

SUPELCOTM ABZ⁺Plus Universal Reversed Phase HPLC Columns

Product Specification



995-0137

SUPELCO ABZ⁺Plus columns provide:

- Different selectivity than conventionally deactivated C18 and C8 phases
- Symmetrical peaks for all compounds
- Simple method development
- Reproducible separations

SUPELCO ABZ⁺Plus columns are *universal* reversed phase columns that use simple mobile phases to analyze the most difficult compounds such as acids, strongly basic compounds and zwitterions. Used with a phosphate buffer in addition to acetonitrile or methanol, these columns can obtain high efficiency for polar, nonpolar, and charged analytes, symmetric peaks for the most reactive compounds, hydrophobic selectivity like C8 columns, unique selectivity for polar and charged compounds, and flat baselines for gradient, preparative and LC/MS applications.

Only SUPELCO ABZ⁺Plus columns offer both high deactivation and unique selectivity. These column characteristics are achieved through treatment of the silica support, high bonded phase density, and the presence of an amide group within the bonded phase molecule. The phase allows use of low ionic strength buffers without having to add an amine modifier.

The unique chemical composition of the ABZ⁺Plus columns ensures symmetric peaks, high efficiency, and special selectivity for a wide spectrum of analytes. At the same time, because it is simple to select and prepare mobile phases to use with the new column, method development is less time consuming. The packing material has very low bleed, making the columns well suited for gradient analyses and HPLC-MS. Although chemically very different from deactivated C18 columns, SUPELCO ABZ⁺Plus columns separate small molecular weight compounds through the same reversed phase mechanism that controls retention on traditional C18/ODS reversed phase columns. Figures A and B compare the elution performance of both a SUPELCO ABZ⁺Plus column and a conventional deactivated column when analyzing acids and bases, respectively. In both cases, better resolution is achieved on the SUPELCO ABZ⁺Plus column.

Figure A. Unique Selectivity and Improved Peak Shape for Acidic Compounds

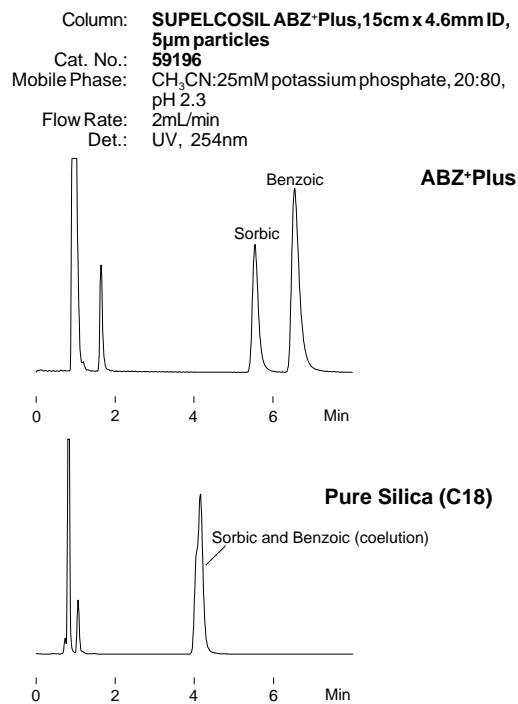
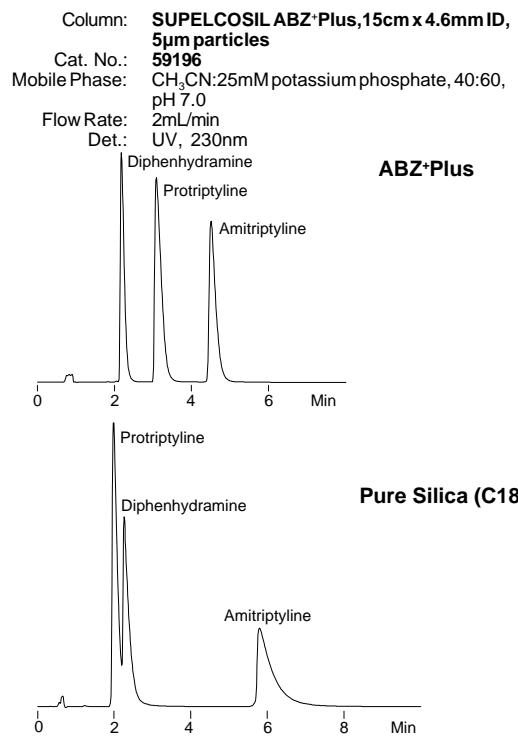


Figure B. Unique Selectivity and Improved Peak Shape for Basic Compounds



Column Characteristics

Particles:	spherical silica, 5µm
Functional Group:	alkyl-amide reversed phase
Pore Size:	100Å
Surface Area:	170m ² /g
Pore Volume:	0.6mL/g
pH Range:	2-7

Ordering Information:

SUPELCO SIL ABZ⁺Plus Columns and Accessories

Analytical Columns

Length	4.6mm	4.0mm ID ^A	3.0mm ID ^A	2.1mm ID	1.0mm ID [*]
3µm Particles					
3.3cm	59191	59191C40	59191C30	custom	—
5cm	59192-U	59192C40	59192C30	custom	—
7.5cm	59193	59193C40	59193C30	custom	—
10cm	custom	custom	custom	57917	—
15cm	59194	59194C40	59194C30	custom	—
5µm Particles					
5cm	59195-U	59195C40	59195C30	custom	custom
10cm	custom	custom	custom	57925	custom
15cm	59196	59196C40	59196C30	57926	custom
25cm	59197	59197C40	59197C30	57927	custom
30cm	custom	custom	custom	custom	57978

Preparative Columns* (5µm Particles)

Length	10mm ID [*]	21.1mm ID [*]	50.8mm ID [*]
10cm	custom	59148	custom
25cm	59179	54855	54856

12µm Bulk Packing

Quantity	Cat. No.
100 g	54350-U
500 g	54351
1kg	54352

Guard Columns (5µm Particles)

Description	Kit [■]	Cartridges (pk. of 2)
2cm x 4.6mm	59534-U	59535-U
2cm x 4.0mm	—	59535C40
2cm x 3.0mm	—	59535C30
2cm x 2.1mm	59604	59605

Hardware for Modular Columns

Reusable Modular Endfittings (pk. of 2)	55200-U
Modular GuardColumn Holder (connects guard column directly to a modular analytical column)	55205
Modular Column Connector (allows efficient coupling of modular analytical columns)	55213
Conventional (not modular) Guard Column Holder	59660-U

• Column plus endfittings.

^ARequire column endfittings (Cat. No. 5-5200).

^{*}The 1.0mm, 10mm, 21.1mm, and 50.8mm ID columns are not modular, but use compression fittings.

[■]Holder and one cartridge.

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SWITZERLAND • Supelco • CH-9471 Buchs UNITED KINGDOM • Sigma-Aldrich Company Ltd. • Poole, Dorset BH12 4QH
UNITED STATES • Supelco • Supelco Park • Bellefonte, PA 16823-0048 • Phone 800-247-6628 or 814-359-3441 • Fax 800-447-3044 or 814-359-3044 • email: supelco@sial.com

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