Product Specifications

- **Outstanding reproducibility**
- **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**

Thermo Scientific Syncronis C18 HPLC Columns

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

Specifications

Particle size	1.7 µm, 5 µm	**Carbon load**	16 %
Pore size	100 Å	**Endcapped**	Y
Surface area	320 m^2/g	**USP classification**	L1
pH range	2 - 9		

Outstanding column to column reproducibility

When developing a new method, one of the most important goals for the chromatographer is to achieve a consistent, reproducible separation. The selection of a highly reproducible HPLC column is essential if this goal is to be attained.

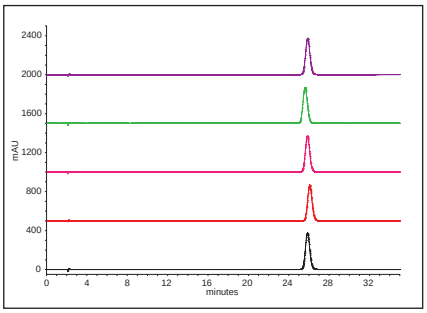
Syncronis™ C18 columns show excellent column to column reproducibility, as illustrated here by the analysis of zidovudine using five separate columns.

The reproducibility in terms of retention time and peak area is less than or equal to 0.5%, column to column. This indicates that the columns are well packed.

The variation in peak area is 0.27%, which is important for quantitation of analytes.

Syncronis C18 columns achieve this goal, starting from the highly pure, high surface area silica and dense bonding, all controlled and characterized through the use of rigorous testing.

New, enhanced, automated column packing methods drive consistency even further and every column is individually tested to ensure that it meets the required specifications. These extensive testing and quality control procedures ensure the delivery of a consistent product, column after column.



1. Zidovudine

Column: Syncronis C18, 5 µm, 250mm x 4.0mm

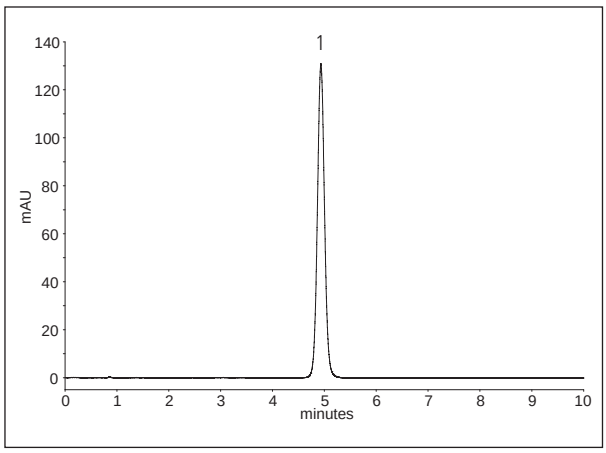
Mobile phase:	Water: Methanol (4:1)
Flow rate:	1.0 mL min^{-1}
Temperature:	25°C
Detection:	265 nm
Injection volume:	10 µL

Column	Retention Time (min)	Efficiency	Peak Area
1	25.82	62069	11532105
2	26.03	61688	11543904
3	25.90	62657	11527718
4	25.66	61317	11463444
5	25.92	63142	11520618
Inter-column precision (% RSD)	0.52	1.18	0.27

Ordering Information

Description	Particle size	Length (mm)	2.1 mm ID	3 mm ID	4 mm ID	4.6 mm ID
Syncronis C18	1.7 µm	30	97102-032130	–	–	–
		50	97102-052130	97102-053030	–	97102-054630
		100	97102-102130	97102-103030	–	–
	5 µm	30	97105-032130	97105-033030	97105-034030	97105-034630
		50	97105-052130	97105-053030	97105-054030	97105-054630
		100	97105-102130	97105-103030	97105-104030	97105-104630
		150	97105-152130	97105-153030	97105-154030	97105-154630
		250	97105-252130	97105-253030	97105-254030	97105-254630
Drop-in guard cartridges (4/pk)	5 µm	10	97105-012101	97105-013001	97105-014001	–

Application: Chloramphenicol (USP)



Column: Syncronis C18, 5µm, 100mm x 4.6mm

Mobile phase:	Water: MeOH: Glacial Acetic Acid (54.9:45:0.1)
Flow rate:	1.0 mL/min
Temperature:	25°C
Detection:	280 nm
Injection volume:	10 µL

1. Chloramphenicol

Parameter	USP specification	Measured (6 replicate injections)
Efficiency (N)	> 1800	6164
Tailing factor	< 2	1.06
%RSD Retention time	< 1%	0.03%
%RSD Peak area	< 1%	0.32%

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

Syncronis HPLC columns are manufactured, packed and tested in ISO9000 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.

For more information, visit **www.thermoscientific.com/Syncronis**

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USA and Canada +1 800 332 3331
France +33 (0) 3 88 67 53 20
Germany +49 6103 408 0
Switzerland +41 56 618 41 11
United Kingdom +44 (0) 1928 534 110
Japan +81 45 453 9220
China +86-21-68654588 or +86-10-84193588
India 1800 22 8374 (toll-free)
+91 22 6716 2200
All Other Enquiries +44 (0) 1928 534 050

Technical Support
North America +1 800 332 3331
Outside North America +44 (0) 1928 534 440

Thermo SCIENTIFIC