

MERCK KGaA, DARMSTADT, GERMANY, PRODUCTS

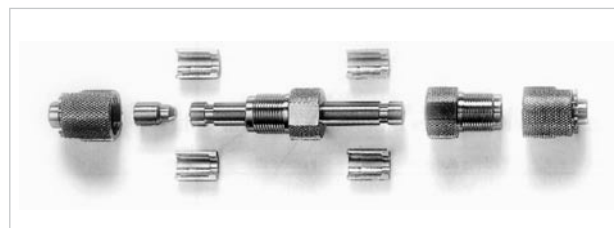
The following pages feature a selection of HPLC columns, packings and accessories. All are designed and manufactured by Merck KGaA, Darmstadt, Germany, to provide reproducible results in your critical applications. Reproducibility is guaranteed because the sorbents, solvents and reagents have been coordinated with one another and have met rigorous standards of performance.

Merck KGaA HPLC Products

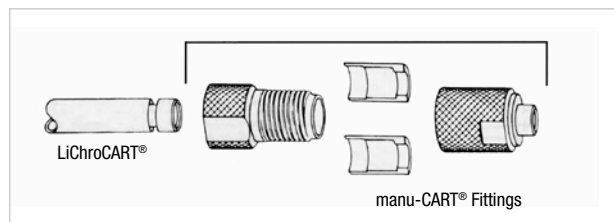
Featured in this Section:

- LiChroCART®, LiChrospher®, LiChrosorb®, Superspher®, Purospher®, Purospher® STAR, 3, 4, 5 and 10 µm pre-packed cartridges
- Hibar®, LiChrosorb® and LiChrospher® 5 and 10 µm pre-packed columns
- Chromolith®

manu-CART® LiChroCART® Cartridge Column Assembly



End Fittings for LiChroCART Cartridges



ORDERING INFORMATION

LiChroCART Cartridge End-Fittings

Part No.	Mfr. No.	Description	Unit	Price
Required End-Fittings For LiChroCART Cartridge Columns				
CHO-5286	1.51486.0001	manu-CART® end fittings for 2,3,4 and 4.6 mm ID LiChroCART HPLC cartridges stainless steel units for capillary connections 1/16" or 0.5 mm OD	2/pk	

LiChrospher

Part No.	Mfr. No.	Description	Particle Size (µm)	Size (mm)	Unit	Price
Stainless Steel Cartridges LiChroCART						
CHO-5288	1.50957.0001*	LiChrospher 100 RP-18	5	4 x 4	10/pk	
CHO-5290	1.50823.0001	LiChrospher 100 RP-18	5	125 x 4	ea	
CHO-5291	1.50943.0001	LiChrospher 100 RP-18	5	125 x 4	3/pk	
CHO-5293	1.50833.0001	LiChrospher 100 RP-18	5	250 x 4	ea	
CHO-5294	1.50983.0001	LiChrospher 100 RP-18	5	250 x 4	3/pk	
CHO-5299	1.50956.0001*	LiChrospher 100 RP-8	5	4 x 4	10/pk	
CHO-5300	1.50822.0001	LiChrospher 100 RP-8	5	125 x 4	ea	
CHO-5301	1.50942.0001	LiChrospher 100 RP-8	5	125 x 4	3/pk	
CHO-5302	1.50832.0001	LiChrospher 100 RP-8	5	250 x 4	ea	
CHO-5303	1.50982.0001	LiChrospher 100 RP-8	5	250 x 4	3/pk	
CHO-5305	1.50842.0001	LiChrospher 100 RP-8	10	250 x 4	ea	
CHO-5307	1.50963.0001*	LiChrospher 60 RP-select B	5	4 x 4	10/pk	
CHO-5308	1.50158.0001	LiChrospher 60 RP-select B	5	125 x 3	ea	
CHO-5309	1.50981.0001	LiChrospher 60 RP-select B	5	125 x 4	3/pk	
CHO-5310	1.50829.0001	LiChrospher 60 RP-select B	5	125 x 4	ea	
CHO-5311	1.50155.0001	LiChrospher 60 RP-select B	5	250 x 3	ea	
CHO-5312	1.50839.0001	LiChrospher 60 RP-select B	5	250 x 4	ea	
CHO-5313	1.50984.0001	LiChrospher 60 RP-select B	5	250 x 4	3/pk	
CHO-5316	1.50962.0001*	LiChrospher 100 RP-18 endcapped	5	4 x 4	10/pk	
CHO-5317	1.50828.0001	LiChrospher 100 RP-18 endcapped	5	125 x 4	ea	
CHO-5318	1.50734.0001	LiChrospher 100 RP-18 endcapped	5	125 x 4	3/pk	
CHO-5319	1.50838.0001	LiChrospher 100 RP-18 endcapped	5	250 x 4	ea	
CHO-5320	1.50995.0001	LiChrospher 100 RP-18 endcapped	5	250 x 4	3/pk	
CHO-5321	1.50848.0001	LiChrospher 100 RP-18 endcapped	10	250 x 4	ea	
CHO-5324	1.50827.0001	LiChrospher 100 RP-8 endcapped	5	125 x 4	ea	
CHO-5325	1.50837.0001	LiChrospher 100 RP-8 endcapped	5	250 x 4	ea	
CHO-5451	1.50960.0001*	LiChrospher 100 DIOL	5	4 x 4	10/pk	
CHO-5329	1.50826.0001	LiChrospher 100 DIOL	5	125 x 4	ea	
CHO-5330	1.50836.0001	LiChrospher 100 DIOL	5	250 x 4	ea	
CHO-5340	1.50825.0001	LiChrospher 100 CN	5	125 x 4	ea	
CHO-5342	1.50845.0001	LiChrospher 100 CN	10	250 x 4	ea	
CHO-5345	1.50824.0001	LiChrospher 100 NH ₂	5	125 x 4	ea	
CHO-5346	1.50834.0001	LiChrospher 100 NH ₂	5	250 x 4	ea	



These cartridge columns require end-fittings. manu-CART® end-fittings: CHO-5286.
*Guard columns

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ORDERING INFORMATION

LiChrosorb®						
Part No.	Mfr. No.	Description	Particle Size (µm)	Size (mm)	Unit	Price
Stainless Steel Cartridges LiChroCART						
CHO-5350	1.51349.0001	LiChrosorb RP-18	5	125 x 4	ea	
CHO-5351	1.51355.0001	LiChrosorb RP-18	5	250 x 4	ea	
CHO-5353	1.51356.0001	LiChrosorb RP-18	10	250 x 4	ea	
CHO-5358	1.51354.0001	LiChrosorb RP-8	10	250 x 4	ea	



These cartridge columns require end-fittings.
manu-CART end-fittings: CHO-5286.

Superspher®						
Part No.	Mfr. No.	Description	Particle Size (µm)	Size (mm)	Unit	Price
Stainless Steel Cartridges LiChroCART						
CHO-5368	1.16051.0001	Superspher 100 RP-18	4	125 x 4	ea	
CHO-5369	1.16056.0001	Superspher 100 RP-18	4	250 x 4	ea	
CHO-5371	1.16052.0001	Superspher 60 RP-8	4	125 x 4	ea	
CHO-5372	1.50974.0001	Superspher 60 RP-Select B	4	75 x 4	3/pk	
CHO-5373	1.50975.0001	Superspher 60 RP-Select B	4	125 x 4	ea	
CHO-5374	1.50973.0001	Superspher 60 RP-Select B	4	250 x 4	ea	
CHO-5376	1.16855.0001	Superspher 100 RP-18 endcapped	4	125 x 4	ea	
CHO-5377	1.16858.0001	Superspher 100 RP-18 endcapped	4	250 x 4	ea	
CHO-5380	1.16857.0001	Superspher 60 RP-8 endcapped	4	250 x 4	ea	
CHO-5383	1.16054.0001	Superspher 100 Si 60	4	125 x 4	ea	
CHO-5384	1.16009.0001	Superspher 100 Si 60	4	250 x 4	ea	
CHO-5386	1.50200.0001	Superspher 100 RP-18	4	125 x 2	ea	
CHO-5392	1.50197.0001	Superspher 60 RP-Select B	4	125 x 2	ea	



Other products available upon request.

ORDERING INFORMATION

Purospher®						
Part No.	Mfr. No.	Description	Particle Size (µm)	Size (mm)	Unit	Price
Stainless Steel Cartridges LiChroCART						
CHO-5422	1.50167.0001*	Purospher RP-18e	5	4 x 4	10/pk	
CHO-5423	1.50798.0001	Purospher RP-18e	5	125 x 3	ea	
CHO-5424	1.50799.0001	Purospher RP-18e	5	125 x 3	3/pk	
CHO-5425	1.50168.0001	Purospher RP-18e	5	125 x 4	ea	
CHO-5426	1.50169.0001	Purospher RP-18e	5	250 x 4	ea	
CHO-5427	1.50141.0001*	Purospher RP-18	5	4 x 4	10/pk	
CHO-5428	1.50142.0001	Purospher RP-18	5	125 x 4	ea	
CHO-5429	1.50144.0001	Purospher RP-18	5	250 x 4	ea	

*Guard columns

Purospher® STAR						
Part No.	Mfr. No.	Description	Particle Size (µm)	Size (mm)	Unit	Price
Stainless Steel Cartridges LiChroCART						
CHO-5816	1.50239.0001	Purospher STAR RP-18e	3	30 x 4	1 set	
CHO-5817	1.50225.0001	Purospher STAR RP-18e	3	30 x 4	3/pk	
CHO-5818	1.50242.0001	Purospher STAR RP-18e	3	55 x 4	1 set	
CHO-5819	1.50231.0001	Purospher STAR RP-18e	3	55 x 4	3/pk	
CHO-5820	1.50237.0001	Purospher STAR RP-18e	3	30 x 2	1 set	
CHO-5821	1.50238.0001	Purospher STAR RP-18e	3	30 x 2	3/pk	
CHO-5822	1.50240.0001	Purospher STAR RP-18e	3	55 x 2	1 set	
CHO-5823	1.50241.0001	Purospher STAR RP-18e	3	55 x 2	3/pk	
CHO-5824	1.50227.0001	manu-CART Holder, 30 mm	—	—	—	
CHO-5825	1.50226.0001	manu-CART Holder, 55 mm	—	—	—	



A set contains one column and one holder

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ORDERING INFORMATION

Chiral Columns

Includes bonded cyclodextrins (ChiraDex®) and Whelk-O® phases from Regis.

Part No.	Mfr. No.	Description	Particle Size (µm)	Size (mm)	Unit	Price
Stainless Steel LiChroCART® ChiraDex®/Whelk-O® 1						
CHO-5443	1.51333.0001*	ChiraDex (β)	5	250 x 4	ea	
CHO-5444	1.50117.0001*	ChiraDex (β)	5	4 x 4	10/pk	
CHO-7906**		(R,R) Whelk-O 1, 100 Å	5	250 x 4.6	ea	
CHO-7905**		(S,S) Whelk-O 1, 100 Å	5	250 x 4.6	ea	
CHO-5451	1.50960.0001***	LiChrospher 100 DIOL	5	4 x 4	10/pk	



* ChiraDex columns supplied in methanol/water (40:60); also recommended for storage.

** Whelk-O columns supplied in n-Hexane.

*** Recommended guard column for Whelk-O columns.

NOTE: Above cartridges require manu-CART fittings: CHO-5286.



See p. 108 for additional Chiral Stationary Phases.

HIBAR® COLUMNS

Hibar columns are stainless steel columns that may be connected to virtually any HPLC instrument using standard 1/16" capillary male connection. To prolong the life of the primary column, we recommend the use of a suitable precolumn.

Columns whose designations include "RT" are fitted with reducers ("R") at both ends; and shipped with an individual test chromatogram ("T").

ORDERING INFORMATION

LiChrosorb® Columns

Part No.	Mfr. No.	Description	Particle Size (µm)	Size (mm)	Unit	Price
Pre-packed Columns Hibar® RT						
CHO-5395	1.50433.0001	LiChrosorb RP-18	5	125 x 4	ea	
CHO-5396	1.50333.0001	LiChrosorb RP-18	5	250 x 4	ea	
CHO-5397	1.50334.0001	LiChrosorb RP-18	10	250 x 4	ea	
CHO-5398	1.50432.0001	LiChrosorb RP-8	5	125 x 4	ea	
CHO-5399	1.50332.0001	LiChrosorb RP-8	5	250 x 4	ea	
CHO-5400	1.50318.0001	LiChrosorb RP-8	10	250 x 4	ea	
CHO-5401	1.19608.0001	LiChrosorb RP-select B	5	250 x 4	ea	
CHO-5403	1.50399.0001	LiChrosorb DIOL	5	250 x 4	ea	
CHO-5405	1.50376.0001	LiChrosorb NH ₂	5	250 x 4	ea	
CHO-5408	1.50388.0001	LiChrosorb Si 60	5	250 x 4	ea	

LiChrospher® Columns

Part No.	Mfr. No.	Description	Particle Size (µm)	Size (mm)	Unit	Price
Pre-packed Columns Hibar® RT						
CHO-5409	1.50477.0001	LiChrospher RP-18	5	125 x 4	ea	
CHO-5410	1.50377.0001	LiChrospher RP-18	5	250 x 4	ea	
CHO-5414	1.50316.0001	LiChrospher Si 100	5	250 x 4	ea	

CHROMOLITH®

Monolithic Silica Rod Format for Reversed Phase Separations

- Faster analysis, higher throughput
- Average separation efficiency

Chromolith columns are based on metal-free silica so existing methods can be easily transferred with only minimal investment in new method development work. The end-capped RP-C18e phase is suitable for the general purpose separation of acidic, basic, nonpolar, and metal-chelating compounds. Popular for drug discovery and process development applications.

Based on “Sol-Gel” technology, highly porous monolithic rods of silica with a bimodal pore structure are formed.

Macroporous Structure: Each macropore is on average 2 µm in diameter and together form a dense network of pores through which the eluent can rapidly flow and so dramatically reduce separation time. Lower backpressures help to increase system lifetimes.

Mesoporous Structure: These mesopores further form the fine porous structure (130 Å) of the column interior and create very large surface area on which adsorption of the target compounds can occur.

This unique combination of macro and mesopores allow rapid transit of eluent and high separation efficiencies.

Chromolith® CapRod®

- High flow rates at low pressures
- Excellent peak patterns with formic acid
- Unique monolithic silica

The CapRod® is a new monolithic solid phase made of a highly porous silica rod with an ID of 100 µm. Its silica consists of macro and meso-pores providing high porosity. Unlike other microparticulate sorbents, Chromolith® CapRod® can be operated at high flow rates without loss of performance. It is designed for separation of peptides and protein digests.

ORDERING INFORMATION

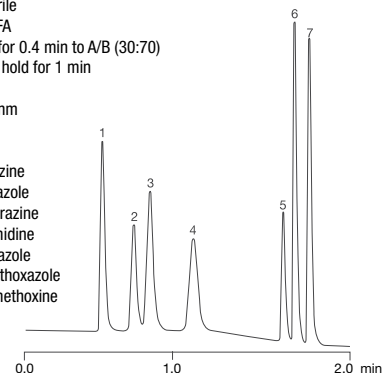
Chromolith Columns					
Part No.	Mfr. No.	Description	Size (mm)	Unit	Price
Analytical Columns					
CH0-7781	1.51465.0001	Chromolith Performance Si	100 x 4.6	ea	
CH0-7780	1.51468.0001	Chromolith Performance RP-8e	100 x 4.6	ea	
CH0-8255	1.52001.0001	Chromolith Performance RP-18e	100 x 3.0	ea	
CH0-7176	1.02129.0001	Chromolith Performance RP-18e	100 x 4.6	ea	
CH0-7175	1.51450.0001	Chromolith SpeedROD RP-18e	50 x 4.6	ea	
CH0-7779	1.51463.0001	Chromolith FLASH RP-18e	25 x 4.6	ea	
CH0-7523	1.50402.0001	Chromolith CapROD RP-18e	150 x 0.1	ea	
Semi-prep Column					
CH0-7913	1.52016.0001	Chromolith Semi-prep RP-18e	100 x 10	ea	
Guard Columns and Kits					
CH0-7782	1.51451.0001	Chromolith RP-18e Guard Column	5 x 4.6	3/pk	
CH0-7783	1.51452.0001	Chromolith RP-18e Guard Column	10 x 4.6	3/pk	
CH0-7784	1.51470.0001	Chromolith RP-18e Guard Column Kit	5 x 4.6	ea	
CH0-7785	1.51471.0001	Chromolith RP-18e Guard Column Kit	10 x 4.6	ea	
Columns Validation Kits					
CH0-7786	1.51466.0001	Chromolith Validation Kit RP-18e, Includes 3 Columns from 3 Different Batches	100 x 4.6	ea	
Accessory Products					
CH0-7787	1.51467.0001	Chromolith Column Coupler	—	ea	

App ID 14359

Sulfonamides

Column: Chromolith® SpeedROD RP-18e
Dimensions: 50 x 4.6 mm
Part No.: CH0-7175
Mobile Phase: A: Acetonitrile
 B: 0.1 % TFA
Gradient: A/B (5:95) for 0.4 min to A/B (30:70) in 0.8 min, hold for 1 min
Flow Rate: 6 mL/min
Detection: UV @ 270 nm
Temperature: Ambient
Injection Volume: 10 µL
Sample:

1. Sulfadiazine
2. Sulfathiazole
3. Sulfamerazine
4. Sulfadimidine
5. Sulfisoxazole
6. Sulfamethoxazole
7. Sulfadimethoxine



App ID 14358

Antiepileptic Drugs

Column: Chromolith® Performance RP-18e
Dimensions: 100 x 4.6 mm
Part No.: CH0-7176
Mobile Phase: A: Acetonitrile
 B: Water
Gradient: A/B (15:85) to A/B (30:70) in 1 min, hold for 4 min
Flow Rate: 2 mL/min
Pressure: 56 bar / 820 psi
Detection: UV @ 205 nm
Temperature: Ambient
Injection Volume: 10 µL
Sample:

1. Ethosuximide
2. Primidone
3. α-Methyl-α-propylsuccinimide
4. Phenobarbital
5. Carbamazepine
6. Phenytoin

