

Aluspher®

Alkaline stable HPLC separations

Due to its stability, alumina, together with alkaline eluents, has enabled new applications to be found for HPLC. Advanced formulation techniques permit the production of spherical alumina particles as a base for Aluspher® 100 RP-select B.

Aluspher® 100 RP-select B is ideal for use with basic eluents, as ionization of basic compounds is suppressed and peak-tailing is avoided. Due to its stability in the range of pH 2-12, Aluspher® 100 RP-select B permits the use of basic eluents such as NaOH for the separation of neutral, basic and acidic compounds.



Specifications of Aluspher® 100 RP-select B

Sorbent characteristics	Alumina particles, coated with polybutadiene (PBD)
Particle shape	spherical
Particle size	5 µm
Pore size	100 Å (10 nm)
Specific surface area	170 m ² /g
Efficiency	55,000 N/m
pH range	pH 2-12
Shipping eluent	Acetonitrile/Water



▶ **LiChrospher® 60 RP-select B** Excellent separations even with basic compounds
page 329

▶ **Customized packings** Always the right column
page 366

Accessories for particulate HPLC columns:

▶ **manu-CART® cartridge holder** for LiChroCART® cartridges
page 370

▶ **LiChroCART® cartridge** Different lengths, different internal diameter
page 373

▶ **Aluminium oxide** for preparative chromatography
page 404

Aluspher® RP-select B

A stable reversed phase stationary phase optimized for applications up to pH 12

Ordering information – Aluspher® 100 RP-select B, stainless steel columns Hibar®

Product	Ordering No.	Particle size	Dimension length	Dimension i.d.	Contents of one package
Aluspher® 100 RP-select B	1.50182.7002	5 µm	250 mm	4 mm	1 piece

The Hibar® columns are complete with endfittings. When using a guard column with a Hibar® column, we recommend part number 1.51487.0001 guard column cartridge holder for 4–4 mm guard column cartridges LiChroCART®. Additional dimensions available as customized packings see page 366.

Ordering information – Aluspher® 100 RP-select B, stainless steel cartridges LiChroCART®

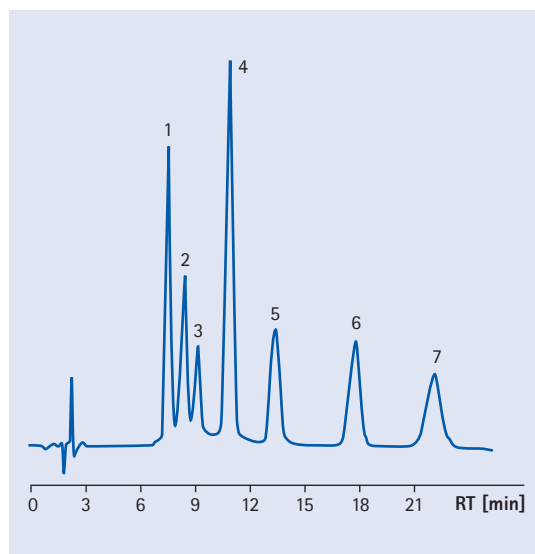
Product	Ordering No.	Particle size	Dimension length	Dimension i.d.	Contents of one package
Aluspher® 100 RP-select B	1.51311.0001	5 µm	4 mm	4 mm	10 pieces
Aluspher® 100 RP-select B	1.51315.0001	5 µm	125 mm	4 mm	1 piece
Aluspher® 100 RP-select B	1.51318.0001	5 µm	250 mm	4 mm	1 piece

The LiChroCART® columns (125, 150 and 250 mm length) in the list above (4.6 mm i.d.) require part number 1.51486.0001 manu-CART® cartridge column holder, which can be used to hold one cartridge column with or without a 4–4 mm guard column. Additional dimensions available as customized packings see page 366.

Separation examples on Aluspher® 100 RP-select B

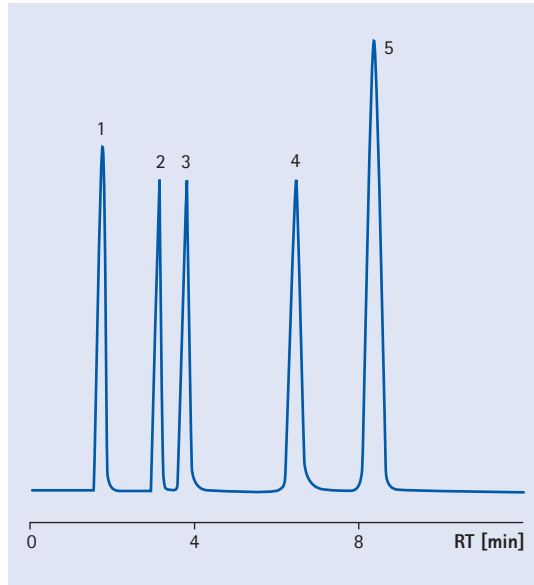
Amphetamine compounds

Column	LiChroCART® 250-4 Aluspher® 100 RP-select B, 5 µm
Mobile phase	Methanol/0.025 M NaOH 25/75 (v/v)
Flow rate	1.0 mL/min
Detection	UV 215 nm
Temperature	Room temperature
Sample	1. Amphetamine 2. p-Methoxyamphetamine (PMA) 3. Methylenedioxyamphetamine (MDA) 4. Methamphetamine 5. Methylenedioxymethamphetamine (MDMA) 6. Ethylamphetamine 7. Methylenedioxyethylamphetamine (MDEA)



Pharmaceuticals with non-buffered eluent

Column	LiChroCART® 250-4 Aluspher® 100 RP-select B, 5 µm
Mobile phase	Acetonitrile/Water 35/65 (v/v)
Flow rate	1.0 mL/min
Detection	UV 220 nm
Temperature	Room temperature
Sample	1. Levamisole 2. 5-Methyl-5-phenyldantoin (MPH) 3. 5-Phenyl-5-(2-pyridyl)-hydantoin (PPH) 4. 5-(p-Methylphenyl)-5-phenylhydantoin (MPH) 5. Diazepam



Beta-Blockers with alkaline eluents

Column	LiChroCART® 250-4 Aluspher® 100 RP-select B, 5 µm
Mobile phase	Methanol/0.025 M NaOH 50/50 (v/v)
Flow rate	1.0 mL/min
Detection	UV 220 nm
Temperature	Room temperature
Sample	1. Sotalol 2. Atenolol 3. Metoprolol

