Accucore Vanquish

Powerful separations are our core performance

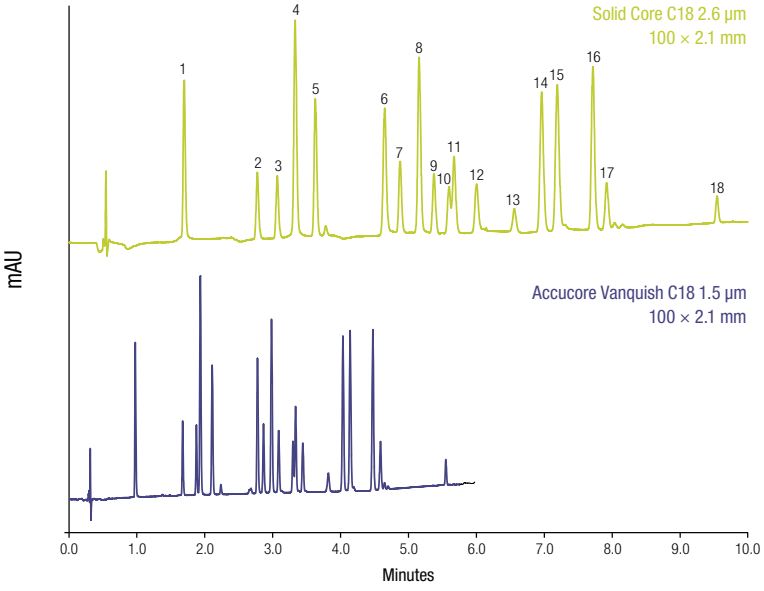
Thermo Scientific™ Accucore™ Vanquish™ UHPLC columns provide a robust chromatography solution to enhance laboratory workflows and productivity. These columns, in combination with Vanquish UHPLC systems, deliver powerful separations to solve your analytical challenges faster and more effectively.

These next-generation UHPLC columns feature 1.5µm solid core particles and combine the benefits of a solid core material and the increased chromatographic efficiency of a sub-2µm particle.

Modern analytical laboratories continue to be driven towards higher throughput workflows which require better separations, more results and easier interaction at a reduced cost. Accucore Vanquish UHPLC columns enable you to achieve this by delivering:

Better separations

The high efficiency offered by Accucore Vanquish UHPLC columns enables the resolution of very complex mixtures.



Comparison of separation of 18 pesticides using Accucore Vanquish 1.5µm column to a larger particle size solid core column

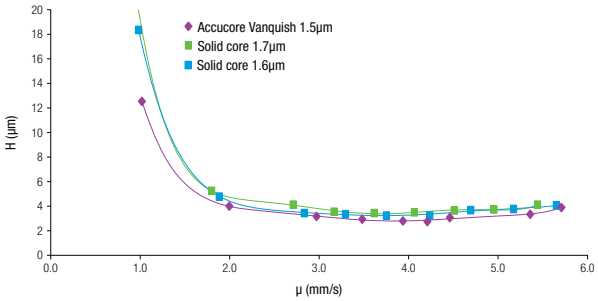
Mobile Phase A:Water
Mobile Phase B:Acetonitrile

Gradient:	Solid core C18 2.6µm 100 × 2.1mm	
	Time (min)	%B
	0	20
	6.9	40
	12.1	80
	Accucore Vanquish C18 1.5µm 100 × 2.1mm	
	Time (min)	%B
	0	20
	4	40
	7	80
Temperature:	43°C	
Flow Rate:	Solid Core C18 2.6µm 100 × 2.1mm = 380µL/min	
	Accucore Vanquish C18 1.5µm 100 × 2.1mm = 650µL/min	
Injection Volume:	0.5µL	
Detection:	UV, 230nm (0.1s rise time, 50Hz)	
Analytes:	1. Desethylatrazine	10. Diuron
	2. Metoxuron	11. Isoproturon
	3. Hexazinone	12. Metobromuron
	4. Simazine	13. Metazachlor
	5. Cyanazine	14. Sebuthylazin
	6. Methabenzthiazuron	
	15. Propazine	
	7. Chlorotoluron	16. Terbuthylazine
	8. Atrazine	17. Linuron
	9. Monolinuron	18. Metolachlor

For more information, visit **thermofisher.com/accucore**

More results

High efficiency is maintained even at high flow rates enabling fast reproducible separations.



Accucore Vanquish C18,1.5µm
Solid Core C18 1.7µm
Solid Core C18 1.6µm

Mobile Phase:	Water:acetonitrile (50:50)
Temperature:	30°C
Flow Rate:	0.1 to 0.6mL/min

Accucore Vanquish

Particle Size (µm)	Format	Length (mm)	ID (mm)	C18+
1.5	UHPLC Column	50	2.1	27101-052130
		100	2.1	27101-102130
		150	2.1	27101-152130

For more information, visit **thermofisher.com/vanquishcolumn**

Validated for Vanquish UHPLC columns

Delivering Powerful Separations

The Thermo Scientific™ Accucore™ Vanquish™ and VANQUISH UHPLC columns were developed to complement the performance characteristics of the Vanquish UHPLC system. They provide greater selectivity and format flexibility, in combination with the increased chromatographic efficiency of lower particle sizes.

The UHPLC column and system solution allows you to achieve the best possible results for your application by delivering:

- Better Separations: High efficiency enables separation of very complex mixtures
- More Results: High efficiency at high flow rates
- Easier Interactions: Seamless workflow solution, for simple and easy separations
- Capable of pressure operation up to 21,000psi/1500 bar

Ordering information

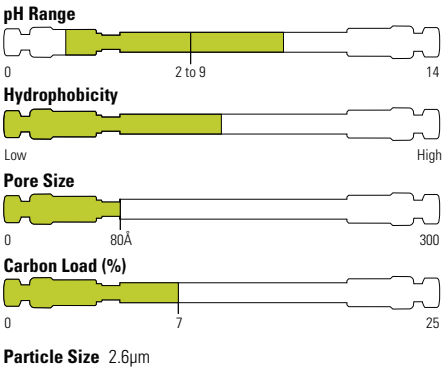
Description	Particle Size	Length (mm)	Diameter (ID)	Part Number
Accucore Vanquish C18+	1.5	50	2.1	27101-052130
		100	2.1	27101-102130
		150	2.1	27101-152130
Hypersil GOLD VANQUISH	1.9	50	2.1	25002-052130-V
		100	2.1	25002-102130-V
		150	2.1	25002-152130-V
Hypersil GOLD VANQUISH PFP	1.9	100	2.1	25402-102130-V
		150	2.1	25402-152130-V
		200	2.1	25402-202130-V
Hypersil GOLD VANQUISH aQ	1.9	100	2.1	25302-102130-V
		150	2.1	25302-152130-V
		200	2.1	25302-202130-V
Acclaim VANQUISH C18	2.2	150	2.1	071399-V
		250	2.1	074812-V
Acclaim VANQUISH PA2	2.2	150	2.1	071401-V
		250	2.1	074814-V

For more information, visit **thermofisher.com/vanquishcolumn**

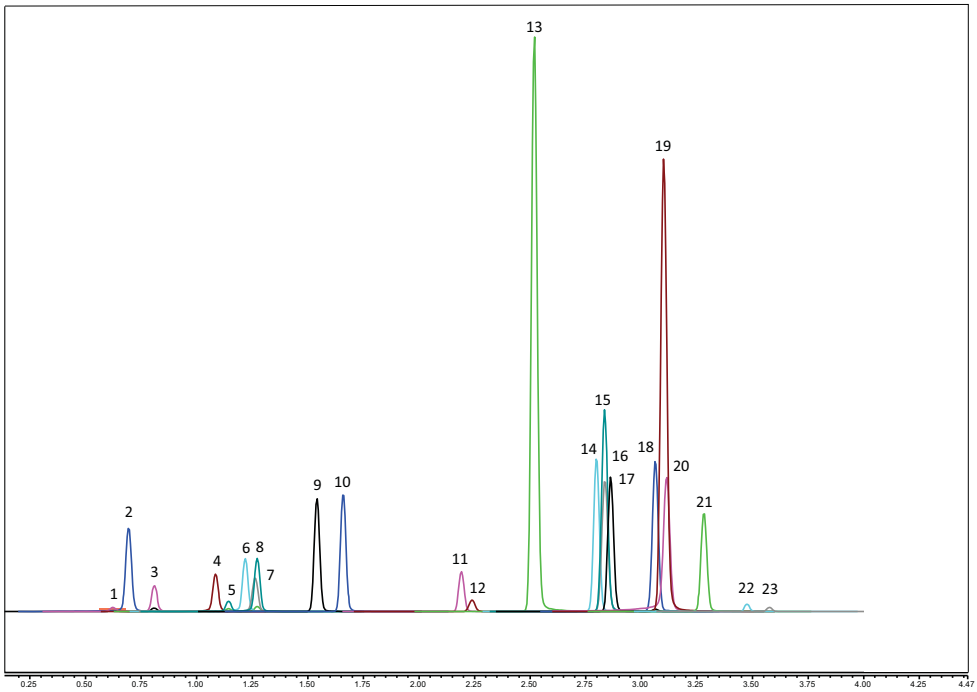
Accucore Biphenyl

Generally C18 columns offer the ability to resolve a wide variety of analytes without issues. However, there are times when alternative chemistry is required for the separation of aromatic and moderately polar analytes. Biphenyl chemistry offers complementary selectivity to a C18 column, resolving analytes not just on hydrophobicity, but also π-π interactions. This chemistry provides the ability to resolve isomeric compounds, such as drugs of abuse and steroids.

- Compatibility with 100% aqueous conditions
- Lower backpressure, UHPLC not required
- Great column lifetime
- Excellent lot-to-lot reproducibility
- Rugged column, suitable for a variety of matrices



Particle Size 2.6µm



Accucore Biphenyl

Mobile Phase A:	Water/0.1% Formic Acid
Mobile Phase B:	Methanol/ 0.1% Formic Acid
Gradient:	Accucore Biphenyl 2.6µm 50 × 2.1mm
Injection Volume:	2µL
Column Temp:	45C
Detection:	MS

1	Morphine
2	Oxymorphone
3	Hydromorphone
4	Naloxone
5	Codeine
6	Oxycodone
7	Naltrexone
8	Hydrocodone
9	Tramadol
10	Meperidine
11	Fentanyl
12	Buprenorphine
13	Methadone
14	Lorazepam
15	Oxazepam
16	Nitrazepam
17	Clonazepam
18	Flunitrazepam
19	Temazepam
20	Alprazolam
21	Diazepam
22	11-Hydroxy-THC
23	11-Carboxy-THC

Part numbers	
2.1x50mm	17826-052130
2.1x100mm	17826-102130
2.1x10mm drop in cartridge	17826-012105
Drop in Cartridge holder	852-00

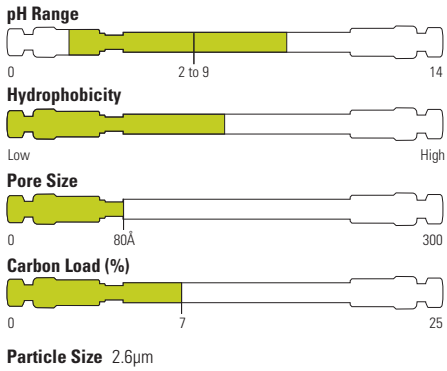
Accucore RP-MS

- Optimized for MS detection
- Excellent peak shapes
- Excellent combination of speed and efficiency

Accucore RP-MS uses an optimized alkyl chain length for more effective coverage of the silica surface. This coverage results in a significant reduction in non-hydrophobic interactions and thus highly efficient peaks with very low tailing.

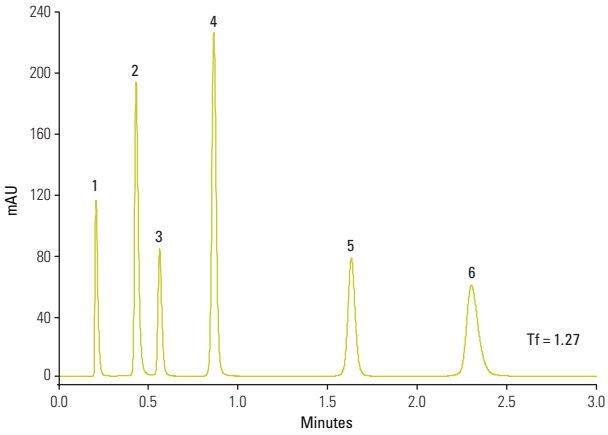
RP-MS offers slightly lower retention than C18 and this combined with high efficiencies and low peak tailing make this the phase of choice for use with MS detection.

The selectivity offered by Accucore RP-MS matches that of C18 columns.



Particle Size 2.6µm

Bases



Accucore RP-MS 2.6µm, 50mm x 2.1mm

Mobile Phase:	65% Methanol / 35% 25mM Potassium Phosphate pH7.0
Temperature:	30°C
Flow Rate:	500µL/min
Injection Volume:	1µL
Backpressure:	232 bar
Detection:	UV, 215nm
Analytes:	1. Uracil 2. Propranolol 3. Butylparaben 4. Naphthalene 5. Acenaphthene 6. Amitriptyline

Accucore RP-MS

Particle Size (µm)	Format	Length (mm)	2.1mm ID	3.0mm ID	4.6mm ID
2.6	Defender Guard (4/pk)	10	17626-012105	17626-013005	17626-014005
	HPLC Column	30	17626-032130	-	-
		50	17626-052130	17626-053030	17626-054630
		100	17626-102130	17626-103030	17626-104630
		150	17626-152130	17626-153030	17626-154630
	Thermo Scientific™ UNIGUARD™ Drop-in Guard Cartridge Holder	10	852-00	852-00	850-00

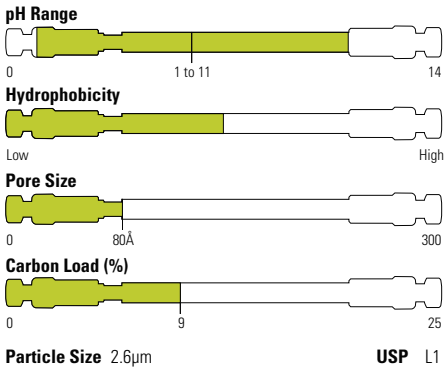
For more information, visit **thermofisher.com/accucore**

Accucore C18

- Optimum retention of non-polar compounds
- Hydrophobic interaction mechanism
- Separates a broad range of analytes

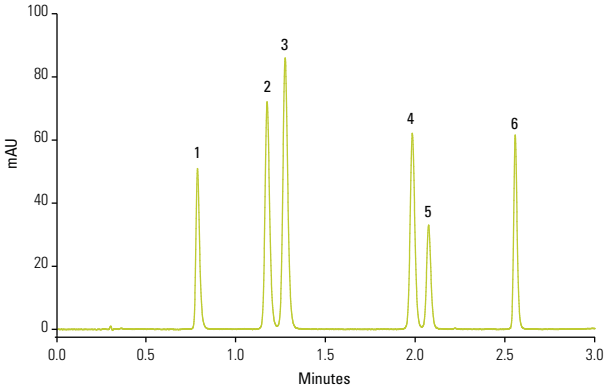
The carbon loading of Accucore C18 phase provides high retention of non-polar analytes via a predominantly hydrophobic interaction mechanism.

The highly retentive nature of Accucore C18 phase means that it can be used to separate a broad range of analytes.



Particle Size 2.6µm **USP** L1

Triazines



Accucore C18 2.6µm, 50mm x 2.1mm

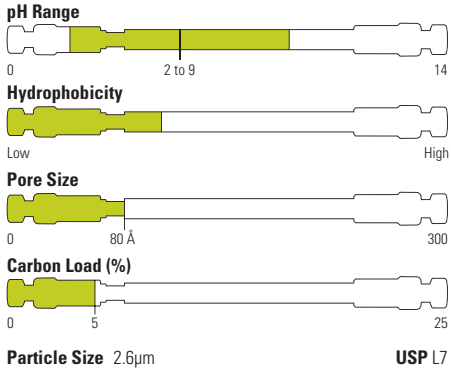
Mobile Phase A:	Water	
Mobile Phase B:	Acetonitrile	
Gradient:	Time (min)	%B
	1.0	35
	2.5	70
Temperature:	25°C	
Flow Rate:	600µL/min	
Injection Volume:	2µL	
Backpressure:	298 bar	
Detection:	UV, 280nm	
Analytes:	1. Simazine	
	2. Simetryn	
	3. Atrazine	
	4. Ametryn	
	5. Propazine	
	6. Prometryn	

Accucore C18

Particle Size (µm)	Format	Length (mm)	1mm ID	2.1mm ID	3.0mm ID	4.6mm ID
2.6	Defender Guard (4/pk)	10	-	17126-012105	17126-013005	17126-014005
	HPLC Column	30	-	17126-032130	-	-
		50	-	17126-052130	17126-053030	17126-054630
		100	17126-101030	17126-102130	17126-103030	17126-104630
		150	-	17126-152130	17126-153030	17126-154630
4	UNIGUARD Drop-in Guard Cartridge Holder	10	-	852-00	852-00	850-00

Accucore C8

- Lower hydrophobic retention
- Complementary steric selectivity to C18
- Low levels of secondary interactions
- Recommended for moderately polar analytes

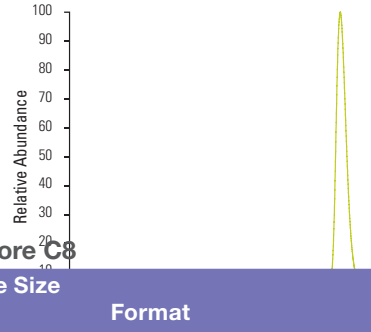


Particle Size 2.6µm **USP** L7

Accucore C8 HPLC columns offer lower hydrophobic retention than columns packed with longer alkyl chain length material, such as C18, and are therefore recommended for analytes with medium hydrophobicity or when a less hydrophobic phase provides optimum retention.

The low levels of secondary interactions demonstrated in the phase characterization are the result of excellent bonded phase coverage and allow users of Accucore C8 HPLC columns to benefit from excellent peak shapes.

Testosterone



Accucore C8

Accucore C8 2.6µm, 50 x 2.1mm

Mobile Phase A:	Water + 0.1% formic acid
Mobile Phase B:	Acetonitrile + 0.1% formic acid
Gradient:	5–95 % B in 0.8 minutes
Temperature:	60°C
Flow Rate:	1500µL/min
Injection Volume:	5µL
Detection:	ESI-MS/MS

Retention time (tR /min)	0.73
%RSD tR	0.22
%RSD Area	3.01

Data from six injections.

Particle Size (µm)	Format	Length (mm)	2.1mm ID	3.0mm ID	4.6mm ID
2.6	Defender Guard (4/pk)	10	17226-012105	17226-013005	17226-014005
	HPLC Column	30	17226-032130	-	-
		50	17226-052130	17226-053030	17226-054630
		100	17226-102130	17226-103030	17226-104630
		150	17226-152130	17226-153030	17226-154630
4	UNIGUARD Drop-in Guard Cartridge Holder	10	852-00	852-00	850-00

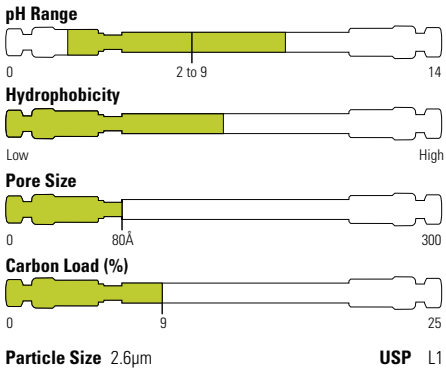
For more information, visit **thermofisher.com/accucore**

Accucore aQ

- Retention and resolution of polar analytes
- Polar endcapped C18 stationary phase for alternative selectivity
- Ideal for highly aqueous mobile phases

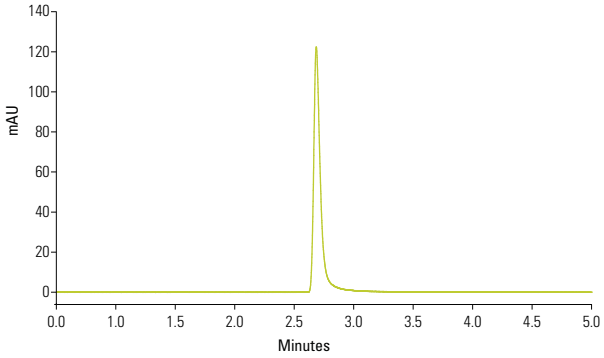
The polar functional group used to endcap Accucore aQ phase provides an additional controlled interaction mechanism by which polar compounds can be retained and resolved, making the Accucore aQ phase ideal for the quantitative analysis of trace levels of polar analytes.

The wettability of reversed phase media can be increased by the introduction of polar functional groups. The polar endcapping of Accucore aQ media also makes it usable in 100% aqueous mobile phases without the risk of loss of performance or poor stability.



Particle Size 2.6µm **USP** L1

Lamivudine (USP)



Accucore aQ 2.6µm, 50mm x 2.1mm

Mobile Phase:	95:5 (v/v) Ammonium Acetate, pH 3.80 / Methanol
Temperature:	35°C
Flow Rate:	200µL/min
Injection Volume:	1µL
Detection:	UV, 277nm
Analytes:	Lamivudine
Asymmetry	1.36
%RSD t_r	0.00
%RSD Peak area	1.72

(%RSD calculated from 6 replicate injections)
USP acceptance criteria: % RSD (t_r, Peak Area) <2.0

Accucore aQ

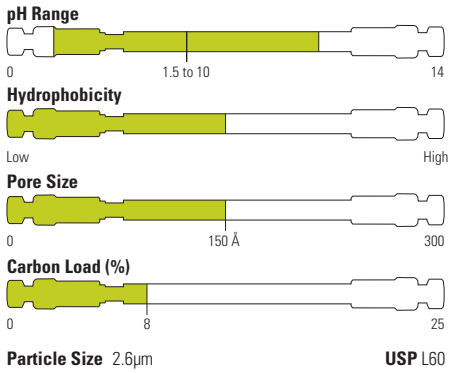
Particle Size (µm)	Format	Length (mm)	2.1mm ID	3.0mm ID	4.6mm ID
2.6	Defender Guard (4/pk)	10	17326-012105	17326-013005	17326-014005
	HPLC Column	30	17326-032130	-	-
		50	17326-052130	17326-053030	17326-054630
		100	17326-102130	17326-103030	17326-104630
		150	17326-152130	17326-153030	17326-154630
	UNIGUARD Drop-in Guard Cartridge Holder	10	852-00	852-00	850-00

Accucore Polar Premium

- Rugged amide-embedded C18 phase
- Selectivity complementary to conventional C18 phases
- Stable over a wide pH range and compatible with 100% aqueous mobile phase

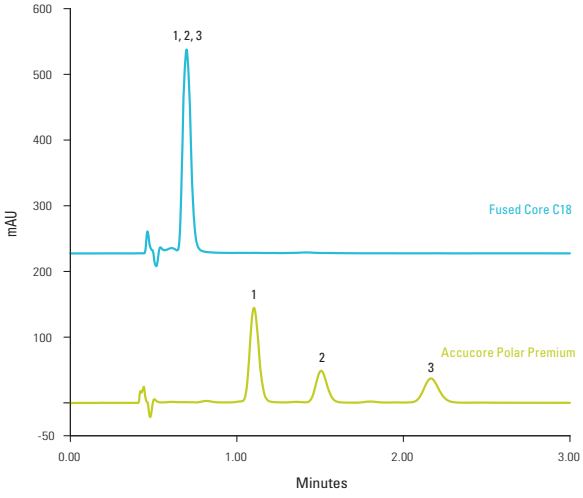
Accucore Polar Premium is an exceptionally rugged polar embedded reverse phase material that offers high efficiency, wider operating pH range and unique selectivity complementary to standard C18 phases.

The specially designed bonded phase is stable from pH 1.5 to 10.5 and will not undergo phase collapse in 100% aqueous mobile phase.



Particle Size 2.6µm **USP** L60

Curcuminoids (Tumeric)



Accucore Polar Premium 2.6µm, 100 x 3.0mm
Fused Core C18, 100 x 3.0mm

Mobile Phase:	Methanol : 10mM Phosphoric Acid, 80 : 20
Temperature:	40°C
Flow Rate:	800µL/min
Injection Volume:	6µL
Detection:	UV, 428nm
Analytes:	1. Curcumin 2. Desmethoxycurcumin 3. Bis-desmethoxycurcumin

The Accucore Polar Premium HPLC column provides desirable selectivity that resolves the major and minor component under simple isocratic conditions in less than three minutes, while the C18 columns fail to separate these components.

Accucore Polar Premium

Particle Size (µm)	Format	Length (mm)	2.1mm ID	3.0mm ID	4.6mm ID
2.6	Defender Guard (4/pk)	10	28026-012105	-	-
	HPLC Column	50	28026-052130	28026-053030	28026-054630
		100	28026-102130	28026-103030	28026-104630
		150	28026-152130	28026-153030	28026-154630
		250	28026-252130	-	-
	UNIGUARD Drop-in Guard Cartridge Holder	10	852-00	852-00	850-00

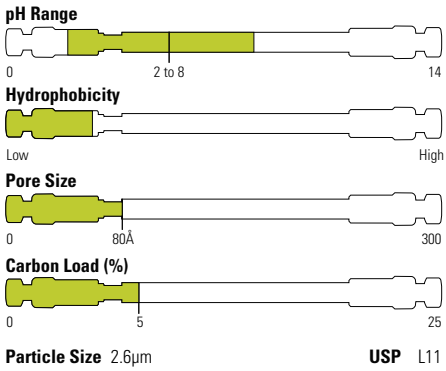
For more information, visit **thermofisher.com/accucore**

Accucore Phenyl-Hexyl

- Mixed-mode selectivity for aromatic and moderately polar analytes
- Enhanced pi-pi interactions with aromatics
- Moderate hydrophobicity

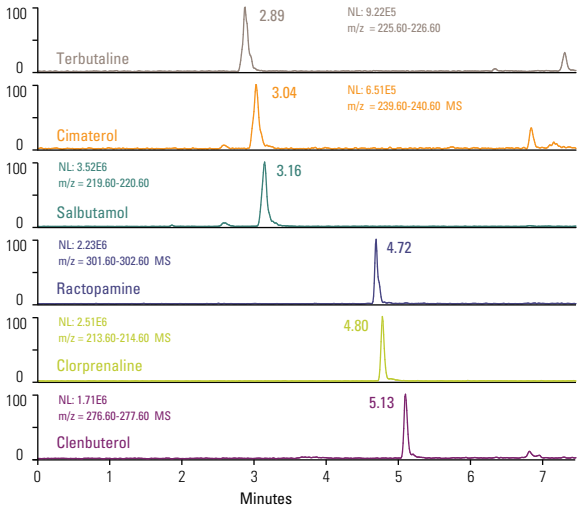
The C6 chain in Accucore Phenyl-Hexyl phase exhibits classical RP retention and selectivity, while the phenyl ring can add special selectivity by interacting with polar groups within the solutes. This results in a mixed-mode separation mechanism. The reduced hydrophobicity of this phase makes it ideal for the separation of very non-polar compounds.

The Phenyl-Hexyl phase should be selected for complex samples where some peaks are well resolved on a conventional alkyl phases, but are not well resolved on a conventional phenyl phase, or when other peaks are well resolved on a phenyl phase, but not well resolved on a conventional alkyl phase.



Particle Size 2.6µm **USP** L11

Beta-agonistsaa



Accucore Phenyl-Hexyl 2.6µm, 100mm x 2.1mm

Mobile Phase A:	Ammonium Acetate 5mM, pH 4
Mobile Phase B:	Acetonitrile
Gradient: %B	Time (min)
	0 5
	1 5
	10 100
Temperature:	40°C
Flow Rate:	0.25mL/min
Injection Volume:	1µL
Backpressure:	120 bar (at t0)
Detection:	+ESI-MS (45°C, 4.5kV, 60V, scan 150 – 350)

Accucore Phenyl-Hexyl

Particle Size (µm)	Format	Length (mm)	2.1mm ID	3.0mm ID	4.6mm ID
2.6	Defender Guard (4/pk)	10	17926-012105	17926-013005	17926-014005
	HPLC Column	30	17926-032130	-	-
		50	17926-052130	17926-053030	17926-054630
		100	17926-102130	17926-103030	17926-104630
		150	17926-152130	17926-153030	17926-154630
	UNIGUARD Drop-in Guard Cartridge Holder	10	852-00	852-00	850-00

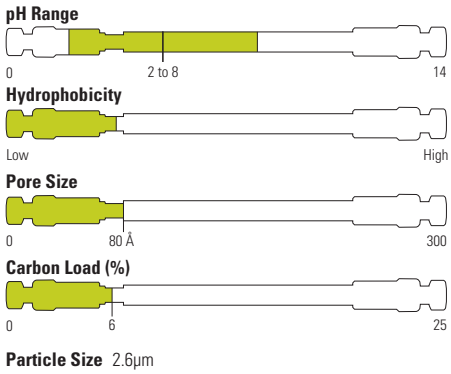
Accucore Phenyl-X

- Unique reversed-phase shape selectivity
- Enhanced selectivity for aromatic compounds
- Compatible with highly aqueous mobile phases
- Robust, high-efficiency, low column bleed

The proprietary Accucore Phenyl-X alkyl aromatic bonded phase provides a unique selectivity when compared to other reversed phase materials such as C18 or Phenyl.

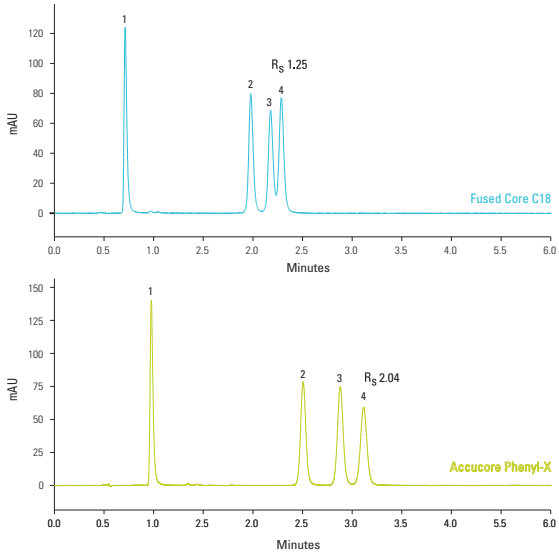
The advanced design of the bonded phase makes it compatible with highly aqueous mobile phases and robust, demonstrating very low bleed.

Phenyl-X exhibits particularly high aromatic selectivity.



Particle Size 2.6µm

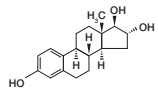
Estrogens



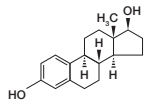
Accucore Phenyl-X 2.6µm, 100 x 2.1mm
Fused Core C18, 100 x 2.1mm

Mobile Phase:	15:40:45 (v/v) Acetonitrile:Methanol:Water
Temperature:	40°C
Flow Rate:	400µL/min
Injection Volume:	1µL
Detection:	UV, 220nm

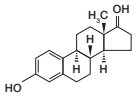
1. Estriol (E3)



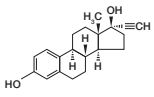
2. Estradiol (E2)



3. Estrone (E1)



4. Ethynylestradiol



Accucore Phenyl-X

Particle Size (µm)	Format	Length (mm)	2.1mm ID	3.0mm ID	4.6mm ID
2.6	Defender Guard (4/pk)	10	27926-012105	-	-
	HPLC Column	50	27926-052130	27926-053030	27926-054630
		100	27926-102130	27926-103030	27926-104630
		150	27926-152130	27926-153030	27926-154630
		250	27926-252130	-	-
	Uniguard Drop-in Guard Cartridge Holder	10	852-00	852-00	850-00

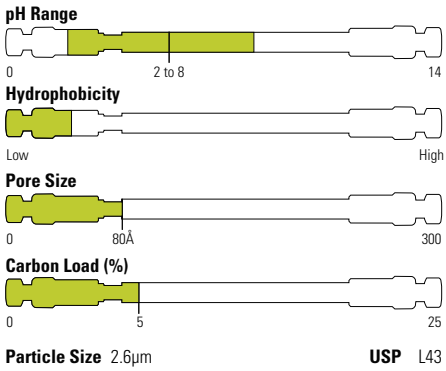
For more information, visit **thermofisher.com/accucore**

Accucore PFP

- Alternative selectivity to C18
- Extra retention for halogenated species
- Unique selectivity for non-halogenated polar compounds

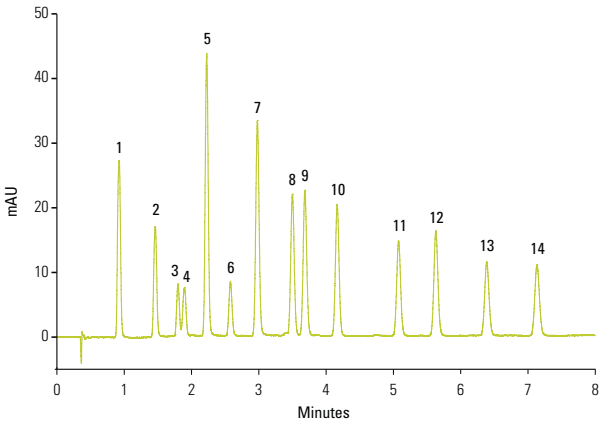
The introduction of fluorine groups into the Accucore PFP (pentafluorophenyl) stationary phase causes significant changes in solute-stationary phase interactions. This can lead to extra retention and selectivity for positional isomers of halogenated compounds.

PFP Columns are also well suited to the selective analysis of non-halogenated compounds, in particular polar compounds containing hydroxyl, carboxyl, nitro, or other polar groups. High selectivity is often most apparent when the functional groups are located on an aromatic or other rigid ring system.



Particle Size 2.6µm **USP** L43

Positional isomers



Accucore PFP 2.6µm, 50mm x 2.1mm

Mobile Phase A:	0.1% Formic Acid in Water
Mobile Phase B:	0.1% Formic Acid in Acetonitrile
Gradient:	15-30%B in 7 minutes
Temperature:	50°C
Flow Rate:	600µL/min
Injection Volume:	2µL
Detection:	UV, 270nm
Analytes:	1. 3,4 – Dimethoxyphenol 2. 2,6 – Dimethoxyphenol 3. 2,6 – Difluorophenol 4. 3,5 – Dimethoxyphenol 5. 2,4 – Difluorophenol 6. 2,3 – Difluorophenol 7. 3,4 – Difluorophenol 8. 3,5 – Dimethylphenol 9. 2,6 – Dimethylphenol 10. 2,6 – Dichlorophenol 11. 4 – Chloro-3-Methylphenol 12. 4 – Chloro-2-Methylphenol 13. 3,4 – Dichlorophenol 14. 3,5 – Dichlorophenol

Accucore PFP

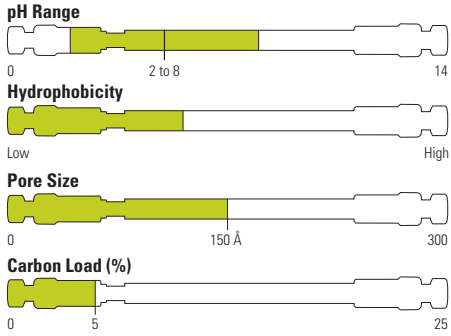
Particle Size (µm)	Format	Length (mm)	2.1mm ID	3.0mm ID	4.6mm ID
2.6	Defender Guard (4/pk)	10	17426-012105	17426-013005	17426-014005
	HPLC Column	30	17426-032130	-	-
		50	17426-052130	17426-053030	17426-054630
		100	17426-102130	17426-103030	17426-104630
		150	17426-152130	17426-153030	17426-154630
	Uniguard Drop-in Guard Cartridge Holder	10	852-00	852-00	850-00

Accucore C30

- Ideal for separation of hydrophobic, long alkyl chain compounds
- High shape selectivity for structurally related isomers
- Excellent aqueous-compatibility

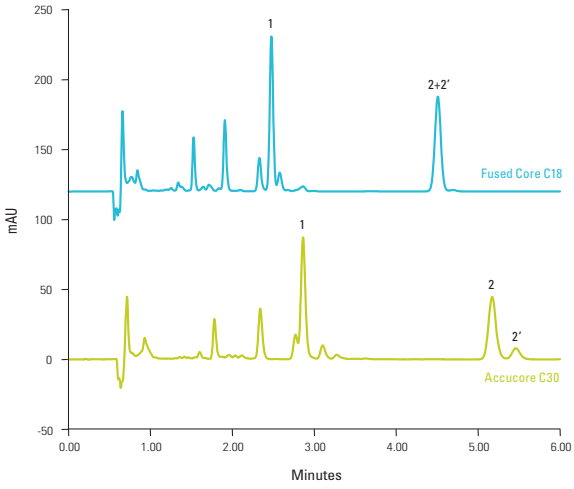
Accucore C30 offers high shape selectivity for hydrophobic, long chain, structurally related isomers, for example carotenoids and steroids. This is a different form of shape selectivity from that measured in the steric selectivity phase characterisation test.

It is also an excellent alternative to normal-phase columns for lipid analysis. The optimized bonding density of the long alkyl chains facilitated by a wider pore diameter particle result in a phase that is stable even in highly aqueous mobile phases.



Particle Size 2.6µm **USP** L62

Vitamin K isomers



Chromatogram showing the separation of Vitamin K compounds
Minutes 1-Vitamin K2, 2-Vitamin K1 (trans isomer), 2'-Vitamin K1 (cis isomer)

Accucore C30 2.6µm, 100 x 3.0mm Fused Core C18, 100 x 3.0mm	
Mobile Phase:	Methanol: 2mM Ammonium Acetate, 98:2
Temperature:	20°C
Flow Rate:	650µL/min
Injection Volume:	5µL
Detection:	UV, 250nm

Accucore C30 shows better separation for vitamin K1 isomers than the C18 column.

Accucore C30

Particle Size (µm)	Format	Length (mm)	2.1mm ID	3.0mm ID	4.6mm ID
2.6	Defender Guard (4/pk)	10	27826-012105	-	-
	HPLC Column	50	27826-052130	27826-053030	27826-054630
		100	27826-102130	27826-103030	27826-104630
		150	27826-152130	27826-153030	27826-154630
		250	27826-252130	-	-
	Uniguard Drop-in Guard Cartridge Holder	10	852-00	852-00	850-00

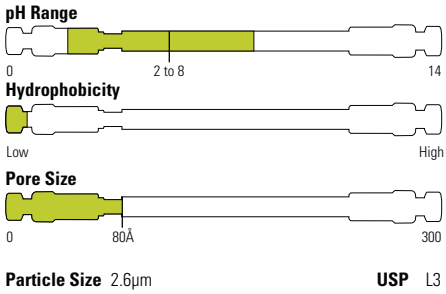
Accucore HILIC

- Enhanced retention of polar and hydrophilic analytes
- Alternative selectivity to C18 without ion-pair or derivatization

In HILIC mode the separation occurs through two mechanisms. The primary mechanism is a partitioning effect due to the enriched water layer around the polar or charged substrate material. The secondary mechanism involves interaction between the analyte and the active surface moiety.

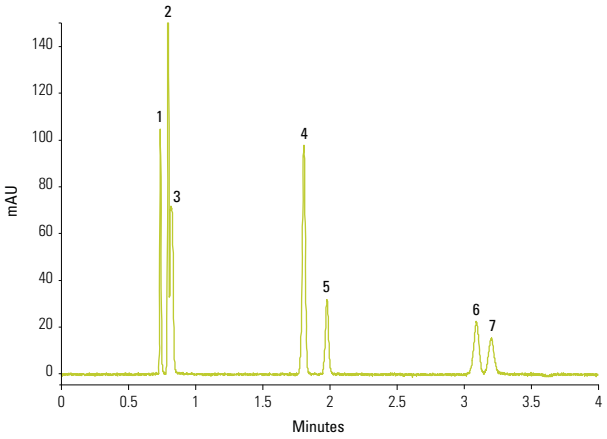
Analyte properties that govern retention with HILIC phases are acidity/basicity, which determines hydrogen bonding, and polarizability which determines dipole-dipole interactions.

The highly organic mobile phases used with Accucore HILIC phase ensure efficient desolvation in ESI MS detection, which in turn leads to improved sensitivity.



Particle Size 2.6µm **USP** L3

Catecholamines



Accucore HILIC 2.6µm, 50mm x 2.1mm

Mobile Phase:	85:15 Acetonitrile:100mM Ammonium Formate, pH 3.2
Temperature:	40°C
Flow Rate:	2mL/min
Injection Volume:	5µL
Backpressure:	157 bar
Detection:	UV, 280nm
Analytes:	1. Catechol 2. 5-HIAA 3. DOPAC 4. Serotonin 5. L-tyrosine 6. Dopamine 7. L-DOPA

Accucore HILIC

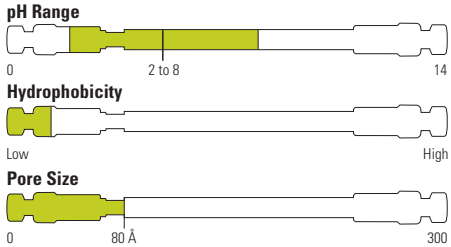
Particle Size (µm)	Format	Length (mm)	2.1mm ID	3.0mm ID	4.6mm ID
2.6	Defender Guard (4/pk)	10	17526-012105	17526-013005	17526-014005
	HPLC Column	30	17526-032130	-	-
		50	17526-052130	17526-053030	17526-054630
		100	17526-102130	17526-103030	17526-104630
		150	17526-152130	17526-153030	17526-154630
	Uniguard Drop-in Guard Cartridge Holder	10	852-00	852-00	850-00

Accucore Urea-HILIC

- Bonded hydrophilic stationary phase
- Unique selectivity compared to other HILIC phases
- Low ion exchange activity

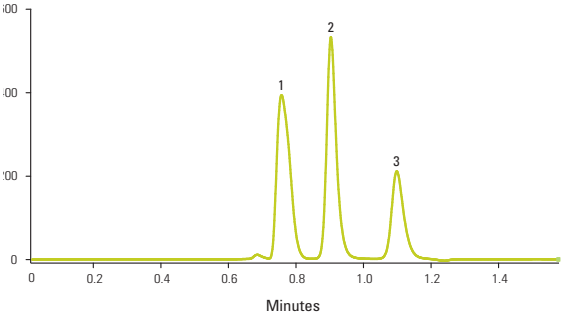
Accucore Urea-HILIC has an alternative selectivity and lower ion exchange activity than other HILIC phases.

The bonded hydrophilic stationary phase provides retention of a broad range of polar analytes using up to 20% aqueous mobile phase.



Particle Size 2.6µm

Analgesic compounds



Accucore Urea-HILIC 2.6µm, 100 x 2.1mm

Mobile Phase:	Composition 10:80:10, A : B : C A: Water B: Acetonitrile C: 100 mM Ammonium Acetate adjusted to pH 4.9
Temperature:	35°C
Flow Rate:	300µL/min
Injection Volume:	2µL into 10µL partial loop mode.
Backpressure:	71 bar
Detection:	UV, 230nm

	1. Acetaminophen		2. Salicylic acid			3. Aspirin		
	t_R	A_s	t_R	A_s	R_s	t_R	A_s	R_s
Mean	0.760	1.474	0.908	1.303	2.359	1.100	1.318	3.264
CV %	0.00	1.17	0.48	0.92	0.49	0.00	0.63	0.48

Data from eight replicate analyses of a mixture of acetaminophen, salicylic acid and aspirin

Retention time (t_R), peak asymmetry (A_s), peak resolution (R_s)

Accucore Urea-HILIC

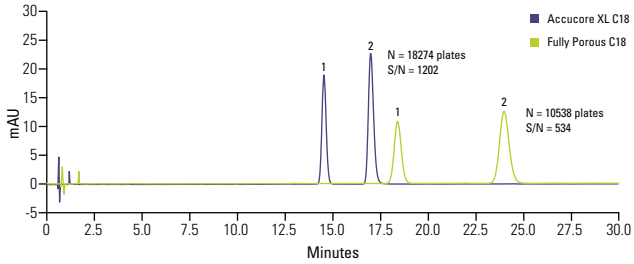
Particle Size (µm)	Format	Length (mm)	2.1mm ID	3.0mm ID	4.6mm ID
2.6	Defender Guard (4/pk)	10	27726-012105	-	-
	HPLC Column	50	27726-052130	27726-053030	27726-054630
		100	27726-102130	27726-103030	27726-104630
		150	27726-152130	27726-153030	27726-154630
		250	27726-252130	-	-
	Uniguard Drop-in Guard Cartridge Holder	10	852-00	852-00	850-00

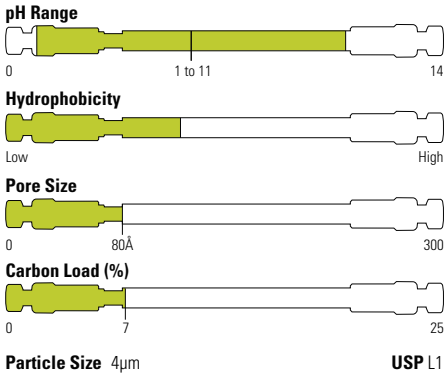
Accucore XL C18

- Optimum retention of non-polar compounds
- Hydrophobic interaction mechanism
- Separates a broad range of analytes

The carbon loading of Accucore XL C18 provides high retention of non-polar analytes via a predominantly hydrophobic interaction mechanism.

Ibuprofen and valerophenone (USP)





Accucore XL C18 4µm, 150 x 4.6mm
Fully porous C18 5µm, 150 x 4.6mm

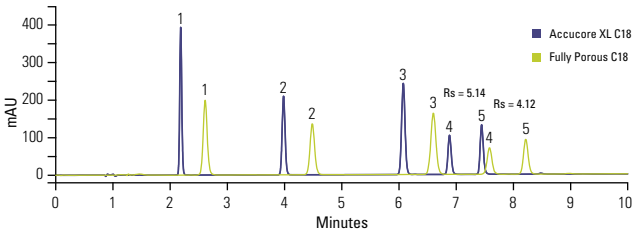
Mobile Phase:	66.3:33.7 (v/v) Water with Phosphoric Acid, pH 2.5:Methanol
Temperature:	30°C
Flow Rate:	2mL/min
Injection Volume:	5µL
Detection:	UV, 214nm
Analytes:	1. Valerophenone 2. Ibuprofen

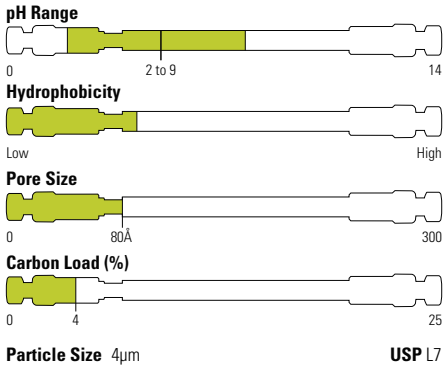
Accucore XL C8

- Similar selectivity to C18 with lower retention
- Recommended for analytes with moderate hydrophobicity

Accucore XL C8 is recommended for analytes with moderate hydrophobicity, or when a less hydrophobic phase provides optimum retention.

Endocrine disruptors





Accucore XL C8 4µm, 150 x 4.6mm
Fully porous C8 5µm, 150 x 4.6mm

Mobile Phase A:	Water	
Mobile Phase B:	Acetonitrile	
Gradient:	Time (min)	
% B		
	0.0	25
	20.0	70
	20.1	75
	25.0	25
Flow rate:	1.5mL/min	
Temperature:	25°C	
Detection:	UV at 220nm	
Injection volume:	5µL	
Analytes	1.Desethyl Atrazine 3.Atrazine	
	2.Simazine 4.Diuron 5.Bisphenol A	

Accucore XL

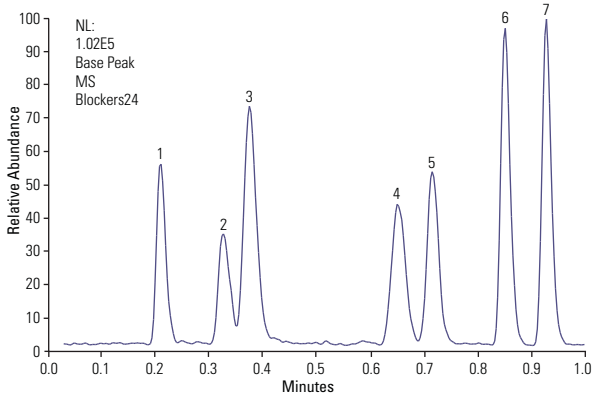
Particle Size (µm)	Format	Chemistry	Length (mm)	2.1mm ID	3.0mm ID	4.6mm ID
4	Drop-in Guard (4/pk)	C18	10	74104-012101	74104-013001	74104-014001
	HPLC Column		50	74104-052130	74104-053030	74104-054630
			100	74104-102130	74104-103030	74104-104630
			150	74104-152130	74104-153030	74104-154630
			250	74104-252130	74104-253030	74104-254630
	Drop-in Guard (4/pk)	C8	10	74204-012101	74204-013001	74204-014001
	HPLC Column		50	74204-052130	74204-053030	74204-054630
			100	74204-102130	74204-103030	74204-104630
			150	74204-152130	74204-153030	74204-154630
			250	74204-252130	74204-253030	74204-254630

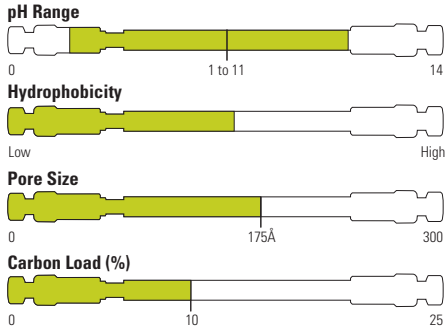
Hypersil GOLD

Endcapped, ultra-pure, silica-based columns with exceptional peak shape and resolution for HPLC and LC-MS

- Significant reduction in peak tailing while retaining C18 selectivity
- Excellent resolution, efficiency and sensitivity
- Confidence in the accuracy and quality of analytical data

Seven b-blockers in 1 minute





Particle Size 1.9µm, 3µm, 5µm, 12µm **USP** L1

Hypersil GOLD, 1.9µm, 20 x 2.1mm

Mobile Phase A:	H_2O+0.1%formic acid
Mobile Phase B:	MeCN+0.1%formic acid
Gradient:	15 to 100% B in 1min
Temperature:	30°C
Flow Rate:	0.5mL/min
Detection:	+ESI
Analytes:	1. Atenolol 2. Nadolol 3. Pindolol 4. Timolol 5. Metoprolol 6. Oxprenolol 7. Propanolol

Hypersil GOLD

Particle Size (µm)	Format	Length (mm)	1.0mm ID	2.1mm ID	3.0mm ID	4.0mm ID	4.6mm ID
1.9	UHPLC Column	20	-	25002-022130	-	-	-
		30	25002-031030	25002-032130	-	-	-
		50	25002-051030	25002-052130	25002-053030	-	25002-054630
		100	25002-101030	25002-102130	25002-103030	-	-
		150	-	25002-152130	-	-	-
		200	-	25002-202130	-	-	-
3	Drop-in Guard (4/pk)	10	25003-011001	25003-012101	25003-013001	25003-014001	25003-014001
		20	-	25003-022130	25003-023030	-	-
	HPLC Column	30	-	25003-032130	25003-033030	-	25003-034630
		50	-	25003-052130	25003-053030	25003-054030	25003-054630
		100	25003-101030	25003-102130	25003-103030	25003-104030	25003-104630
		150	25003-151030	25003-152130	25003-153030	25003-154030	25003-154630
		250	-	-	25003-253030	25003-254030	-
5	Drop-in Guard (4/pk)	10	-	25005-012101	25005-013001	25005-014001	25005-014001
	HPLC Column	30	-	25005-032130	25005-033030	-	25005-034630
		50	-	25005-052130	25005-053030	-	25005-054630
		100	-	25005-102130	25005-103030	25005-104030	25005-104630
		150	-	25005-152130	25005-153030	25005-154030	25005-154630
		250	-	25005-252130	25005-253030	25005-254030	25005-254630
	Uniguard Drop-in Guard Cartridge Holder	10	851-00	852-00	852-00	850-00	850-00

For more information, visit **thermofisher.com/hypersilgold**

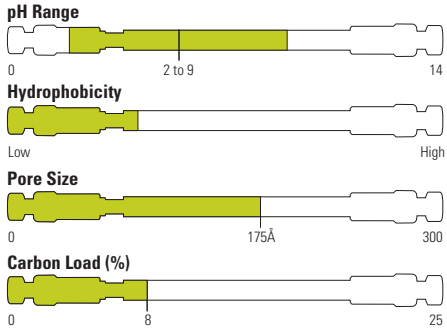
Hypersil GOLD preparative

Particle Size (µm)	Format	Length (mm)	10mm ID	20mm ID	21mm ID	30mm ID	50mm ID
5	Preparative HPLC Column	50	25005-059070A	-	25005-059270A	-	-
		100	25005-109070A	-	25005-109270A	-	-
		150	25005-159070A	-	25005-159270A	25005-159370A	-
		250	25005-259070A	-	25005-259270A	25005-259370A	-
12	Preparative Guard Cartridge (3/pk)	10	-	25012-019023A	-	-	-
	Preparative HPLC Column	150	-	25012-159270A	-	25012-159370A	-
		250	25012-259070A	25012-259270A	-	25012-259370A	25012-259570A

Hypersil GOLD C8

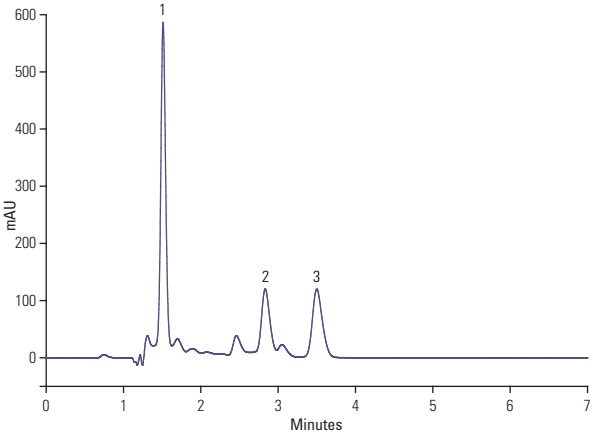
Recommended for analytes with medium hydrophobicity or when a less hydrophobic phase is required to obtain optimum retention

- Similar selectivity to C18 columns but with reduced retention
- Lower hydrophobicity, allowing compounds to elute quicker
- Faster separations
- Excellent peak shape
- High efficiency
- Outstanding sensitivity



Particle Size 1.9µm, 3µm, 5µm **USP** L7

β-carotene



Hypersil GOLD C8 5µm, 150 x 4.6mm

Mobile Phase:	MeOH
Temperature:	25°C
Flow Rate:	1.5mL/min
Detection:	UV, 450nm
Analytes:	1. Lutein 2. Lycopene 3. β-Carotene

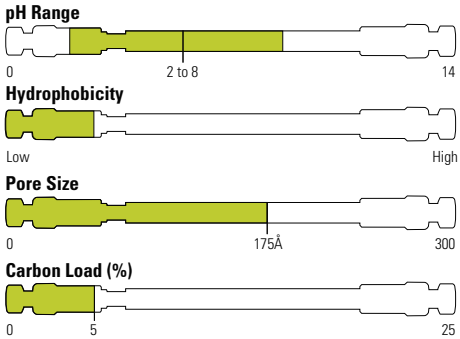
Hypersil GOLD C8

Particle Size (µm)	Format	Length (mm)	1.0mm ID	2.1mm ID	3.0mm ID	4.0mm ID	4.6mm ID
1.9	UHPLC Column	30	-	25202-032130	-	-	-
		50	25202-051030	25202-052130	25202-053030	-	25202-054630
		100	25202-101030	25202-102130	25202-103030	-	-
		150	-	25202-152130	-	-	-
3	Drop-in Guard (4/pk)	10	25203-011001	25203-012101	25203-013001	25203-014001	25203-014001
		30	-	25203-032130	25203-033030	-	25203-034630
	HPLC Column	50	-	25203-052130	25203-053030	-	25203-054630
		100	25203-101030	25203-102130	25203-103030	-	25203-104630
		150	25203-051030	25203-152130	25203-153030	-	25203-154630
5	Drop-in Guard (4/pk)	10	-	25205-012101	25205-013001	25205-014001	25205-014001
	HPLC Column	50	25205-051030	25205-052130	25205-053030	-	25205-054630
		100	-	25205-102130	25205-103030	-	25205-104630
		150	-	25205-152130	25205-153030	25205-154030	25205-154630
		250	-	25205-252130	25205-253030	25205-254030	25205-254630
	Uniguard Drop-in Guard Cartridge Holder	10	851-00	852-00	852-00	850-00	850-00

Hypersil GOLD C4

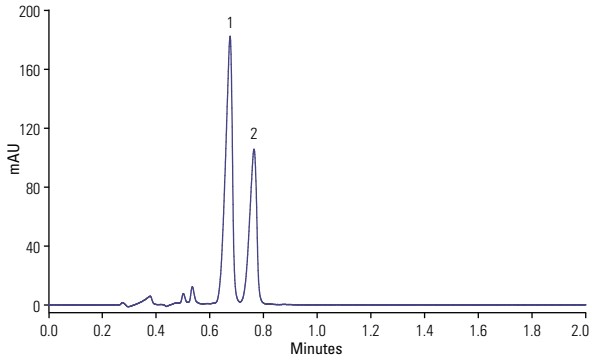
Lower hydrophobicity than C18 or C8 recommended for very hydrophobic analytes

- Lower hydrophobicity
- Faster separations
- Excellent peak shape
- High efficiency
- Outstanding sensitivity



Particle Size 1.9µm, 3µm, 5µm **USP** L26

Fatty acids



Hypersil GOLD C4 1.9µm, 100 x 2.1mm

Mobile Phase:	H_2O / MeCN (20:80)
Temperature:	30°C
Flow Rate:	0.55mL/min
Injection Volume:	1µL
Detection:	200 nm
Analytes:	1. Linolenic acid 2. Linoleic acid

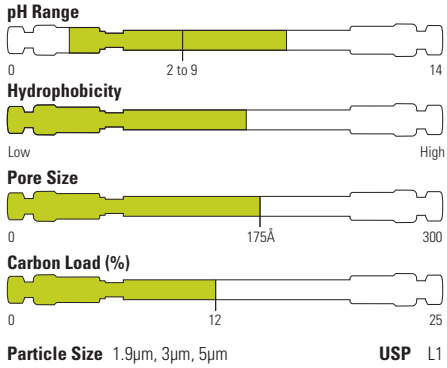
Hypersil GOLD C4

Particle Size (µm)	Format	Length (mm)	1.0mm ID	2.1mm ID	3.0mm ID	4.6mm ID
1.9	UHPLC Column	50	25502-051030	25502-052130	-	-
		100	-	25502-102130	-	-
		150	25502-151030	25502-152130	-	-
3	Drop-in Guard (4/pk)	10	25503-011001	25503-012101	25503-013001	25503-014001
	HPLC Column	50	25503-051030	25503-052130	-	-
		100	-	25503-102130	25503-103030	25503-104630
		150	25503-151030	25503-152130	25503-153030	25503-154630
5	Drop-in Guard (4/pk)	10	-	25505-012101	-	25505-014001
	HPLC Column	50	-	25505-052130	-	25505-054630
		100	-	25505-102130	25505-103030	25505-104630
		150	-	25505-152130	-	25505-154630
		250	-	25505-252130	-	25505-254630
	Uniguard Drop-in Guard Cartridge Holder	10	851-00	852-00	852-00	850-00

Hypersil GOLD aQ

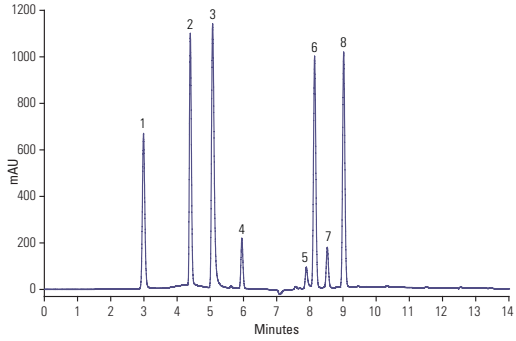
Controlled interaction mechanism by which polar analytes can be retained and resolved

- Polar endcapped C18 phase for alternative selectivity
- Retention and resolution of polar analytes
- Stable in 100% aqueous mobile phases



Particle Size 1.9µm, 3µm, 5µm **USP** L1

Water soluble vitamins



Thermo Scientific™ Hypersil GOLD™ aQ 5µm, 150 x 4.6mm

Mobile Phase A:	50 mM KH_2PO_4, pH 3.5
Mobile Phase B:	MeOH
Gradient:	0 – 100% B in 15 min
Flow Rate:	1mL/min
Detection:	UV, 205nm
Analytes:	1. Vitamin B1 (thiamine)
	2. Vitamin B6 (pyridoxine)
	3. Vitamin B3 (nicotinamide)
	4. Vitamin B5 (pantothenic acid)
	5. Folic Acid
	6. Vitamin B12 (cyanocobalamin)
	7. Vitamin H (biotin)
	8. Vitamin B2 (riboflavin)

Hypersil GOLD aQ

Particle Size (µm)	Format	Length (mm)	1.0mm ID	2.1mm ID	3.0mm ID	4.0mm ID	4.6mm ID
1.9	UHPLC Column	20	-	25302-022130	-	-	-
		30	-	25302-032130	-	-	-
		50	25302-051030	25302-052130	25302-053030	-	25302-054630
		100	25302-101030	25302-102130	25302-103030	-	-
		150	-	25302-152130	-	-	-
		200	-	25302-202130	-	-	-
3	Drop-in Guard (4/pk)	10	25303-011001	25303-012101	25303-013001	25303-014001	25303-014001
	HPLC Column	30	-	25303-032130	-	-	-
		50	25303-051030	25303-052130	25303-053030	25303-054030	25303-054630
		100	25303-101030	25303-102130	25303-103030	25303-104030	25303-104630
		150	25303-151030	25303-152130	25303-153030	25303-154030	25303-154630
5	Drop-in Guard (4/pk)	10	-	25305-012101	25305-013001	-	25305-014001
	HPLC Column	50	-	25305-052130	25305-053030	-	25305-054630
		100	-	25305-102130	25305-103030	-	25305-104630
		150	-	25305-152130	25305-153030	-	25305-154630
		250	-	25305-252130	25305-253030	-	25305-254630
	Uniguard Drop-in Guard Cartridge Holder	10	851-00	852-00	852-00	850-00	850-00

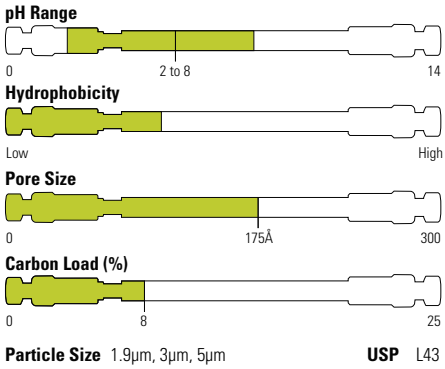
Hypersil GOLD aQ preparative

Particle Size (µm)	Format	Length (mm)	10mm ID	20mm ID	30mm ID	50mm ID
5	Preparative Guard Cartridge (3/pk)	10		25305-019023A	-	-
	Preparative HPLC Column	100	25305-109070A	25305-159070A	25305-109370A	25305-109570A
		150	25305-159070A	25305-159270A	25305-159370A	25305-159570A
		250	25305-259070A	25305-259270A	25305-259370A	25305-259570A

Hypersil GOLD PFP

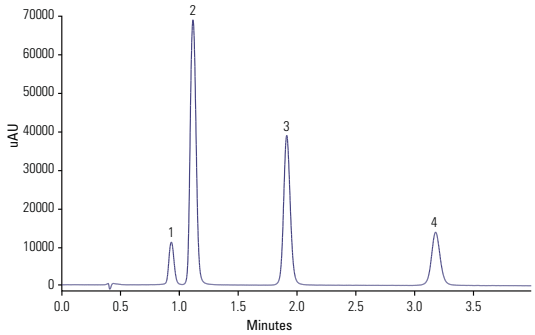
Introduction of a fluorine group into the stationary phase causes significant changes in solute-stationary phase interaction

- Fluorine atoms around the phenyl ring enhance pi-pi interactions with aromatic molecules
- Extra retention for halogenated species
- Selectivity for non-halogenated polar compounds



Particle Size 1.9µm, 3µm, 5µm **USP** L43

Polyphenols



Hypersil GOLD PFP 1.9µm, 50 x 2.1mm

Mobile Phase:	0.1% Acetic Acid
Temperature:	25°C
Flow Rate:	0.5mL/min
Injection Volume:	0.5µL
Detection:	UV, 280nm
Analytes:	1. Pyrogallol 2. Hydroquinone 3. Resorcinol 4. Phenol

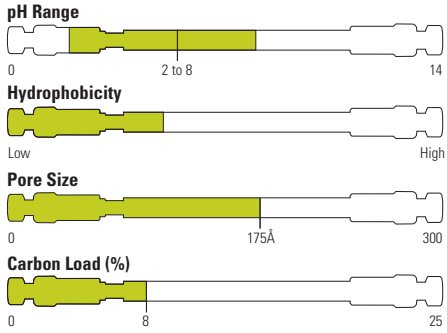
Hypersil GOLD PFP

Particle Size (µm)	Format	Length (mm)	1.0mm ID	2.1mm ID	3.0mm ID	4.6mm ID
1.9	UHPLC Column	20	-	25402-022130	-	-
		30		25402-032130	-	-
		50	25402-051030	25402-052130	25402-053030	25402-054630
		100	25402-101030	25402-102130	25402-103030	-
		150	-	25402-152130	-	-
		200	-	25402-202130	-	-
3	Drop-in Guard (4/pk)	10	25403-011001	25403-012101	25403-013001	25403-014001
	HPLC Column	30	-	-	25403-033030	-
		50	-	25403-052130	25403-053030	-
		100	25403-101030	25403-102130	25403-103030	25403-104630
		150	-	25403-152130	25403-153030	25403-154630
5	Drop-in Guard (4/pk)	10	-	25405-012101	-	25405-014001
	HPLC Column	50	-	25405-052130	-	-
		100	-	25405-102130	25405-103030	25405-104630
		150	-	25405-152130	25405-153030	25405-154630
		250	-	25405-252130	-	25405-254630
	Uniguard Drop-in Guard Cartridge Holder	10	851-00	852-00	852-00	850-00

Hypersil GOLD Phenyl

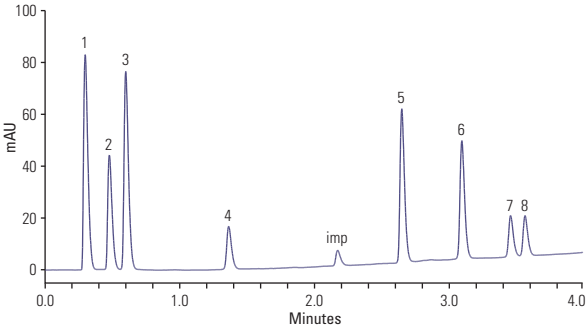
Contains a C4 linker which allows for superior alignment of the phenyl ring with aromatic molecules

- Enhanced pi-pi interactions with aromatics
- Moderate hydrophobicity
- Outstanding peak shape and sensitivity



Particle Size 1.9µm, 3µm, 5µm **USP** L11

Antidepressants



Hypersil GOLD Phenyl 1.9µm, 50 x 2.1mm

Mobile Phase A:	0.1% Formic acid
Mobile Phase B::	0.1% Formic acid in MeCN
Gradient:	10 – 60% B in 3.4mins, 60 - 90% B in 0.24 min
Temperature:	60°C
Flow Rate:	0.5mL/min
Injection Volume:	0.7µL
Detection:	UV, 225 and 254nm
Analytes:	1. Uracil 2. Acetaminophen 3. p-Hydroxybenzoic acid 4. o-Hydroxybenzoic acid 5. Oxazepam 6. Diazepam 7. Di-isopropyl phthalate 8. Di-n-propyl phthalate

Hypersil GOLD Phenyl

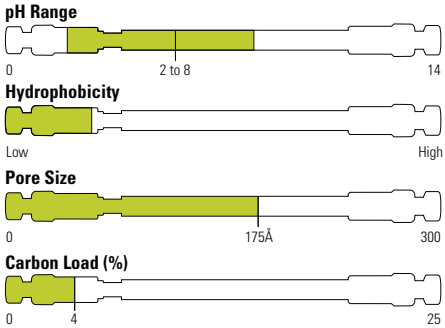
Particle Size (µm)	Format	Length (mm)	1.0mm ID	2.1mm ID	3.0mm ID	4.6mm ID
1.9	UHPLC Column	50	-	25902-052130	-	25902-054630
		100	-	25902-102130	25902-103030	-
		150	-	25902-152130	-	-
		200	-	25902-202130	-	-
3	Drop-in Guard (4/pk)	10	-	25903-012101	25903-013001	25903-014001
	HPLC Column	50	-	25903-052130	25903-053030	-
		100	-	25903-102130	25903-103030	25903-104630
		150	25903-151030	25905-152130	25903-153030	25903-154630
5	Drop-in Guard (4/pk)	10	-	25905-012101	25905-013001	25905-014001
	HPLC Column	50	-	25905-052130	-	25905-054630
		100	-	25905-102130	25905-103030	25905-104630
		150	-	25905-152130	-	25905-154630
		250	-	-	-	25905-254630
	Uniguard Drop-in Guard Cartridge Holder	10	851-00	852-00	852-00	850-00

For more information, visit **thermofisher.com/hypersilgold**

Hypersil GOLD CN

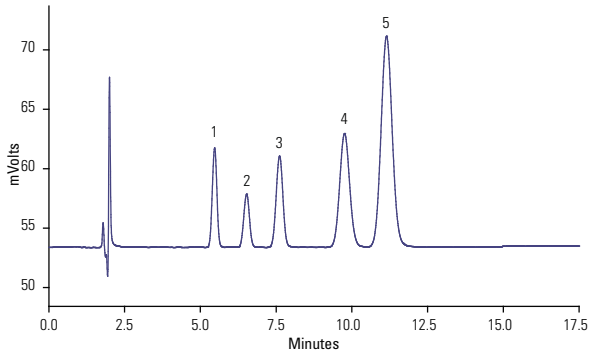
For both normal phase and reversed-phase separations

- Provide alternative selectivity with lower hydrophobicity
- Excellent peak shape
- Outstanding sensitivity
- Less retention for faster analysis



Particle Size 1.9µm, 3µm, 5µm **USP** L10

Organic acids



Hypersil GOLD CN 5µm, 150 x 4.6mm

Mobile Phase A:	25 mM KH_2PO_4 pH2
Mobile Phase B:	MeOH
Temperature:	25°C
Flow Rate:	1.5mL/min
Detection:	UV, 230nm
Analytes:	1. 4-Fluorobenzoic
	2. o-Toluic Acid
	3. p-Toluic Acid
	4. 2,4,6-Trimethylbenzoic Acid
	5. 2,5-Dimethylbenzoic Acid

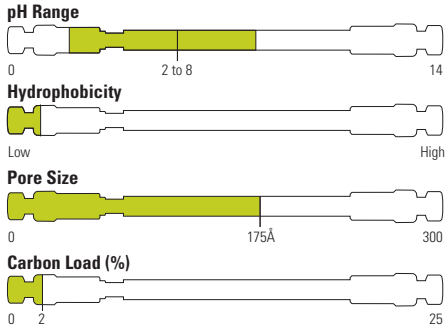
Hypersil GOLD CN

Particle Size (µm)	Format	Length (mm)	1.0mm ID	2.1mm ID	3.0mm ID	4.0mm ID	4.6mm ID
1.9	UHPLC Column	50	-	25802-052130	-	-	-
		100	-	25802-102130	-	-	-
		150	-	25802-152130	-	-	-
		200	-	25802-202130	-	-	-
3	Drop-in Guard (4/pk)	10	25803-011001	25803-012101	25803-013001	-	25803-014001
		50	-	25803-052130	-	-	-
		100	25803-101030	25803-102130	25803-103030	-	25803-104630
		150	25803-151030	25803-152130	25803-153030	-	25803-154630
5	Drop-in Guard (4/pk)	10	-	25805-012101	25805-013001	25805-014001	25805-014001
	HPLC Column	50	-	25805-052130	25805-053030	-	25805-054630
		100	-	25805-102130	25805-103030	-	25805-104630
		150	-	25805-152130	-	-	25805-154630
		250	-	-	-	25805-254030	25805-254630
	Uniguard Drop-in Guard Cartridge Holder	10	851-00	852-00	852-00	850-00	850-00

Hypersil GOLD Amino

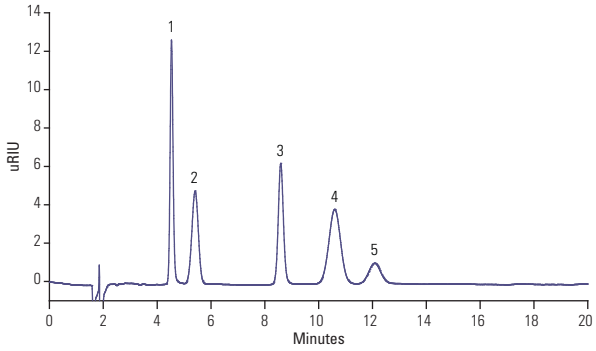
A high performance aminopropyl phase that gives excellent chromatographic properties in three modes: weak anion exchange, reversed-phase and normal phase

- Retains anions and organic acids in weak anion exchange
- Excellent for carbohydrate analysis in reversed-phase
- Alternative selectivity to silica columns in normal phase chromatography
- Outstanding peak shape and sensitivity



Particle Size 1.9µm, 3µm, 5µm **USP** L8

Sugars



Hypersil GOLD Amino 5µm, 150 x 4.6mm

Mobile Phase:	MeCN/Water (80:20)
Temperature:	35°C
Flow Rate:	1.2mL/min
Injection Volume:	20µL
Detection:	RI
Analytes:	1. Fructose
	2. Glucose
	3. Sucrose
	4. Maltose
	5. Lactose

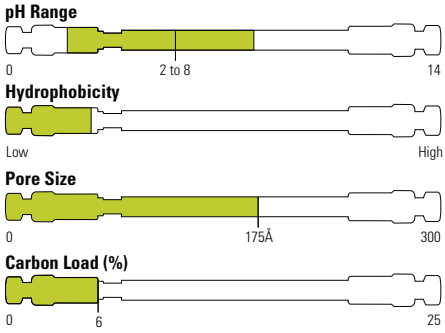
Hypersil GOLD Amino

Particle Size (µm)	Format	Length (mm)	1.0mm ID	2.1mm ID	3.0mm ID	4.0mm ID	4.6mm ID
1.9	UHPLC Column	50	-	25702-052130	-	-	-
		100	-	25702-102130	-	-	-
		150	-	25702-152130	-	-	-
		200	-	25702-202130	-	-	-
3	Drop-in Guard (4/pk)	10	25703-011001	25703-012101	25703-013001	-	25703-014001
	HPLC Column	30	-	25703-032130	-	-	-
		50	-	25703-052130	-	-	25703-054630
		100	-	25703-102130	25703-103030	-	25703-104630
		150	25703-151030	25703-152130	25703-153030	-	25703-154630
5	Drop-in Guard (4/pk)	10	-	25705-012101	25705-013001	25705-014001	25705-014001
	HPLC Column	50	-	25705-052130	-	-	25705-054630
		100	-	25705-102130	-	-	25705-104630
		150	-	25705-152130	-	-	25705-154630
		250	-	25705-252130	25705-253030	25705-254030	25705-254630
	Uniguard Drop-in Guard Cartridge Holder	10	851-00	852-00	852-00	850-00	850-00

Hypersil GOLD AX

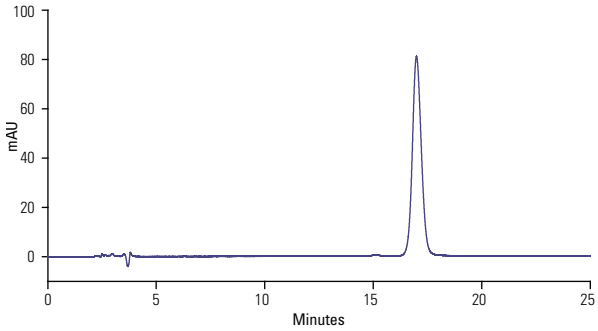
A novel polymeric amine ligand bonded to highly pure base deactivated silica

- Weak anion exchange phase for multiple charged species
- Suitable for HILIC retention and separation of highly polar molecules
- Higher efficiency than polymer based ion exchange columns
- Outstanding peak shape and selectivity



Particle Size 1.9µm, 3µm, 5µm

Vitamin C



Hypersil GOLD AX 5µm, 100 x 4.6mm

Mobile Phase:	100 mM Ammonium Acetate pH 6.8/ MeCN (30:70)
Temperature:	30°C
Flow Rate:	0.5mL/min
Injection Volume:	50µL
Detection:	UV, 240nm

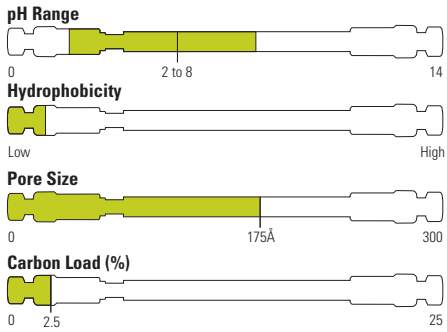
Hypersil GOLD AX

Particle Size (µm)	Format	Length (mm)	1.0mm ID	2.1mm ID	3.0mm ID	4.6mm ID
1.9	UHPLC Column	50	-	26102-052130	-	-
		100	-	26102-102130	-	-
		150	-	26102-152130	-	-
		200	-	26102-202130	-	-
3	Drop-in Guard (4/pk)	10	26103-011001	26103-012101	-	26103-014001
	HPLC Column	30	-	26103-032130	-	-
		50	-	26103-052130	-	-
		100	-	26103-102130	-	26103-104630
		150	26103-151030	26103-152130	26103-153030	-
5	Drop-in Guard (4/pk)	10	-	26105-012101	26105-013001	26105-014001
	HPLC Column	50	-	-	-	26105-054630
		100	-	-	-	26105-104630
		150	-	-	-	26105-154630
		250	-	26105-252130	26105-253030	26105-254630
	Uniguard Drop-in Guard Cartridge Holder	10	851-00	852-00	852-00	850-00

Hypersil GOLD SAX

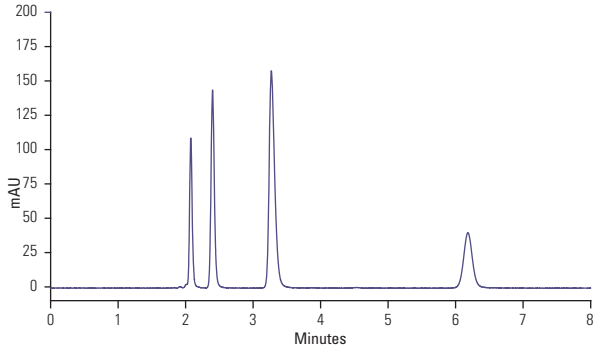
A highly stable quaternary amine strong anion exchange column for aqueous and low pH mobile phases

- High stability to aqueous and low pH mobile phases
- Ideally suited to the analysis of smaller organic molecules including nucleotides and organic acids
- Outstanding peak shape and sensitivity



Particle Size 1.9µm, 3µm, 5µm **USP** L14

Monophosphates



Hypersil GOLD SAX 5µm, 150 x 4.6mm

Mobile Phase:	Aqueous KH_2PO_4 (50 mM, pH 3)
Temperature:	40°C
Flow Rate:	1.0mL/min
Injection Volume:	10µL
Detection:	UV, 254nm

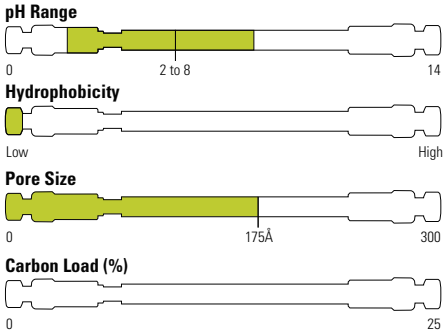
Hypersil GOLD SAX

Particle Size (µm)	Format	Length (mm)	2.1mm ID	3.0mm ID	4.6mm ID
1.9	UHPLC Column	50	26302-052130	-	-
		100	26302-102130	-	-
		150	26302-152130	-	-
3	Drop-in Guard (4/pk)	10	26303-012101	-	26303-014001
	HPLC Column	50	26303-052130	-	-
		100	26303-102130	26303-103030	26303-104630
		150	26303-152130	26303-153030	26303-154630
5	Drop-in Guard (4/pk)	10	26305-012101	26305-013001	26305-014001
	HPLC Column	50	26305-052130	-	-
		100	26305-102130	-	26305-104630
		150	26305-152130	-	26305-154630
		250	26305-252130	26305-253030	26305-254630
	Uniguard Drop-in Guard Cartridge Holder	10	852-00	852-00	850-00

Hypersil GOLD Silica

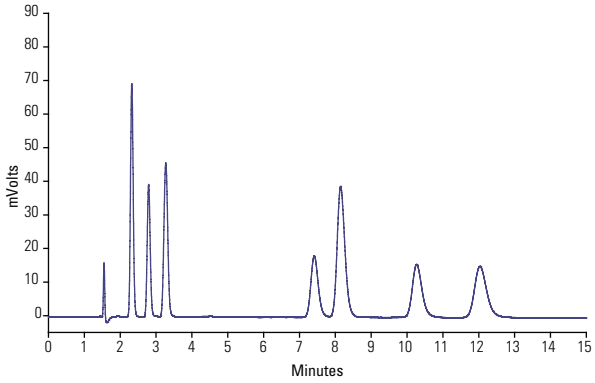
Unbonded, highly pure base deactivated silica media that is the backbone of the Hypersil GOLD range of columns

- Highly pure base deactivated silica media
- Outstanding peak shape and sensitivity



Particle Size 1.9µm, 3µm, 5µm **USP** L3

Steroids



Hypersil GOLD Silica 5µm, 150 x 4.6mm

Mobile Phase:	19:1 (v/v) n-C6H14/EtOH
Temperature:	30°C
Flow Rate:	1.5mL/min
Injection volume:	5µL
Detection:	UV, 254nm
Analytes:	1. Progesterone 2. 21-Hydroxyprogesterone-21-acetate 3. 17-a-Hydroxyprogesterone 4. Cortisone 5. 11-a-Hydroxyprogesterone 6. Corticosterone 7. Hydrocortisone

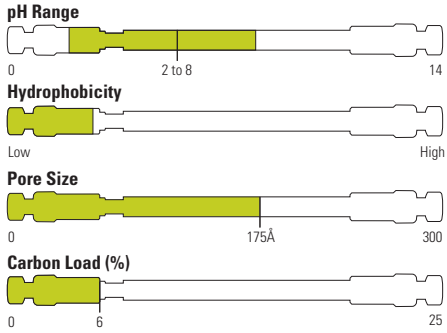
Hypersil GOLD Silica

Particle Size (µm)	Format	Length (mm)	1.0mm ID	2.1mm ID	3.0mm ID	4.0mm ID	4.6mm ID
1.9	UHPLC Column	50	-	25102-052130	-	-	-
		100	-	25102-102130	-	-	-
		150	-	25102-152130	-	-	-
		200	-	25102-202130	-	-	-
3	Drop-in Guard (4/pk)	10	25103-011001	25103-012101	25103-013001	-	25103-014001
	HPLC Column	30	-	25103-032130	-	-	25103-034630
		100	-	25103-102130	-	-	25101-104630
		150	-	25103-152130	25103-153030	-	25103-154630
5	Drop-in Guard (4/pk)	10	-	25105-012101	-	25105-014001	25105-014001
	HPLC Column	50	-	25105-052130	-	-	25105-054630
		100	-	25105-102130	25105-103030	-	25105-104630
		150	-	25105-152130	-	-	25105-154630
		250	-	25105-252130	-	25105-254030	25105-254630
	Uniguard Drop-in Guard Cartridge Holder	10	851-00	852-00	852-00	850-00	850-00

Hypersil GOLD HILIC

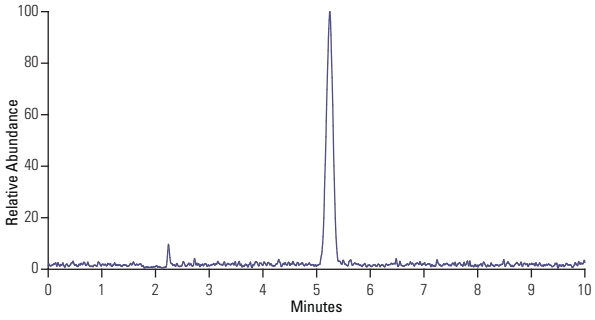
Retains and separates polar analytes that are problematic using reversed-phase columns

- Alternative selectivity to C18
- Improved sensitivity for MS detection
- Alternative to ion-pair or derivatization
- Outstanding peak shape and selectivity



Particle Size 1.9µm, 3µm, 5µm

Urea



Hypersil GOLD HILIC 5µm, 150 x 4.6mm

Mobile Phase:	H_2O/MeCN (10:90) + 0.1% formic acid
Temperature:	30°C
Flow Rate:	0.6mL/min
Injection Volume:	1µL
Detection:	+ESI
Analytes:	1. Urea

Hypersil GOLD HILIC

Particle Size (µm)	Format	Length (mm)	1.0mm ID	2.1mm ID	3.0mm ID	4.6mm ID
1.9	UHPLC Column	50	-	26502-052130	-	-
		100	-	26502-102130	-	-
		150	-	26502-152130	-	-
3	Drop-in Guard (4/pk)	10	26503-011001	26503-012101	26503-013001	26503-014001
	HPLC Column	30	-	26503-032130	-	-
		50	-	26503-052130	-	-
		100	26503-101030	26503-102130	26503-103030	26503-104630
		150	26503-151030	26503-152130	26503-153030	26503-154630
5	Drop-in Guard (4/pk)	10	-	26505-012101	-	26505-014001
	HPLC Column	50	-	26505-052130	-	26505-054630
		100	-	26505-102130	26505-103030	26505-104630
		150	-	26503-101030	-	26505-154630
		250	-	26505-252130	26505-253030	26505-254630
	Uniguard Drop-in Guard Cartridge Holder	10	851-00	852-00	852-00	850-00