



Analytical columns with LiChrospher®



LiChrospher® packings manufactured by E. Merck (D)

Phase	USP	Particle size	Pore size	Modification	Endcapped	Carbon content
LiChrospher® 100 RP 18, 5 µm	L1	nom. 5 µm	100 Å	Octadecyl	–	21 %
LiChrospher® 100 RP 18 ec, 5 µm	L1	nom. 5 µm	100 Å	Octadecyl	+	21 %
LiChrospher® 60 RP select B, 5 µm	L7	nom. 5 µm	60 Å	Octyl	+	12 %
All phases as packed ChromCart® cartridges						
ChromCart® columns require the CC connecting kit (REF 721690).						

Ordering information

Eluent in column acetonitrile – water

ID	Length →			
	125 mm	150 mm	250 mm	Guard columns*
LiChrospher® 100 RP 18, 5 µm particle size 5 µm, pore size 100 Å				
2 mm	728031.20		728032.20	728053.30
3 mm	728031.30		728032.30	728053.30
4 mm	728031.40		728032.40	728053.40
4.6 mm	728031.46	728033.46	728032.46	728053.40
LiChrospher® 100 RP 18 ec, 5 µm particle size 5 µm, pore size 100 Å				
2 mm	728034.20		728035.20	728054.30
3 mm	728034.30		728035.30	728054.30
4 mm	728034.40		728035.40	728054.40
4.6 mm	728034.46	728036.46	728035.46	728054.40
LiChrospher® 60 RP select B, 5 µm particle size 5 µm, pore size 100 Å				
2 mm	728037.20		728038.20	728055.30
3 mm	728037.30		728038.30	728055.30
4 mm	728037.40		728038.40	728055.40
4.6 mm	728037.46	728039.46	728038.46	728055.40

* can directly be used with the CC connecting kit (REF 721690).

8 mm ChromCart® guard column cartridges in packs of 3, all other columns in packs of 1.



Phase overview for special separations



Overview

Separation / mechanism	Recommended column	Specification of the phase	Page
Environmental analysis			
Anion exchange chromatography of inorganic anions	NUCLEOGEL® Anion I	Strongly basic polymer-based anion exchanger	230
	NUCLEOSIL® Anion II	Strongly basic silica-based anion exchanger	
RP chromatography of PAHs	NUCLEODUR® C ₁₈ PAH	NUCLEODUR® polymer-coated with C ₁₈ groups USP L1	227
	NUCLEOSIL® 100-5 C ₁₈ PAH	NUCLEOSIL® 100 polymer-coated with C ₁₈ groups USP L1	229
Enantiomer separation			
Polar and π-π interactions	NUCLEOCEL DELTA	Silica-based modified cellulose phases USP L40	233
Formation of inclusion complexes	NUCLODEX α-PM, β-PM, γ-PM and β-OH	Silica-based permethylated and underivatized cyclodextrin phases USP L45	231
Enantioselective binding to chiral protein surface structures	RESOLVOSIL BSA-7	Silica-based protein phase (BSA)	234
Ligand exchange	NUCLEOSIL® CHIRAL-1	Covalently bonded amino acid – Cu(II) complexes USP L32	235
Charge-transfer, dipole-dipole interactions and others	NUCLEOSIL® CHIRAL-2 NUCLEOSIL® CHIRAL-3	Silica-based brush type phases USP L36	236
Separation of biological macromolecules			
Anion exchange chromatography of oligonucleotides and nucleic acids	NUCLEOGEN® DEAE	Silica-based DEAE anion exchanger	237
Anion exchange chromatography of peptides, large proteins and oligonucleotides	NUCLEOGEL® SAX	Polymer-based strongly basic anion exchanger USP L23	240
Cation exchange chromatography of proteins, peptides and carbohydrates	NUCLEOGEL® SCX	Polymer-based strong cation exchanger USP L22	240
	NUCLEOSIL® MPN	Monomerically bonded alkyl chains on silica USP L1 / USP L26	243
	NUCLEOSIL® PPN	Polymerically bonded alkyl chains on silica USP L1	244
Reversed phase chromatography of proteins, peptides and oligonucleotides	NUCLEOGEL® RP 300	Polystyrene – divinylbenzene polymer USP L21	245
	NUCLEOGEL® RP 100	Small pore macroporous PS-DVB polymer USP L21	245
Food analysis · sugars			
RP chromatography of mono- and oligosaccharides	NUCLEOSIL® Carbohydrate	Silica-based special amino phase USP L8	246
Separation of sugars, alcohols, org. acids based on ion exclusion, ion exchange, size exclusion, ligand exchange, NP and RP effects	NUCLEOGEL® SUGAR 810 H, Ca	Resins with sulfonic acid modification in different ionic forms H form USP L17 / Ca form L19 / Pb form L34 / Na form L58	247
Separation of sugars, alcohols, org. acids based on steric exclusion, ligand exchange and partition effects	NUCLEOGEL® SUGAR Ca, Na, Pb NUCLEOGEL® ION 300 OA		248
Gel permeation chromatography (GPC)			
Water-insoluble compounds	NUCLEOGEL® GPC	Polystyrene – divinylbenzene polymer	249