

Thermo Scientific Synchronis aQ HPLC Columns

Consistent, predictable separations,
Column after column, time after time

- Stability in 100% aqueous mobile phase
- Outstanding reproducibility
- Highly pure, high surface area silica
- Highly inert towards basic compounds
- Rigorously tested to ensure quality

Specifications

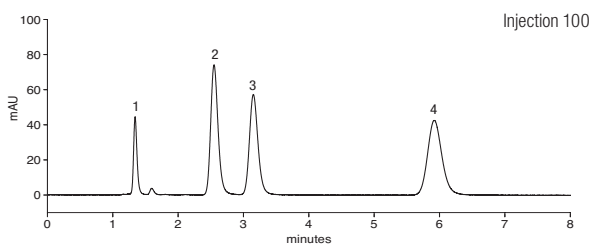
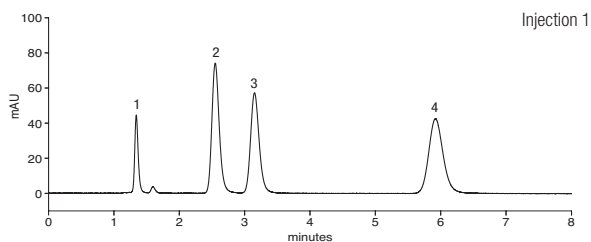
Particle size	1.7 µm, 3 µm, 5 µm	Carbon load	19 %
Pore size	100 Å	Endcapped	Polar
Surface area	320 m ² /g	USP classification	L1
pH range	2-8		



Stability in 100% aqueous mobile phase

In comparison to a conventionally endcapped C18, the Thermo Scientific™ 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.



Column:

Mobile phase: 50 mM aqueous potassium hydrogen phosphate (pH 6)
Flow rate: 0.7 mL/min
Temperature: 30 °C
Detection: 260 nm
Injection volume: 2 µL

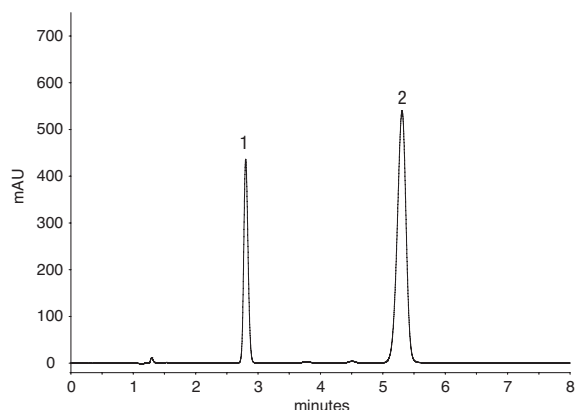
Synchronis aQ 5 µm, 100 mm x 4.6 mm

1. Cytidine-5'-diphosphate
2. Adenosine-5'-triphosphate
3. Adenosine-5'-diphosphate
4. Adenosine-5'-monophosphate

Stability of Synchronis aQ in 100% aqueous mobile phase

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Application: Amoxicillin and Potassium Clavulanate (USP)



Column: Synchronis aQ 5 µm, 300 mm x 4.0 mm
Mobile phase: phosphate buffer (pH 4.4):methanol (95:5)
Flow rate: 2.0 mL/min
Temperature: 25 °C
Detection: 210 nm
Injection volume: 20 µL

1. Amoxicillin
 2. Potassium Clavulanate

Parameter	USP Specification	Measured Amoxicillin (6 replicate injections)	Measured K Clavulanate (6 replicate injections)
Resolution	> 3.5	—	12.8
Efficiency (N)	> 550	7598	6475
Tailing factor	< 1.5	1.15	0.92
%RSD retention time	< 2%	0.29%	0.36%
%RSD peak area	< 2%	0.30%	0.29%

Ordering Information

Description	Particle Size	Length (mm)	2.1 mm ID	3.0 mm ID	4.0 mm ID	4.6 mm ID
Synchronis aQ	1.7 µm	30	97302-032130	—	—	—
		50	97302-052130	97302-053030	—	97302-054630
		100	97302-102130	97302-103030	—	—
	3 µm	50	97303-052130	—	—	—
		100	—	97303-103030	—	97303-104630
		150	—	—	—	97303-154630
	5 µm	30	97305-032130	97305-033030	97305-034030	97305-034630
		50	97305-052130	97305-053030	97305-054030	97305-054630
		100	97305-102130	97305-103030	97305-104030	97305-104630
		150	97305-152130	97305-153030	97305-154030	97305-154630
		250	97305-252130	97305-253030	97305-254030	97305-254630
Drop-in guard cartridges (4/pk)	5 µm	10	97305-012101	97305-013001	97305-014001	—
UNIGUARD Guard Cartridge Holder			852-00	852-00	850-00	—

Consistent, predictable separations: Column after column, time after time

Synchronis HPLC columns are manufactured, packed and tested in ISO 9001:2008 accredited facilities. Each lot of silica is tested for the physical properties of the silica support and only released for production if it meets the stringent test specifications.

Each bonded lot of chromatographic packing material is rigorously tested for primary and secondary interactions with the bonded phase.

New, enhanced, automated packing methods drive consistency even further and every column is individually tested to ensure that it meets the required quality.

These extensive testing and quality control procedures ensure the delivery of a consistent product, column after column.

thermoscientific.com/Synchronis

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