

Avantor® ACE® preparative columns

- Ultra-high purity base deactivated silica
- 5 and 10 µm particle sizes available
- Excellent reproducibility
- High surface area and carbon loads for maximum sample capacity and loadability
- High sample recovery
- Reliable, long term performance
- 100 Å and 300 Å pore sizes

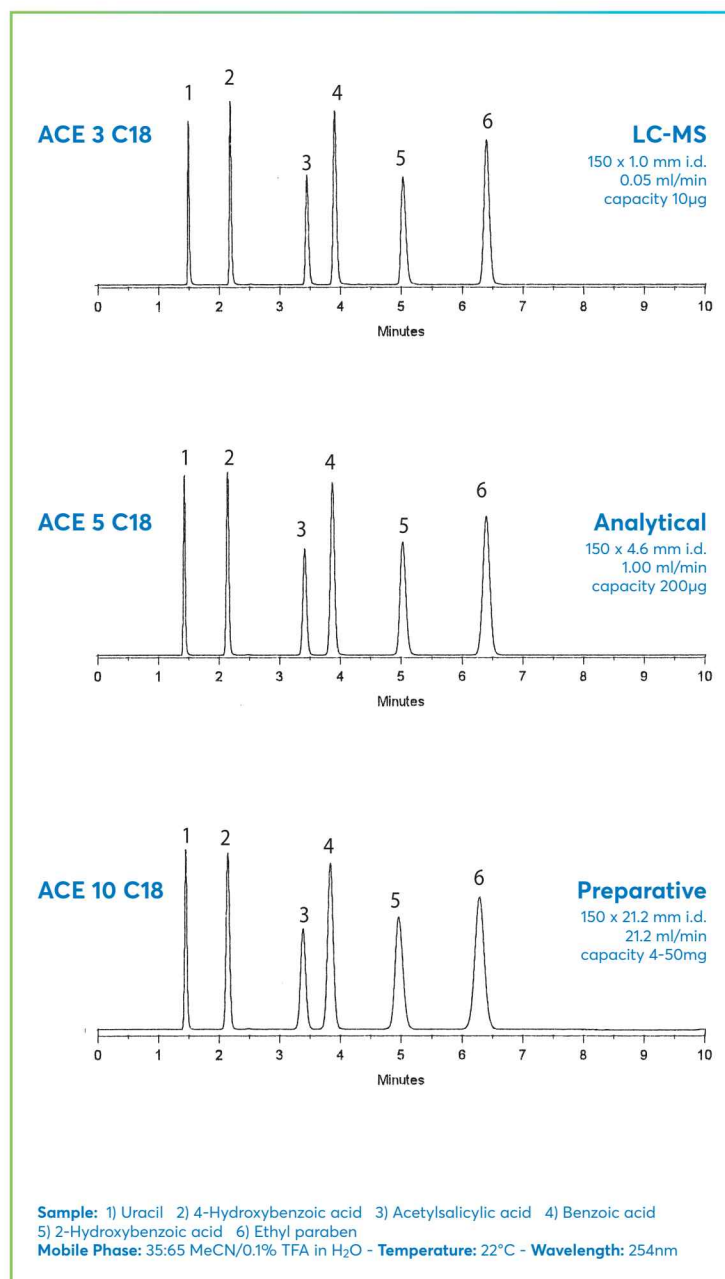


Achieve reproducible high performance preparative separations with ACE preparative columns

- Chromatographers with experience in preparative HPLC know that resolution and loadability are of the utmost importance
- The higher the resolution, the higher the sample load and the faster pure sample is obtained
- The ability to optimise at the preparative scale starts with high performance and resolution separations at the analytical scale

Column Size	Column ID (mm)	Relative flow rate (mL/min)	Weight of phase (g)	Typical injection volume (µL)	Sample capacity per injection	
					Optimum	Overload
ANALYTICAL	4.6	1.0	2.5	10	2 mg	85 mg
	7.75	2.8	7	30	6 mg	240 mg
SEMI-PREPARATIVE	10.0	4.7	12	50	10 mg	400 mg
	21.2	21	53	200	45 mg	1.8 g
PREPARATIVE	30.0	42.5	106	400	90 mg	3.6 g
	50.0	118	295	1200	250 mg	10 g
PROCESS	100.0	473	1182	4800	1 g	40 g

ACE PREPARATIVE COLUMNS ARE THE IDEAL CHOICE FOR SCALE UP AND PROCESS METHODS



PREPARATIVE SCALE SEPARATION OF ASPIRIN AND RELATED SUBSTANCES

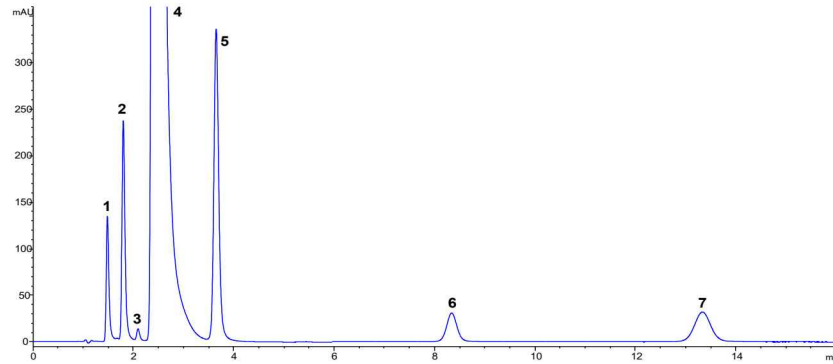
Initial method optimised on 100 x 4.6 mm id analytical column before scaling up the method to a 100 x 21.2 mm id preparative column, fractions were collected and analysed by analytical HPLC for a 3 mL injection. For the 3 mL injection, the signal cut-off was set to 10 mAU as demonstrated in figure below which gave ~95% purity based on peak area.



Avantor® ACE® preparative columns are available in all traditional and novel chemistries, see page 11

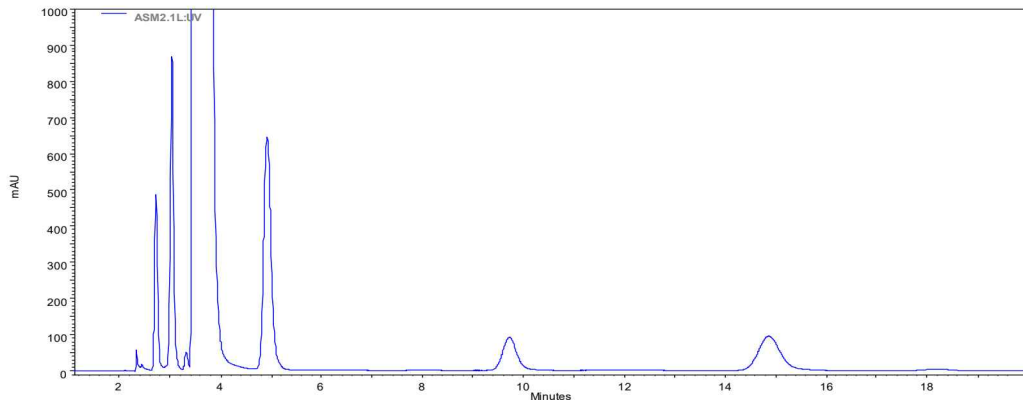
**Analytical Scale:
ACE EXCEL 5 C18**

Dimension: 100 x 4.6 mm
Flow Rate: 1 mL/min
Injection: 10 µL
Temperature: 22 °C
Detection: UV, 214 nm



**Preparative Scale:
ACE 10 C18**

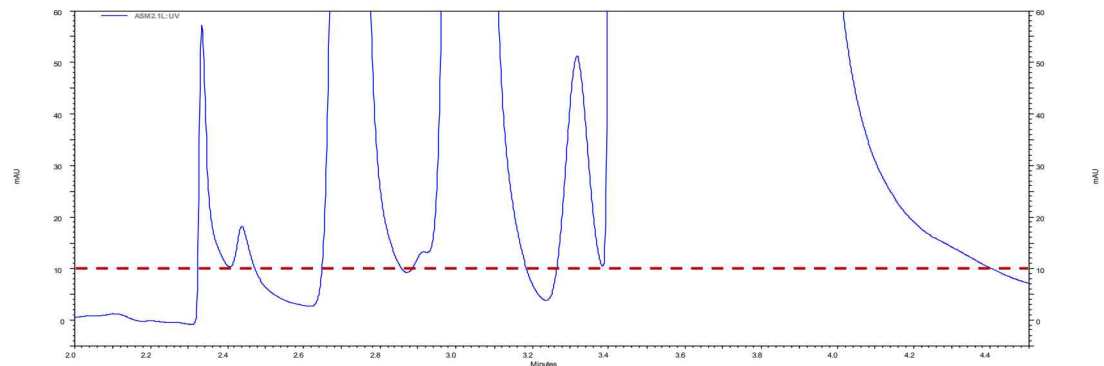
Dimension: 100 x 21.2 mm
Flow Rate: 21.2 mL/min
Injection: 3 mL
Temperature: 22 °C
Detection: UV, 214 nm



Mobile phase: 0.1% H₃PO₄ in MeCN:MeOH:H₂O 3:1:6 (v/v/v)

Sample: 1) 4-hydroxybenzoic acid, 2) 4-hydroxyisophthalic acid, 3) unknown, 4) acetylsalicylic acid (aspirin), 5) 2-hydroxybenzoic acid, 6) acetylsalicylsalicylic acid, 7) salsalate

**Signal cut-off
for fraction collection
set to 10 mAU**



AVANTOR® ACE® PREPARATIVE COLUMNS

AVANTOR® ACE® C18-HL

- High surface area, high carbon load C18 phase
- Optimised for preparative and process scale applications
- Increased loading and retention
- 5 µm and 10 µm particles sizes available
- Exceptional chemical stability
- Excellent peak shape with acidic, basic and neutral molecules

ORDERING INFORMATION

AVANTOR® ACE® TRADITIONAL CHEMISTRIES, 5 µm PARTICLES SIZES

Column Dimensions	C18	C8	C4	CN	Phenyl	AQ	Sil	C18-HL	NH ₂
10.0 x 50 mm	ACE-121-0510	ACE-122-0510	ACE-123-0510	ACE-124-0510	ACE-125-0510	ACE-126-0510	ACE-127-0510	ACE-321-0510	ACE-1214-0510
10.0 x 100 mm	ACE-121-1010	ACE-122-1010	ACE-123-1010	ACE-124-1010	ACE-125-1010	ACE-126-1010	ACE-127-1010	ACE-321-1010	ACE-1214-1010
10.0 x 150 mm	ACE-121-1510	ACE-122-1510	ACE-123-1510	ACE-124-1510	ACE-125-1510	ACE-126-1510	ACE-127-1510	ACE-321-1510	ACE-1214-1510
10.0 x 250 mm	ACE-121-2510	ACE-122-2510	ACE-123-2510	ACE-124-2510	ACE-125-2510	ACE-126-2510	ACE-127-2510	ACE-321-2510	ACE-1214-2510
21.2 x 100 mm	ACE-121-1020	ACE-122-1020	ACE-123-1020	ACE-124-1020	ACE-125-1020	ACE-126-1020	ACE-127-1020	ACE-321-1020	ACE-1214-1020
21.2 x 150 mm	ACE-121-1520	ACE-122-1520	ACE-123-1520	ACE-124-1520	ACE-125-1520	ACE-126-1520	ACE-127-1520	ACE-321-1520	ACE-1214-1520
21.2 x 250 mm	ACE-121-2520	ACE-122-2520	ACE-123-2520	ACE-124-2520	ACE-125-2520	ACE-126-2520	ACE-127-2520	ACE-321-2520	ACE-1214-2520
ACE guard cartridges for preparative columns (3pk)									
For 10.0-21.2 mm ID columns	ACE-121-0110GD	ACE-122-0110GD	ACE-123-0110GD	ACE-124-0110GD	ACE-125-0110GD	ACE-126-0110GD	ACE-127-0110GD	ACE-321-0110GD	ACE-1214-0110GD
Stand-alone guard cartridge holder H0002 and column coupler C0001 will be required									

AVANTOR® ACE® TRADITIONAL CHEMISTRIES, 10 µm PARTICLES SIZES

Column Dimensions	C18	C8	C4	CN	Phenyl	AQ	Sil	C18-HL
10.0 x 50 mm	ACE-131-0510	ACE-132-0510	ACE-133-0510	ACE-134-0510	ACE-135-0510	ACE-136-0510	ACE-137-0510	ACE-331-0510
10.0 x 100 mm	ACE-131-1010	ACE-132-1010	ACE-133-1010	ACE-134-1010	ACE-135-1010	ACE-136-1010	ACE-137-1010	ACE-331-1010
10.0 x 150 mm	ACE-131-1510	ACE-132-1510	ACE-133-1510	ACE-134-1510	ACE-135-1510	ACE-136-1510	ACE-137-1510	ACE-331-1510
10.0 x 250 mm	ACE-131-2510	ACE-132-2510	ACE-133-2510	ACE-134-2510	ACE-135-2510	ACE-136-2510	ACE-137-2510	ACE-331-2510
21.2 x 100 mm	ACE-131-1020	ACE-132-1020	ACE-133-1020	ACE-134-1020	ACE-135-1020	ACE-136-1020	ACE-137-1020	ACE-331-1020
21.2 x 150 mm	ACE-131-1520	ACE-132-1520	ACE-133-1520	ACE-134-1520	ACE-135-1520	ACE-136-1520	ACE-137-1520	ACE-331-1520
21.2 x 250 mm	ACE-131-2520	ACE-132-2520	ACE-133-2520	ACE-134-2520	ACE-135-2520	ACE-136-2520	ACE-137-2520	ACE-331-2520
30.0 x 100 mm	ACE-131-1030	ACE-132-1030	ACE-133-1030	ACE-134-1030	ACE-135-1030	ACE-136-1030	ACE-137-1030	ACE-331-1030
30.0 x 150 mm	ACE-131-1530	ACE-132-1530	ACE-133-1530	ACE-134-1530	ACE-135-1530	ACE-136-1530	ACE-137-1530	ACE-331-1530
30.0 x 250 mm	ACE-131-2530	ACE-132-2530	ACE-133-2530	ACE-134-2530	ACE-135-2530	ACE-136-2530	ACE-137-2530	ACE-331-2530
ACE guard cartridges for preparative columns (3pk)								
For 10.0-21.2 mm ID columns	ACE-121-0110GD	ACE-122-0110GD	ACE-123-0110GD	ACE-124-0110GD	ACE-125-0110GD	ACE-126-0110GD	ACE-127-0110GD	ACE-321-0110GD
Stand-alone guard cartridge holder H0002 and column coupler C0001 will be required								
For 30 mm ID columns	ACE-121-0120GD	ACE-122-0120GD	ACE-123-0120GD	ACE-124-0120GD	ACE-125-0120GD	ACE-126-0120GD	ACE-127-0120GD	ACE-321-0120GD
Stand-alone guard cartridge holder H0009 and column coupler C0002 will be required								

AVANTOR® ACE® NOVEL CHEMISTRIES, 5 µm PARTICLES SIZES

Column Dimensions	C18-AR	C18-PFP	SuperC18	C18-Amide	CN-ES
10.0 x 50 mm	ACE-129-0510	ACE-1210-0510	ACE-1211-0510	ACE-1212-0510	ACE-1213-0510
10.0 x 100 mm	ACE-129-1010	ACE-1210-1010	ACE-1211-1010	ACE-1212-1010	ACE-1213-1010
10.0 x 150 mm	ACE-129-1510	ACE-1210-1510	ACE-1211-1510	ACE-1212-1510	ACE-1213-1510
10.0 x 250 mm	ACE-129-2510	ACE-1210-2510	ACE-1211-2510	ACE-1212-2510	ACE-1213-2510
21.2 x 100 mm	ACE-129-1020	ACE-1210-1020	ACE-1211-1020	ACE-1212-1020	ACE-1213-1020
21.2 x 150 mm	ACE-129-1520	ACE-1210-1520	ACE-1211-1520	ACE-1212-1520	ACE-1213-1520
21.2 x 250 mm	ACE-129-2520	ACE-1210-2520	ACE-1211-2520	ACE-1212-2520	ACE-1213-2520
ACE guard cartridges for preparative columns (3pk)					
For 10.0-21.2 mm ID columns	ACE-129-0110GD	ACE-1210-0110GD	ACE-1211-0110GD	ACE-1212-0110GD	ACE-1213-0110GD
Stand-alone guard cartridge holder H0002 and column coupler C0001 will be required					
For 30 mm ID columns	ACE-129-0120GD	ACE-1210-0120GD	ACE-1211-0120GD	ACE-1212-0120GD	ACE-1213-0120GD
Stand-alone guard cartridge holder H0009 and column coupler C0002 will be required					

AVANTOR® ACE® NOVEL CHEMISTRIES, 10 µm PARTICLES SIZES

Column Dimensions	C18-AR	C18-PFP	SuperC18	C18-Amide	CN-ES
10.0 x 50 mm	ACE-139-0510	ACE-1310-0510	ACE-1311-0510	ACE-1312-0510	ACE-1313-0510
10.0 x 100 mm	ACE-139-1010	ACE-1310-1010	ACE-1311-1010	ACE-1312-1010	ACE-1313-1010
10.0 x 150 mm	ACE-139-1510	ACE-1310-1510	ACE-1311-1510	ACE-1312-1510	ACE-1313-1510
10.0 x 250 mm	ACE-139-2510	ACE-1310-2510	ACE-1311-2510	ACE-1312-2510	ACE-1313-2510
21.2 x 100 mm	ACE-139-1020	ACE-1310-1020	ACE-1311-1020	ACE-1312-1020	ACE-1313-1020
21.2 x 150 mm	ACE-139-1520	ACE-1310-1520	ACE-1311-1520	ACE-1312-1520	ACE-1313-1520
21.2 x 250 mm	ACE-139-2520	ACE-1310-2520	ACE-1311-2520	ACE-1312-2520	ACE-1313-2520
30.0 x 50 mm	ACE-139-0530	ACE-1310-0530	ACE-1311-0530	ACE-1312-0530	ACE-1313-0530
30.0 x 100 mm	ACE-139-1030	ACE-1310-1030	ACE-1311-1030	ACE-1312-1030	ACE-1313-1030
30.0 x 150 mm	ACE-139-1530	ACE-1310-1530	ACE-1311-1530	ACE-1312-1530	ACE-1313-1530
30.0 x 250 mm	ACE-139-2530	ACE-1310-2530	ACE-1311-2530	ACE-1312-2530	ACE-1313-2530
ACE guard cartridges for preparative columns (3pk)					
For 10.0-21.2 mm ID columns	ACE-139-0110GD	ACE-1310-0110GD	ACE-1311-0110GD	ACE-1312-0110GD	ACE-1313-0110GD
Stand-alone guard cartridge holder H0002 and column coupler C0001 will be required					
For 30 mm ID columns	ACE-139-0120GD	ACE-1310-0120GD	ACE-1311-0120GD	ACE-1312-0120GD	ACE-1313-0120GD
Stand-alone guard cartridge holder H0009 and column coupler C0002 will be required					



AVANTOR® ACE® PREPARATIVE COLUMNS

AVANTOR® ACE® 300 Å CHEMISTRIES, 5 µm PARTICLES SIZES

Column Dimensions	C18-300	C8-300	C4-300	CN-300	Phenyl-300
10.0 x 50 mm	ACE-221-0510	ACE-222-0510	ACE-223-0510	ACE-224-0510	ACE-225-0510
10.0 x 100 mm	ACE-221-1010	ACE-222-1010	ACE-223-1010	ACE-224-1010	ACE-225-1010
10.0 x 150 mm	ACE-221-1510	ACE-222-1510	ACE-223-1510	ACE-224-1510	ACE-225-1510
10.0 x 250 mm	ACE-221-2510	ACE-222-2510	ACE-223-2510	ACE-224-2510	ACE-225-2510
21.2 x 100 mm	ACE-221-1020	ACE-222-1020	ACE-223-1020	ACE-224-1020	ACE-225-1020
21.2 x 150 mm	ACE-221-1520	ACE-222-1520	ACE-223-1520	ACE-224-1520	ACE-225-1520
21.2 x 250 mm	ACE-221-2520	ACE-222-2520	ACE-223-2520	ACE-224-2520	ACE-225-2520
ACE guard cartridges for preparative columns (3pk)					
For 10.0-21.2 mm ID columns	ACE-221-0110GD	ACE-222-0110GD	ACE-223-0110GD	ACE-224-0110GD	ACE-225-0110GD

Stand-alone guard cartridge holder H0002 and column coupler C0001 will be required

AVANTOR® ACE® 300 Å CHEMISTRIES, 10 µm PARTICLES SIZES

Column Dimensions	C18-300	C8-300	C4-300	CN-300	Phenyl-300
10.0 x 50 mm	ACE-231-0510	ACE-232-0510	ACE-233-0510	ACE-234-0510	ACE-235-0510
10.0 x 100 mm	ACE-231-1010	ACE-232-1010	ACE-233-1010	ACE-234-1010	ACE-235-1010
10.0 x 150 mm	ACE-231-1510	ACE-232-1510	ACE-233-1510	ACE-234-1510	ACE-235-1510
10.0 x 250 mm	ACE-231-2510	ACE-232-2510	ACE-233-2510	ACE-234-2510	ACE-235-2510
21.2 x 100 mm	ACE-231-1020	ACE-232-1020	ACE-233-1020	ACE-234-1020	ACE-235-1020
21.2 x 150 mm	ACE-231-1520	ACE-232-1520	ACE-233-1520	ACE-234-1520	ACE-235-1520
21.2 x 250 mm	ACE-231-2520	ACE-232-2520	ACE-233-2520	ACE-234-2520	ACE-235-2520
ACE guard cartridges for preparative columns (3pk)					
For 10-21.2 mm ID columns	ACE-231-0110GD	ACE-232-0110GD	ACE-233-0110GD	ACE-234-0110GD	ACE-235-0110GD

Stand-alone guard cartridge holder H0002 and column coupler C0001 will be required

For dimensions not listed here, please contact:
chromsupport@avantorsciences.com