COSMOSIL 2.5C_{18}-MS-II, 2.5Cholester, 2.5πNAP

- Low back pressure (2.5 µm silica gel)
- 3 types of stationary phases (monomeric C_{18}, cholesterol group and naphthalene group)

Specifications

Packing Material	C_{18}-MS-II	Cholester	πNAP
Silica Gel	High Purity Porous Spherical Silica		
Average Particle Size	2.5 µm		
Average Pore Size	aprrox. 130 Å		
Specific Surface Area	aprrox. 330 m^2/g		
Bonded Phase	Octadecyl Group	Cholesteryl Group	Naphtylethyl Group
Bonding Type	Monomeric Type		
Main Interaction	Hydrophobic Interaction	Hydrophobic Interaction Molecular Shape Selectivity	Hydrophobic Interaction π–π Interaction
End-capping Treatment	Near-perfect Treatment		
Carbon Load	aprrox. 18%	aprrox. 21%	aprrox. 14%
Feature	• First choice of reversed phase column	• The same mobile phase as C_{18} • High molecular shape selectivity	• Stronger π–π interactions than phenyl columns

Ultra High Performance Liquid Chromatography (UHPLC)

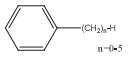
Very fast and efficient separation can be achieved using 2.5 µm particles.

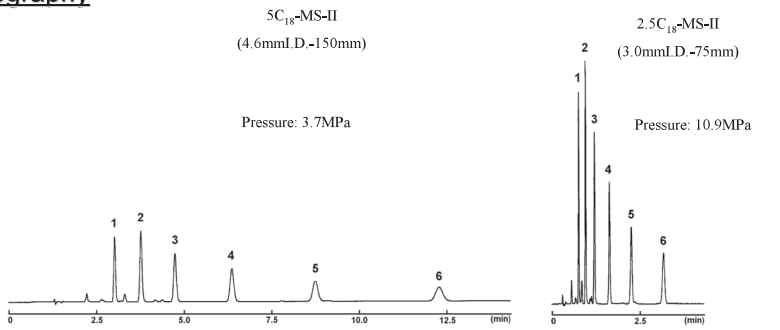
Note: Ultra high performance liquid chromatography system or some modification of HPLC system is required for UHPLC analysis. The following application is acquired by HPLC equipment for semi-micro column, and response of detector is 0.02 sec.

To Ultra Fast Liquid Chromatography

Column: COSMOSIL C_{18}-MS-II
Column size:
Mobile phase: Acetonitrile/ H_2O = 70/30
Flow rate: 1.0 ml/min
Temperature: 40°C
Detection: UV254nm

Sample:		
	1; Benzene	(1.67mg/ml)
	2; Toluene	(1.67mg/ml)
	3; Ethylbenzene	(1.67mg/ml)
	4; *n*-Propylbenzene	(1.67mg/ml)
	5; *n*-Butylbenzene	(1.67mg/ml)
	6; Amylbenzene	(1.67mg/ml)
Injection Vol.	1.0 µl	





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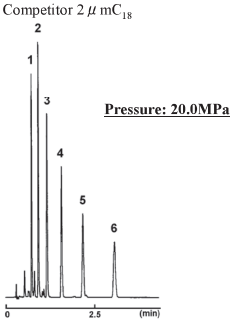
Comparison of Analytical Pressure

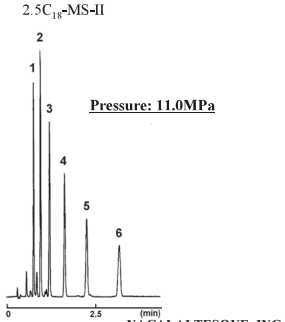
COSMOSIL 2.5 series can be used under lower pressure than competitors' 2 µm columns.

Comparison of Analytical Pressure

Column:
Column size: 3.0mmI.D.-75mm
Mobile phase: Acetonitrile/ H_2O = 70/30
Flow rate: 1.0 ml/min
Temperature: 40°C
Detection: UV254nm

Sample:		
	1; Benzene	(1.67mg/ml)
	2; Toluene	(1.67mg/ml)
	3; Ethylbenzene	(1.67mg/ml)
	4; Propylbenzene	(1.67mg/ml)
	5; Butylbenzene	(1.67mg/ml)
	6; Amylbenzene	(1.67mg/ml)
Injection Vol.	1.0 µl	





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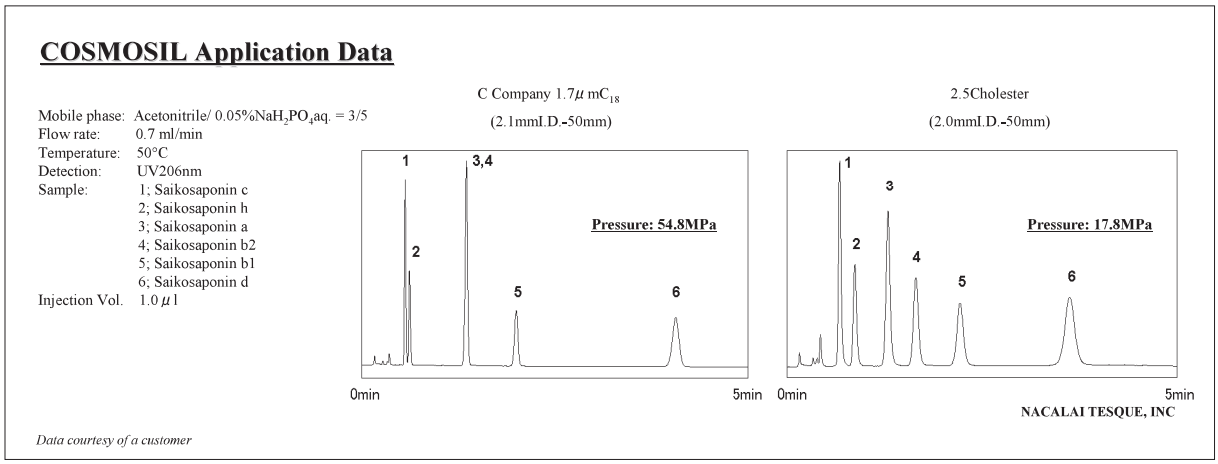
Applications

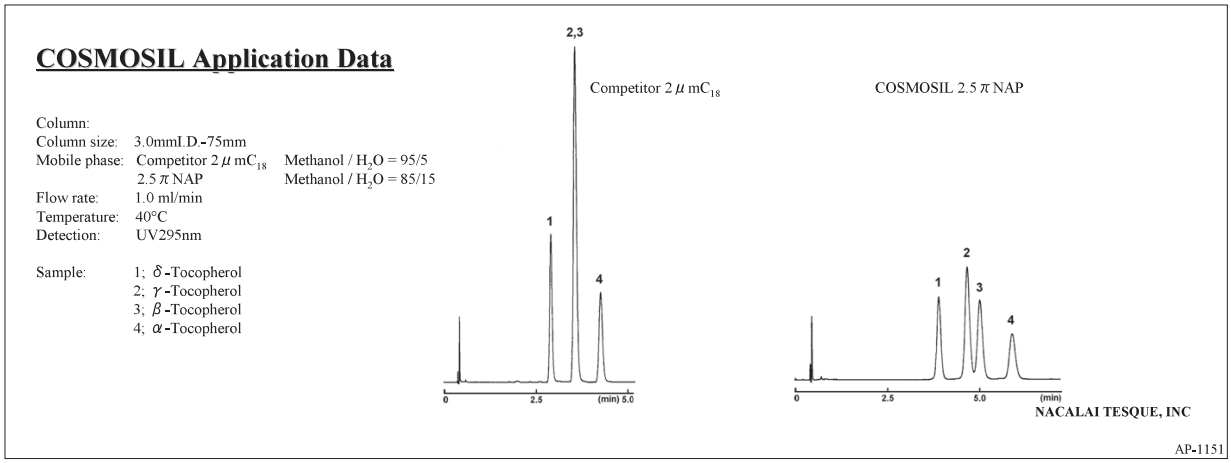
COSMOSIL 2.5Cholester offers improved resolution for compounds difficult to analyze with C_{18} without changing analytical condition. For more information on Cholester, refer to page 21.

● Saikosaponins



COSMOSIL 2.5πNAP provides greater performance in separating positional isomers and other closely related compounds which are difficult to analyze with C_{18}. For more information on πNAP, refer to page 24.

● Tocopherols



Orderling Information

● Analytical Column (Particle Size: 2.5 µm)

COSMOSIL 2.5C_{18}-MS-II Packed Column

Column Size I.D. x Length (mm)	Product Number
2.0 x 50	08994-31
2.0 x 75	08995-21
2.0 x100	08996-11
3.0 x 50	08997-01
3.0 x 75	08998-91
3.0 x100	08999-81

COSMOSIL 2.5Cholester Packed Column

Column Size I.D. x Length (mm)	Product Number
2.0 x 50	09000-01
2.0 x 75	09047-11
2.0 x 100	09048-01
3.0 x 50	09049-91
3.0 x 75	09050-51
3.0 x 100	09051-41

COSMOSIL 2.5πNAP Packed Column

Column Size I.D. x Length (mm)	Product Number
2.0 x 50	06062-91
2.0 x 75	06051-31
2.0 x 100	06052-21
3.0 x 50	06054-01
3.0 x 75	06055-91
3.0 x 100	06057-71