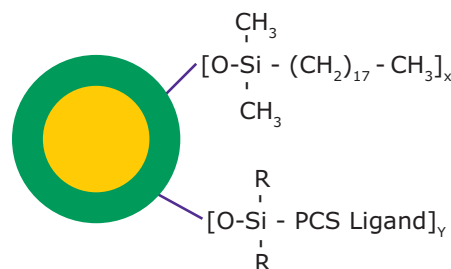


Introducing the New Ascentis® Express PCS-C18, 2.7 µm U/HPLC Columns

Unleashing Exceptional Performance with Positive Charged C18 Chemistry

The Ascentis® Express PCS-C18 columns are designed for effective separation of basic, acidic, or neutral compounds using low ionic strength (formic acid) mobile phase conditions. These columns utilize advanced Fused-Core® particles with 90 Å pores, making them ideal for small molecule analysis in pharmaceutical method development. With its unique Positive Charged C18 Chemistry, this column offers exceptional peak shape and improved loading capacity for basic compounds compared to traditional C18 chemistries.

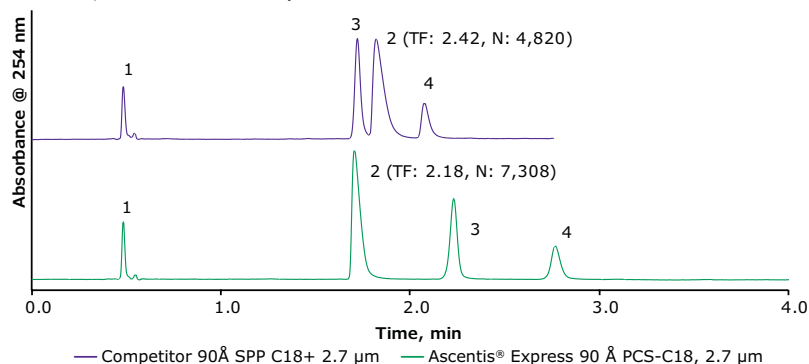


Features and Benefits

- Effective separation of basic, acidic, or neutral compounds using low ionic strength (formic acid) mobile phase conditions
- Improved peak shape and increased loading capacity for basic compounds
- Advanced Fused-Core® technology for fast separations with maximum resolution
- Excellent UHPLC and LC-MS compatibility
- Enhanced separation performance for Peptide mapping and basic pharmaceutical compounds prone to peak tailing

Providing superior resolution, improved peak shape, and increased efficiency

In a direct comparison of SPP columns, the Ascentis® Express PCS-C18 column outperforms the SPP column of a leading competitor by offering superior resolution, improved tailing factors, and increased plate count.

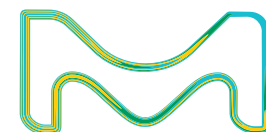


Ascentis® Express PCS-C18, 2.7 µm specifications:

Silica:	Type B (High purity silica)
Particle Platform:	Superficially porous particles (FPP)
Phase Chemistry:	Dimethyloctadecylsilane and positively charged ligand
USP:	L1
Particle Size:	2.7 µm
Pore Size:	90 Å
Carbon Load:	7.5 %
Surface Area:	125 m ² /g
pH Range:	2 - 7
Max Temperature:	60 °C
Endcapped:	Yes

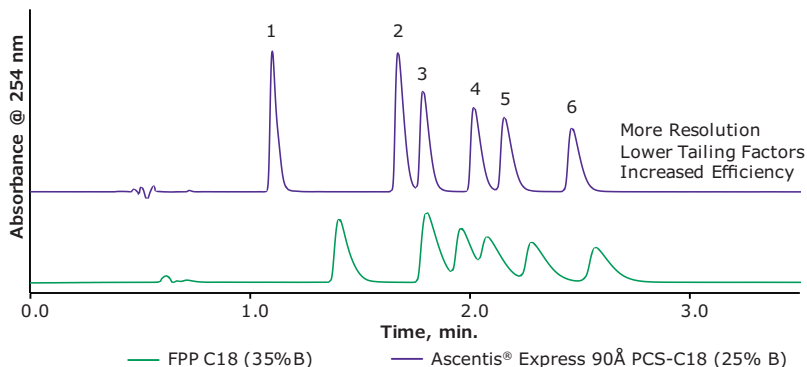
Chromatographic Conditions:

Column:	Ascentis® Express 90 Å PCS-C18, 2.7 µm, 100 mm x 2.1 mm I.D. Competitor SPP C18+, 2.7 µm, 100 mm x 2.1 mm I.D.
Mobile Phase:	A: Water, 0.1% Formic Acid B: Acetonitrile, 0.1% Formic Acid
Isocratic:	Ascentis® Express 90 Å PCS-C18: 24% B Competitor C18+: 26% B
Flow Rate:	0.4 mL/min
Temperature:	35 °C
Injection:	0.5 µL
Sample Solvent:	70/30 Water/ MeCN
Wavelength:	PDA, 254 nm
Sample:	1. Uracil 2. Imipramine 3. 4-Methoxybenzoic Acid 4. 2-Chlorobenzoic Acid



Improving the Separation of Antidepressants

Tricyclic antidepressants (TCAs) are a category of medications primarily utilized for the treatment of depression. The Ascentis® Express PCS-C18 column is employed to separate these antidepressant compounds effectively. The positively charged surface (PCS) stationary phase of the column is particularly suitable for analyzing basic analytes by employing low ionic strength mobile phases such as formic acid. Additionally, this column exhibits improved sample loading compared to conventional C18 columns based on fully porous silica particles (FPP).



Chromatographic Conditions:

Column:	Ascentis® Express 90 Å PCS-C18, 2.7 µm, 100 mm x 2.1 mm I.D. FPP C18: 3 µm, 100 mm x 2.1 mm
Mobile Phase:	A: Water, 0.1% Formic Acid B: Acetonitrile, 0.1% Formic Acid
Isocratic:	Ascentis® Express 90 Å PCS-C18: 25% B FPP C18: 35% B
Flow Rate:	0.4 mL/min
Temperature:	35 °C
Injection:	0.5 µL (40 µg)
Sample Solvent:	75/25 Water/ MeCN
Wavelength:	PDA, 254 nm
Sample:	1. Doxepin 2. Desipramine 3. Imipramine 4. Nortriptyline 5. Amitriptyline 6. Trimipramine

Ordering Information

Ascentis® Express PCS-C18, 2.7 µm

Length (mm)	I.D. (mm)	Cat. No.
50	x 1.5	50637-U
100	x 1.5	50638-U
150	x 1.5	50639-U
50	x 2.1	50640-U
100	x 2.1	50641-U
150	x 2.1	50642-U
50	x 3.0	50643-U
100	x 3.0	50644-U
150	x 3.0	50645-U
50	x 4.6	50646-U
100	x 4.6	50647-U
150	x 4.6	50648-U

Guard Columns (3 pk)

5	x 1.5	50649-U
5	x 2.1	50650-U
5	x 3.0	50651-U
5	x 4.6	50652-U



To place an order or receive technical assistance

Order/Customer Service: [SigmaAldrich.com/order](https://www.sigmaaldrich.com/order)

Technical Service: [SigmaAldrich.com/techservice](https://www.sigmaaldrich.com/techservice)

Safety-related Information: [SigmaAldrich.com/safetycenter](https://www.sigmaaldrich.com/safetycenter)

[SigmaAldrich.com](https://www.sigmaaldrich.com)

Merck KGaA
Frankfurter Strasse 250
64293 Darmstadt, Germany

We have built a unique collection of life science brands with unrivalled experience in supporting your scientific advancements.

Millipore® Sigma-Aldrich® Supelco® Milli-Q® SAFC® BioReliance®

© 2024 Merck KGaA, Darmstadt, Germany and/or its affiliates. All Rights Reserved. Merck, the vibrant M, BioReliance, Millipore, Milli-Q, SAFC, Sigma-Aldrich, Supelco, and Ascentis are trademarks of Merck KGaA, Darmstadt, Germany or its affiliates. All other trademarks are the property of their respective owners. Detailed information on trademarks is available via publicly accessible resources.

MK_FL13399EN Ver. 1.0 54245 03/2024

