



HICHROM

Chromatography Columns and Supplies

LC COLUMNS
LiChrospher and
Superspher

Catalogue 9

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LiChrospher®

- Spherical porous silica
- Base deactivated LiChrospher RP-select B
- Endcapping options for RP-8 and RP-18
- Hichrom high efficiency packed columns

LiChrospher® is a traditional silica manufactured by Merck Millipore. The availability of both endcapped and non-endcapped C8 and C18 phases significantly enhances the chromatographer's selectivity options. LiChrospher RP-select B was Merck's first generation base deactivated material. A range of 4µm materials has been marketed under the Superspher® tradename in Europe.

LiChrospher Phases

LiChrospher Phase	Functional Group	Endcapped	Particle Size ^{1,2} (µm)	Pore Size (Å)	Surface Area (m ² /g)	Carbon Load (%)
Si 60	-	-	5	60	700	-
Si 100	-	-	5	100	400	-
100RP-8	Octyl	No	5	100	350	12.5
100RP-8e	Octyl	Yes	5	100	350	13.0
100RP-18	Octadecyl	No	5	100	350	21.0
100RP-18e	Octadecyl	Yes	5	100	350	21.6
100NH ₂	Amino	No	5	100	350	4.6
100CN	Cyano	No	5	100	350	6.6
100DIOL	Hydroxyl	No	5	100	350	8.0
60RP-select B	Octyl	Yes	5	60	360	11.5

¹ Superspher 4µm columns available

² LiChrospher 10µm particle size materials available

Superspher Phases

Superspher Phase ¹	Functional Group	Endcapped	Particle Size (µm)	Pore Size (Å)	Surface Area (m ² /g)	Carbon Load (%)
Si 60	-	-	4	60	700	-
60RP-8	Octyl	No	4	60	350	12.5
60RP-8e	Octyl	Yes	4	60	350	13.0
100RP-18	Octadecyl	No	4	100	350	21.0
100RP-18e	Octadecyl	Yes	4	100	350	21.6
60RP-select B	Octyl	Yes	4	60	360	11.5

¹ Please contact us for ordering information on Superspher columns

Ordering Information – Hichrom Manufactured LiChrospher Columns

Microbore (1.0mm i.d.) Columns

Please contact Hichrom for further details of 1.0mm i.d. LiChrospher columns.

Microbore (2.1mm i.d.) Columns

LiChrospher Phase	Column Dimensions (mm)					Guard Cartridges ¹ (For 2.1mm i.d. Columns)
	50 x 2.1	100 x 2.1	125 x 2.1	150 x 2.1	250 x 2.1	
5µm	£335	£340	£343	£345	£355	£110 (5/pk)²
Si60	LISP60-5-50AM	LISP60-5-100AM	LISP60-5-125AM	LISP60-5-150AM	LISP60-5-250AM	LISP60-5-10CM5
Si100	LISP100-5-50AM	LISP100-5-100AM	LISP100-5-125AM	LISP100-5-150AM	LISP100-5-250AM	LISP100-5-10CM5
	£355	£360	£363	£365	£375	£110 (5/pk)²
100RP-8	LISPRP8-5-50AM	LISPRP8-5-100AM	LISPRP8-5-125AM	LISPRP8-5-150AM	LISPRP8-5-250AM	LISPRP8-5-10CM5
100RP-8e	LISPRP8E-5-50AM	LISPRP8E-5-100AM	LISPRP8E-5-125AM	LISPRP8E-5-150AM	LISPRP8E-5-250AM	LISPRP8E-5-10CM5
100RP-18	LISPRP18-5-50AM	LISPRP18-5-100AM	LISPRP18-5-125AM	LISPRP18-5-150AM	LISPRP18-5-250AM	LISPRP18-5-10CM5
100RP-18e	LISPRP18E-5-50AM	LISPRP18E-5-100AM	LISPRP18E-5-125AM	LISPRP18E-5-150AM	LISPRP18E-5-250AM	LISPRP18E-5-10CM5
100NH ₂	LISPNH-5-50AM	LISPNH-5-100AM	LISPNH-5-125AM	LISPNH-5-150AM	LISPNH-5-250AM	LISPNH-5-10CM5
100CN	LISPCN-5-50AM	LISPCN-5-100AM	LISPCN-5-125AM	LISPCN-5-150AM	LISPCN-5-250AM	LISPCN-5-10CM5
100DIOL	LISPOH-5-50AM	LISPOH-5-100AM	LISPOH-5-125AM	LISPOH-5-150AM	LISPOH-5-250AM	LISPOH-5-10CM5
	£397	£402	£415	£417	£437	£110 (5/pk)²
60RP-select B	LISPRPB-5-50AM	LISPRPB-5-100AM	LISPRPB-5-125AM	LISPRPB-5-150AM	LISPRPB-5-250AM	LISPRPB-5-10CM5

¹ Use with free-standing holder HI-161 (€45) and column coupler HI-081 (€26) - see p.24

² Starter kits (€145) also available - see p.25

Ordering Information – Hichrom Manufactured LiChrospher Columns (continued)

Medium Bore (3.2mm i.d.) Columns

LiChrospher Phase	Column Dimensions (mm)					Guard Cartridges ¹ (For 3.2mm i.d. Columns)
	50 x 3.2	100 x 3.2	125 x 3.2	150 x 3.2	250 x 3.2	
5µm	£310	£315	£318	£320	£330	£110 (5/µk)²
Si60	LISP60-5-50AS	LISP60-5-100AS	LISP60-5-125AS	LISP60-5-150AS	LISP60-5-250AS	LISP60-5-10C5
Si100	LISP100-5-50AS	LISP100-5-100AS	LISP100-5-125AS	LISP100-5-150AS	LISP100-5-250AS	LISP100-5-10C5
	£330	£335	£338	£340	£350	£110 (5/µk)²
100RP-8	LISPRP8-5-50AS	LISPRP8-5-100AS	LISPRP8-5-125AS	LISPRP8-5-150AS	LISPRP8-5-250AS	LISPRP8-5-10C5
100RP-8e	LISPRP8E-5-50AS	LISPRP8E-5-100AS	LISPRP8E-5-125AS	LISPRP8E-5-150AS	LISPRP8E-5-250AS	LISPRP8E-5-10C5
100RP-18	LISPRP18-5-50AS	LISPRP18-5-100AS	LISPRP18-5-125AS	LISPRP18-5-150AS	LISPRP18-5-250AS	LISPRP18-5-10C5
100RP-18e	LISPRP18E-5-50AS	LISPRP18E-5-100AS	LISPRP18E-5-125AS	LISPRP18E-5-150AS	LISPRP18E-5-250AS	LISPRP18E-5-10C5
100NH2	LISPNH-5-50AS	LISPNH-5-100AS	LISPNH-5-125AS	LISPNH-5-150AS	LISPNH-5-250AS	LISPNH-5-10C5
100CN	LISPCN-5-50AS	LISPCN-5-100AS	LISPCN-5-125AS	LISPCN-5-150AS	LISPCN-5-250AS	LISPCN-5-10C5
100DIOL	LISPOH-5-50AS	LISPOH-5-100AS	LISPOH-5-125AS	LISPOH-5-150AS	LISPOH-5-250AS	LISPOH-5-10C5
	£372	£382	£387	£392	£412	£110 (5/µk)²
60RP-select B	LISPRPB-5-50AS	LISPRPB-5-100AS	LISPRPB-5-125AS	LISPRPB-5-150AS	LISPRPB-5-250AS	LISPRPB-5-10C5

Analytical (4.0mm i.d.) Columns

LiChrospher Phase	Column Dimensions (mm)					Guard Cartridges ¹ (For 4.0mm i.d. Columns)
	50 x 4.0	100 x 4.0	125 x 4.0	150 x 4.0	250 x 4.0	
5µm	£310	£315	£318	£320	£330	£110 (5/µk)²
Si60	LISP60-5-50AF	LISP60-5-100AF	LISP60-5-125AF	LISP60-5-150AF	LISP60-5-250AF	LISP60-5-10C5
Si100	LISP100-5-50AF	LISP100-5-100AF	LISP100-5-125AF	LISP100-5-150AF	LISP100-5-250AF	LISP100-5-10C5
	£330	£335	£338	£340	£350	£110 (5/µk)²
100RP-8	LISPRP8-5-50AF	LISPRP8-5-100AF	LISPRP8-5-125AF	LISPRP8-5-150AF	LISPRP8-5-250AF	LISPRP8-5-10C5
100RP-8e	LISPRP8E-5-50AF	LISPRP8E-5-100AF	LISPRP8E-5-125AF	LISPRP8E-5-150AF	LISPRP8E-5-250AF	LISPRP8E-5-10C5
100RP-18	LISPRP18-5-50AF	LISPRP18-5-100AF	LISPRP18-5-125AF	LISPRP18-5-150AF	LISPRP18-5-250AF	LISPRP18-5-10C5
100RP-18e	LISPRP18E-5-50AF	LISPRP18E-5-100AF	LISPRP18E-5-125AF	LISPRP18E-5-150AF	LISPRP18E-5-250AF	LISPRP18E-5-10C5
100NH2	LISPNH-5-50AF	LISPNH-5-100AF	LISPNH-5-125AF	LISPNH-5-150AF	LISPNH-5-250AF	LISPNH-5-10C5
100CN	LISPCN-5-50AF	LISPCN-5-100AF	LISPCN-5-125AF	LISPCN-5-150AF	LISPCN-5-250AF	LISPCN-5-10C5
100DIOL	LISPOH-5-50AF	LISPOH-5-100AF	LISPOH-5-125AF	LISPOH-5-150AF	LISPOH-5-250AF	LISPOH-5-10C5
	£372	£382	£387	£392	£412	£110 (5/µk)²
60RP-select B	LISPRPB-5-50AF	LISPRPB-5-100AF	LISPRPB-5-125AF	LISPRPB-5-150AF	LISPRPB-5-250AF	LISPRPB-5-10C5

Analytical (4.6mm i.d.) Columns

LiChrospher Phase	Column Dimensions (mm)					Guard Cartridges ¹ (For 4.6mm i.d. Columns)
	50 x 4.6	100 x 4.6	125 x 4.6	150 x 4.6	250 x 4.6	
5µm	£310	£315	£318	£320	£330	£110 (5/µk)²
Si60	LISP60-5-50A	LISP60-5-100A	LISP60-5-125A	LISP60-5-150A	LISP60-5-250A	LISP60-5-10C5
Si100	LISP100-5-50A	LISP100-5-100A	LISP100-5-125A	LISP100-5-150A	LISP100-5-250A	LISP100-5-10C5
	£330	£335	£338	£340	£350	£110 (5/µk)²
100RP-8	LISPRP8-5-50A	LISPRP8-5-100A	LISPRP8-5-125A	LISPRP8-5-150A	LISPRP8-5-250A	LISPRP8-5-10C5
100RP-8e	LISPRP8E-5-50A	LISPRP8E-5-100A	LISPRP8E-5-125A	LISPRP8E-5-150A	LISPRP8E-5-250A	LISPRP8E-5-10C5
100RP-18	LISPRP18-5-50A	LISPRP18-5-100A	LISPRP18-5-125A	LISPRP18-5-150A	LISPRP18-5-250A	LISPRP18-5-10C5
100RP-18e	LISPRP18E-5-50A	LISPRP18E-5-100A	LISPRP18E-5-125A	LISPRP18E-5-150A	LISPRP18E-5-250A	LISPRP18E-5-10C5
100NH2	LISPNH-5-50A	LISPNH-5-100A	LISPNH-5-125A	LISPNH-5-150A	LISPNH-5-250A	LISPNH-5-10C5
100CN	LISPCN-5-50A	LISPCN-5-100A	LISPCN-5-125A	LISPCN-5-150A	LISPCN-5-250A	LISPCN-5-10C5
100DIOL	LISPOH-5-50A	LISPOH-5-100A	LISPOH-5-125A	LISPOH-5-150A	LISPOH-5-250A	LISPOH-5-10C5
	£372	£382	£387	£392	£412	£110 (5/µk)²
60RP-select B	LISPRPB-5-50A	LISPRPB-5-100A	LISPRPB-5-125A	LISPRPB-5-150A	LISPRPB-5-250A	LISPRPB-5-10C5

¹ Use with free-standing holder HI-161 (€45) and column coupler HI-081 (€26) - see p.24² Starter kits (€145) also available - see p.25

Semi-Preparative and Preparative (7.75 - 21.2mm i.d.) Columns

Please contact Hichrom for further details of 7.75 - 21.2mm i.d. LiChrospher columns.

Merck Cartridge System

LiChrosorb®, LiChrospher® and Superspher® are available in Merck's LiChroCART® cartridge system used with manu-CART® end fittings. These columns can be used with or without an integral guard cartridge. The integral guard can be incorporated on reversing the split collets within the end fittings (Figure 1).

Merck Hibar RT columns are also available on request. Please contact us.

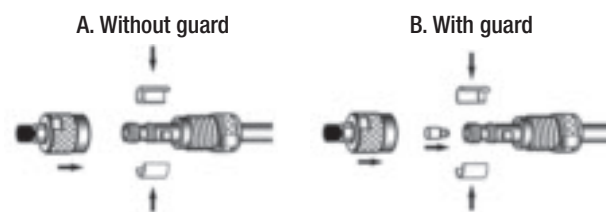


Figure 1. manu-CART cartridge end fittings

Ordering Information – Merck Manufactured LiChroCART Cartridge System

manu-CART end fittings required – see table below.

Superspher

Superspher Phase (4µm)	Cartridge Dimensions (mm)													
	10 x 2 (3/pk)		125 x 2		250 x 2		25 x 4 (3/pk)		75 x 4 (3/pk)		125 x 4		250 x 4	
Si 60	-	-	-	-	-	-	-	-	-	-	16054	£322	16009	£364
60RP-8	-	-	-	-	-	-	-	-	-	-	16052	£342	16010	£386
60RP-8e	-	-	-	-	-	-	-	-	-	-	16854	£342	16857	£386
100RP-18	50204	£133	50200	£342	-	-	16039	£298	50980	£398	16051	£342	16056	£386
100RP-18e	-	-	50198	£342	50193	£386	16869	£298	-	-	16855	£342	16858	£386
60RP-select B	50205	£133	50197	£381	51308	£430	-	-	50974	£460	50975	£381	50973	£430

LiChrospher

LiChrospher Phase (5µm)	Cartridge Dimensions (mm)								Guard Cartridges (10/pk, 4 x 4mm)					
	125 x 3		250 x 3		25 x 4 (3/pk)		75 x 4 (3/pk)				125 x 4		250 x 4	
Si 60	-	-	-	-	50928	£214	-	-	50820	£247	50830	£281	50955	£245
100RP-8	-	-	-	-	50930	£227	50986	£304	50822	£263	50832	£298	50956	£245
100RP-8 (3/pk)	-	-	-	-	-	-	-	-	50942	£327	50982	£597	-	-
100RP-8e	-	-	-	-	-	-	-	-	50827	£263	50837	£298	50961	£245
100RP-18	50159	£263	50154	£298	50931	£227	50987	£304	50823	£263	50833	£298	50957	£245
100RP-18 (3/pk)	-	-	-	-	-	-	-	-	50943	£327	50983	£597	-	-
100RP-18e	-	-	-	-	50936	£227	-	-	50828	£263	50838	£298	50962	£245
100RP-18e (3/pk)	-	-	-	-	-	-	-	-	50734	£331	50995	£597	-	-
100NH2	-	-	-	-	50932	£227	-	-	50824	£263	50834	£298	50958	£245
100CN	-	-	-	-	-	-	-	-	50825	£263	50892	£298	50959	£245
100DIOL	-	-	-	-	-	-	-	-	50826	£263	50836	£298	50960	£245
60RP-select B	50158	£277	50155	£333	50937	£256	50993	£340	50829	£277	50839	£333	50963	£245
60RP-select B (3/pk)	51233	£736	-	-	-	-	-	-	50981	£538	50984	£662	-	-

LiChrosorb

LiChrosorb Phase ¹ (5µm)	Cartridge Dimensions (mm)			
	125 x 4		250 x 4	
Si 60	51343	£375	51351	£436
RP-8	51345	£404	51353	£468
RP-18	51349	£404	51355	£468

¹10µm LiChrosorb phases are also available - please enquire

manu-CART end fittings

Description	Part Number
manu-CART end fittings (2/pk) for 2, 3 and 4mm i.d. LiChroCART cartridges	51486 £276
manu-CART holder for 25-4 cartridge	50017 £225
manu-CART coupler (to connect 2 LiChroCART cartridges)	50083 £100
manu-CART coupling kit (to connect LiChroCART cartridge with 25-4 cartridge)	50082 £245