227-31178-01	227-31179-02	227-31065-03	227-31066-01	227-31067-02	227-31055-03	227-31056-01	227-31057-02
	75		227-31177-04	227-31178-02	227-31179-03	227-31065-04	227-31066-02	227-31067-03	227-31055-04	227-31056-02	227-31057-03
	100		227-31177-05	227-31178-03	227-31179-04	227-31065-05	227-31066-03	227-31067-04	227-31055-05	227-31056-03	227-31057-04
	150		227-31177-06	227-31178-04	227-31179-05	227-31065-06	227-31066-04	227-31067-05	227-31055-06	227-31056-04	227-31057-05
5	250				227-31179-06			227-31067-06			227-31057-06
	50		227-31180-03	227-31181-01	227-31183-02	227-31068-03	227-31069-01	227-31071-02	227-31058-03	227-31059-01	227-31061-02
	75		227-31180-04	227-31181-02	227-31183-03	227-31068-04	227-31069-02	227-31071-03	227-31058-04	227-31059-02	227-31061-03
	100		227-31180-05	227-31181-03	227-31183-04	227-31068-05	227-31069-03	227-31071-04	227-31058-05	227-31059-03	227-31061-04
5	150		227-31180-06	227-31181-04	227-31183-05	227-31068-06	227-31069-04	227-31071-05	227-31058-06	227-31059-04	227-31061-05
	250				227-31183-06			227-31071-06			227-31061-06

Chemistry			Diol-HILIC		
Particle Size (µm)	Length (mm)	ID (mm)	2.1	3	4.6
	1.9	50		227-31043-03	227-31044-03
75			227-31043-01	227-31044-01	
100			227-31043-02	227-31044-02	
150					
3	50		227-31045-03	227-31046-01	227-31047-02
	75		227-31045-04	227-31046-02	227-31047-03
	100		227-31045-05	227-31046-03	227-31047-04
	150		227-31045-06	227-31046-04	227-31047-05
5	250				227-31047-06
	50		227-31048-03	227-31049-01	227-31051-02
	75		227-31048-04	227-31049-02	227-31051-03
	100		227-31048-05	227-31049-03	227-31051-04
5	150		227-31048-06	227-31049-04	227-31051-05
	250				227-31051-06

Shim-pack Scepter Preparative Columns

Chemistry	Length (mm)	ID (mm)	10	20	30	Chemistry	Length (mm)	ID (mm)	10	20	30
C18	50	/	/	227-31102-01	227-31103-01	C4	50	/	/	227-31185-01	227-31186-01
	75			227-31103-02	227-31186-02						
	100			227-31102-02	227-31103-03		227-31185-02			227-31186-03	
	150			227-31101-01	227-31103-04		227-31184-01			227-31185-03	227-31186-04
	250			227-31101-02	227-31102-04		227-31103-05			227-31184-02	227-31185-04
HD-C18	50	/	/	227-31105-01	227-31106-01	Phenyl	50	/	/	227-31114-01	227-31115-01
	75			227-31106-02	227-31115-02						
	100			227-31105-02	227-31106-03		227-31114-02			227-31115-03	
	150			227-31104-01	227-31105-03		227-31106-04			227-31114-03	227-31115-04
	250			227-31104-02	227-31105-04		227-31106-05			227-31114-04	227-31115-05
C8	50	/	/	227-31108-01	227-31109-01	PFPP	50	/	/	227-31111-01	227-31112-01
	75			227-31109-02	227-31112-02						
	100			227-31108-02	227-31109-03		227-31111-02			227-31112-03	
	150			227-31107-01	227-31108-03		227-31109-04			227-31111-03	227-31112-04
	250			227-31107-02	227-31108-04		227-31109-05			227-31111-04	227-31112-05

* Main P/Ns are described in the list. Please contact your local representative for columns in dimensions other than described above.

EXP Guard Cartridge (Particle size : 1.9 µm, 3 pk)

Dimension	Chemistry	C18	HD-C18	C8	C4	Phenyl	PFPP	
2.1x5 mm		227-31120-01	227-31128-01	227-31136-01	227-31187-01	227-31158-01	227-31150-01	* EXP Cartridge holder for Shim-pack Scepter: 227-31170-01
3.0x5 mm		227-31120-02	227-31128-02	227-31136-02	227-31187-02	227-31158-02	227-31150-02	

Analytical Guard Cartridge (5 pk)

Particle Size (µm)	3							
Dimension	Chemistry	C18	HD-C18	C8	C4	Phenyl	PFPP	Diol-HILIC
2.1x10 mm		227-31121-01	227-31129-01	227-31137-01	227-31188-01	227-31159-01	227-31151-01	227-31144-01
3.0x10 mm		227-31122-01	227-31130-01	227-31138-01	227-31189-01	227-31160-01	227-31152-01	227-31145-01
4.0x10 mm		227-31123-01	227-31131-01	227-31139-01	227-31190-01	227-31161-01	227-31153-01	227-31146-01

Particle Size (µm)	5							
Dimension	Chemistry	C18	HD-C18	C8	C4	Phenyl	PFPP	Diol-HILIC
2.1x10 mm		227-31124-01	227-31132-01	227-31140-01	227-31191-01	227-31162-01	227-31154-01	227-31147-01
3.0x10 mm		227-31125-01	227-31133-01	227-31141-01	227-31192-01	227-31163-01	227-31155-01	227-31148-01
4.0x10 mm		227-31126-01	227-31134-01	227-31142-01	227-31193-01	227-31164-01	227-31156-01	227-31149-01

* Cartridge holder for Analytical Shim-pack Scepter guard cartridges (10 mm length): 227-31172-03

Preparative Guard Cartridge (Particle size : 5 µm, 2 pk)

Dimension	Chemistry	C18	HD-C18	C8	C4	Phenyl	PFPP	Cartridge Holder
10x10 mm		227-31127-01	227-31135-01	227-31143-01	227-31194-01	227-31165-01	227-31157-01	227-31171-01
20x10 mm		227-31127-02	227-31135-02	227-31143-02	227-31195-01	227-31165-02	227-31157-02	227-31171-02
30x10 mm		227-31127-03	227-31135-03	227-31143-03	227-31196-01	227-31165-03	227-31157-03	227-31171-03

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