

COSMOSIL C₁₈-AR-II

- Features strong acid resistance
- Suitable for acid compounds and peptides

Acid Resistance

The COSMOSIL 5C₁₈-AR-II packed column features a polymeric type of C₁₈ reversed phase material. The acidic resistance of COSMOSIL 5C₁₈-AR-II is much improved compared with commercially available monomeric type octadecyl stationary phases. It retains high performance even in case of acidic mobile phases commonly used to separate acidic compounds and peptides.

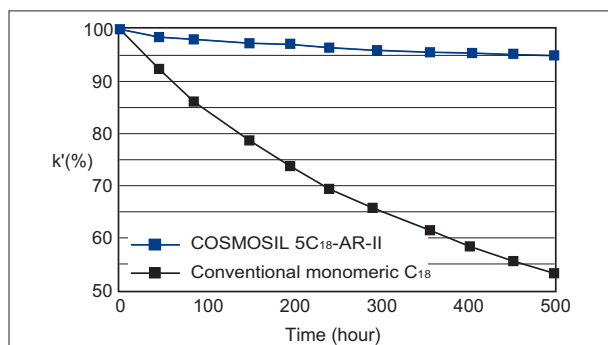


Figure.
Decomposition test in 0.1% Trifluoroacetic acid solution at 60°C.
Capacity factor (k') = Naphthalene,
Mobile phase: Methanol / H₂O=70/30

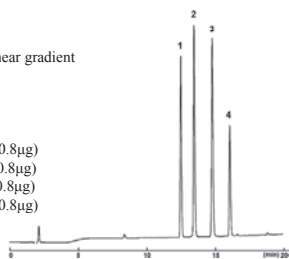
Applications

• Peptides

COSMOSIL Application Data

Column: 5C₁₈-AR-II
Column size: 4.6mm I.D.-150mm
Mobile phase: A; 0.05%TFA-H₂O
B; 0.05%TFA-Acetonitrile
B conc. 10→40% 20min Linear gradient
Flow rate: 1.0 ml/min
Temperature: 30°C
Detection: UV220nm

Sample: 1; Oxytocin (0.8µg)
2; Angiotensin II(Human) (0.8µg)
3; Angiotensin I(Human) (0.8µg)
4; Substance P (0.8µg)

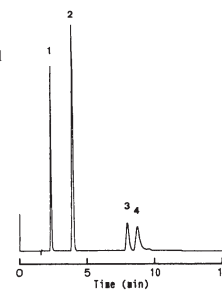


• Organic Acids

COSMOSIL Application Data

Column: 5C₁₈-AR-II
Column size: 4.6mm I.D.-150mm
Mobile phase: Methanol/ 20mmol/l Phosphoric Acid
= 20/80
Flow rate: 1.0 ml/min
Temperature: 30°C
Detection: UV254nm, 0.5AUFS

Sample: 1; Gallic Acid (0.63µg)
2; Protocatechuic Acid (0.63µg)
3; Gentisic Acid (0.63µg)
4; Phthalic Acid (0.63µg)

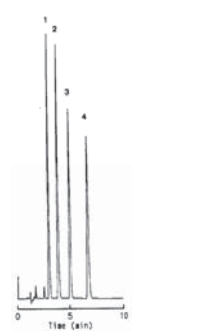


• Salicylic Acid Esters

COSMOSIL Application Data

Column: 5C₁₈-AR-II
Column size: 4.6mm I.D.-150mm
Mobile phase: Acetonitrile/ H₂O = 70/30
Flow rate: 1.0 ml/min
Temperature: 30°C
Detection: UV254nm, 0.2AUFS

Sample: 1; Methyl Salicylate (2.3µg)
2; Ethyl Salicylate (2.6µg)
3; *n*-Propyl Salicylate (2.3µg)
4; *n*-Butyl Salicylate (2.6µg)

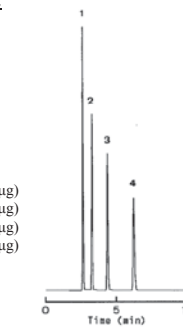


• Parabens

COSMOSIL Application Data

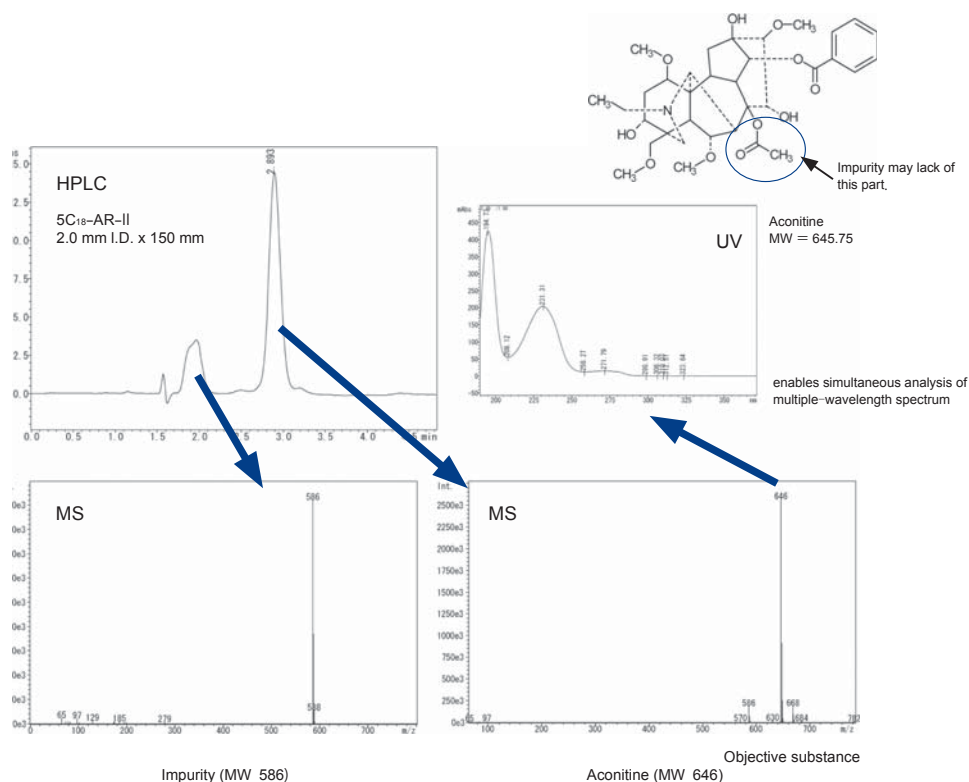
Column: 5C₁₈-AR-II
Column size: 4.6mm I.D.-150mm
Mobile phase: Acetonitrile/ H₂O = 50/50
Flow rate: 1.0 ml/min
Temperature: 30°C
Detection: UV254nm, 0.12AUFS

Sample: 1; Methyl *p*-Hydroxybenzoate (0.125µg)
2; Ethyl *p*-Hydroxybenzoate (0.125µg)
3; *n*-Propyl *p*-Hydroxybenzoate (0.125µg)
4; Butyl *p*-Hydroxybenzoate (0.125µg)



LC/MS Applications

- Identification of herbal medicine constituents by LC/MS



Ordering Information

- Analytical / Preparative Column (Particle Size: 5 μm)

COSMOSIL 5C₁₈-AR-II Packed Column

Column Size I.D. x Length (mm)	Product Number	Column Size I.D. x Length (mm)	Product Number
1.0 x 50	02955-21	4.6 x 100	38143-41
1.0 x 150	02951-61	4.6 x 150	38144-31
2.0 x 30	05098-71	4.6 x 150 3 lots set*	09396-83
2.0 x 50	34400-81	4.6 x 250	38145-21
2.0 x 100	34469-11	6.0 x 150	38146-11
2.0 x 150	37992-51	6.0 x 250	38147-01
2.0 x 250	05272-71	10 x 50	05369-21
3.0 x 100	05791-71	10 x 150	34350-41
3.0 x 150	38028-61	10 x 250	38149-81
3.0 x 250	38029-51	20 x 150	34316-01
4.6 x 30	05877-61	20 x 250	38150-41
4.6 x 50	38142-51	28 x 250	34362-91

COSMOSIL 5C₁₈-AR-II Guard Column

Column Size I.D. x Length (mm)	Product Number
4.6 x 10	38141-61
4.6 x 10 Cartridge**	38008-89
10 x 20	38148-91
20 x 20	34458-51
20 x 50	34479-81
28 x 50	34363-81

*For 4.6 x 150 3 lots set, please refer to page 11.
**3 cartridges included, needs a holder, refer to page 87.

- Preparative Column (Particle Size: 15 μm)

COSMOSIL 15C₁₈-AR-II Packed Column

Column Size I.D. x Length (mm)	Product Number
28 x 250	37978-51
50 x 250	38058-71
50 x 500	05884-61

COSMOSIL 15C₁₈-AR-II Guard Column

Column Size I.D. x Length (mm)	Product Number
28 x 50	38030-11
50 x 50	38057-81

COSMOSIL 3C₁₈-AR-II Packed Column

Column Size I.D. x Length (mm)	Product Number
2.0 x 50	05478-91
4.6 x 10	38068-41
4.6 x 50	38069-31
4.6 x 100	38070-91

For 15C₁₈-AR-II, please refer to page 33.
For flow rate and equipment of semi-micro columns, or scale up to preparative columns, please refer to page 189.
For 5C₁₈, 5C₁₈-AR, please refer to page 59.