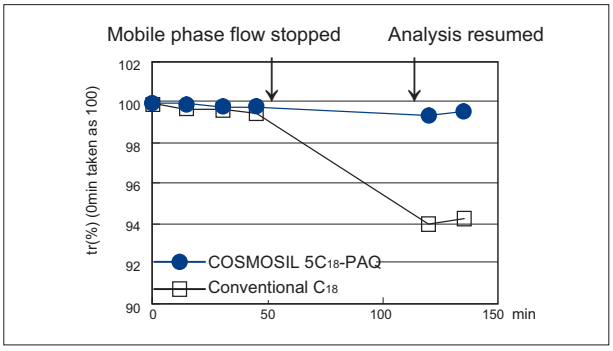
COSMOSIL C_{18}-PAQ

- Compatible with 100% water based mobile phase
- Suitable for hydrophilic compounds

Stable Performance

Stable performance under 100% aqueous conditions



The figure shows the change of retention time for thymine with 100% aqueous mobile phase (20 mmol/l phosphate buffer pH7). The sample was analyzed 4 times (1 hour). Flow of mobile phase was then stopped for 1 hour. The sample was analyzed under the same condition again after 1 hour. The conventional C_{18} column showed change of retention time, but COSMOSIL 5C_{18}-PAQ maintained stable retention time.

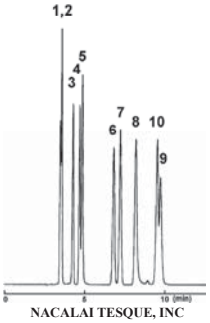
Applications

- Organic Acids

COSMOSIL Application Data

Column: 5C_{18}-PAQ
Column size: 4.6mmI.D.-250mm
Mobile phase: 20mmol/l Phosphate buffer(pH2.5)
Flow rate: 1.0 ml/min
Temperature: 30°C
Detection: UV210nm

Sample:
1; Glycolic Acid (6.3µg)
2; Tartaric Acid (4.0µg)
3; *L*-(-)-Malic Acid (6.4µg)
4; Lactic Acid (13µg)
5; Acetic Acid (13µg)
6; Citric Acid(6.3µg)
7; Succinic Acid (13µg)
8; Maleic Acid (0.06µg)
9; Propionic Acid (13µg)
10; Fumaric Acid (0.03µg)



NACALAI TESQUE, INC

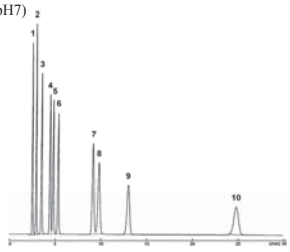
AP-1058

- Nucleobases and Nucleosides

COSMOSIL Application Data

Column: 5C_{18}-PAQ
Column size: 4.6mmI.D.-150mm
Mobile phase: 20mmol/l Phosphate buffer(pH7)
Flow rate: 1.0 ml/min
Temperature: 30°C
Detection: UV260nm

Sample:
1; Cytosine (0.16µg)
2; Uracil (0.16µg)
3; Cytidine (0.32µg)
4; Uridine (0.24µg)
5; Guanine (0.16µg)
6; Thymine (0.16µg)
7; Adenine (0.08µg)
8; Guanosine (0.24µg)
9; Thymidine (0.24µg)
10; Adenosine (0.16µg)



NACALAI TESQUE, INC

AP-0375

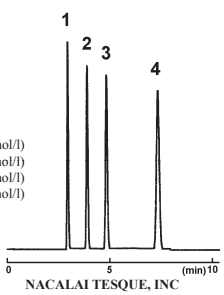
- dNTP

COSMOSIL Application Data

Column: 5C_{18}-PAQ
Column size: 4.6mmI.D.-250mm
Mobile phase: 20mmol/l Phosphate buffer(pH7)
Flow rate: 1.0 ml/min
Temperature: 30°C
Detection: UV260nm, 0.16AUFS

Sample:
1; 2'-Deoxycytidine 5'-Triphosphate [dCTP] (1mmol/l)
2; 2'-Deoxythymidine 5'-Triphosphate [dTTP] (1mmol/l)
3; 2'-Deoxyguanosine 5'-Triphosphate [dGTP] (1mmol/l)
4; 2'-Deoxyadenosine 5'-Triphosphate [dATP] (1mmol/l)

Injection 0.5µl



NACALAI TESQUE, INC

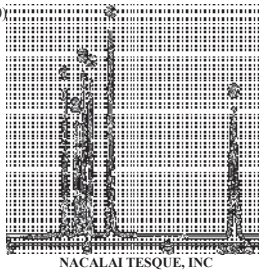
AP-0371

- Catecholamines

COSMOSIL Application Data

Column: 5C_{18}-PAQ
Column size: 4.6mmI.D.-250mm
Mobile phase: 20mmol/l Phosphate buffer(pH7.0)
Flow rate: 1.0 ml/min
Temperature: 30°C
Detection: UV270nm

Sample:
1; *L*-Noradrenaline (0.38µg)
2; (±)-Epinephrine (0.38µg)
3; *DL*-3-Methoxy-4-hydroxymandelic Acid (0.56µg)
4; *L*-DOPA (0.56µg)
5; Dopamine (1.13µg)
6; Homovanillic Acid (1.13µg)



NACALAI TESQUE, INC

AP-1056

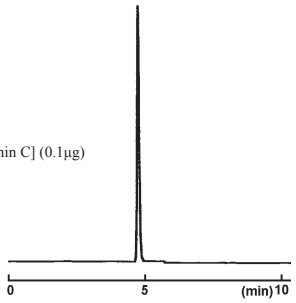
Applications

● Ascorbic Acid

COSMOSIL Application Data

Column: $5C_{18}$-PAQ
Column size: 4.6mmI.D.-250mm
Mobile phase: 20mmol/l Phosphoric Acid
Flow rate: 1.0 ml/min
Temperature: 30°C
Detection: UV245nm, 0.16AUFS

Sample: *L*(+)-Ascorbic Acid [Vitamin C] (0.1μg)



NACALAI TESQUE, INC

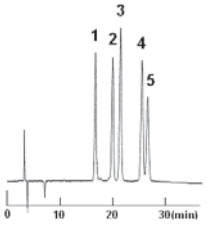
AP-0372

● 2-Phenylethyl glycosides

COSMOSIL Application Data

Column: $5C_{18}$-PAQ
Column size: 4.6mmI.D.-150mm
Mobile phase: Acetonitrile/ Methanol/ H_2O = 8/4/8
Flow rate: 1.0 ml/min
Temperature: 30°C
Detection: UV210nm

Sample: 1; 2-Phenylethyl-β-melibioside
2; 2-Phenylethyl-β-gentiobioside
3; 2-Phenylethyl-β-lactoside
4; 2-Phenylethyl-β-cellobioside
5; 2-Phenylethyl-β-maltoside



NACALAI TESQUE, INC

Data courtesy of Dr. K. Sakata, Dr. B. Shimizu, Institute for Chemical Research, Kyoto University

Ordering Information

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

COSMOSIL $5C_{18}$-PAQ Packed Column

Column Size I.D. x Length (mm)	Product Number
1.0 x 50	05792-61
1.0 x 150	05793-51
2.0 x 30	05878-51
2.0 x 50	05794-41
2.0 x 100	05470-71
2.0 x 150	34449-71
2.0 x 250	05795-31
3.0 x 100	05796-21
3.0 x 150	05797-11
3.0 x 250	05798-01
4.6 x 30	05879-41
4.6 x 50	34451-21

Column Size I.D. x Length (mm)	Product Number
4.6 x 100	05799-91
4.6 x 150	02486-71
4.6 x 250	02485-81
6.0 x 150	34419-61
6.0 x 250	05800-41
10 x 50	05801-31
10 x 150	34466-41
10 x 250	34376-21
20 x 150	34476-11
20 x 250	34373-51
28 x 250	34456-71

COSMOSIL $5C_{18}$-PAQ Guard Column

Column Size I.D. x Length (mm)	Product Number
4.6 x 10	02484-91
10 x 20	34457-61
20 x 20	05803-11
20 x 50	05804-01
28 x 50	34455-81

● Preparative Column (Particle Size: 15 μm)

COSMOSIL $15C_{18}$-PAQ Packed Column

Column Size I.D. x Length (mm)	Product Number
28 x 250	05888-21
50 x 250	05890-71
50 x 500	05891-61

COSMOSIL $15C_{18}$-PAQ Guard Column

Column Size I.D. x Length (mm)	Product Number
28 x 50	05887-31
50 x 50	05889-11

For $15C_{18}$-PAQ, 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 $5C_{18}$-P, please refer to page 59.