



Synchronis HPLC and UHPLC Columns

Remarkable separations guaranteed time after time

Thermo Scientific™ Synchronis™ HPLC columns are used to achieve consistent, reproducible separations. Chemistries available for a variety of applications.

- **Consistent Separations**

Highly pure, high surface area silica

- **Dense Bonding and
Double Endcapping**

Reduction of residual silanols available
to interact with basic analytes

- **Strong Quality Control**

Rigorously tested to ensure quality



The Synchronis web page contains the latest news, applications
and downloads for the Synchronis HPLC column range.

Visit www.thermoscientific.com/synchronis

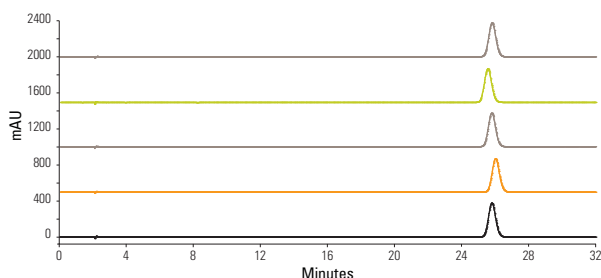
Synchronis C18

Synchronis C18 columns deliver remarkable separations, time after time

- Highly pure, high surface area silica
- High carbon load for increased retention
- Double endcapped for extra surface coverage
- Highly inert towards basic compounds
- Rigorously tested to ensure quality

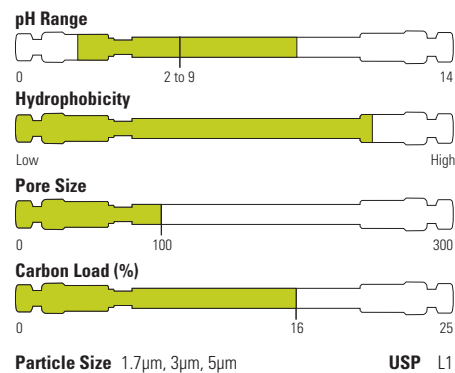
Synchronis C18 columns show excellent column to column reproducibility, as illustrated here by the analysis of zidovudine using five separate columns. The reproducibility in terms of retention time and peak area is less than or equal to 0.5%, column to column.

Zidovudine



Synchronis C18, 5µm, 150 x 4.6mm

Mobile Phase: Water:Methanol (4:1)
 Temperature: 25°C
 Flow Rate: 1.0mL/min
 Injection Volume: 10µL
 Detection: UV, 265nm
 Analytes: 1. Zidovudine



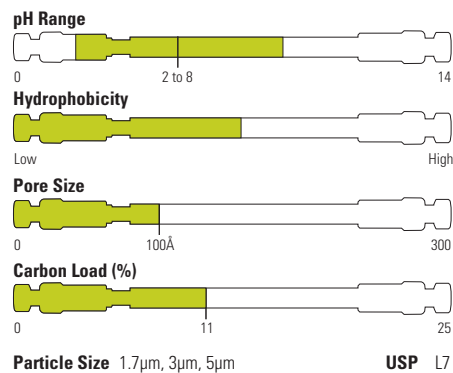
Synchronis C18

Particle Size (µm)	Format	Length (mm)	2.1mm ID	3.0mm ID	4.6mm ID
1.7	UHPLC Column	30	97102-032130	-	-
		50	97102-052130	-	-
		100	97102-102130	-	-
3	HPLC Column	30	97103-032130	-	-
		50	97103-052130	-	97103-054630
		100	97103-102130	97103-103030	97103-104630
		150	97103-152130	-	97103-154630
5	Drop-in Guard (4/pk)	10	97105-012101	97105-013001	97105-014001
	HPLC Column	30	97105-032130	-	-
		50	97105-052130	97105-053030	97105-054630
		100	97105-102130	97105-103030	97105-104630
		150	97105-152130	97105-153030	97105-154630
		250	97105-252130	97105-253030	97105-254630
UNIGUARD Drop-in Guard Cartridge Holder	10	852-00	852-00	850-00	

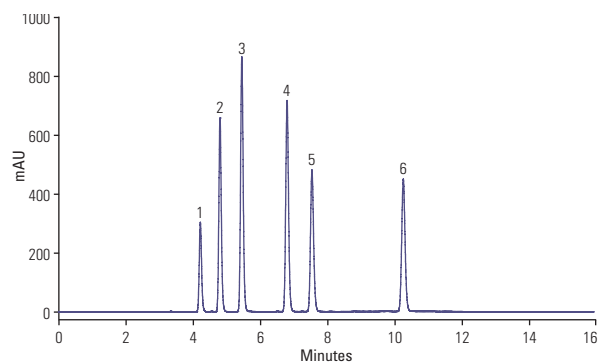
Synchronis C8

Reduces hydrophobic interactions allowing compounds to elute quicker from the column. Recommended for analytes with medium hydrophobicity or when a less hydrophobic phase is required to obtain optimum retention.

- Highly pure, high surface area silica
- Less hydrophobic than Synchronis C18
- Double endcapped for extra surface coverage
- Rigorously tested to ensure quality



Uron herbicides



Synchronis C8, 5µm, 150 x 4.6mm

Mobile Phase A:	Water
Mobile Phase B:	Acetonitrile
Gradient:	35 to 60% B in 10 minutes
Temperature:	30°C
Flow Rate:	1.0mL/min
Injection Volume:	20µL
Detection:	240nm
Analytes:	1. Tebuthiuron 2. Metoxuron 3. Monuron 4. Chlorotoluron 5. Diuron 6. Linuron

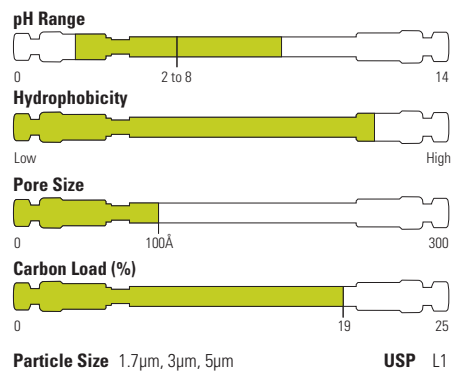
Synchronis C8

Particle Size (µm)	Format	Length (mm)	2.1mm ID	3.0mm ID	4.6mm ID
1.7	UHPLC Column	50	97202-052130	-	-
		100	97202-102130	-	-
3	HPLC Column	50	97203-052130	-	-
		100	-	97203-103030	97203-104630
		150	-	-	97203-154630
5	Drop-in Guard (4/pk)	10	97205-012101	97205-013001	97205-014001
		30	97205-032130	-	-
	HPLC Column	50	97205-052130	97205-053030	97205-054630
		100	97205-102130	97205-103030	97205-104630
		150	97205-152130	97205-153030	97205-154630
		250	-	97205-253030	97205-254630
UNIGUARD Drop-in Guard Cartridge Holder	10	852-00	852-00	850-00	

Synchronis aQ

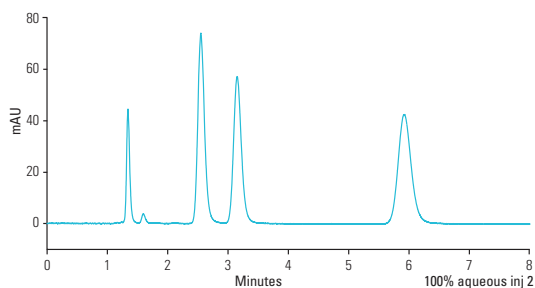
Polar endcapped Synchronis aQ columns provide a controlled interaction mechanism that retains and resolves polar analytes

- Stable in 100% aqueous mobile phase
- Enhanced retention of polar compounds
- Rigorously tested to ensure quality

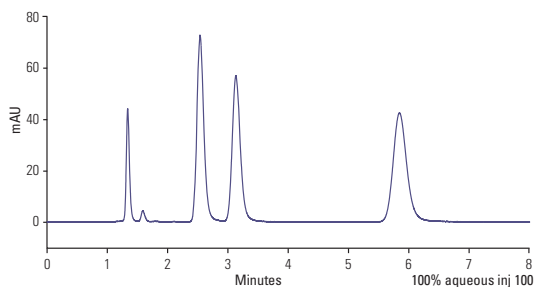


In comparison to a conventionally endcapped C18, the Synchronis aQ polar end-capped C18 stationary phase exhibits superior stability towards aqueous mobile phase. Synchronis aQ shows no degradation in performance after 100 injections in a buffered 100% aqueous eluent.

Stability of Synchronis aQ in 100% aqueous mobile phase



Synchronis aQ, 5µm, 100 x 4.6mm
 Mobile Phase: 50mM Aqueous K₂HPO₄ (pH 6)
 Temperature: 30°C
 Flow Rate: 0.7mL/min
 Injection Volume: 2µL
 Detection: 260nm
 Analytes:
 1. Cytidine-5'-diphosphate
 2. Adenosine-5'-triphosphate
 3. Adenosine-5'-diphosphate
 4. Adenosine-5'-monophosphate



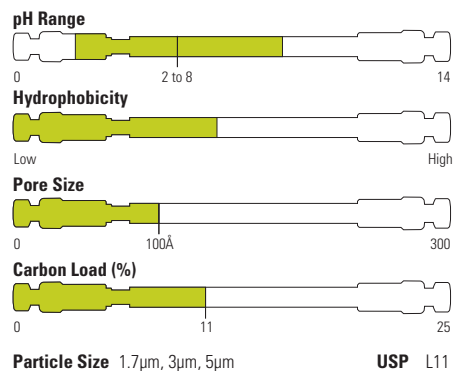
Synchronis aQ

Particle Size (µm)	Format	Length (mm)	2.1mm ID	3.0mm ID	4.0mm ID	4.6mm ID
1.7	UHPLC Column	50	97302-052130	-	-	97302-054630
		100	97302-102130	97302-103030	-	-
3	HPLC Column	50	97303-052130	-	-	-
		100	-	97303-103030	-	97303-104630
		150	-	-	-	97303-154630
5	Drop-in Guard (4/pk)	10	97305-012101	97305-013001	97305-014001	97305-014001
		50	97305-052130	97305-053030	-	97305-054630
		100	97305-102130	-	-	97305-104630
		150	97305-152130	97305-153030	97305-154030	97305-154630
		250	-	97305-253030	97305-254030	97305-254630
	UNIGUARD Drop-in Guard Cartridge Holder	10	852-00	852-00	850-00	850-00

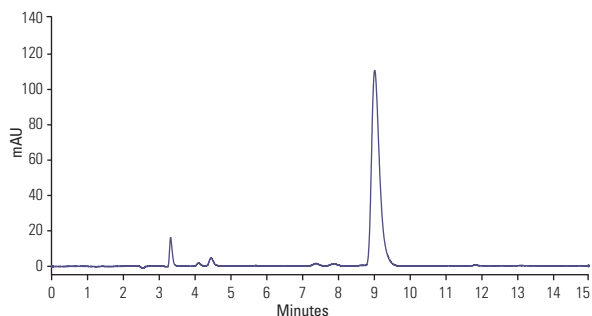
Synchronis Phenyl

Provides an alternative to Synchronis C18 and is particularly useful for retention of aromatic compounds

- Alternative selectivity to Synchronis C18
- Double endcapped for extra surface coverage
- Highly inert towards basic compounds
- Rigorously tested to ensure quality



Oxacillin sodium (USP)



Synchronis Phenyl, 5µm, 300 x 4.0mm

Mobile Phase:	Phosphate Buffer: MeCN:MeOH (70:30:10)
Temperature:	25°C
Flow Rate:	1.0mL/min (2mL/min in USP method)
Injection Volume:	10µL
Detection:	UV, 225nm
Analytes:	1. Oxacillin Sodium (0.11mg/mL)

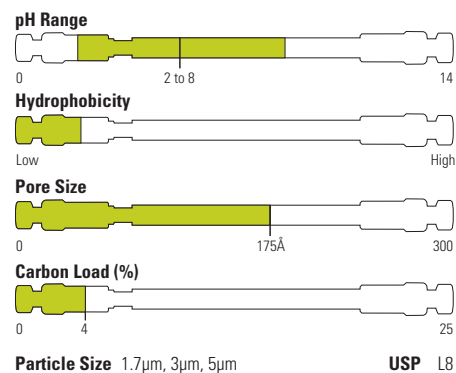
Synchronis Phenyl

Particle Size (µm)	Format	Length (mm)	2.1mm ID	3.0mm ID	4.6mm ID
1.7	UHPLC Column	50	97902-052130	-	-
		100	97902-102130	-	-
3	HPLC Column	50	97903-052130	-	-
		100	-	-	97903-104630
		150	-	-	97903-154630
5	Drop-in Guard (4/pk)	10	97905-012101	97905-013001	97905-014001
	HPLC Column	50	-	97905-053030	97905-054630
		100	-	97905-103030	97905-104630
		150	97905-152130	-	97905-154630
		250	-	-	97905-254630
	UNIGUARD Drop-in Guard Cartridge Holder	10	852-00	852-00	850-00

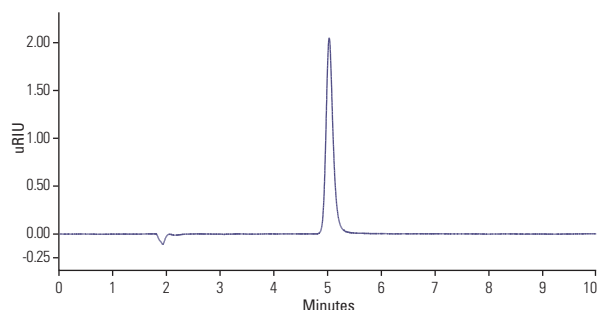
Synchronis Amino

Provides a versatile aminopropyl phase that gives excellent chromatographic properties in four modes: weak anion exchange, reversed-phase, normal phase and HILIC

- Highly pure, high surface area silica
- Double endcapped for extra surface coverage
- Rigorously tested to ensure quality



Lactulose



Synchronis Amino 5µm, 150 x 4.6mm

Mobile Phase:	Water: MeCN (30:70)
Temperature:	35°C
Flow Rate:	1.0mL/min
Detection:	RI
Injection Volume:	5µL
Analytes:	1. Lactulose

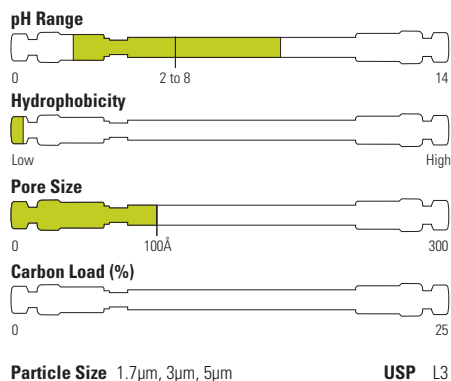
Synchronis Amino

Particle Size (µm)	Format	Length (mm)	2.1mm ID	3.0mm ID	4.0mm ID	4.6mm ID
1.7	UHPLC Column	50	97702-052130	-	-	-
		100	97702-102130	-	-	-
3	HPLC Column	50	97703-052130	-	-	-
5	Drop-in Guard (4/pk)	10	97705-012101	97705-013001	97705-014001	97705-014001
	HPLC Column	30	97705-032130	-	-	-
		50	97705-052130	-	-	97705-054630
		150	97705-152130	97705-153030	97705-154030	97705-154630
		250	-	97705-253030	97705-254030	97705-254630
UNIGUARD Drop-in Guard Cartridge Holder	10	852-00	852-00	850-00	850-00	

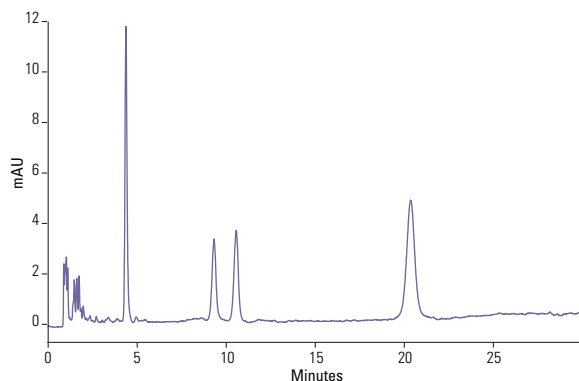
Synchronis Silica

Serves as a powerful and efficient tool for the chromatography of moderately polar organic compounds by normal phase chromatography

- Highly pure, high surface area silica
- Excellent reproducibility for normal phase chromatography
- Rigorously tested to ensure quality



Tocopherols



Synchronis Silica 5 μm, 150 x 4.6mm

Mobile Phase: Hexane +0.2% propan-2-ol (IPA)
 Temperature: 40°C
 Flow Rate: 2.0mL/min
 Injection Volume: 10 μL
 Detection: UV, 254nm
 Analytes: α-tocopherol
 β-tocopherol
 γ-tocopherol
 δ-tocopherol

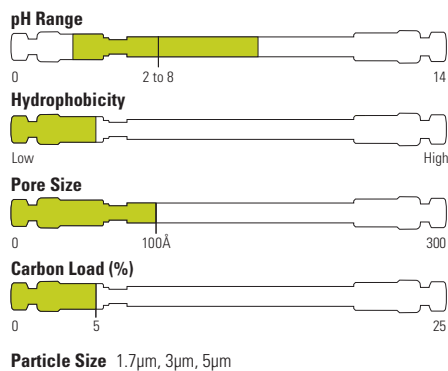
Synchronis Silica

Particle Size (μm)	Format	Length (mm)	2.1mm ID	3.0mm ID	4.0mm ID	4.6mm ID
1.7	UHPLC Column	50	97002-052130	-	-	-
		100	97002-102130	-	-	-
3	HPLC Column	50	97003-052130	-	-	-
5	Drop-in Guard (4/pk)	10	97005-012101	97005-013001	97005-014001	97005-014001
	HPLC Column	50	97005-052130	-	-	-
		100	97005-102130	-	-	-
		150	97005-152130	97005-153030	97005-154030	97005-154630
		250	-	97005-253030	97005-254030	97005-254630
	UNIGUARD Drop-in Guard Cartridge Holder	10	852-00	852-00	850-00	850-00

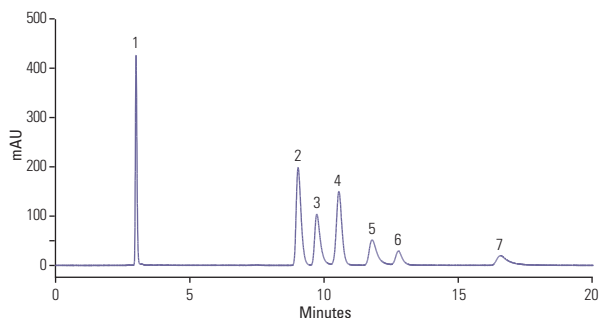
Synchronis HILIC

Provides enhanced retention of polar and hydrophilic analytes

- Alternative selectivity to Synchronis C18
- Improved sensitivity with MS detection
- No need for ion-pair or derivatization
- Outstanding peak shape and sensitivity
- Highly pure, high surface area silica particles
- Neutral (uncharged), highly polar surface



Catecholamines



Synchronis HILIC, 5μm, 250 x 4.6mm

Mobile Phase:	Water : acetonitrile : 200mM ammonium formate (10.5 : 84.5 : 5)
Temperature:	40°C
Flow Rate:	1.0mL/min
Injection Volume:	5μL
Detection:	UV, 280nm
Analytes:	1. catechol 2. 5-HIAA 3. DOPAC 4. serotonin 5. tyrosine 6. dopamine 7. L-DOPA

Synchronis HILIC

Particle Size (μm)	Format	Length (mm)	2.1mm ID	3.0mm ID	4.6mm ID
1.7	UHPLC Column	50	97502-052130	-	97502-054630
		100	97502-102130	-	-
3	HPLC Column	50	97503-052130	-	-
		100	-	-	97503-104630
		150	-	-	97503-154630
5	Drop-in Guard (4/pk)	10	97505-012101	97505-013001	97505-014001
	HPLC Column	50	97505-052130	-	97505-054630
		100	97505-102130	-	97505-104630
		150	97505-152130	97505-153030	97505-154630
		250	-	-	97505-254630
	UNIGUARD Drop-in Guard Cartridge Holder	10	852-00	852-00	850-00