



COSMOSIL

COSMOSIL UHPLC Columns

COSMOSIL UHPLC Columns with 2.5 µm particles still provide superior separation, but at significantly lower back pressure, than sub 2.0 µm stationary phases.

Packing Material	2.5C ₁₈ -MS-II	2.5Cholester	2.5πNAP
Silica Gel	High Purity Porous Spherical Silica		
Average Particle Size	2.5 µm		
Average Pore Size	approx. 130 Å		
Specific Surface Area	approx. 330 m ² /g		
Stationary Phase	 Octadecyl Group	 Cholesteryl Group	 Naphtylethyl Group
Bonding Type	Monomeric		
Main Interaction	Hydrophobic Interaction	Hydrophobic Interaction Molecular Shape Selectivity	Hydrophobic Interaction π-π Interaction
End Capping Treatment	Near-perfect Treatment		
Features	- Monomeric C ₁₈ phase for multi-purpose separations - Suitable for basic compounds	- Usable under the same condition as C ₁₈ columns - High molecular shape selectivity	- Stronger π-π interaction than Phenyl columns

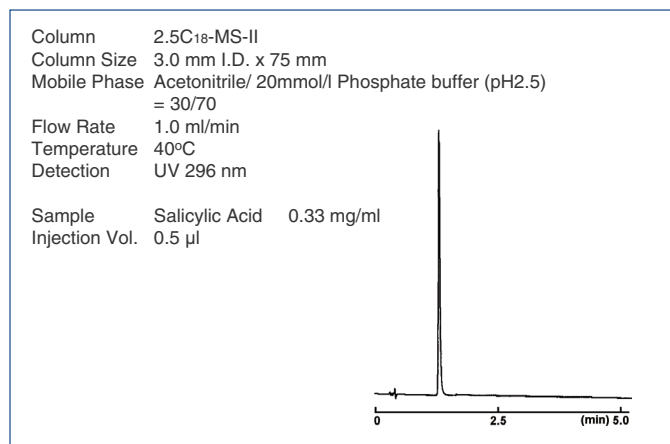
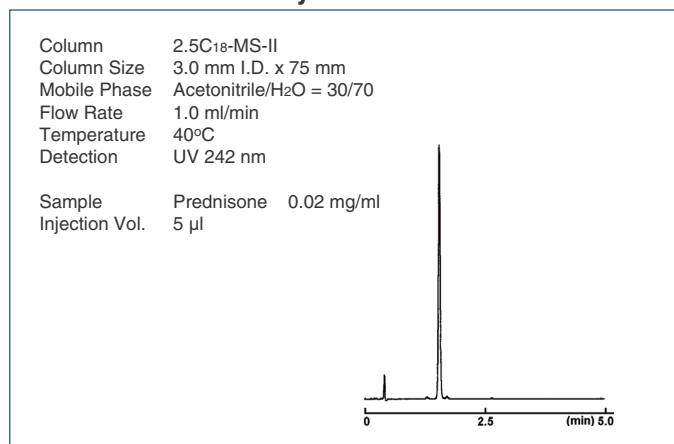
COSMOSIL 2.5C₁₈-MS-II

- **Low back pressure (2.5 µm silica gel)**
- **Monomeric C₁₈ phase for multi-purpose separations**

Application Data

COSMOSIL 2.5C₁₈-MS-II (3.0 mm I.D. x 75 mm) enables the separation only in 2 minutes.

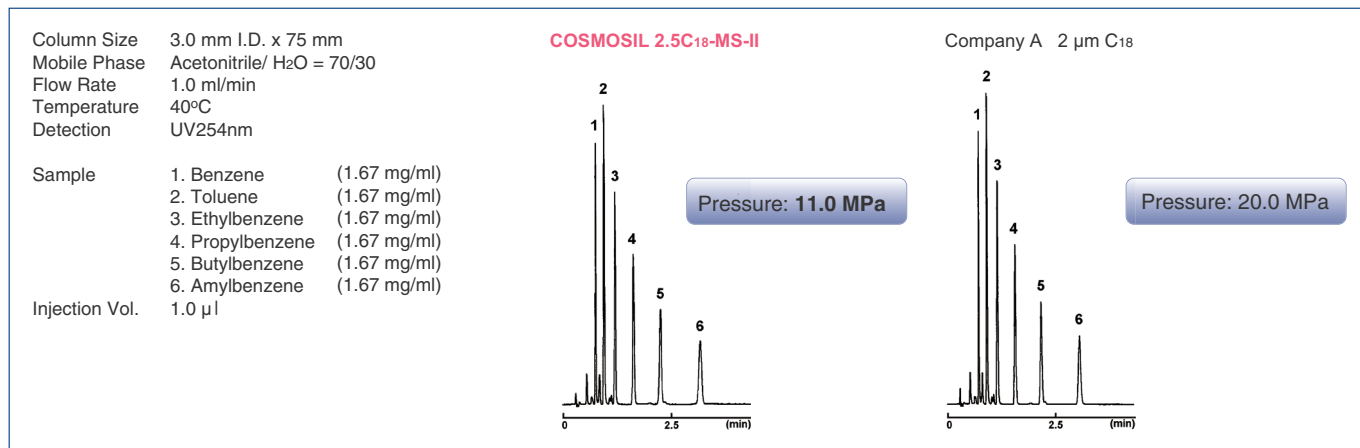
• Prednisone and Salicylic Acid



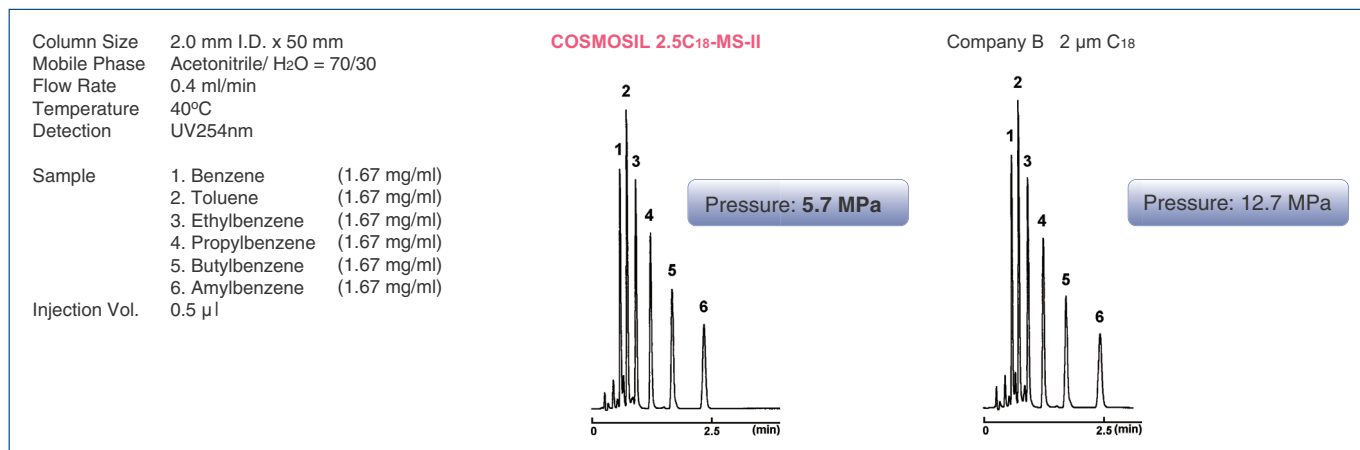
Pressure comparison with competitors' 2 µm columns

COSMOSIL 2.5C18-MS-II can be used under 1/2 pressure of competitors' 2 µm columns.

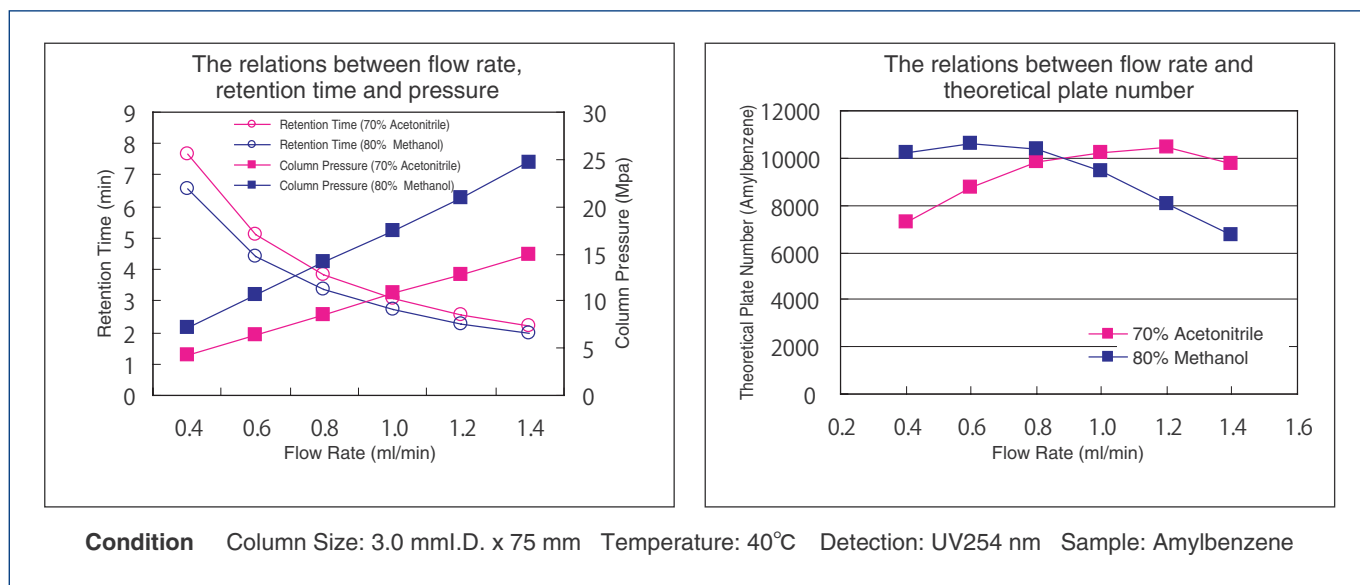
• 3.0 mm I.D. x 75 mm



• 2.0 mm I.D. x 50 mm



The relations between flow rate, retention time, pressure and theoretical plate number



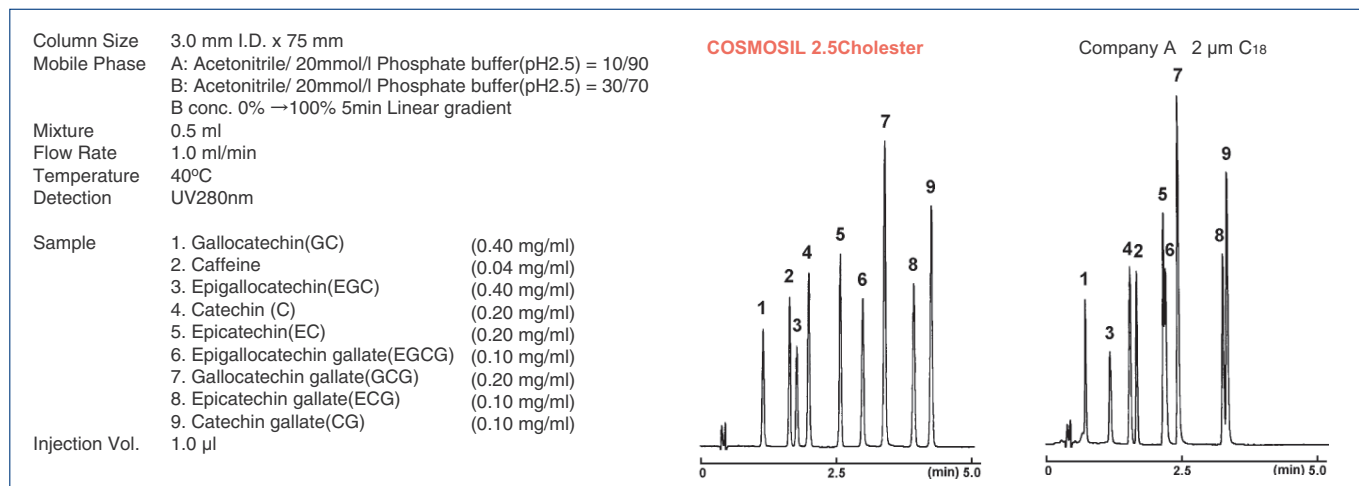
COSMOSIL 2.5Cholester

- **Low back pressure (2.5 µm silica gel)**
- **Cholesterol bonded stationary phase**
- **Excellent molecular shape selectivity**

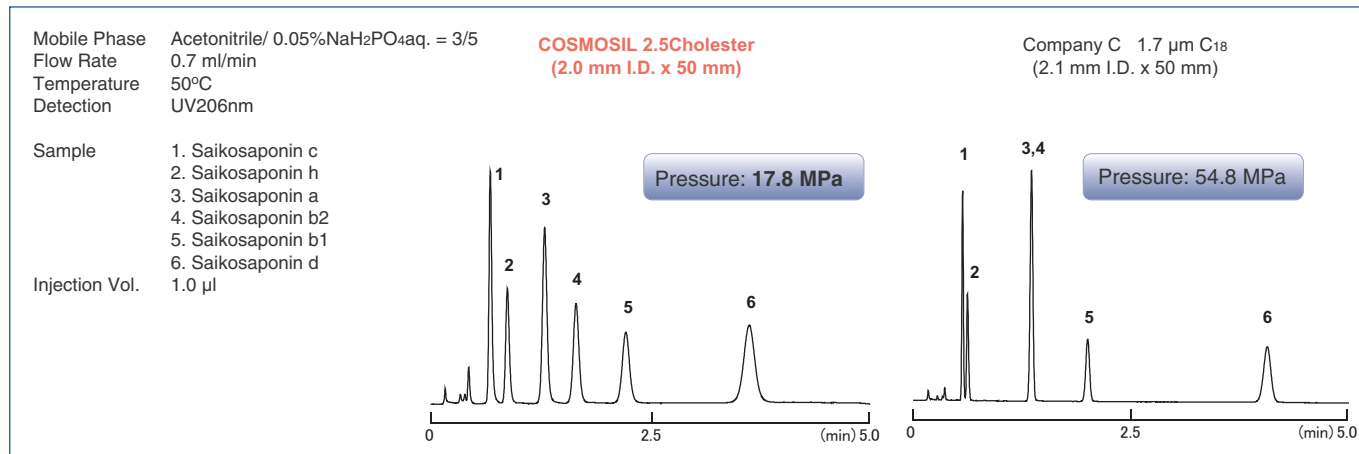
Improved Separation

COSMOSIL 2.5Cholester offers improved resolution for compounds difficult to analyze with C₁₈ without changing analytical condition.

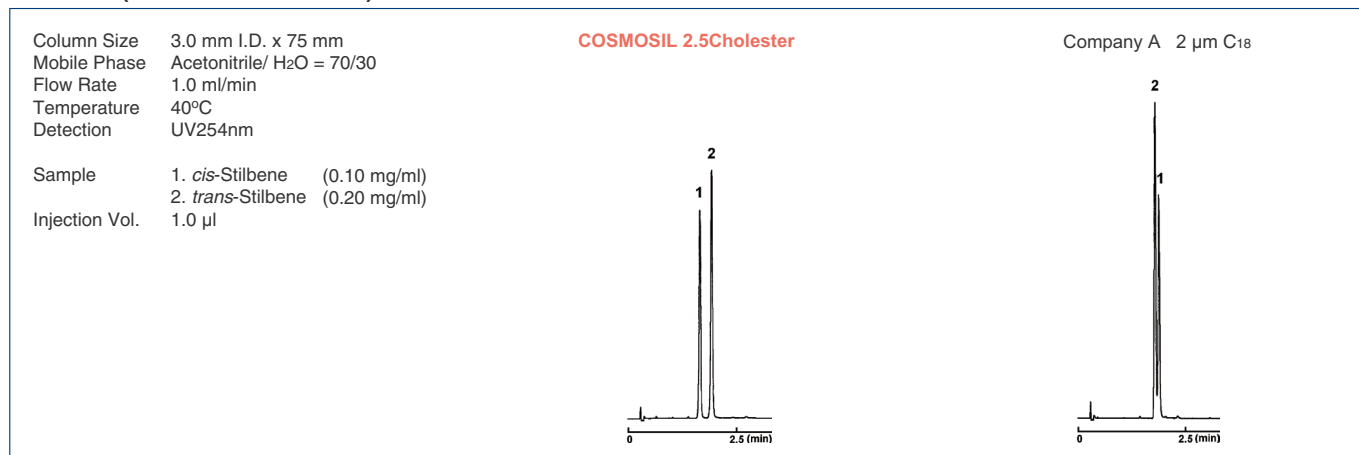
• Catechins



• Saikosaponins



• Stilbene (Geometrical Isomers)



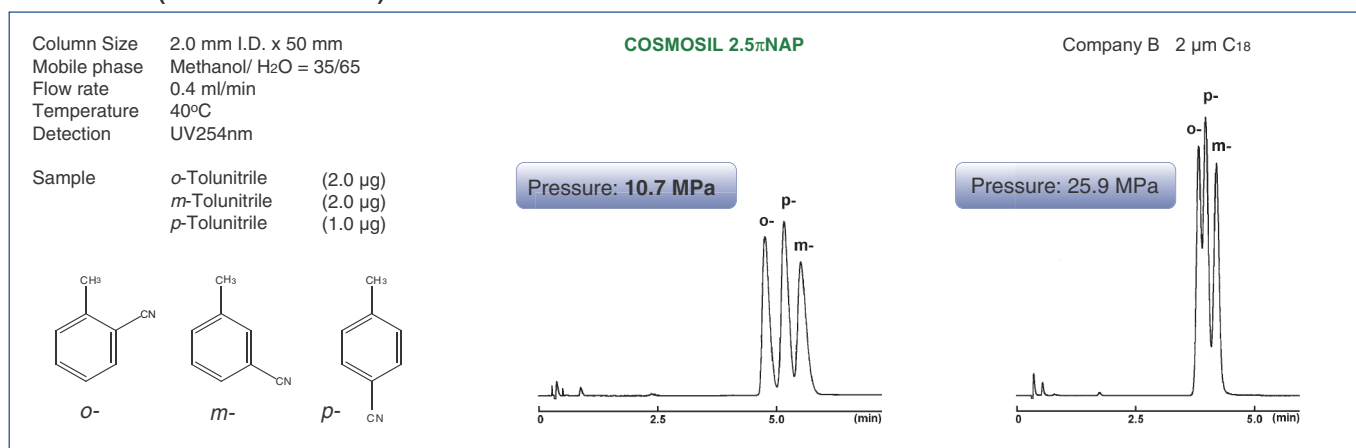
COSMOSIL 2.5 π NAP

- **Low back pressure (2.5 μ m silica gel)**
- **Naphthalene bonded stationary phase**
- **Stronger π - π interactions than Phenyl columns**

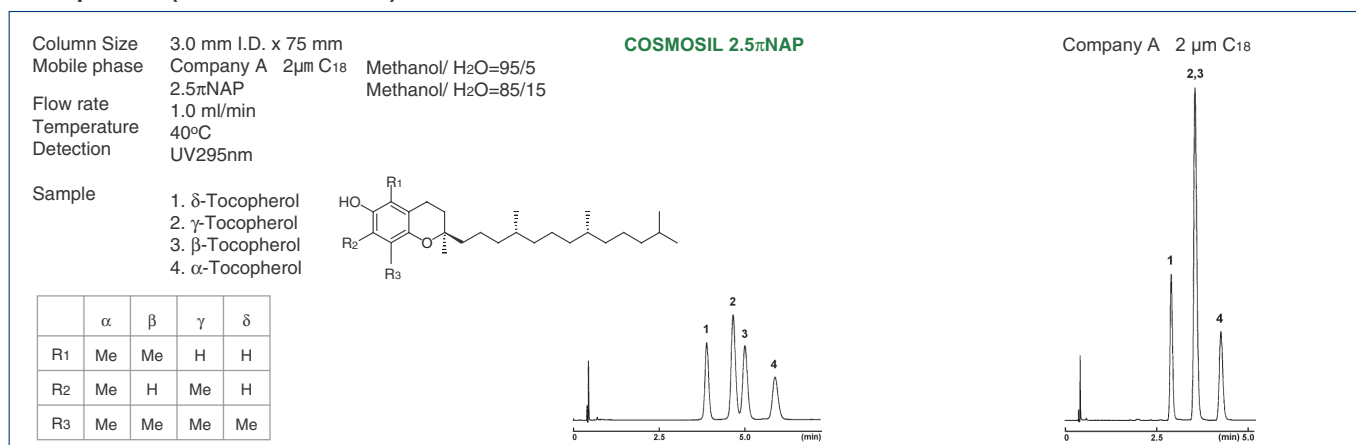
Improved Separation

COSMOSIL 2.5 π NAP provides greater performance in separating positional isomers and other closely related compounds which are difficult to analyze with C18.

Tolunitriles (Positional Isomers)



Tocopherols (Positional Isomers)



Ordering Information

Column Size	COSMOSIL 2.5C18-MS-II Product Number	COSMOSIL 2.5Cholester Product Number	COSMOSIL 2.5 π NAP Product Number
2.0 mm I.D. x 50 mm	08994-31	09000-01	06062-91
2.0 mm I.D. x 75 mm	08995-21	09047-11	06051-31
2.0 mm I.D. x 100 mm	08996-11	09048-01	06052-21
3.0 mm I.D. x 50 mm	08997-01	09049-91	06054-01
3.0 mm I.D. x 75 mm	08998-91	09050-51	06055-91
3.0 mm I.D. x 100 mm	08999-81	09051-41	06057-71

For research use only, not intended for diagnostic or drug use.