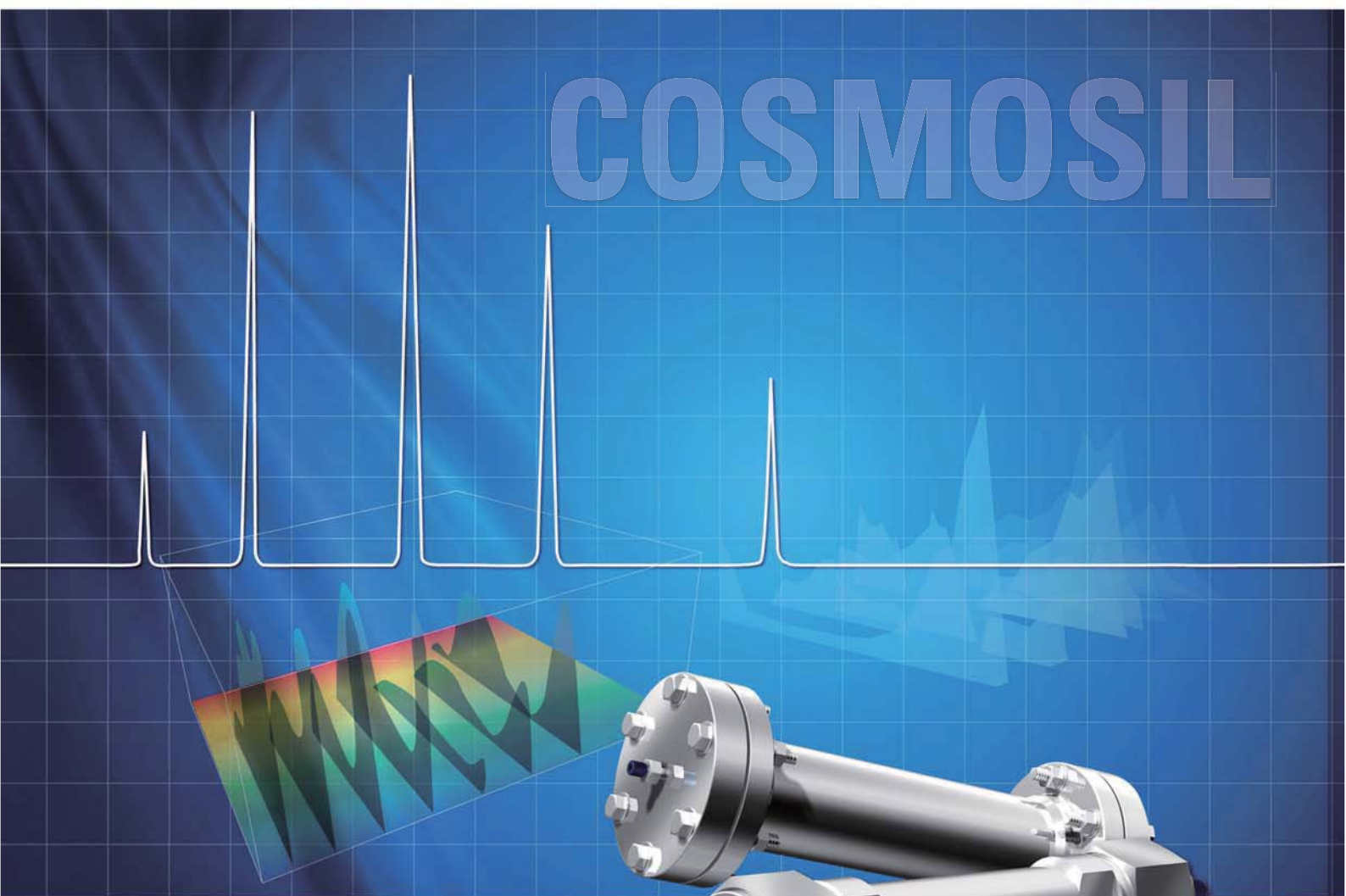


COSMOSIL

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COSMOSIL HILIC
Application Notebook
2013



COSMOSIL HILIC Application Notebook contains about 200 chromatograms for the separation of polar compounds using COSMOSIL HILIC column. It also describes how the mobile phase conditions, such as buffer pH and salt concentration influence the separation in HILIC mode

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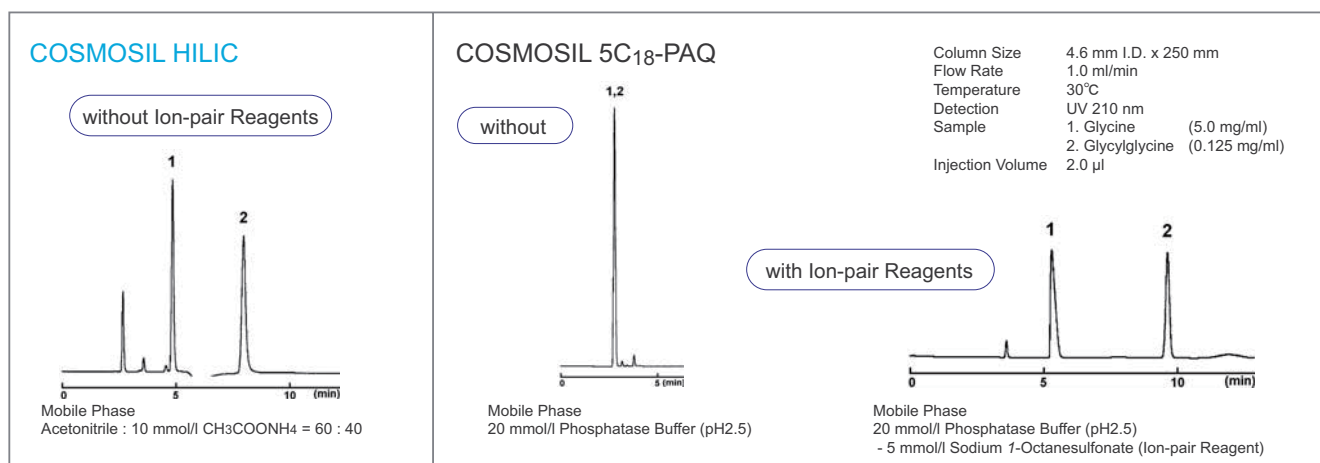
Hydrophilic Interaction Chromatography

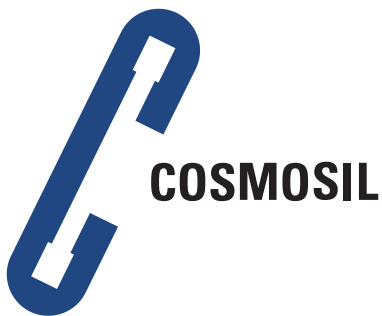
The hydrophilic interaction chromatography is a variation of normal phase chromatography. The elution order is similar to that of normal phase and the sample elution is in the order of increasing hydrophilicity.

Separation Mode	Hydrophilic interaction chromatography	Hydrophobic interaction chromatography
Stationary Phase	Hydrophilic Group (or Silica Gel)	Hydrophobic group (C ₁₈ etc.)
Mobile Phase	Organic Solvent (CH ₃ CN etc.) / H ₂ O	
Main Interaction	Hydrophilic interaction	Hydrophobic interaction
Target Sample	Hydrophilic compounds	Hydrophilic and hydrophobic compounds
Features	<ul style="list-style-type: none"> • for separation of Hydrophilic compounds • Suitable for LC/MS 	<ul style="list-style-type: none"> • for the widest range of compounds • High separation ability • A wide range of applications

Comparison with C₁₈

COSMOSIL HILIC can separate glycine and glycyglycine without ion-pair reagent. Although C₁₈ column can separate them with ion-pair reagents, there are some disadvantages such as longer column equilibration time, time-consuming preparation of mobile phase and earlier column deterioration.

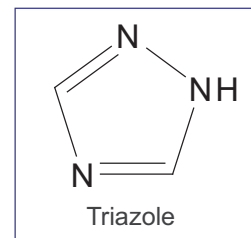




HPLC Column for Hydrophilic Interaction

COSMOSIL HILIC

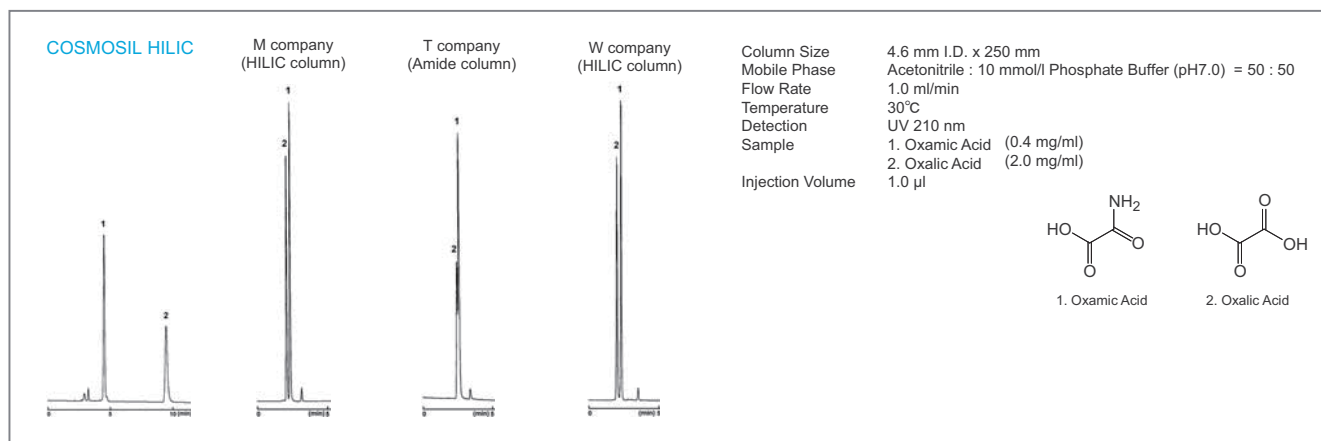
- Triazole bonded stationary phase
- Enhanced hydrophilic interaction
- Alternative selectivity to other HILIC columns



Different Interactions

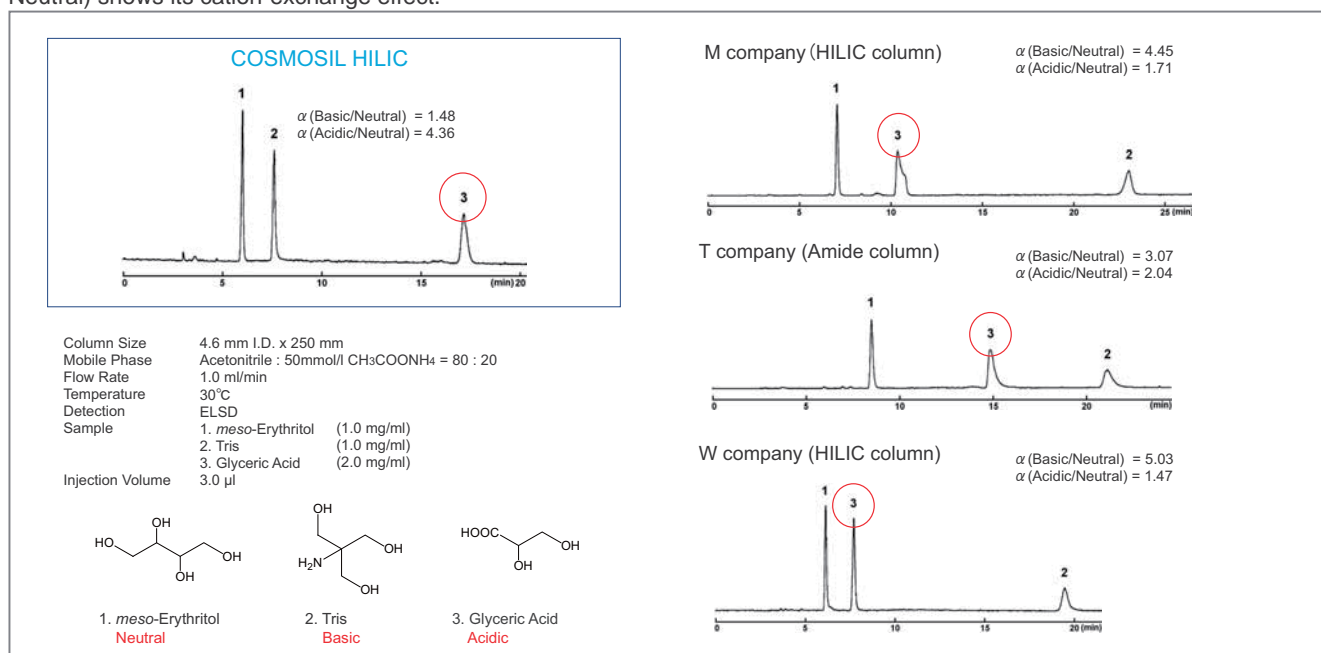
Separation of Anionic Compounds

Anionic compounds were used to evaluate the anion-exchange capability. The only COSMOSIL HILIC showed strong selectivity of anionic compounds against competitors' columns



Separation of Acidic, Basic and Neutral Compounds

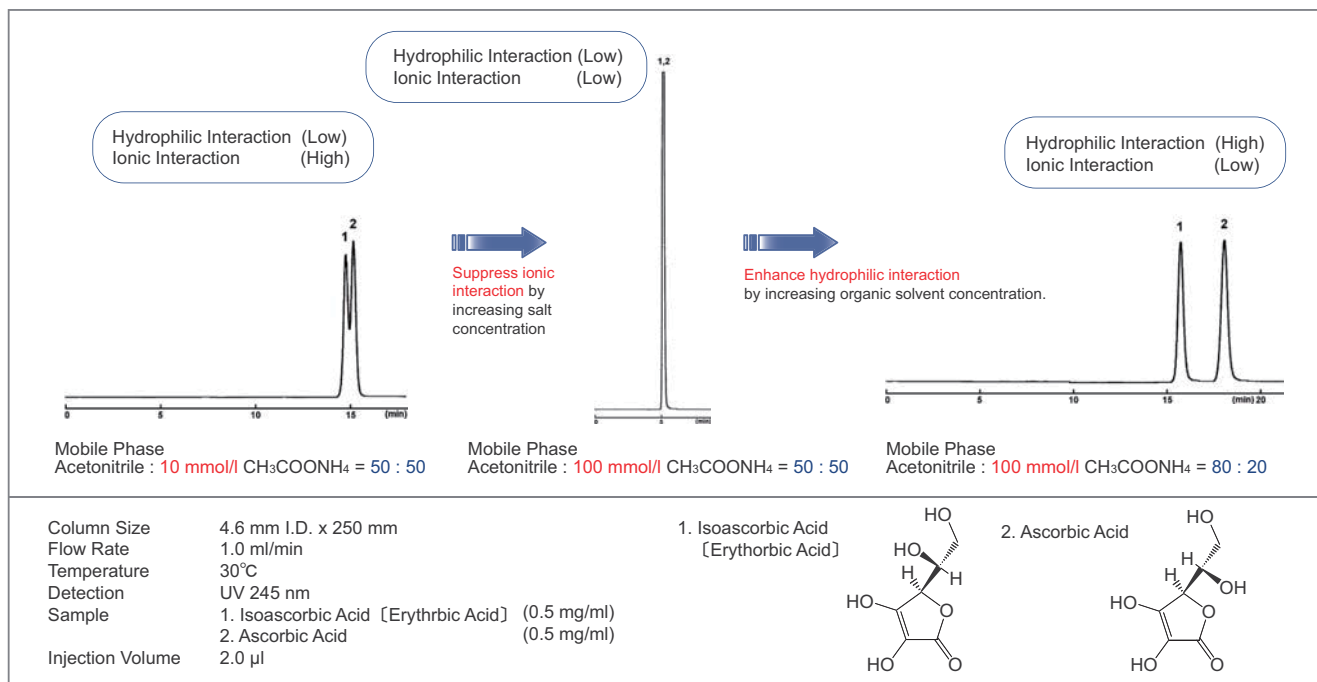
Acidic (Glyceric Acid), basic (Tris) and neutral (*meso*-Erythritol) compounds were used for evaluation of anion and cation-exchange characteristics. The separation factor $\alpha(\text{Acid}/\text{Neutral})$ indicates its anion-exchange capability and the factor $\alpha(\text{Basic}/\text{Neutral})$ shows its cation-exchange effect.



Different Interactions

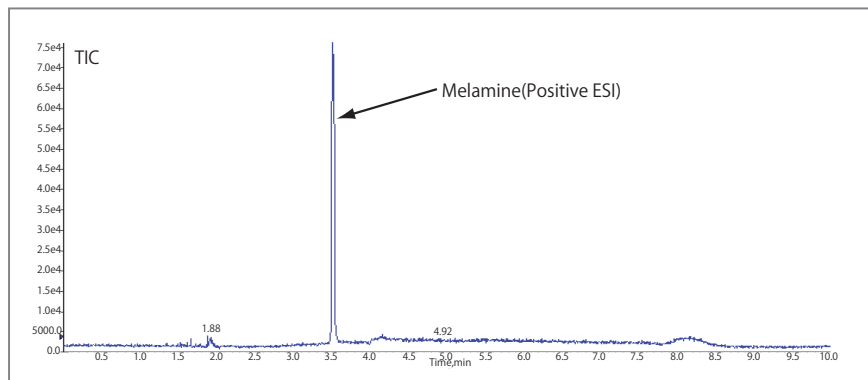
Separation by Hydrophilic Interaction

The retention mechanism of COSMOSIL HILIC is the combination of hydrophilic interaction and anion-exchange capability, and the retention can be controlled by changing the mobile phase.

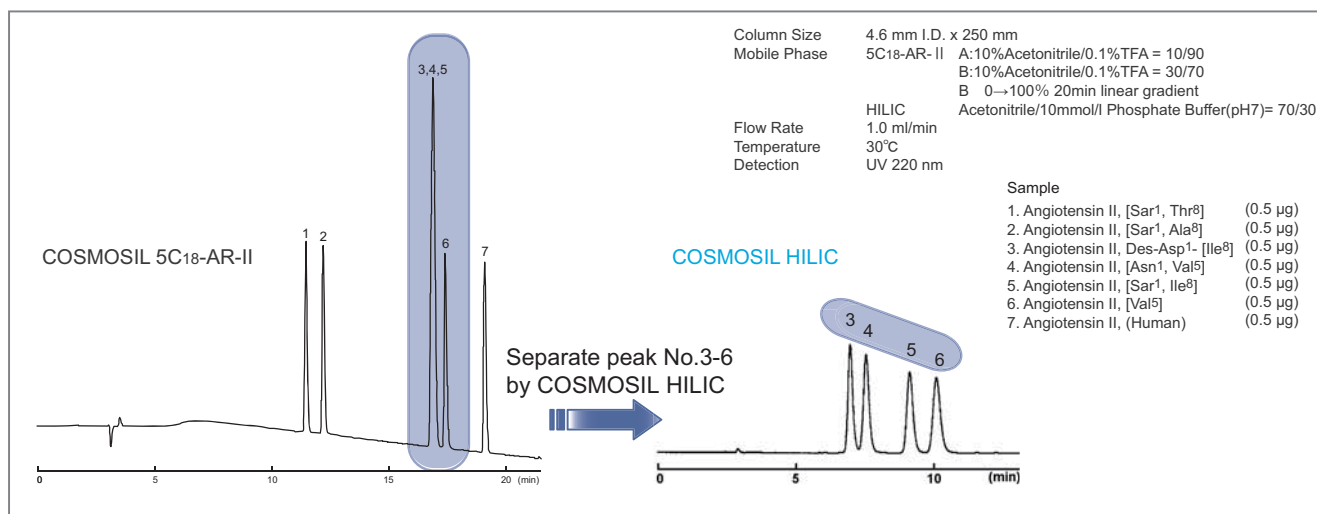


Melamine Analysis

Melamine analysis and LC/MS/MS using COSMOSIL HILIC.



Combination with C₁₈ Columns



Ordering Information

Product Name	Column Size	Product Number
COSMOSIL HILIC Packed Column	1.0 mm I.D. x 150 mm	07869-11
	1.0 mm I.D. x 250 mm	07870-71
	2.0 mm I.D. x 30 mm	08568-21
	2.0 mm I.D. x 50 mm	07052-91
	2.0 mm I.D. x 100 mm	08569-11
	2.0 mm I.D. x 150 mm	07054-71
	2.0 mm I.D. x 250 mm	07489-91
	3.0 mm I.D. x 150 mm	07871-61
	3.0 mm I.D. x 250 mm	07872-51
	4.6 mm I.D. x 150 mm	07056-51
4.6 mm I.D. x 150 mm 3 lots set	09385-23	

Product Name	Column Size	Product Number
COSMOSIL HILIC Packed Column	4.6 mm I.D. x 250 mm	07057-41
	10.0 mm I.D. x 150 mm	05564-51
	10.0 mm I.D. x 250 mm	07059-21
	20.0 mm I.D. x 250 mm	07060-81
	28.0 mm I.D. x 250 mm	07875-21
COSMOSIL HILIC Guard Column	4.6 mm I.D. x 10 mm	07055-61
	10.0 mm I.D. x 20 mm	07058-31
	20.0 mm I.D. x 20 mm	07854-91
	20.0 mm I.D. x 50 mm	07873-41
	28.0 mm I.D. x 50 mm	07874-31

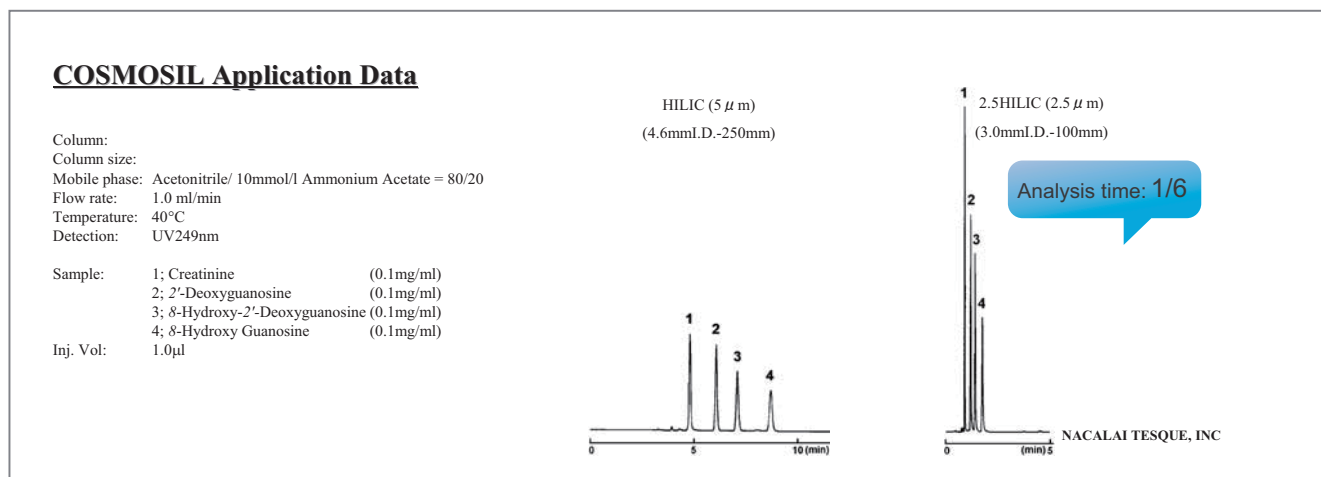
Ultra-High Performance Column for HILIC Analysis

COSMOSIL 2.5HILIC

- Ultra-High Performance using 2.5 μm particles

Ultra-High-Speed Analysis (Oxidation marker analysis)

COSMOSIL 2.5HILIC can be used with any conventional LC systems.



Ordering Information

Product Name	Column Size	Product Number
COSMOSIL 2.5HILIC Packed Column	2.0 mm I.D. x 50 mm	11766-21
	2.0 mm I.D. x 75 mm	11768-01
	2.0 mm I.D. x 100 mm	11769-91
	2.0 mm I.D. x 150 mm	11770-51

Product Name	Column Size	Product Number
COSMOSIL 2.5HILIC Packed Column	3.0 mm I.D. x 50 mm	11771-41
	3.0 mm I.D. x 75 mm	11772-31
	3.0 mm I.D. x 100 mm	11773-21
	3.0 mm I.D. x 150 mm	11774-11

Selection guide of mobile phase

COMOSIL HILIC column generates retention and separation by hydrophilic interaction (mainly hydrogen bond) and anion-exchange. Refer to following recommendations to select an appropriate mobile phase condition.

(1) The effect of organic solvent type and content

- In general, acetonitrile/water is used as mobile phase.
- Retention increases as water content in the mobile phase decreased. (Fig.1)
- Use acetonitrile content in the mobile phase within the range of 0-95% (in general 50-95%).
- Methanol/water generates shorter retention than acetonitrile/water. (Fig.2)
- Use only HPLC grade solvent

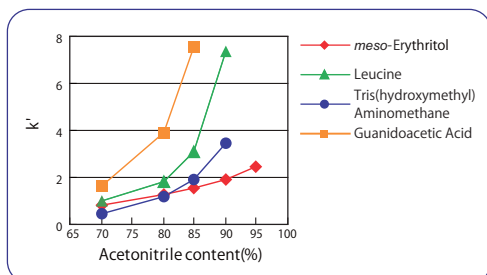


Fig.1 The effect of acetonitrile content on retention

Column; COSMOSIL HILIC
Mobile phase; Acetonitrile/ 10mmol/l CH₃COONH₄

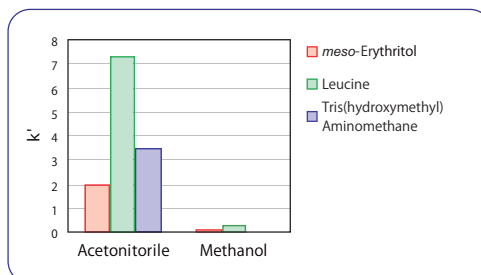


Fig.2 Difference of acetonitrile and methanol on retention

Column; COSMOSIL HILIC
Mobile phase; Organic solvent/ 10mmol/l CH₃COONH₄ = 90/10

(2) The effect of buffer pH

- Keep pH of the mobile phase within the range of 2-7.5.
- The buffer around neutrality generates larger retention. (Fig.3)

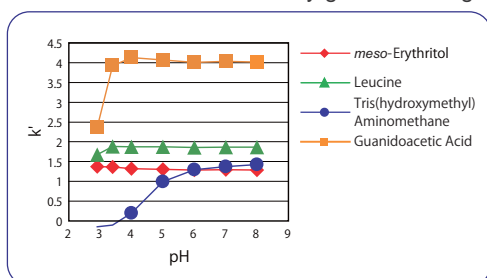


Fig.3 The effect of buffer pH on retention

Column; COSMOSIL HILIC
Mobile phase; Acetonitrile / 10mmol/l buffer = 90/10

(3) The effect of salt type and concentration

- When analyze ionic compounds, add salts or buffers in the mobile phase.
- When mobile phase has high acetonitrile content, note dissolubility of the salt. The dissolubility of phosphate buffers used widely in reversed phase chromatography is low in acetonitrile. Therefore use of phosphate buffers is not recommended. Keep the concentration of acetonitrile under 70% if use a phosphate buffer. Check that the salt does not precipitate when mixed with acetonitril before use.
- Ammonium acetate or formic acid ammonium buffers are recommended because they are soluble in high acetonitrile content.
- Use the buffer concentration within the range of 5 - 100mmol/l. Moreover, check that the salt does not precipitate after mixing buffer and acetonitrile.
- High salt concentration inhibits ion exchange capability and decreases retention. (Fig.4)
- Run mobile phase through membrane filter (less than 0.45μm in pore size) before use.

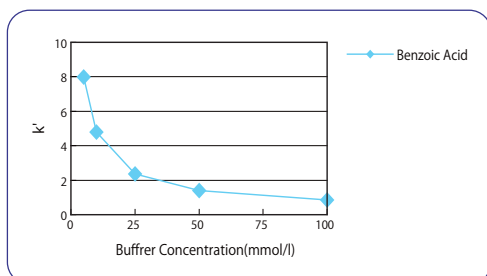


Fig.4 The effect of salt concentration on retention

Column; COSMOSIL HILIC
Mobile phase; Acetonitrile / 10mmol/l CH₃COONH₄ = 50/50

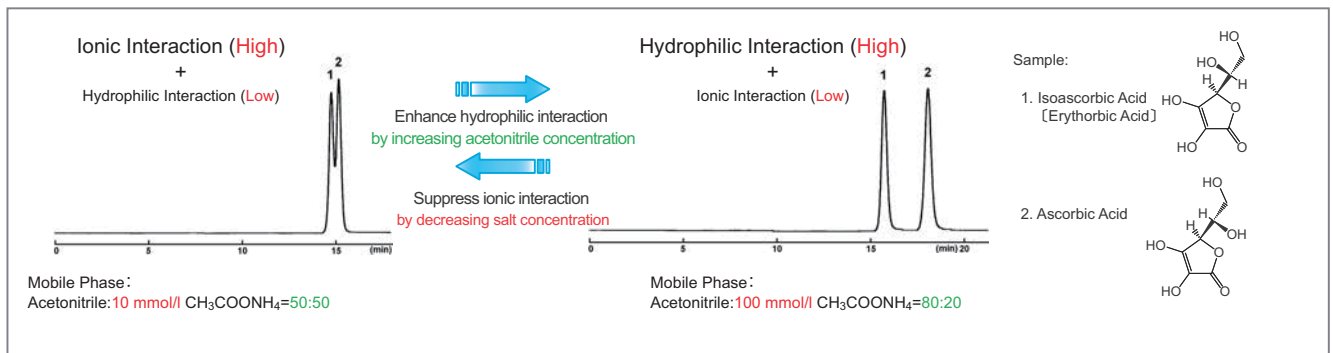
(4) Selection of mobile phase

Following are the recommended mobile phases for different compound types.

Neutral compounds	→ Acetonitrile / Water = 90/10
Basic compounds	→ Acetonitrile / 10mmol/l CH ₃ COONH ₄ = 90/10
Amphoteric compounds	→ Acetonitrile / 10mmol/l CH ₃ COONH ₄ = 70/30
Acidic compounds	→ Acetonitrile / 10mmol/l CH ₃ COONH ₄ = 50/50
	↓ not eluted
	Acetonitrile / 10mmol/l Phosphate buffer (pH7.0)= 50/50

(5) Two interactions (hydrophilic interaction and anion exchange capability)

The retention mechanism of COSMOSIL HILIC is the combination of hydrophilic interaction and anion-exchange, and the retention can be controlled by changing the mobile phase. More specifically, the hydrophilic interaction can be enhanced by increasing the organic solvent concentration while suppressing the ionic interaction with high salt concentration.



(6) Improvement of peak shape

Try following if peak shape is tailing. The peak shape might improve.

- Add 5mmol/l EDTA to mobile phase.
- Change to citrate buffer. (i. e. 10 mmol/l citrate buffer pH7.0)

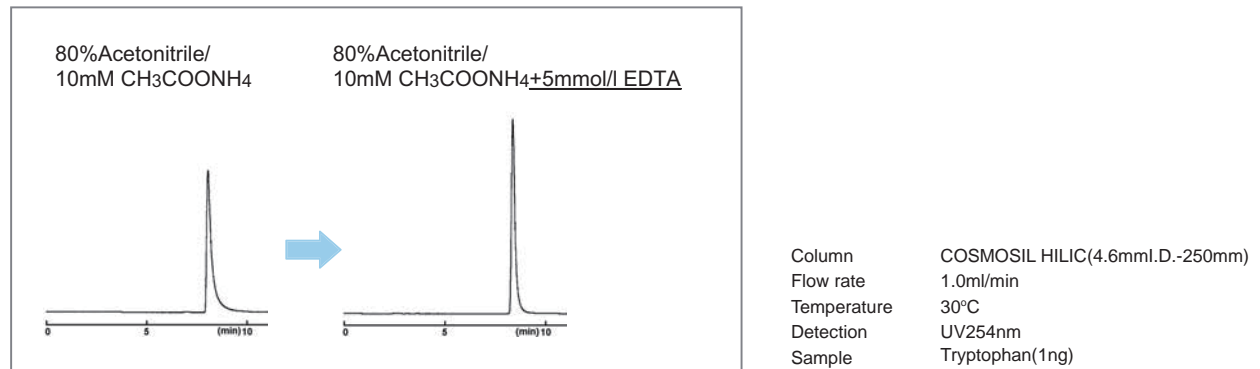


Fig.5 Improvement of peak shape

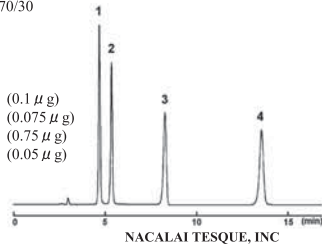
(7) Others

- Use scrupulously degassed mobile phase. Air bubbles generate detection noise and accelerate column deterioration.
- We recommend keeping the chromatography conditions constant, since frequent changes of mobile phase shorten column life.

COSMOSIL Application Data

Column: HILIC
Column size: 4.6mm.I.D.-250mm
Mobile phase: Acetonitrile/ 10mmol/l
Ammonium Acetate = 70/30
Flow rate: 1.0 ml/min
Temperature: 30°C
Detection: UV225nm

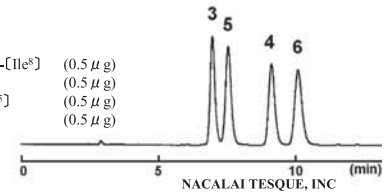
Sample: 1; Melamine (0.1 μg)
2; Ammeline (0.075 μg)
3; Cyanuric Acid (0.75 μg)
4; Ammelide (0.05 μg)



COSMOSIL Application Data

Column: HILIC
Column size: 4.6mm.I.D.-250mm
Mobile phase: Acetonitrile/ 10mmol/l Phosphate
buffer(pH7.0) = 70/30
Flow rate: 1.0 ml/min
Temperature: 30°C
Detection: UV220nm

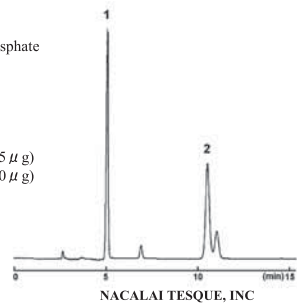
Sample: 3; Angiotensin II, Des-Asp1-[Ile⁶] (0.5 μg)
4; Angiotensin II, [Sar¹,Ile⁸] (0.5 μg)
5; Angiotensin II, [Asn¹,Val⁵] (0.5 μg)
6; Angiotensin II, [Val⁵] (0.5 μg)



COSMOSIL Application Data

Column: HILIC
Column size: 4.6mm.I.D.-250mm
Mobile phase: Acetonitrile/ 10mmol/l Phosphate
buffer(pH7.0) = 50/50
Flow rate: 1.0 ml/min
Temperature: 30°C
Detection: UV210nm

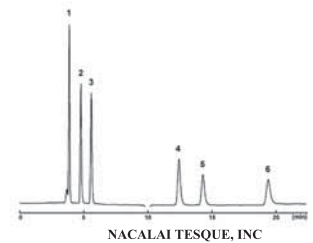
Sample: 1; Ascorbic Acid (1.5 μg)
2; Malic Acid (3.0 μg)



COSMOSIL Application Data

Column: HILIC
Column size: 4.6mm.I.D.-250mm
Mobile phase: Acetonitrile/ 100mmol/l Ammonium
Acetate = 80/20
Flow rate: 1.0 ml/min
Temperature: 30°C
Detection: UV220nm

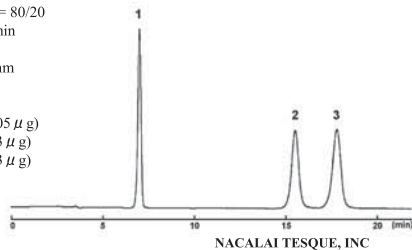
Sample: 1; Nicotinamide (0.125 μg)
2; Pyridoxine(Vitamin B₆) (0.25 μg)
3; Riboflavin (Vitamin B₂) (0.25 μg)
4; Nicotinic Acid (0.125 μg)
5; D-Pantothenic Acid (3.125 μg)
6; L(+)-Ascorbic Acid (0.875 μg)



COSMOSIL Application Data

Column: HILIC
Column size: 4.6mm.I.D.-250mm
Mobile phase: Acetonitrile/ 100mmol/l Ammonium
Acetate = 80/20
Flow rate: 1.0 ml/min
Temperature: 30°C
Detection: UV254nm

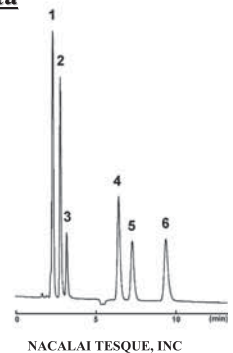
Sample: 1; Sorbic Acid (0.05 μg)
2; Isoascorbic Acid (0.3 μg)
3; Ascorbic Acid (0.3 μg)



COSMOSIL Application Data

Column: HILIC
Column size: 2.0mm.I.D.-150mm
Mobile phase: Acetonitrile/ 100mmol/l Ammonium
Acetate = 80/20
Flow rate: 0.2 ml/min
Temperature: 30°C
Detection: UV220nm

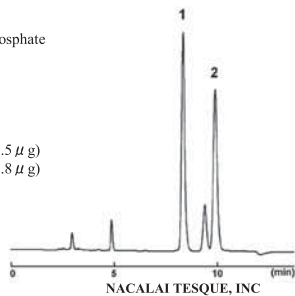
Sample: 1; Nicotinamide (0.125 μg)
2; Pyridoxine(Vitamin B₆) (0.25 μg)
3; Riboflavin (Vitamin B₂) (0.25 μg)
4; Nicotinic Acid (0.125 μg)
5; D-Pantothenic Acid (3.125 μg)
6; L(+)-Ascorbic Acid (0.875 μg)



COSMOSIL Application Data

Column: HILIC
Column size: 4.6mm.I.D.-250mm
Mobile phase: Acetonitrile/ 20mmol/l Phosphate
buffer(pH7.0) = 70/30
Flow rate: 1.0 ml/min
Temperature: 30°C
Detection: UV210nm

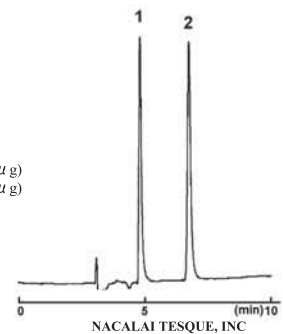
Sample: 1; L-Citrulline (7.5 μg)
2; Malic Acid (3.8 μg)



COSMOSIL Application Data

Column: HILIC
Column size: 4.6mm.I.D.-250mm
Mobile phase: Acetonitrile / H₂O = 95/5
Flow rate: 1.0 ml/min
Temperature: 30°C
Detection: RI

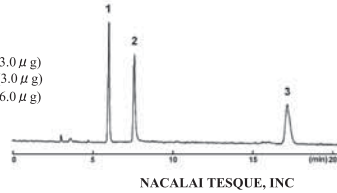
Sample: 1; Diethylene Glycol (20 μg)
2; Glycerol (20 μg)



COSMOSIL Application Data

Column: HILIC
Column size: 4.6mm I.D.-250mm
Mobile phase: Acetonitrile/ 50mmol/l Ammonium Acetate = 80/20
Flow rate: 1.0 ml/min
Temperature: 30°C
Detection: ELSD

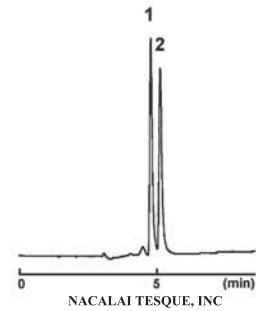
Sample:
1; *meso*-Erythritol (3.0 µg)
2; Tris(hydroxymethyl)aminomethane (3.0 µg)
3; Glyceric Acid (6.0 µg)



COSMOSIL Application Data

Column: HILIC
Column size: 4.6mm I.D.-250mm
Mobile phase: Acetonitrile / H₂O = 95/5
Flow rate: 1.0 ml/min
Temperature: 30°C
Detection: RI

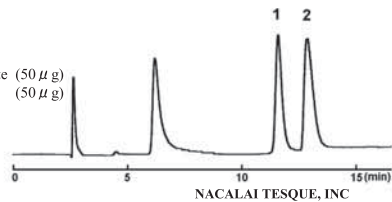
Sample: 1; Trimethylene Glycol (20 µg)
2; Ethylene Glycol (20 µg)



COSMOSIL Application Data

Column: HILIC
Column size: 4.6mm I.D.-250mm
Mobile phase: Acetonitrile/ 20mmol/l Phosphate buffer(pH7.0) = 60/40
Flow rate: 1.0 ml/min
Temperature: 30°C
Detection: RI

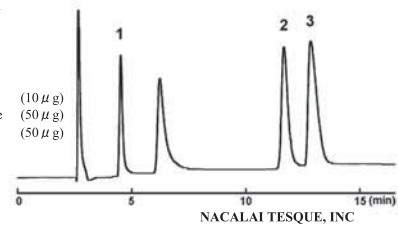
Sample:
1; *D*-Fructose-6-phosphate (50 µg)
2; *D*-Glucose-6-phosphate (50 µg)



COSMOSIL Application Data

Column: HILIC
Column size: 4.6mm I.D.-250mm
Mobile phase: Acetonitrile/ 20mmol/l Phosphate buffer(pH7.0) = 60/40
Flow rate: 1.0 ml/min
Temperature: 30°C
Detection: RI

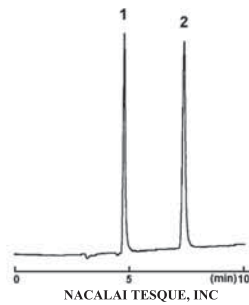
Sample:
1; Glucose (10 µg)
2; α-*D*-Glucose-1-phosphate (50 µg)
3; *D*-Glucose-6-phosphate (50 µg)



COSMOSIL Application Data

Column: HILIC
Column size: 4.6mm I.D.-250mm
Mobile phase: Acetonitrile / H₂O = 95/5
Flow rate: 1.0 ml/min
Temperature: 30°C
Detection: RI

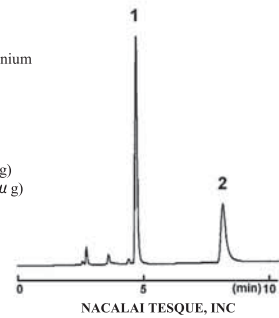
Sample: 1; Trimethylene Glycol (20 µg)
2; Glycerol (20 µg)



COSMOSIL Application Data

Column: HILIC
Column size: 4.6mm I.D.-250mm
Mobile phase: Acetonitrile/ 10mmol/l Ammonium Acetate = 60/40
Flow rate: 1.0 ml/min
Temperature: 30°C
Detection: UV210nm

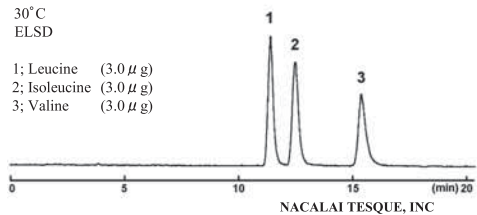
Sample: 1; Glycine (10 µg)
2; Glycylglycine (0.25 µg)



COSMOSIL Application Data

Column: HILIC
Column size: 4.6mm I.D.-250mm
Mobile phase: Acetonitrile/ 10mmol/l Ammonium Acetate = 85/15
Flow rate: 1.0 ml/min
Temperature: 30°C
Detection: ELSD

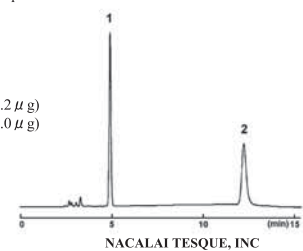
Sample: 1; Leucine (3.0 µg)
2; Isoleucine (3.0 µg)
3; Valine (3.0 µg)



COSMOSIL Application Data

Column: HILIC
Column size: 4.6mm I.D.-250mm
Mobile phase: Acetonitrile/ 10mmol/l Phosphate buffer(pH7.0) = 50/50
Flow rate: 1.0 ml/min
Temperature: 30°C
Detection: UV210nm

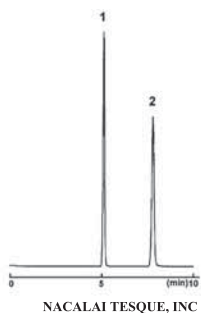
Sample: 1; Oxamic Acid (0.2 µg)
2; Oxalic Acid (1.0 µg)



COSMOSIL Application Data

Column: HILIC
 Column size: 4.6mm I.D.-250mm
 Mobile phase: Acetonitrile / H₂O = 90/10
 Flow rate: 1.0 ml/min
 Temperature: 30°C
 Detection: UV254nm

Sample: 1; Uracil (0.1 μg)
 2; Uridine (0.2 μg)

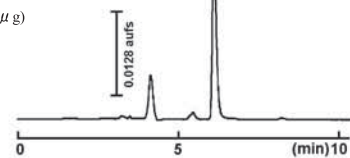


NACALAI TESQUE, INC

COSMOSIL Application Data

Column: HILIC
 Column size: 4.6mm I.D.-250mm
 Mobile phase: Acetonitrile/H₂O = 90/10
 Flow rate: 1.0 ml/min
 Temperature: 30°C
 Detection: UV210nm

Sample: Urea (20 μg)



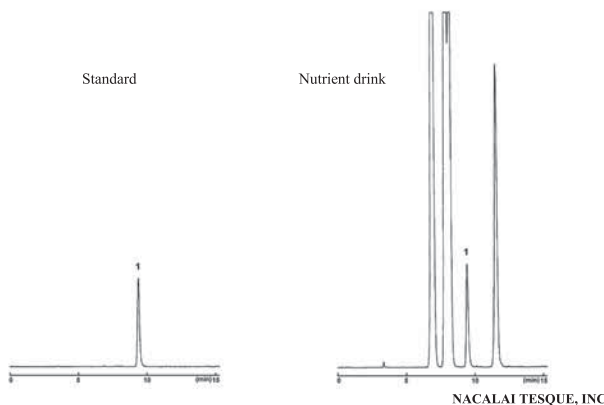
NACALAI TESQUE, INC

COSMOSIL Application Data

Column: HILIC
 Column size: 4.6mm I.D.-250mm
 Mobile phase: Acetonitrile/ 10mmol/l Ammonium Acetate = 80/20
 Flow rate: 1.0 ml/min
 Temperature: 30°C
 Detection: ELSD

Sample: 1; Taurine
 Injection Vol. 0.5 μl

Standard
 (10mg/ml)



NACALAI TESQUE, INC

COSMOSIL Application Data

Column: HILIC
 Column size: 4.6mm I.D.-250mm
 Mobile phase: Acetonitrile/ 50mmol/l Ammonium Acetate = 90/10
 Flow rate: 1.0 ml/min
 Temperature: 30°C
 Detection: UV220nm

Sample: 1; 4-Methylimidazole (0.25mg/ml)
 2; 2-Methylimidazole (0.25mg/ml)
 Inj. Vol.: 1.0 μl

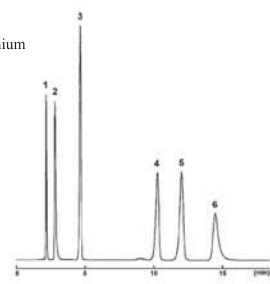


NACALAI TESQUE, INC

COSMOSIL Application Data

Column: HILIC
 Column size: 4.6mm I.D.-150mm
 Mobile phase: Acetonitrile/ 50mmol/l Ammonium Acetate = 90/10
 Flow rate: 1.0 ml/min
 Temperature: 30°C
 Detection: UV220nm

Sample: 1; Caffeine (0.075mg/ml)
 2; Quinine (0.075mg/ml)
 3; Saccharin (0.15mg/ml)
 4; Sorbic Acid (0.15mg/ml)
 5; Benzoic Acid (0.15mg/ml)
 6; Aspartame (0.75mg/ml)
 Inj. Vol.: 1.0 μl

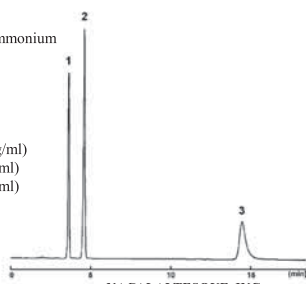


NACALAI TESQUE, INC

COSMOSIL Application Data

Column: HILIC
 Column size: 4.6mm I.D.-150mm
 Mobile phase: Acetonitrile/ 50mmol/l Ammonium Acetate = 90/10
 Flow rate: 1.0 ml/min
 Temperature: 30°C
 Detection: UV220nm

Sample: 1; Acesulfame (0.075mg/ml)
 2; Saccharin (0.15mg/ml)
 3; Aspartame (0.75mg/ml)
 Inj. Vol.: 1.0 μl

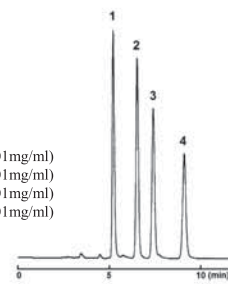


NACALAI TESQUE, INC

COSMOSIL Application Data

Column: HILIC
 Column size: 4.6mm I.D.-250mm
 Mobile phase: Acetonitrile/ 10mmol/l Ammonium Acetate = 80/20
 Flow rate: 1.0 ml/min
 Temperature: 30°C
 Detection: UV249nm

Sample: 1; Creatinine (0.01mg/ml)
 2; 2'-Deoxyguanosine (0.01mg/ml)
 3; 8-Hydroxy-2'-Deoxyguanosine (0.01mg/ml)
 4; 8-Hydroxy Guanosine (0.01mg/ml)
 Inj. Vol.: 5.0 μl

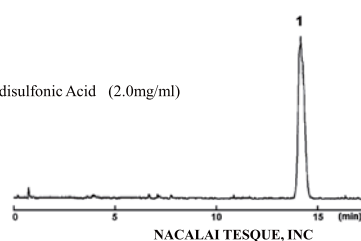


NACALAI TESQUE, INC

COSMOSIL Application Data

Column: HILIC
 Column size: 4.6mmI.D.-250mm
 Mobile phase: Acetonitrile/ 200mmol/l Ammonium Acetate = 80/20
 Flow rate: 1.0 ml/min
 Temperature: 30°C
 Detection: ELSD

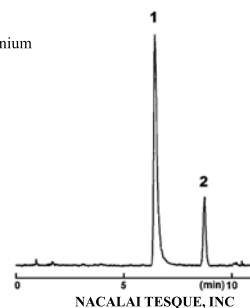
Sample: 1; 1,5-Naphthalenedisulfonic Acid (2.0mg/ml)
 Test solution H₂O
 Inj. Vol.: 3.0µl



COSMOSIL Application Data

Column: HILIC
 Column size: 4.6mmI.D.-250mm
 Mobile phase: Acetonitrile/ 200mmol/l Ammonium Acetate = 80/20
 Flow rate: 1.0 ml/min
 Temperature: 30°C
 Detection: ELSD

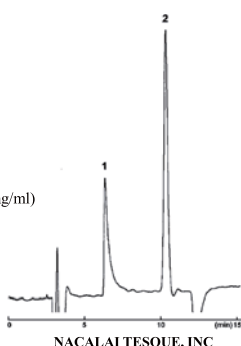
Sample: Choline Chloride (2.0mg/ml)
 Test solution H₂O
 Inj. Vol.: 2.0µl



COSMOSIL Application Data

Column: HILIC
 Column size: 4.6mmI.D.-250mm
 Mobile phase: Acetonitrile/ 10mmol/l Phosphate buffer(pH7.0) = 70/30
 Flow rate: 1.0 ml/min
 Temperature: 30°C
 Detection: RI

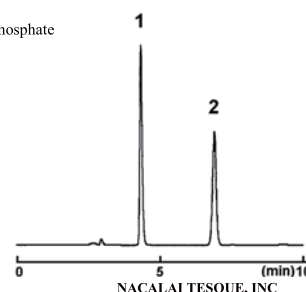
Sample: Choline Hydrogen Tartrate (20.0mg/ml)
 1; Choline
 2; Tartrate
 Test solution Mobile phase
 Inj. Vol.: 2.0µl



COSMOSIL Application Data

Column: HILIC
 Column size: 4.6mmI.D.-250mm
 Mobile phase: Acetonitrile/ 10mmol/l Phosphate buffer(pH7.0) = 70/30
 Flow rate: 1.0 ml/min
 Temperature: 30°C
 Detection: UV210nm

Sample: 1; Allantoin
 2; Allantoic Acid



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Applications are search by

1. Sample Category
2. Sample Name
3. CAS No.,
4. Column Name
5. Particle Size

Search Result

Data No.	Data Name	Sample	Particle Size (µm)	Column	CAS No.
AP-1305	Dichlorophenol	2,3-Dichlorophenol	5	µHAP	576-24-9
		2,4-Dichlorophenol			120-63-2
		2,5-Dichlorophenol			583-78-6
		2,6-Dichlorophenol			87-85-0

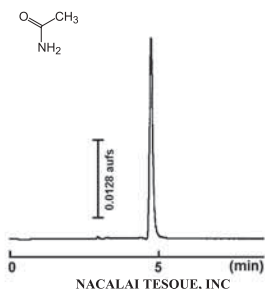
COSMOSIL Application Data

Column: 4.6mmI.D.-150mm
 Mobile phase: Methanol/ 20mmol/l Phosphate buffer(pH2.5)
 SC₁₈-MS-II - 80/40
 SP₈-MS - 60/40
 µNAP - 80/20
 Flow rate: 1.0 ml/min
 Temperature: 30°C
 Detection: UV254nm

Sample: 1; Polystyrene (0.2 µg)
 2; Benzoic acid (0.2 µg)

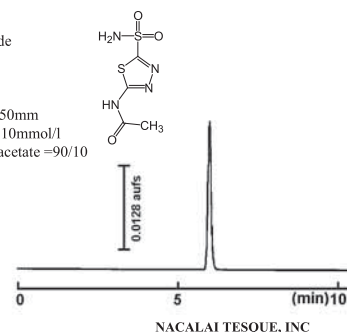
COSMOSIL Chromatogram Index

Sample: Acetamide
CAS No.: [60-35-5]
Molecular formula: C₂H₅NO
Column: HILIC
Column size: 4.6mm I.D.-250mm
Mobile phase: Acetonitrile/ H₂O=95/5
Flow rate: 1.0 ml/min
Temperature: 30°C
Detection: UV220 nm
Attenuation: 0.128 aufs
Sample conc.: 10.0mg/ml
Injection volume: 0.5µl
Retention time: 4.75min
Capacity factor: 0.57



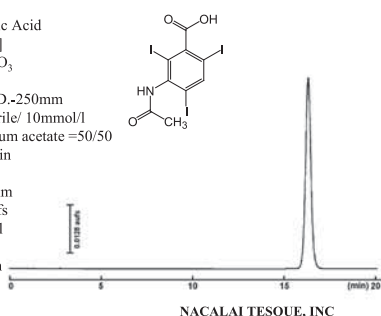
COSMOSIL Chromatogram Index

Sample: Acetazolamide
CAS No.: [59-66-5]
Molecular formula: C₄H₆N₄O₃S₂
Column: HILIC
Column size: 4.6mm I.D.-250mm
Mobile phase: Acetonitrile/ 10mmol/l Ammonium acetate =90/10
Flow rate: 1.0 ml/min
Temperature: 30°C
Detection: UV254 nm
Attenuation: 0.128 aufs
Sample conc.: 0.2mg/ml
Injection volume: 0.5µl
Retention time: 5.99min
Capacity factor: 1.05



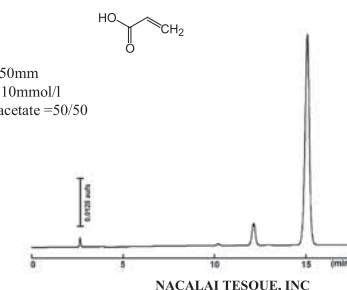
COSMOSIL Chromatogram Index

Sample: Acetrizoic Acid
CAS No.: [85-36-9]
Molecular formula: C₉H₇N₃O₃
Column: HILIC
Column size: 4.6mm I.D.-250mm
Mobile phase: Acetonitrile/ 10mmol/l Ammonium acetate =50/50
Flow rate: 1.0 ml/min
Temperature: 30°C
Detection: UV254 nm
Attenuation: 0.128 aufs
Sample conc.: 0.8mg/ml
Injection volume: 1.0µl
Retention time: 16.39min
Capacity factor: 4.76



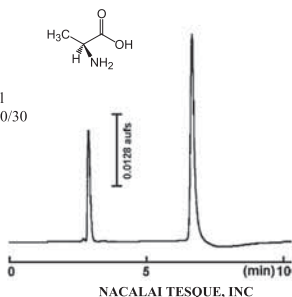
COSMOSIL Chromatogram Index

Sample: Acrylic Acid
CAS No.: [79-10-7]
Molecular formula: C₃H₄O₂
Column: HILIC
Column size: 4.6mm I.D.-250mm
Mobile phase: Acetonitrile/ 10mmol/l Ammonium acetate =50/50
Flow rate: 1.0 ml/min
Temperature: 30°C
Detection: UV220 nm
Attenuation: 0.128 aufs
Sample conc.: 1.0mg/ml
Injection volume: 1.0µl
Retention time: 15.05min
Capacity factor: 4.28



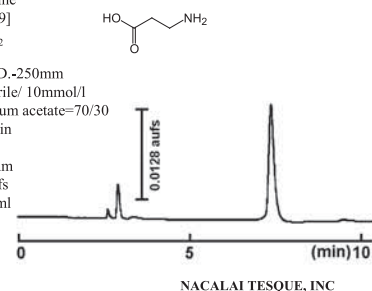
COSMOSIL Chromatogram Index

Sample: L-α-Alanine
CAS No.: [56-41-7]
Molecular formula: C₃H₇NO₂
Column: HILIC
Column size: 4.6mm I.D.-250mm
Mobile phase: Acetonitrile/ 10mmol/l Ammonium acetate=70/30
Flow rate: 1.0 ml/min
Temperature: 30°C
Detection: UV 210nm
Attenuation: 0.128 aufs
Sample conc.: 5.0mg/ml
Injection volume: 2.0µl
Retention time: 6.67min
Capacity factor: 1.53



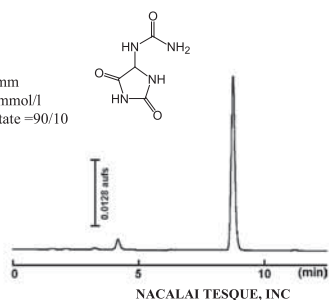
COSMOSIL Chromatogram Index

Sample: β-Alanine
CAS No.: [107-95-9]
Molecular formula: C₃H₇NO₂
Column: HILIC
Column size: 4.6mm I.D.-250mm
Mobile phase: Acetonitrile/ 10mmol/l Ammonium acetate=70/30
Flow rate: 1.0 ml/min
Temperature: 30°C
Detection: UV 210nm
Attenuation: 0.128 aufs
Sample conc.: 10.0mg/ml
Injection volume: 0.5µl
Retention time: 7.38min
Capacity factor: 1.81



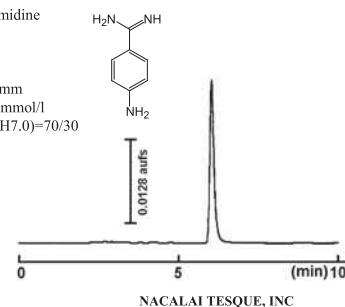
COSMOSIL Chromatogram Index

Sample: Allantoin
CAS No.: [97-59-6]
Molecular formula: C₄H₆N₄O₃
Column: HILIC
Column size: 4.6mm I.D.-250mm
Mobile phase: Acetonitrile/ 10mmol/l Ammonium acetate =90/10
Flow rate: 1.0 ml/min
Temperature: 30°C
Detection: UV220 nm
Attenuation: 0.128 aufs
Sample conc.: 1.0mg/ml
Injection volume: 1.0µl
Retention time: 8.75min
Capacity factor: 2.02



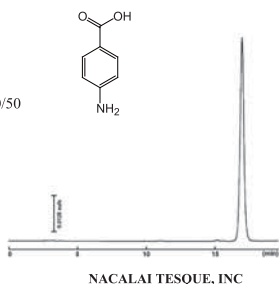
COSMOSIL Chromatogram Index

Sample: p-Aminobenzamidine
CAS No.: [3858-83-1]
Molecular formula: C₇H₈N₃
Column: HILIC
Column size: 4.6mm I.D.-250mm
Mobile phase: Acetonitrile/ 10mmol/l Citrate buffer(pH7.0)=70/30
Flow rate: 1.0 ml/min
Temperature: 30°C
Detection: UV254 nm
Attenuation: 0.128 aufs
Sample conc.: 0.5mg/ml
Injection volume: 1.0µl
Retention time: 6.07min
Capacity factor: 1.31



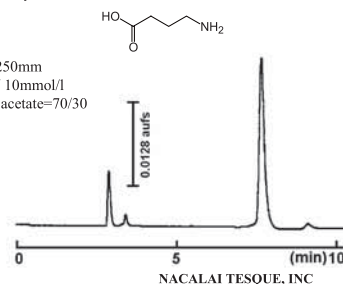
COSMOSIL Chromatogram Index

Sample: *p*-Aminobenzoic Acid
CAS No.: [150-13-0]
Molecular formula: C₇H₇NO₂
Column: HILIC
Column size: 4.6mm.I.D.-250mm
Mobile phase: Acetonitrile/ 10mmol/l
Ammonium acetate =50/50
Flow rate: 1.0 ml/min
Temperature: 30°C
Detection: UV254 nm
Attenuation: 0.128 aufs
Sample conc.: 0.4mg/ml
Injection volume: 1.0µl
Retention time: 16.97min
Capacity factor: 4.91



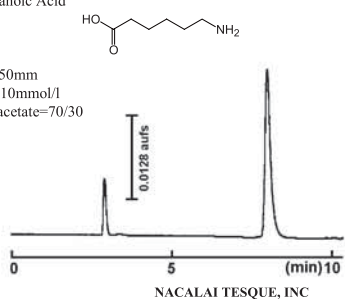
COSMOSIL Chromatogram Index

Sample: 4-Amino-*n*-butyric Acid
CAS No.: [56-12-2]
Molecular formula: C₆H₉NO₂
Column: HILIC
Column size: 4.6mm.I.D.-250mm
Mobile phase: Acetonitrile/ 10mmol/l
Ammonium acetate=70/30
Flow rate: 1.0 ml/min
Temperature: 30°C
Detection: UV210 nm
Attenuation: 0.128 aufs
Sample conc.: 10.0mg/ml
Injection volume: 1.0µl
Retention time: 7.67min
Capacity factor: 1.92



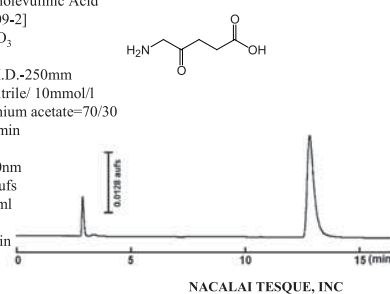
COSMOSIL Chromatogram Index

Sample: 6-Aminohexanoic Acid
CAS No.: [60-32-2]
Molecular formula: C₈H₁₅NO₂
Column: HILIC
Column size: 4.6mm.I.D.-250mm
Mobile phase: Acetonitrile/ 10mmol/l
Ammonium acetate=70/30
Flow rate: 1.0 ml/min
Temperature: 30°C
Detection: UV 210nm
Attenuation: 0.128 aufs
Sample conc.: 10.0mg/ml
Injection volume: 1.0µl
Retention time: 7.98min
Capacity factor: 2.03



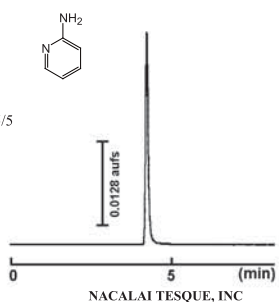
COSMOSIL Chromatogram Index

Sample: 5-Aminolevulinic Acid
CAS No.: [5451-09-2]
Molecular formula: C₇H₉NO₃
Column: HILIC
Column size: 4.6mm.I.D.-250mm
Mobile phase: Acetonitrile/ 10mmol/l
Ammonium acetate=70/30
Flow rate: 1.0 ml/min
Temperature: 30°C
Detection: UV 210nm
Attenuation: 0.128 aufs
Sample conc.: 5.0mg/ml
Injection volume: 1.0µl
Retention time: 12.80min
Capacity factor: 3.87



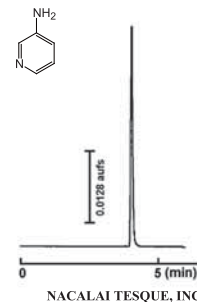
COSMOSIL Chromatogram Index

Sample: 2-Aminopyridine
CAS No.: [504-29-0]
Molecular formula: C₅H₅N₂
Column: HILIC
Column size: 4.6mm.I.D.-250mm
Mobile phase: Acetonitrile/ 10mmol/l
Ammonium acetate =95/5
Flow rate: 1.0 ml/min
Temperature: 30°C
Detection: UV254 nm
Attenuation: 0.128 aufs
Sample conc.: 1.0mg/ml
Injection volume: 0.5µl
Retention time: 4.25min
Capacity factor: 0.39



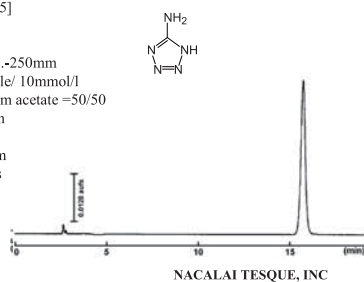
COSMOSIL Chromatogram Index

Sample: 3-Aminopyridine
CAS No.: [462-08-8]
Molecular formula: C₅H₅N₂
Column: HILIC
Column size: 4.6mm.I.D.-250mm
Mobile phase: Acetonitrile/ 10mmol/l
Ammonium acetate =90/10
Flow rate: 1.0 ml/min
Temperature: 30°C
Detection: UV254 nm
Attenuation: 0.128 aufs
Sample conc.: 0.1mg/ml
Injection volume: 1.0µl
Retention time: 4.05min
Capacity factor: 0.51



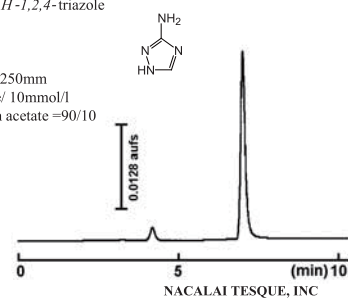
COSMOSIL Chromatogram Index

Sample: 5-Amino-1*H*-tetrazole
CAS No.: [4418-61-5]
Molecular formula: CH₃N₅
Column: HILIC
Column size: 4.6mm.I.D.-250mm
Mobile phase: Acetonitrile/ 10mmol/l
Ammonium acetate =50/50
Flow rate: 1.0 ml/min
Temperature: 30°C
Detection: UV220 nm
Attenuation: 0.128 aufs
Sample conc.: 0.5mg/ml
Injection volume: 1.0µl
Retention time: 15.76min
Capacity factor: 4.49



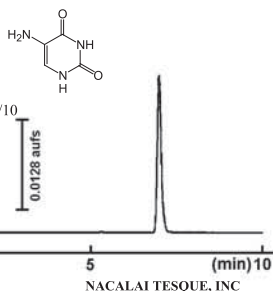
COSMOSIL Chromatogram Index

Sample: 3-Amino-1*H*-1,2,4-triazole
CAS No.: [61-82-5]
Molecular formula: C₂H₃N₄
Column: HILIC
Column size: 4.6mm.I.D.-250mm
Mobile phase: Acetonitrile/ 10mmol/l
Ammonium acetate =90/10
Flow rate: 1.0 ml/min
Temperature: 30°C
Detection: UV220 nm
Attenuation: 0.128 aufs
Sample conc.: 0.2mg/ml
Injection volume: 1.0µl
Retention time: 7.01min
Capacity factor: 1.42



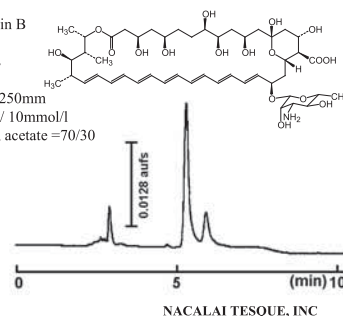
COSMOSIL Chromatogram Index

Sample: 5-Aminouracil
CAS No.: [932-52-5]
Molecular formula: $C_4H_5N_3O_2$
Column: HILIC
Column size: 4.6mm I.D.-250mm
Mobile phase: Acetonitrile/ 10mmol/l Ammonium acetate =90/10
Flow rate: 1.0 ml/min
Temperature: 30°C
Detection: UV260 nm
Attenuation: 0.128 auFS
Sample conc.: 0.5mg/ml
Injection volume: 0.5µl
Retention time: 7.01min
Capacity factor: 1.42



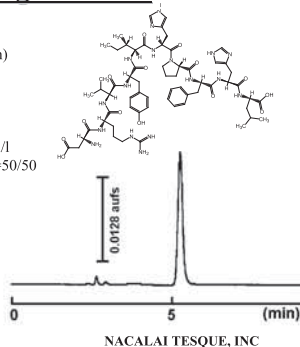
COSMOSIL Chromatogram Index

Sample: Amphotericin B
CAS No.: [1397-89-3]
Molecular formula: $C_{47}H_{73}NO_{17}$
Column: HILIC
Column size: 4.6mm I.D.-250mm
Mobile phase: Acetonitrile/ 10mmol/l Ammonium acetate =70/30
Flow rate: 1.0 ml/min
Temperature: 30°C
Detection: UV210 nm
Attenuation: 0.128 auFS
Sample conc.: 0.25mg/ml
Injection volume: 0.5µl
Retention time: 5.34min
Capacity factor: 0.99



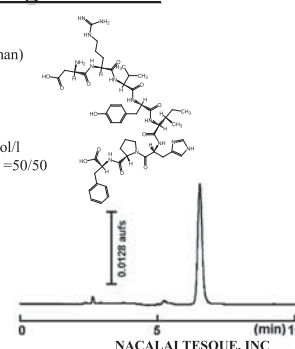
COSMOSIL Chromatogram Index

Sample: Angiotensin I(Human)
CAS No.: [484-42-4]
Molecular formula: $C_{63}H_{89}N_{17}O_{14}$
Column: HILIC
Column size: 4.6mm I.D.-250mm
Mobile phase: Acetonitrile/ 10mmol/l Ammonium acetate =50/50
Flow rate: 1.0 ml/min
Temperature: 30°C
Detection: UV220 nm
Attenuation: 0.128 auFS
Sample conc.: 0.4mg/ml
Injection volume: 0.5µl
Retention time: 5.28min
Capacity factor: 0.84



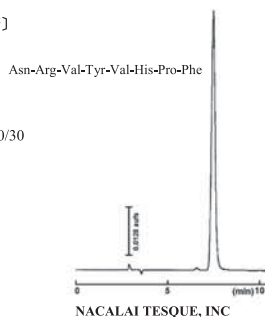
COSMOSIL Chromatogram Index

Sample: Angiotensin II(Human)
CAS No.: [4474-91-3]
Molecular formula: $C_{50}H_{71}N_{13}O_{12}$
Column: HILIC
Column size: 4.6mm I.D.-250mm
Mobile phase: Acetonitrile/ 10mmol/l Ammonium acetate =50/50
Flow rate: 1.0 ml/min
Temperature: 30°C
Detection: UV220 nm
Attenuation: 0.128 auFS
Sample conc.: 0.4mg/ml
Injection volume: 0.5µl
Retention time: 6.56min
Capacity factor: 1.29



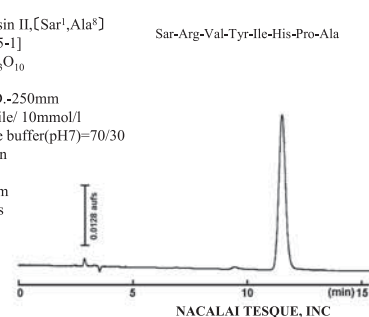
COSMOSIL Chromatogram Index

Sample: Angiotensin II,[Asn¹,Val⁵]
CAS No.: [53-73-6]
Molecular formula: $C_{49}H_{70}N_{14}O_{11}$
Column: HILIC
Column size: 4.6mm I.D.-250mm
Mobile phase: Acetonitrile/ 10mmol/l Phosphate buffer(pH7)=70/30
Flow rate: 1.0 ml/min
Temperature: 30°C
Detection: UV220 nm
Attenuation: 0.128 auFS
Sample conc.: 1.0mg/ml
Injection volume: 1.0µl
Retention time: 7.48min
Capacity factor: 1.85



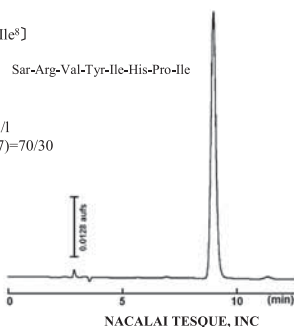
COSMOSIL Chromatogram Index

Sample: Angiotensin II,[Sar¹,Ala⁸]
CAS No.: [38027-95-1]
Molecular formula: $C_{43}H_{67}N_{13}O_{10}$
Column: HILIC
Column size: 4.6mm I.D.-250mm
Mobile phase: Acetonitrile/ 10mmol/l Phosphate buffer(pH7)=70/30
Flow rate: 1.0 ml/min
Temperature: 30°C
Detection: UV220 nm
Attenuation: 0.128 auFS
Sample conc.: 1.0mg/ml
Injection volume: 1.0µl
Retention time: 11.57min
Capacity factor: 3.41



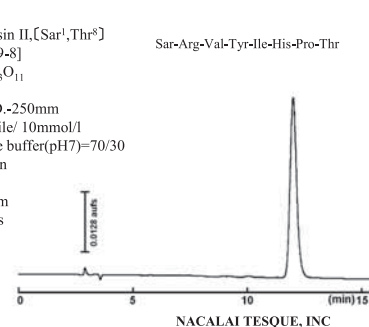
COSMOSIL Chromatogram Index

Sample: Angiotensin II,[Sar¹,Ile⁸]
CAS No.: [37827-06-8]
Molecular formula: $C_{44}H_{73}N_{13}O_{10}$
Column: HILIC
Column size: 4.6mm I.D.-250mm
Mobile phase: Acetonitrile/ 10mmol/l Phosphate buffer(pH7)=70/30
Flow rate: 1.0 ml/min
Temperature: 30°C
Detection: UV220 nm
Attenuation: 0.128 auFS
Sample conc.: 1.0mg/ml
Injection volume: 1.0µl
Retention time: 9.02min
Capacity factor: 2.44



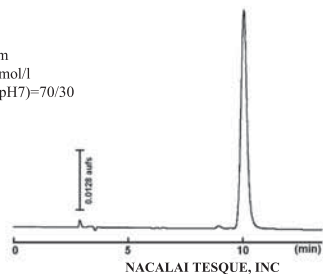
COSMOSIL Chromatogram Index

Sample: Angiotensin II,[Sar¹,Thr⁸]
CAS No.: [53632-49-8]
Molecular formula: $C_{44}H_{69}N_{13}O_{11}$
Column: HILIC
Column size: 4.6mm I.D.-250mm
Mobile phase: Acetonitrile/ 10mmol/l Phosphate buffer(pH7)=70/30
Flow rate: 1.0 ml/min
Temperature: 30°C
Detection: UV220 nm
Attenuation: 0.128 auFS
Sample conc.: 1.0mg/ml
Injection volume: 1.0µl
Retention time: 12.04min
Capacity factor: 3.59



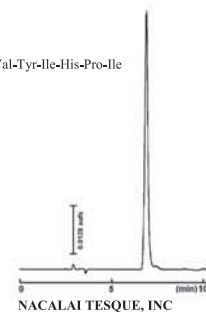
COSMOSIL Chromatogram Index

Sample: Angiotensin II, [Val⁵] Asp-Arg-Val-Tyr-Val-His-Pro-Phe
CAS No.: [58-49-1]
Molecular formula: C₂₉H₄₉N₇O₁₂
Column: HILIC
Column size: 4.6mm I.D.-250mm
Mobile phase: Acetonitrile/ 10mmol/l Phosphate buffer(pH7)=70/30
Flow rate: 1.0 ml/min
Temperature: 30°C
Detection: UV220 nm
Attenuation: 0.128 auFS
Sample conc.: 1.0mg/ml
Injection volume: 1.0µl
Retention time: 10.08min
Capacity factor: 2.85



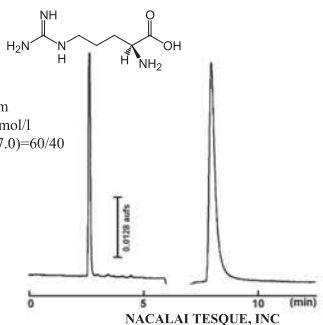
COSMOSIL Chromatogram Index

Sample: Angiotensin II, Des-Asp¹-[Ile⁸] Arg-Val-Tyr-Ile-His-Pro-Ile
CAS No.: [52498-25-6]
Molecular formula: C₄₃H₆₈N₁₂O₉
Column: HILIC
Column size: 4.6mm I.D.-250mm
Mobile phase: Acetonitrile/ 10mmol/l Phosphate buffer(pH7)=70/30
Flow rate: 1.0 ml/min
Temperature: 30°C
Detection: UV220 nm
Attenuation: 0.128 auFS
Sample conc.: 1.0mg/ml
Injection volume: 1.0µl
Retention time: 6.89min
Capacity factor: 1.63



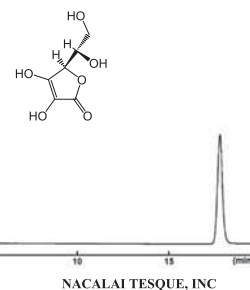
COSMOSIL Chromatogram Index

Sample: L-Arginine
CAS No.: [74-79-3]
Molecular formula: C₆H₁₄N₄O₂
Column: HILIC
Column size: 4.6mm I.D.-250mm
Mobile phase: Acetonitrile/ 10mmol/l Citrate buffer(pH7.0)=60/40
Flow rate: 1.0 ml/min
Temperature: 30°C
Detection: UV210 nm
Attenuation: 0.128 auFS
Sample conc.: 10.0mg/ml
Injection volume: 1.0µl
Retention time: 7.97min
Capacity factor: 1.95



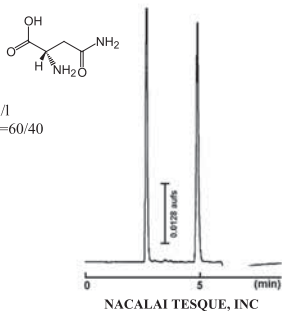
COSMOSIL Chromatogram Index

Sample: L(+)-Ascorbic Acid
CAS No.: [50-81-7]
Molecular formula: C₆H₈O₆
Column: HILIC
Column size: 4.6mm I.D.-250mm
Mobile phase: Acetonitrile/ 10mmol/l Ammonium acetate=50/50
Flow rate: 1.0 ml/min
Temperature: 30°C
Detection: UV245nm
Attenuation: 0.128 auFS
Sample conc.: 0.2mg/ml
Injection volume: 3.0µl
Retention time: 17.80min
Capacity factor: 5.31



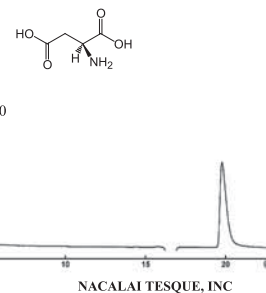
COSMOSIL Chromatogram Index

Sample: L-Asparagine
CAS No.: [70-47-3]
Molecular formula: C₄H₈N₂O₃
Column: HILIC
Column size: 4.6mm I.D.-250mm
Mobile phase: Acetonitrile/ 10mmol/l Citrate buffer(pH7.0)=60/40
Flow rate: 1.0 ml/min
Temperature: 30°C
Detection: UV210 nm
Attenuation: 0.128 auFS
Sample conc.: 5.0mg/ml
Injection volume: 1.0µl
Retention time: 4.88min
Capacity factor: 0.80



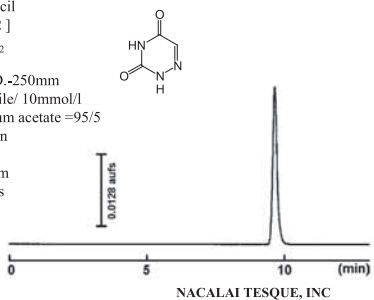
COSMOSIL Chromatogram Index

Sample: L-Aspartic Acid
CAS No.: [56-84-8]
Molecular formula: C₄H₇NO₄
Column: HILIC
Column size: 4.6mm I.D.-250mm
Mobile phase: Acetonitrile/ 10mmol/l Ammonium acetate=50/50
Flow rate: 1.0 ml/min
Temperature: 30°C
Detection: UV 210nm
Attenuation: 0.128 auFS
Sample conc.: 10.0mg/ml
Injection volume: 2.0µl
Retention time: 19.79min
Capacity factor: 6.01



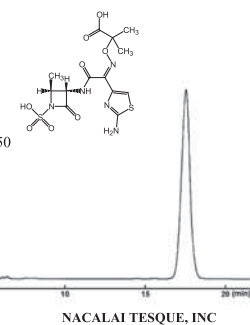
COSMOSIL Chromatogram Index

Sample: 6-Azauracil
CAS No.: [461-89-2]
Molecular formula: C₅H₅N₃O₂
Column: HILIC
Column size: 4.6mm I.D.-250mm
Mobile phase: Acetonitrile/ 10mmol/l Ammonium acetate =95/5
Flow rate: 1.0 ml/min
Temperature: 30°C
Detection: UV260 nm
Attenuation: 0.128 auFS
Sample conc.: 0.3mg/ml
Injection volume: 0.5µl
Retention time: 9.65min
Capacity factor: 2.19



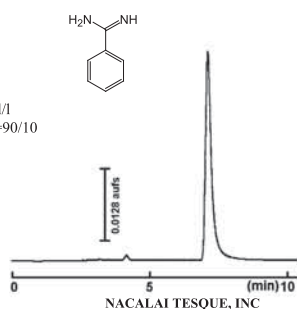
COSMOSIL Chromatogram Index

Sample: Aztreonam
CAS No.: [78110-38-0]
Molecular formula: C₁₃H₁₇N₅O₈S₂
Column: HILIC
Column size: 4.6mm I.D.-250mm
Mobile phase: Acetonitrile/ 20mmol/l Phosphate buffer(pH7)=50/50
Flow rate: 1.0 ml/min
Temperature: 30°C
Detection: UV280 nm
Attenuation: 0.128 auFS
Sample conc.: 2.5mg/ml
Injection volume: 1.0µl
Retention time: 17.57min
Capacity factor: 5.18



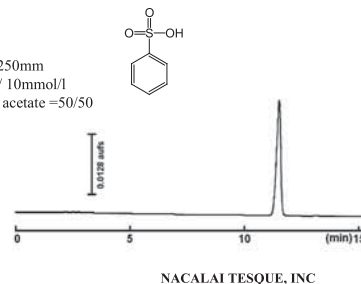
COSMOSIL Chromatogram Index

Sample: Benzamidine
CAS No.: [618-39-3]
Molecular formula: $C_7H_8N_2$
Column: HILIC
Column size: 4.6mm I.D.-250mm
Mobile phase: Acetonitrile/ 10mmol/l Ammonium acetate =90/10
Flow rate: 1.0 ml/min
Temperature: 30°C
Detection: UV254 nm
Attenuation: 0.128 auFS
Sample conc.: 1.5mg/ml
Injection volume: 0.5µl
Retention time: 7.16min
Capacity factor: 1.46



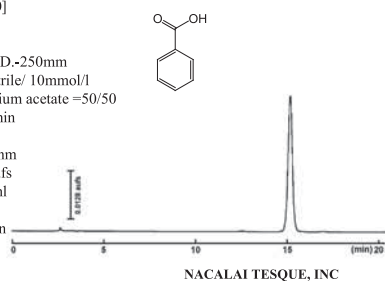
COSMOSIL Chromatogram Index

Sample: Benzenesulfonic Acid
CAS No.: [98-11-3]
Molecular formula: $C_6H_6O_3S$
Column: HILIC
Column size: 4.6mm I.D.-250mm
Mobile phase: Acetonitrile/ 10mmol/l Ammonium acetate =50/50
Flow rate: 1.0 ml/min
Temperature: 30°C
Detection: UV254 nm
Attenuation: 0.128 auFS
Sample conc.: 5.0mg/ml
Injection volume: 1.0µl
Retention time: 11.54min
Capacity factor: 3.05



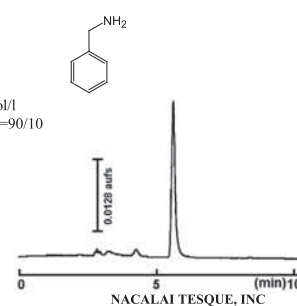
COSMOSIL Chromatogram Index

Sample: Benzoic Acid
CAS No.: [65-85-0]
Molecular formula: $C_7H_6O_2$
Column: HILIC
Column size: 4.6mm I.D.-250mm
Mobile phase: Acetonitrile/ 10mmol/l Ammonium acetate =50/50
Flow rate: 1.0 ml/min
Temperature: 30°C
Detection: UV254 nm
Attenuation: 0.128 auFS
Sample conc.: 5.0mg/ml
Injection volume: 0.5µl
Retention time: 15.19min
Capacity factor: 4.29



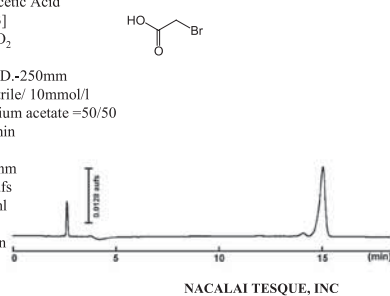
COSMOSIL Chromatogram Index

Sample: Benzylamine
CAS No.: [100-46-9]
Molecular formula: C_7H_9N
Column: HILIC
Column size: 4.6mm I.D.-250mm
Mobile phase: Acetonitrile/ 50mmol/l Ammonium acetate =90/10
Flow rate: 1.0 ml/min
Temperature: 30°C
Detection: UV220 nm
Attenuation: 0.128 auFS
Sample conc.: 1.0mg/ml
Injection volume: 0.5µl
Retention time: 5.58min
Capacity factor: 0.95



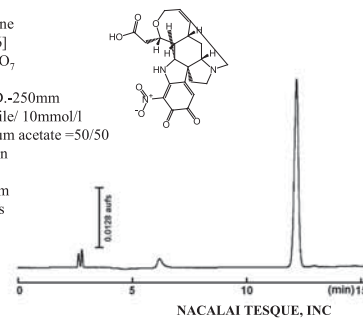
COSMOSIL Chromatogram Index

Sample: Bromoacetic Acid
CAS No.: [79-08-3]
Molecular formula: $C_2H_2BrO_2$
Column: HILIC
Column size: 4.6mm I.D.-250mm
Mobile phase: Acetonitrile/ 10mmol/l Ammonium acetate =50/50
Flow rate: 1.0 ml/min
Temperature: 30°C
Detection: UV210 nm
Attenuation: 0.128 auFS
Sample conc.: 1.0mg/ml
Injection volume: 1.0µl
Retention time: 15.04min
Capacity factor: 4.31



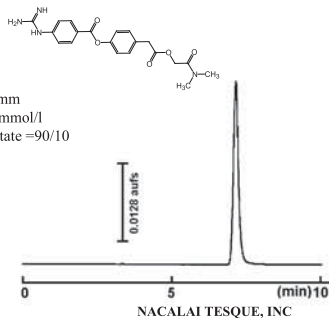
COSMOSIL Chromatogram Index

Sample: Cacotheine
CAS No.: [561-20-6]
Molecular formula: $C_{21}H_{21}N_3O_7$
Column: HILIC
Column size: 4.6mm I.D.-250mm
Mobile phase: Acetonitrile/ 10mmol/l Ammonium acetate =50/50
Flow rate: 1.0 ml/min
Temperature: 30°C
Detection: UV220 nm
Attenuation: 0.128 auFS
Sample conc.: 1.0mg/ml
Injection volume: 1.0µl
Retention time: 12.19min
Capacity factor: 3.23



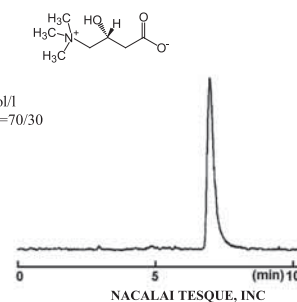
COSMOSIL Chromatogram Index

Sample: Camostat
CAS No.: [59721-28-7]
Molecular formula: $C_{26}H_{22}N_4O_3$
Column: HILIC
Column size: 4.6mm I.D.-250mm
Mobile phase: Acetonitrile/ 10mmol/l Ammonium acetate =90/10
Flow rate: 1.0 ml/min
Temperature: 30°C
Detection: UV265 nm
Attenuation: 0.128 auFS
Sample conc.: 0.5mg/ml
Injection volume: 0.5µl
Retention time: 7.16min
Capacity factor: 1.47



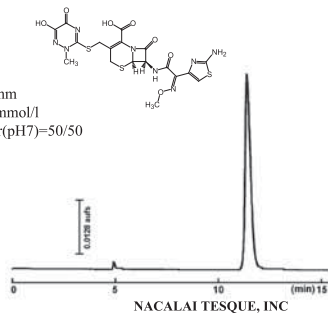
COSMOSIL Chromatogram Index

Sample: L-Carnitine
CAS No.: [541-15-1]
Molecular formula: $C_7H_{15}NO_3$
Column: HILIC
Column size: 4.6mm I.D.-250mm
Mobile phase: Acetonitrile/ 10mmol/l Ammonium acetate =70/30
Flow rate: 1.0 ml/min
Temperature: 30°C
Detection: ELSD
Attenuation: Gain=6, Atten=8
Sample conc.: 2.0mg/ml
Injection volume: 1.5µl
Retention time: 6.96min
Capacity factor: 1.78



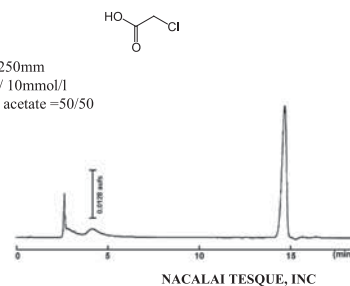
COSMOSIL Chromatogram Index

Sample: Ceftriaxone
CAS No.: [73384-59-5]
Molecular formula: $C_{18}H_{18}N_6O_5S_3$
Column: HILIC
Column size: 4.6mm I.D.-250mm
Mobile phase: Acetonitrile/ 10mmol/l Phosphate buffer(pH7)=50/50
Flow rate: 1.0 ml/min
Temperature: 30°C
Detection: UV254 nm
Attenuation: 0.128 au/s
Sample conc.: 0.5mg/ml
Injection volume: 1.0µl
Retention time: 11.36min
Capacity factor: 3.05



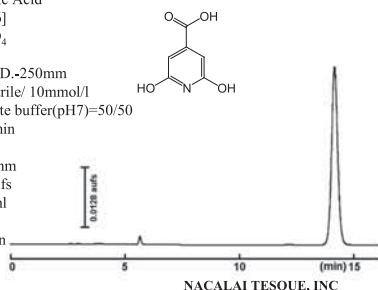
COSMOSIL Chromatogram Index

Sample: Chloroacetic Acid
CAS No.: [79-11-8]
Molecular formula: $C_2H_3ClO_2$
Column: HILIC
Column size: 4.6mm I.D.-250mm
Mobile phase: Acetonitrile/ 10mmol/l Ammonium acetate =50/50
Flow rate: 1.0 ml/min
Temperature: 30°C
Detection: UV210 nm
Attenuation: 0.128 au/s
Sample conc.: 10.0mg/ml
Injection volume: 1.0µl
Retention time: 14.69min
Capacity factor: 4.15



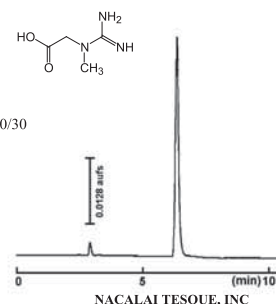
COSMOSIL Chromatogram Index

Sample: Citrazinic Acid
CAS No.: [99-11-6]
Molecular formula: $C_6H_5NO_4$
Column: HILIC
Column size: 4.6mm I.D.-250mm
Mobile phase: Acetonitrile/ 10mmol/l Phosphate buffer(pH7)=50/50
Flow rate: 1.0 ml/min
Temperature: 30°C
Detection: UV220 nm
Attenuation: 0.128 au/s
Sample conc.: 0.5mg/ml
Injection volume: 0.5µl
Retention time: 14.16min
Capacity factor: 3.98



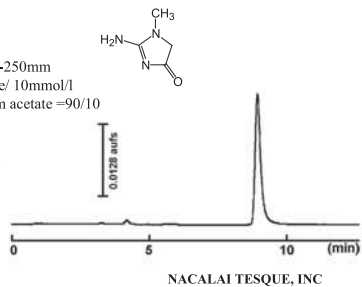
COSMOSIL Chromatogram Index

Sample: Creatine
CAS No.: [57-00-1]
Molecular formula: $C_4H_9N_3O_2$
Column: HILIC
Column size: 4.6mm I.D.-250mm
Mobile phase: Acetonitrile/ 10mmol/l Ammonium acetate =70/30
Flow rate: 1.0 ml/min
Temperature: 30°C
Detection: UV220 nm
Attenuation: 0.128 au/s
Sample conc.: 1.0mg/ml
Injection volume: 1.0µl
Retention time: 6.35min
Capacity factor: 1.40



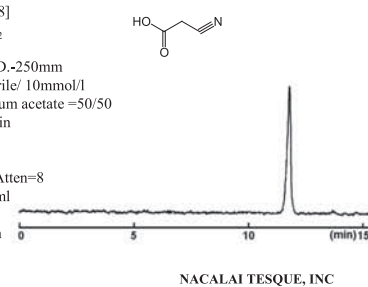
COSMOSIL Chromatogram Index

Sample: Creatinine
CAS No.: [60-27-5]
Molecular formula: $C_4H_7N_3O$
Column: HILIC
Column size: 4.6mm I.D.-250mm
Mobile phase: Acetonitrile/ 10mmol/l Ammonium acetate =90/10
Flow rate: 1.0 ml/min
Temperature: 30°C
Detection: UV220 nm
Attenuation: 0.128 au/s
Sample conc.: 0.5mg/ml
Injection volume: 0.5µl
Retention time: 8.93min
Capacity factor: 2.08



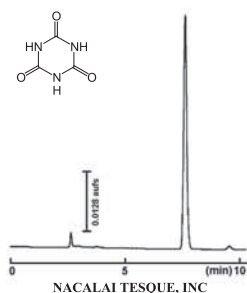
COSMOSIL Chromatogram Index

Sample: Cyanoacetic Acid
CAS No.: [372-09-8]
Molecular formula: $C_3H_3NO_2$
Column: HILIC
Column size: 4.6mm I.D.-250mm
Mobile phase: Acetonitrile/ 10mmol/l Ammonium acetate =50/50
Flow rate: 1.0 ml/min
Temperature: 30°C
Detection: ELSD
Attenuation: Gain=6, Atten=8
Sample conc.: 10.0mg/ml
Injection volume: 0.5µl
Retention time: 11.78min
Capacity factor: 3.56



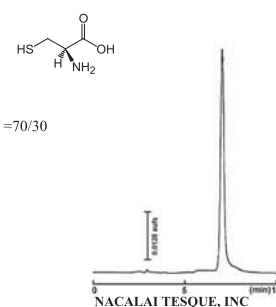
COSMOSIL Chromatogram Index

Sample: Cyanuric Acid
CAS No.: [108-80-5]
Molecular formula: $C_3H_3N_3O_3$
Column: HILIC
Column size: 4.6mm I.D.-250mm
Mobile phase: Acetonitrile/ 10mmol/l Ammonium acetate =50/50
Flow rate: 1.0 ml/min
Temperature: 30°C
Detection: UV220 nm
Attenuation: 0.128 au/s
Sample conc.: 0.5mg/ml
Injection volume: 1.0µl
Retention time: 7.61min
Capacity factor: 1.68



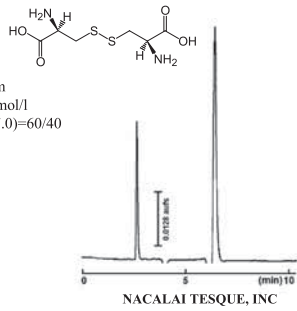
COSMOSIL Chromatogram Index

Sample: L-Cysteine
CAS No.: [52-90-4]
Molecular formula: $C_3H_7NO_2S$
Column: HILIC
Column size: 4.6mm I.D.-250mm
Mobile phase: Acetonitrile/ 20mmol/l Phosphate buffer(pH7) =70/30
Flow rate: 1.0 ml/min
Temperature: 30°C
Detection: UV220 nm
Attenuation: 0.128 au/s
Sample conc.: 5.0mg/ml
Injection volume: 2.0µl
Retention time: 7.05min
Capacity factor: 1.69



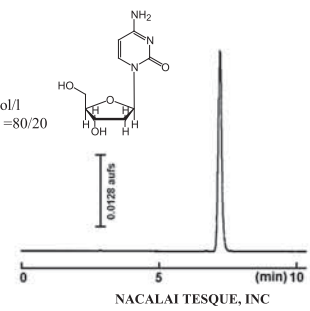
COSMOSIL Chromatogram Index

Sample: L-(-)-Cystine
CAS No.: [56-89-3]
Molecular formula: $C_6H_{12}N_2O_4S_2$
Column: HILIC
Column size: 4.6mmI.D.-250mm
Mobile phase: Acetonitrile/ 10mmol/l Citrate buffer(pH7.0)=60/40
Flow rate: 1.0 ml/min
Temperature: 30°C
Detection: UV210 nm
Attenuation: 0.128 aufs
Sample conc.: 5.0mg/ml
Injection volume: 0.5µl
Retention time: 6.42min
Capacity factor: 1.38



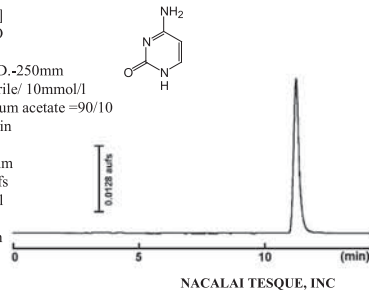
COSMOSIL Chromatogram Index

Sample: Cytidine
CAS No.: [65-46-3]
Molecular formula: $C_9H_{13}N_3O_5$
Column: HILIC
Column size: 4.6mmI.D.-250mm
Mobile phase: Acetonitrile/ 10mmol/l Ammonium acetate =80/20
Flow rate: 1.0 ml/min
Temperature: 30°C
Detection: UV260 nm
Attenuation: 0.128 aufs
Sample conc.: 0.5mg/ml
Injection volume: 0.5µl
Retention time: 7.22min
Capacity factor: 1.58



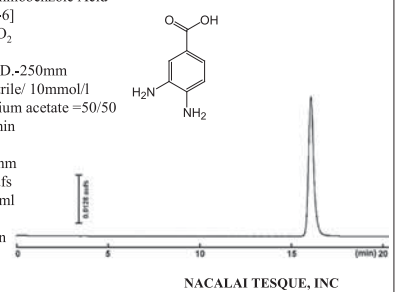
COSMOSIL Chromatogram Index

Sample: Cytosine
CAS No.: [71-30-7]
Molecular formula: $C_4H_5N_3O$
Column: HILIC
Column size: 4.6mmI.D.-250mm
Mobile phase: Acetonitrile/ 10mmol/l Ammonium acetate =90/10
Flow rate: 1.0 ml/min
Temperature: 30°C
Detection: UV260 nm
Attenuation: 0.128 aufs
Sample conc.: 0.5mg/ml
Injection volume: 0.5µl
Retention time: 11.22min
Capacity factor: 2.87



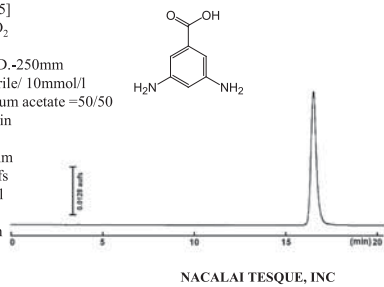
COSMOSIL Chromatogram Index

Sample: 3,4-Diaminobenzoic Acid
CAS No.: [619-05-6]
Molecular formula: $C_7H_8N_2O_2$
Column: HILIC
Column size: 4.6mmI.D.-250mm
Mobile phase: Acetonitrile/ 10mmol/l Ammonium acetate =50/50
Flow rate: 1.0 ml/min
Temperature: 30°C
Detection: UV254 nm
Attenuation: 0.128 aufs
Sample conc.: 0.10mg/ml
Injection volume: 4.0µl
Retention time: 16.13min
Capacity factor: 4.62



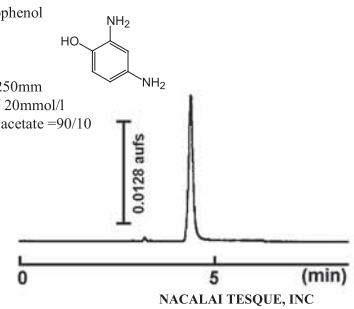
COSMOSIL Chromatogram Index

Sample: 3,5-Diaminobenzoic Acid
CAS No.: [535-87-5]
Molecular formula: $C_7H_8N_2O_2$
Column: HILIC
Column size: 4.6mmI.D.-250mm
Mobile phase: Acetonitrile/ 10mmol/l Ammonium acetate =50/50
Flow rate: 1.0 ml/min
Temperature: 30°C
Detection: UV254 nm
Attenuation: 0.128 aufs
Sample conc.: 0.1mg/ml
Injection volume: 4.0µl
Retention time: 16.54min
Capacity factor: 4.76



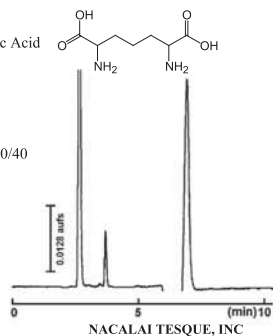
COSMOSIL Chromatogram Index

Sample: 2,4-Diaminophenol
CAS No.: [95-86-3]
Molecular formula: $C_6H_8N_2O$
Column: HILIC
Column size: 4.6mmI.D.-250mm
Mobile phase: Acetonitrile/ 20mmol/l Ammonium acetate =90/10
Flow rate: 1.0 ml/min
Temperature: 30°C
Detection: UV254 nm
Attenuation: 0.128 aufs
Sample conc.: 0.5mg/ml
Injection volume: 0.5µl
Retention time: 4.40min
Capacity factor: 0.51



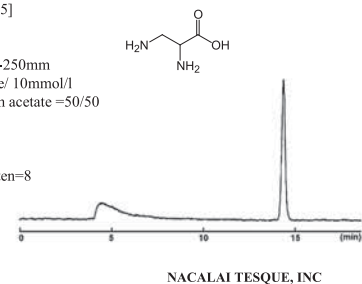
COSMOSIL Chromatogram Index

Sample: DL-2,6-Diaminopimelic Acid
CAS No.: [583-93-7]
Molecular formula: $C_7H_{14}N_2O_4$
Column: HILIC
Column size: 4.6mmI.D.-250mm
Mobile phase: Acetonitrile/ 10mmol/l Citrate buffer(pH7.0)=60/40
Flow rate: 1.0 ml/min
Temperature: 30°C
Detection: UV210 nm
Attenuation: 0.128 aufs
Sample conc.: 10.0mg/ml
Injection volume: 1.5µl
Retention time: 6.93min
Capacity factor: 1.56



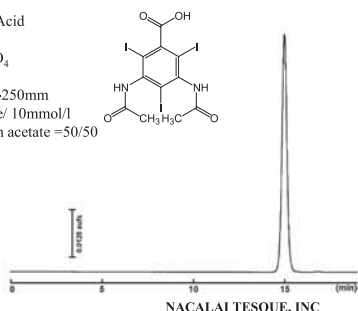
COSMOSIL Chromatogram Index

Sample: DL-2,3-Diaminopropionic Acid
CAS No.: [54897-59-5]
Molecular formula: $C_3H_6N_2O_2$
Column: HILIC
Column size: 4.6mmI.D.-250mm
Mobile phase: Acetonitrile/ 10mmol/l Ammonium acetate =50/50
Flow rate: 1.0 ml/min
Temperature: 30°C
Detection: ELSD
Attenuation: Gain=6,Atten=8
Sample conc.: 5.0mg/ml
Injection volume: 2.0µl
Retention time: 14.38min
Capacity factor: 4.52



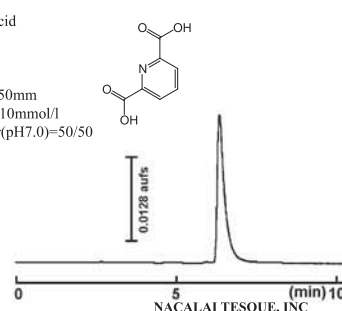
COSMOSIL Chromatogram Index

Sample: Diatrizoic Acid
CAS No.: [117-96-4]
Molecular formula: $C_{11}H_9I_3N_3O_4$
Column: HILIC
Column size: 4.6mm I.D.-250mm
Mobile phase: Acetonitrile/ 10mmol/l Ammonium acetate =50/50
Flow rate: 1.0 ml/min
Temperature: 30°C
Detection: UV254 nm
Attenuation: 0.128 auFS
Sample conc.: 0.8mg/ml
Injection volume: 1.0µl
Retention time: 14.98min
Capacity factor: 4.26



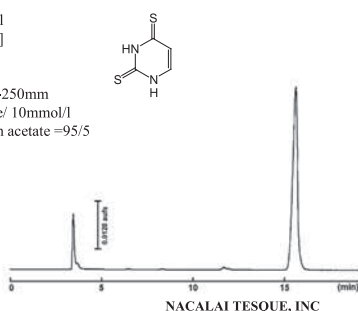
COSMOSIL Chromatogram Index

Sample: Dipicolinic acid
CAS No.: [499-83-2]
Molecular formula: $C_7H_7NO_4$
Column: HILIC
Column size: 4.6mm I.D.-250mm
Mobile phase: Acetonitrile/ 10mmol/l Citrate buffer(pH7.0)=50/50
Flow rate: 1.0 ml/min
Temperature: 30°C
Detection: UV254 nm
Attenuation: 0.128 auFS
Sample conc.: 0.5mg/ml
Injection volume: 1.0µl
Retention time: 6.37min
Capacity factor: 1.23



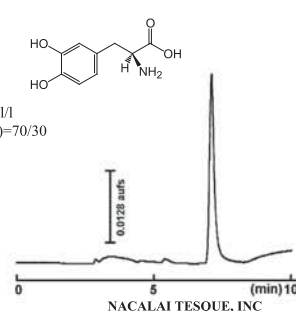
COSMOSIL Chromatogram Index

Sample: Dithiouracil
CAS No.: [2001-93-6]
Molecular formula: $C_4H_4N_2S_2$
Column: HILIC
Column size: 4.6mm I.D.-250mm
Mobile phase: Acetonitrile/ 10mmol/l Ammonium acetate =95/5
Flow rate: 1.0 ml/min
Temperature: 30°C
Detection: UV260 nm
Attenuation: 0.128 auFS
Sample conc.: 0.2mg/ml
Injection volume: 1.5µl
Retention time: 15.60min
Capacity factor: 4.15



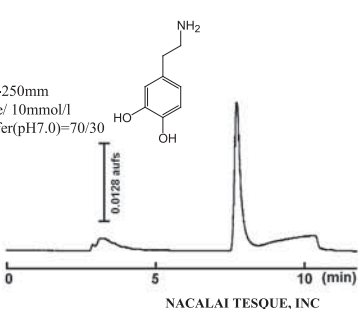
COSMOSIL Chromatogram Index

Sample: L-DOPA
CAS No.: [59-92-7]
Molecular formula: $C_9H_{11}NO_4$
Column: HILIC
Column size: 4.6mm I.D.-250mm
Mobile phase: Acetonitrile/ 10mmol/l Citrate buffer(pH7.0)=70/30
Flow rate: 1.0 ml/min
Temperature: 30°C
Detection: UV254 nm
Attenuation: 0.128 auFS
Sample conc.: 3.0mg/ml
Injection volume: 3.0µl
Retention time: 7.12min
Capacity factor: 1.72



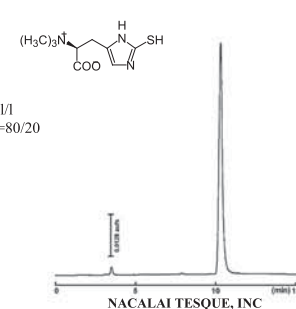
COSMOSIL Chromatogram Index

Sample: Dopamine
CAS No.: [51-61-6]
Molecular formula: $C_8H_{11}NO_2$
Column: HILIC
Column size: 4.6mm I.D.-250mm
Mobile phase: Acetonitrile/ 10mmol/l Citrate buffer(pH7.0)=70/30
Flow rate: 1.0 ml/min
Temperature: 30°C
Detection: UV254 nm
Attenuation: 0.128 auFS
Sample conc.: 1.0mg/ml
Injection volume: 4.0µl
Retention time: 7.73min
Capacity factor: 1.96



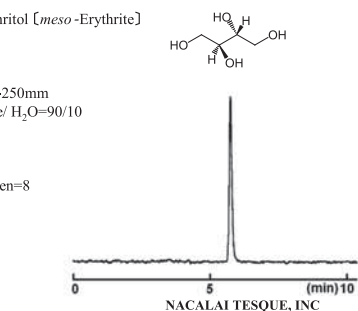
COSMOSIL Chromatogram Index

Sample: L-(+)-Ergothioneine
CAS No.: [497-30-3]
Molecular formula: $C_9H_{15}N_3O_2S$
Column: HILIC
Column size: 4.6mm I.D.-250mm
Mobile phase: Acetonitrile/ 10mmol/l Ammonium acetate =80/20
Flow rate: 1.0 ml/min
Temperature: 30°C
Detection: UV220 nm
Attenuation: 0.128 auFS
Sample conc.: 1.0mg/ml
Injection volume: 1.0µl
Retention time: 10.29min
Capacity factor: 2.79



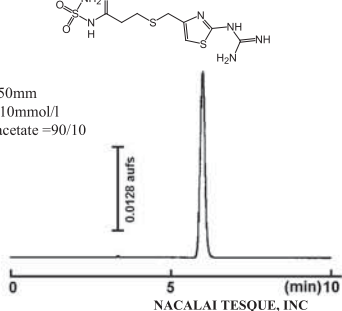
COSMOSIL Chromatogram Index

Sample: meso-Erythritol [meso-Erythrite]
CAS No.: [149-32-6]
Molecular formula: $C_4H_{10}O_4$
Column: HILIC
Column size: 4.6mm I.D.-250mm
Mobile phase: Acetonitrile/ H₂O=90/10
Flow rate: 1.0 ml/min
Temperature: 30°C
Detection: ELSD
Attenuation: Gain=6, Atten=8
Sample conc.: 1.0mg/ml
Injection volume: 1.0µl
Retention time: 5.78min
Capacity factor: 1.18



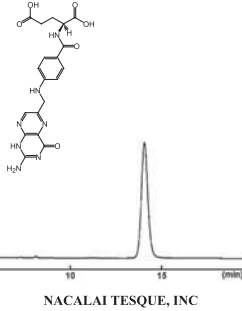
COSMOSIL Chromatogram Index

Sample: Famotidin
CAS No.: [76824-35-6]
Molecular formula: $C_{15}H_{13}N_3O_2S_3$
Column: HILIC
Column size: 4.6mm I.D.-250mm
Mobile phase: Acetonitrile/ 10mmol/l Ammonium acetate =90/10
Flow rate: 1.0 ml/min
Temperature: 30°C
Detection: UV254 nm
Attenuation: 0.128 auFS
Sample conc.: 0.25mg/ml
Injection volume: 2.0µl
Retention time: 5.99min
Capacity factor: 1.06



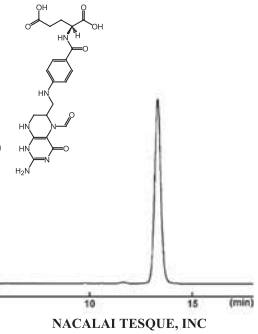
COSMOSIL Chromatogram Index

Sample: Folic Acid
CAS No.: [59-30-3]
Molecular formula: $C_{19}H_{19}N_7O_6$
Column: HILIC
Column size: 4.6mm I.D.-250mm
Mobile phase: Acetonitrile/ 20mmol/l
Phosphate buffer(pH7)=50/50
Flow rate: 1.0 ml/min
Temperature: 30°C
Detection: UV254 nm
Attenuation: 0.128 auFS
Sample conc.: 0.25mg/ml
Injection volume: 2.0µl
Retention time: 14.09min
Capacity factor: 3.95



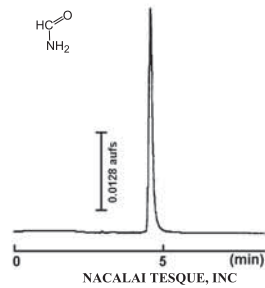
COSMOSIL Chromatogram Index

Sample: Folinic Acid
CAS No.: [58-05-9]
Molecular formula: $C_{20}H_{23}N_7O_7$
Column: HILIC
Column size: 4.6mm I.D.-250mm
Mobile phase: Acetonitrile/ 10mmol/l
Phosphate buffer(pH7)=50/50
Flow rate: 1.0 ml/min
Temperature: 30°C
Detection: UV254 nm
Attenuation: 0.128 auFS
Sample conc.: 0.25mg/ml
Injection volume: 2.0µl
Retention time: 13.36min
Capacity factor: 3.68



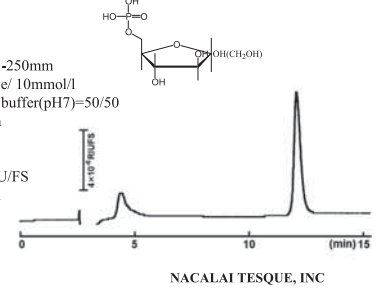
COSMOSIL Chromatogram Index

Sample: Formamide
CAS No.: [75-12-7]
Molecular formula: CH_3NO
Column: HILIC
Column size: 4.6mm I.D.-250mm
Mobile phase: Acetonitrile/ $H_2O=95/5$
Flow rate: 1.0 ml/min
Temperature: 30°C
Detection: UV220 nm
Attenuation: 0.128 auFS
Sample conc.: 10.0mg/ml
Injection volume: 0.5µl
Retention time: 4.58min
Capacity factor: 0.52



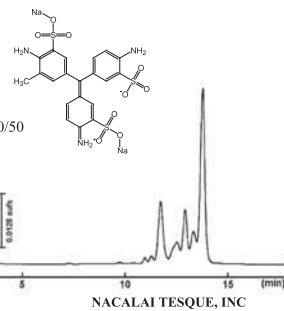
COSMOSIL Chromatogram Index

Sample: D-Fructose-6-phosphate
CAS No.: [643-13-0]
Molecular formula: $C_6H_{13}O_9P$
Column: HILIC
Column size: 4.6mm I.D.-250mm
Mobile phase: Acetonitrile/ 10mmol/l
Phosphate buffer(pH7)=50/50
Flow rate: 1.0 ml/min
Temperature: 30°C
Detection: RI
Attenuation: 4×10^5 RIU/FS
Sample conc.: 10.0mg/ml
Injection volume: 5.0µl
Retention time: 12.16min
Capacity factor: 3.64



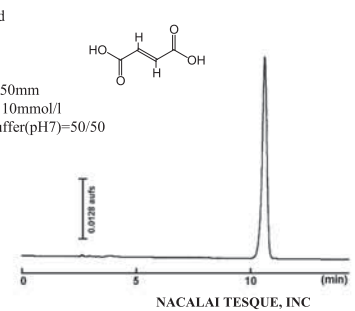
COSMOSIL Chromatogram Index

Sample: Fuchsine, Acid
CAS No.: [3244-88-0]
Molecular formula: $C_{20}H_{17}N_3Na_2O_9S_3$
Column: HILIC
Column size: 4.6mm I.D.-250mm
Mobile phase: Acetonitrile/ 10mmol/l
Ammonium acetate =50/50
Flow rate: 1.0 ml/min
Temperature: 30°C
Detection: UV254 nm
Attenuation: 0.128 auFS
Sample conc.: 5.0mg/ml
Injection volume: 1.5µl
Retention time: 13.82min
Capacity factor: 3.85



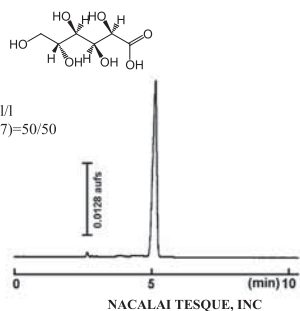
COSMOSIL Chromatogram Index

Sample: Fumaric Acid
CAS No.: [110-17-8]
Molecular formula: $C_4H_4O_4$
Column: HILIC
Column size: 4.6mm I.D.-250mm
Mobile phase: Acetonitrile/ 10mmol/l
Phosphate buffer(pH7)=50/50
Flow rate: 1.0 ml/min
Temperature: 30°C
Detection: UV210 nm
Attenuation: 0.128 auFS
Sample conc.: 0.2mg/ml
Injection volume: 0.5µl
Retention time: 10.63min
Capacity factor: 2.75



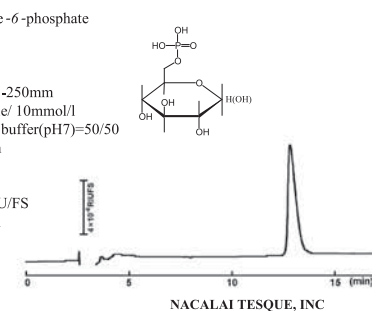
COSMOSIL Chromatogram Index

Sample: Gluconic Acid
CAS No.: [526-95-4]
Molecular formula: $C_6H_{12}O_7$
Column: HILIC
Column size: 4.6mm I.D.-250mm
Mobile phase: Acetonitrile/ 10mmol/l
Phosphate buffer(pH7)=50/50
Flow rate: 1.0 ml/min
Temperature: 30°C
Detection: UV210 nm
Attenuation: 0.128 auFS
Sample conc.: 10.0mg/ml
Injection volume: 1.0µl
Retention time: 5.15min
Capacity factor: 0.81



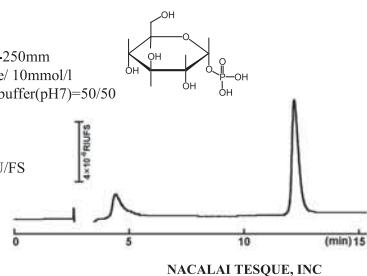
COSMOSIL Chromatogram Index

Sample: D-Glucose-6-phosphate
CAS No.: [56-73-5]
Molecular formula: $C_6H_{13}O_9P$
Column: HILIC
Column size: 4.6mm I.D.-250mm
Mobile phase: Acetonitrile/ 10mmol/l
Phosphate buffer(pH7)=50/50
Flow rate: 1.0 ml/min
Temperature: 30°C
Detection: RI
Attenuation: 4×10^5 RIU/FS
Sample conc.: 10.0mg/ml
Injection volume: 5.0µl
Retention time: 12.95min
Capacity factor: 3.94



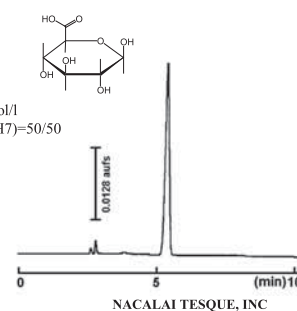
COSMOSIL Chromatogram Index

Sample: α -D-Glucose-1-phosphate
CAS No.: [59-56-3]
Molecular formula: $C_6H_{13}O_9P$
Column: HILIC
Column size: 4.6mm I.D.-250mm
Mobile phase: Acetonitrile/ 10mmol/l Phosphate buffer(pH7)=50/50
Flow rate: 1.0 ml/min
Temperature: 30°C
Detection: RI
Attenuation: 4×10^{-5} RIU/FS
Sample conc.: 10.0mg/ml
Injection volume: 5.0 μ l
Retention time: 12.26min
Capacity factor: 3.68



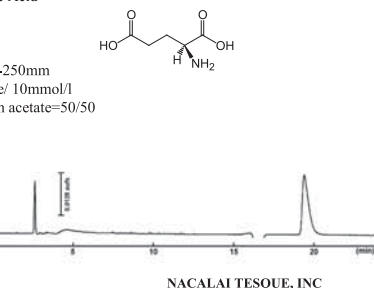
COSMOSIL Chromatogram Index

Sample: D-Glucuronic Acid
CAS No.: [6556-12-3]
Molecular formula: $C_6H_{10}O_7$
Column: HILIC
Column size: 4.6mm I.D.-250mm
Mobile phase: Acetonitrile/ 10mmol/l Phosphate buffer(pH7)=50/50
Flow rate: 1.0 ml/min
Temperature: 30°C
Detection: UV210 nm
Attenuation: 0.128 a.u.f.s
Sample conc.: 10.0mg/ml
Injection volume: 1.0 μ l
Retention time: 5.45min
Capacity factor: 0.92



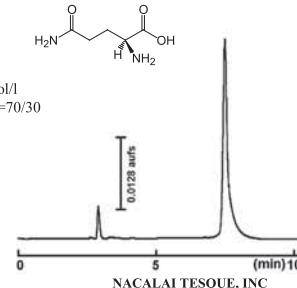
COSMOSIL Chromatogram Index

Sample: L-Glutamic Acid
CAS No.: [56-86-0]
Molecular formula: $C_5H_9NO_4$
Column: HILIC
Column size: 4.6mm I.D.-250mm
Mobile phase: Acetonitrile/ 10mmol/l Ammonium acetate=50/50
Flow rate: 1.0 ml/min
Temperature: 30°C
Detection: UV 210nm
Attenuation: 0.128 a.u.f.s
Sample conc.: 10.0mg/ml
Injection volume: 2.0 μ l
Retention time: 19.38min
Capacity factor: 5.87



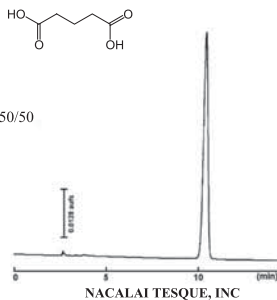
COSMOSIL Chromatogram Index

Sample: L-Glutamine
CAS No.: [56-85-9]
Molecular formula: $C_5H_{10}N_2O_3$
Column: HILIC
Column size: 4.6mm I.D.-250mm
Mobile phase: Acetonitrile/ 10mmol/l Ammonium acetate=70/30
Flow rate: 1.0 ml/min
Temperature: 30°C
Detection: UV210 nm
Attenuation: 0.128 a.u.f.s
Sample conc.: 10.0mg/ml
Injection volume: 0.5 μ l
Retention time: 7.50min
Capacity factor: 1.85



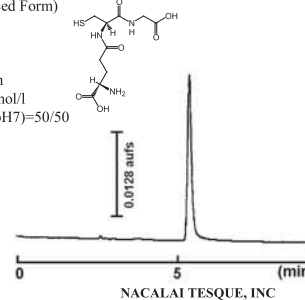
COSMOSIL Chromatogram Index

Sample: Glutaric Acid
CAS No.: [110-94-1]
Molecular formula: $C_5H_8O_4$
Column: HILIC
Column size: 4.6mm I.D.-250mm
Mobile phase: Acetonitrile/ 10mmol/l Phosphate buffer(pH7)=50/50
Flow rate: 1.0 ml/min
Temperature: 30°C
Detection: UV210 nm
Attenuation: 0.128 a.u.f.s
Sample conc.: 10.0mg/ml
Injection volume: 1.0 μ l
Retention time: 10.45min
Capacity factor: 2.68



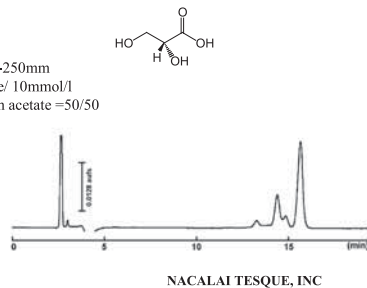
COSMOSIL Chromatogram Index

Sample: Glutathione(Reduced Form)
CAS No.: [70-18-8]
Molecular formula: $C_{10}H_{17}N_2O_6S$
Column: HILIC
Column size: 4.6mm I.D.-250mm
Mobile phase: Acetonitrile/ 10mmol/l Phosphate buffer(pH7)=50/50
Flow rate: 1.0 ml/min
Temperature: 30°C
Detection: UV220 nm
Attenuation: 0.128 a.u.f.s
Sample conc.: 1.0mg/ml
Injection volume: 2.0 μ l
Retention time: 5.43min
Capacity factor: 0.89



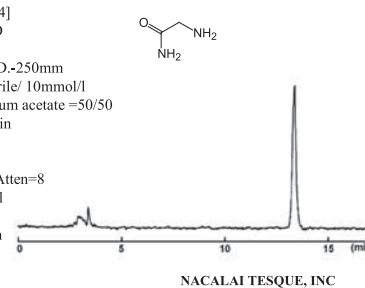
COSMOSIL Chromatogram Index

Sample: DL-Glyceric Acid
CAS No.: [600-19-1]
Molecular formula: $C_3H_6O_4$
Column: HILIC
Column size: 4.6mm I.D.-250mm
Mobile phase: Acetonitrile/ 10mmol/l Ammonium acetate =50/50
Flow rate: 1.0 ml/min
Temperature: 30°C
Detection: UV210 nm
Attenuation: 0.128 a.u.f.s
Sample conc.: 6.0mg/ml
Injection volume: 5.0 μ l
Retention time: 15.68min
Capacity factor: 4.50



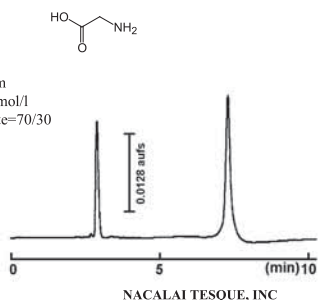
COSMOSIL Chromatogram Index

Sample: Glycinamide
CAS No.: [598-41-4]
Molecular formula: $C_2H_5N_2O$
Column: HILIC
Column size: 4.6mm I.D.-250mm
Mobile phase: Acetonitrile/ 10mmol/l Ammonium acetate =50/50
Flow rate: 1.0 ml/min
Temperature: 30°C
Detection: ELSD
Attenuation: Gain=6, Atten=8
Sample conc.: 1.0mg/ml
Injection volume: 3.0 μ l
Retention time: 13.35min
Capacity factor: 3.64



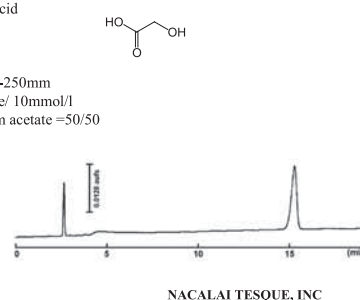
COSMOSIL Chromatogram Index

Sample: Glycine
CAS No.: [56-40-6]
Molecular formula: $C_2H_5NO_2$
Column: HILIC
Column size: 4.6mm I.D.-250mm
Mobile phase: Acetonitrile/ 10mmol/l Ammonium acetate=70/30
Flow rate: 1.0 ml/min
Temperature: 30°C
Detection: UV210 nm
Attenuation: 0.128 aufs
Sample conc.: 5.0mg/ml
Injection volume: 2.0µl
Retention time: 7.29min
Capacity factor: 1.77



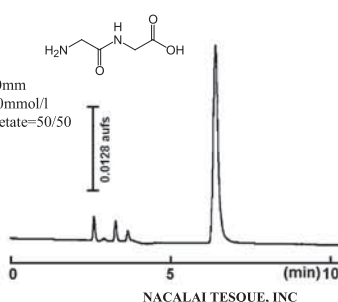
COSMOSIL Chromatogram Index

Sample: Glycolic Acid
CAS No.: [79-14-1]
Molecular formula: $C_2H_4O_3$
Column: HILIC
Column size: 4.6mm I.D.-250mm
Mobile phase: Acetonitrile/ 10mmol/l Ammonium acetate =50/50
Flow rate: 1.0 ml/min
Temperature: 30°C
Detection: UV210 nm
Attenuation: 0.128 aufs
Sample conc.: 10.0mg/ml
Injection volume: 2.0µl
Retention time: 15.28min
Capacity factor: 4.39



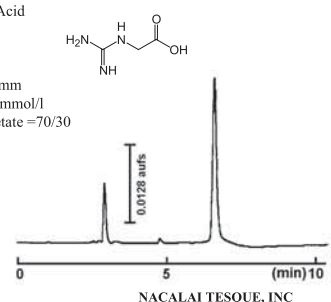
COSMOSIL Chromatogram Index

Sample: Glycylglycine
CAS No.: [556-50-3]
Molecular formula: $C_4H_8N_2O_3$
Column: HILIC
Column size: 4.6mm I.D.-250mm
Mobile phase: Acetonitrile/ 10mmol/l Ammonium acetate=50/50
Flow rate: 1.0 ml/min
Temperature: 30°C
Detection: UV210 nm
Attenuation: 0.128 aufs
Sample conc.: 1.0mg/ml
Injection volume: 0.5µl
Retention time: 6.40min
Capacity factor: 1.27



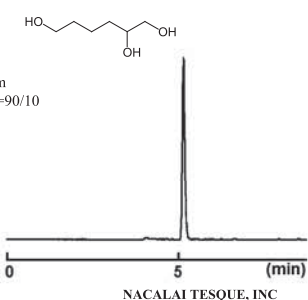
COSMOSIL Chromatogram Index

Sample: Guanidoacetic Acid
CAS No.: [352-97-6]
Molecular formula: $C_3H_7N_3O_2$
Column: HILIC
Column size: 4.6mm I.D.-250mm
Mobile phase: Acetonitrile/ 10mmol/l Ammonium acetate =70/30
Flow rate: 1.0 ml/min
Temperature: 30°C
Detection: UV210 nm
Attenuation: 0.128 aufs
Sample conc.: 0.5mg/ml
Injection volume: 1.0µl
Retention time: 6.61min
Capacity factor: 1.51



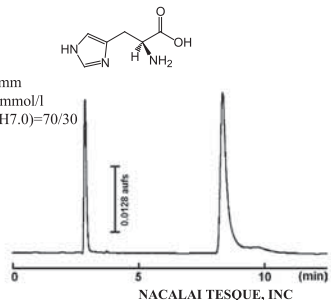
COSMOSIL Chromatogram Index

Sample: 1,2,6-Hexanetriol
CAS No.: [106-69-4]
Molecular formula: $C_6H_{14}O_3$
Column: HILIC
Column size: 4.6mm I.D.-250mm
Mobile phase: Acetonitrile/ H_2O =90/10
Flow rate: 1.0 ml/min
Temperature: 30°C
Detection: ELSD
Attenuation: Gain=6, Atten=8
Sample conc.: 1.0mg/ml
Injection volume: 2.0µl
Retention time: 5.19min
Capacity factor: 0.80



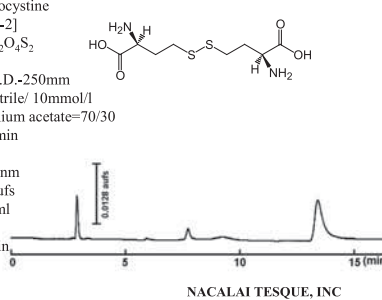
COSMOSIL Chromatogram Index

Sample: L-Histidine
CAS No.: [71-00-1]
Molecular formula: $C_6H_9N_3O_2$
Column: HILIC
Column size: 4.6mm I.D.-250mm
Mobile phase: Acetonitrile/ 10mmol/l Citrate buffer(pH7.0)=70/30
Flow rate: 1.0 ml/min
Temperature: 30°C
Detection: UV220 nm
Attenuation: 0.128 aufs
Sample conc.: 0.50mg/ml
Injection volume: 1.0µl
Retention time: 8.38min
Capacity factor: 2.19



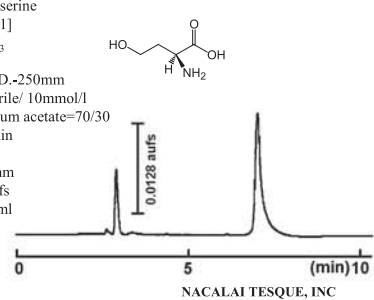
COSMOSIL Chromatogram Index

Sample: L-Homocysteine
CAS No.: [626-72-2]
Molecular formula: $C_4H_9N_2O_4S_2$
Column: HILIC
Column size: 4.6mm I.D.-250mm
Mobile phase: Acetonitrile/ 10mmol/l Ammonium acetate=70/30
Flow rate: 1.0 ml/min
Temperature: 30°C
Detection: UV 210nm
Attenuation: 0.128 aufs
Sample conc.: 2.0mg/ml
Injection volume: 1.0µl
Retention time: 13.41min
Capacity factor: 4.10



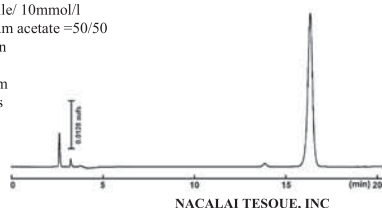
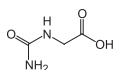
COSMOSIL Chromatogram Index

Sample: L-Homoserine
CAS No.: [672-15-1]
Molecular formula: $C_4H_9NO_3$
Column: HILIC
Column size: 4.6mm I.D.-250mm
Mobile phase: Acetonitrile/ 10mmol/l Ammonium acetate=70/30
Flow rate: 1.0 ml/min
Temperature: 30°C
Detection: UV 210nm
Attenuation: 0.128 aufs
Sample conc.: 10.0mg/ml
Injection volume: 1.0µl
Retention time: 7.03min
Capacity factor: 1.67



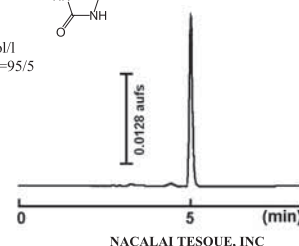
COSMOSIL Chromatogram Index

Sample: Hydantoic Acid
CAS No.: [462-60-2]
Molecular formula: $C_3H_4N_2O_3$
Column: HILIC
Column size: 4.6mm I.D.-250mm
Mobile phase: Acetonitrile/ 10mmol/l Ammonium acetate =50/50
Flow rate: 1.0 ml/min
Temperature: 30°C
Detection: UV210 nm
Attenuation: 0.128 aufs
Sample conc.: 5.0mg/ml
Injection volume: 1.0µl
Retention time: 16.33min
Capacity factor: 4.72



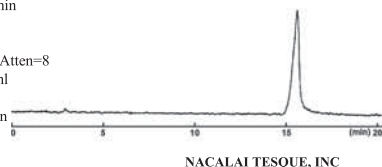
COSMOSIL Chromatogram Index

Sample: Hydantoin
CAS No.: [461-72-3]
Molecular formula: $C_3H_4N_2O_2$
Column: HILIC
Column size: 4.6mm I.D.-250mm
Mobile phase: Acetonitrile/ 10mmol/l Ammonium acetate =95/5
Flow rate: 1.0 ml/min
Temperature: 30°C
Detection: UV220 nm
Attenuation: 0.128 aufs
Sample conc.: 1.0mg/ml
Injection volume: 0.5µl
Retention time: 5.01min
Capacity factor: 0.66



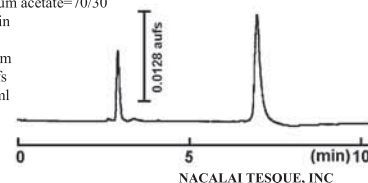
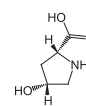
COSMOSIL Chromatogram Index

Sample: Hydroxylamine-O-sulfonic Acid
CAS No.: [2950-43-8]
Molecular formula: H_3NO_4S
Column: HILIC
Column size: 4.6mm I.D.-250mm
Mobile phase: Acetonitrile/ 10mmol/l Ammonium acetate =70/30
Flow rate: 1.0 ml/min
Temperature: 30°C
Detection: ELSD
Attenuation: Gain=6, Atten=8
Sample conc.: 2.0mg/ml
Injection volume: 3.0µl
Retention time: 15.60min
Capacity factor: 5.24



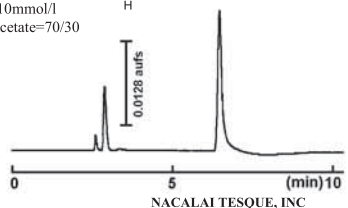
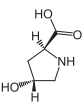
COSMOSIL Chromatogram Index

Sample: *cis*-4-Hydroxy-D-proline
CAS No.: [2584-71-6]
Molecular formula: $C_5H_9NO_3$
Column: HILIC
Column size: 4.6mm I.D.-250mm
Mobile phase: Acetonitrile/ 10mmol/l Ammonium acetate=70/30
Flow rate: 1.0 ml/min
Temperature: 30°C
Detection: UV210 nm
Attenuation: 0.128 aufs
Sample conc.: 10.0mg/ml
Injection volume: 1.0µl
Retention time: 6.96min
Capacity factor: 1.65



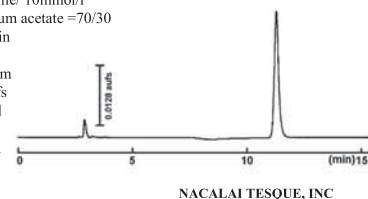
COSMOSIL Chromatogram Index

Sample: *L*-Hydroxyproline
CAS No.: [51-35-4]
Molecular formula: $C_5H_9NO_3$
Column: HILIC
Column size: 4.6mm I.D.-250mm
Mobile phase: Acetonitrile/ 10mmol/l Ammonium acetate=70/30
Flow rate: 1.0 ml/min
Temperature: 30°C
Detection: UV 210nm
Attenuation: 0.128 aufs
Sample conc.: 10.0mg/ml
Injection volume: 1.0µl
Retention time: 6.49min
Capacity factor: 1.47



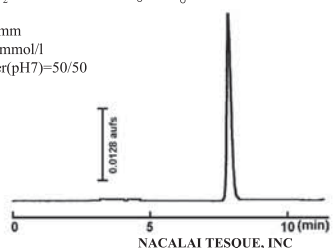
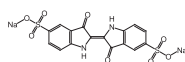
COSMOSIL Chromatogram Index

Sample: *N*-Hydroxysuccinimide
CAS No.: [6066-82-6]
Molecular formula: $C_5H_7NO_3$
Column: HILIC
Column size: 4.6mm I.D.-250mm
Mobile phase: Acetonitrile/ 10mmol/l Ammonium acetate =70/30
Flow rate: 1.0 ml/min
Temperature: 30°C
Detection: UV220 nm
Attenuation: 0.128 aufs
Sample conc.: 0.1mg/ml
Injection volume: 1.5µl
Retention time: 11.29min
Capacity factor: 3.22



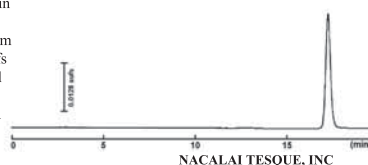
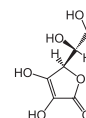
COSMOSIL Chromatogram Index

Sample: Indigo carmine
CAS No.: [860-22-0]
Molecular formula: $C_{16}H_8N_2Na_2O_8S_2$
Column: HILIC
Column size: 4.6mm I.D.-250mm
Mobile phase: Acetonitrile/ 10mmol/l Phosphate buffer(pH7)=50/50
Flow rate: 1.0 ml/min
Temperature: 30°C
Detection: UV254 nm
Attenuation: 0.128 aufs
Sample conc.: 0.2mg/ml
Injection volume: 1.0µl
Retention time: 7.82min
Capacity factor: 1.79



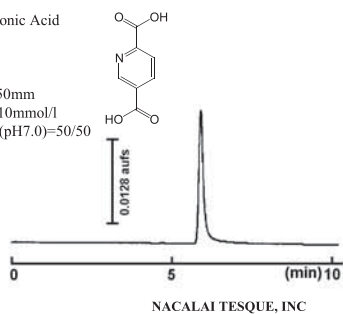
COSMOSIL Chromatogram Index

Sample: *D*-Isoascorbic Acid
CAS No.: [89-65-6]
Molecular formula: $C_6H_8O_6$
Column: HILIC
Column size: 4.6mm I.D.-250mm
Mobile phase: Acetonitrile/ 10mmol/l Ammonium acetate=50/50
Flow rate: 1.0 ml/min
Temperature: 30°C
Detection: UV 245nm
Attenuation: 0.128 aufs
Sample conc.: 0.2mg/ml
Injection volume: 3.0µl
Retention time: 17.26min
Capacity factor: 5.11



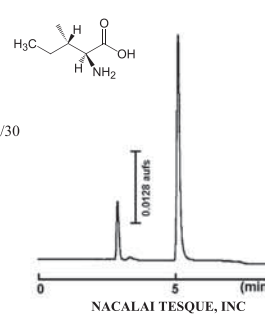
COSMOSIL Chromatogram Index

Sample: Isocinchomeric Acid
CAS No.: [100-26-5]
Molecular formula: $C_7H_7NO_4$
Column: HILIC
Column size: 4.6mm I.D.-250mm
Mobile phase: Acetonitrile/ 10mmol/l Citrate buffer(pH7.0)=50/50
Flow rate: 1.0 ml/min
Temperature: 30°C
Detection: UV254 nm
Attenuation: 0.128 auFS
Sample conc.: 0.5mg/ml
Injection volume: 0.5µl
Retention time: 5.91min
Capacity factor: 1.07



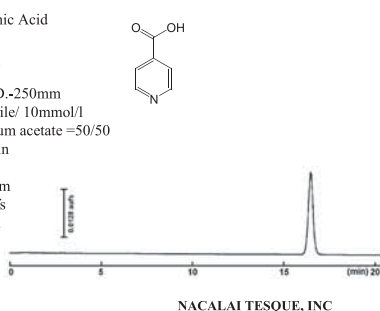
COSMOSIL Chromatogram Index

Sample: L-Isoleucine
CAS No.: [73-32-5]
Molecular formula: $C_6H_{13}NO_2$
Column: HILIC
Column size: 4.6mm I.D.-250mm
Mobile phase: Acetonitrile/ 10mmol/l Ammonium acetate=70/30
Flow rate: 1.0 ml/min
Temperature: 30°C
Detection: UV210 nm
Attenuation: 0.128 auFS
Sample conc.: 10.0mg/ml
Injection volume: 1.0µl
Retention time: 5.12min
Capacity factor: 0.95



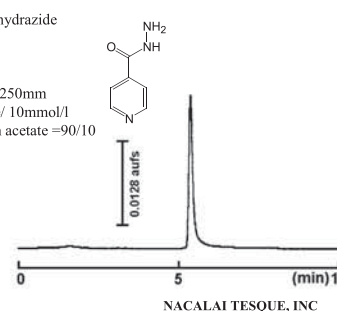
COSMOSIL Chromatogram Index

Sample: Isonicotinic Acid
CAS No.: [55-22-1]
Molecular formula: $C_6H_5NO_2$
Column: HILIC
Column size: 4.6mm I.D.-250mm
Mobile phase: Acetonitrile/ 10mmol/l Ammonium acetate =50/50
Flow rate: 1.0 ml/min
Temperature: 30°C
Detection: UV254 nm
Attenuation: 0.128 auFS
Sample conc.: 1.0mg/ml
Injection volume: 0.5µl
Retention time: 16.45min
Capacity factor: 4.78



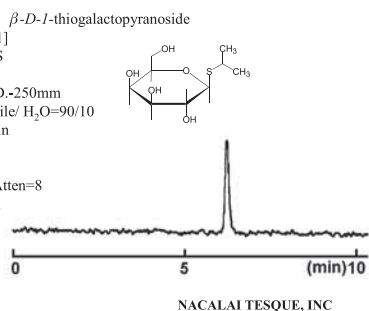
COSMOSIL Chromatogram Index

Sample: Isonicotinohydrazide
CAS No.: [54-85-3]
Molecular formula: $C_6H_7N_3O$
Column: HILIC
Column size: 4.6mm I.D.-250mm
Mobile phase: Acetonitrile/ 10mmol/l Ammonium acetate =90/10
Flow rate: 1.0 ml/min
Temperature: 30°C
Detection: UV265 nm
Attenuation: 0.128 auFS
Sample conc.: 0.50mg/ml
Injection volume: 0.5µl
Retention time: 5.37min
Capacity factor: 0.85



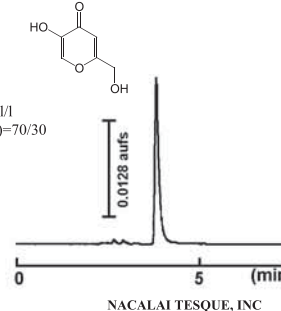
COSMOSIL Chromatogram Index

Sample: Isopropyl β-D-1-thiogalactopyranoside
CAS No.: [367-93-1]
Molecular formula: $C_{18}H_{27}O_6S$
Column: HILIC
Column size: 4.6mm I.D.-250mm
Mobile phase: Acetonitrile/ H₂O=90/10
Flow rate: 1.0 ml/min
Temperature: 30°C
Detection: ELSD
Attenuation: Gain=6, Atten=8
Sample conc.: 0.1mg/ml
Injection volume: 0.5µl
Retention time: 6.23min
Capacity factor: 1.15



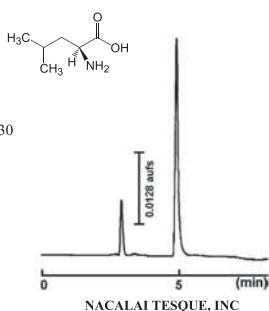
COSMOSIL Chromatogram Index

Sample: Kojic Acid
CAS No.: [501-30-4]
Molecular formula: $C_6H_6O_4$
Column: HILIC
Column size: 4.6mm I.D.-250mm
Mobile phase: Acetonitrile/ 10mmol/l Citrate buffer(pH7.0)=70/30
Flow rate: 1.0 ml/min
Temperature: 30°C
Detection: UV245 nm
Attenuation: 0.128 auFS
Sample conc.: 0.1mg/ml
Injection volume: 1.0µl
Retention time: 3.83min
Capacity factor: 0.46



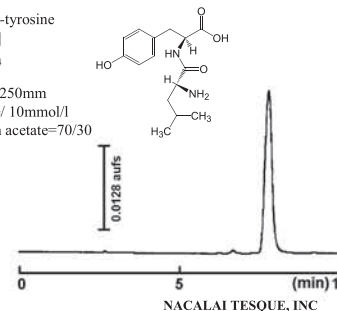
COSMOSIL Chromatogram Index

Sample: L-Leucine
CAS No.: [61-90-5]
Molecular formula: $C_6H_{13}NO_2$
Column: HILIC
Column size: 4.6mm I.D.-250mm
Mobile phase: Acetonitrile/ 10mmol/l Ammonium acetate=70/30
Flow rate: 1.0 ml/min
Temperature: 30°C
Detection: UV210 nm
Attenuation: 0.128 auFS
Sample conc.: 10.0mg/ml
Injection volume: 1.0µl
Retention time: 4.91min
Capacity factor: 0.87



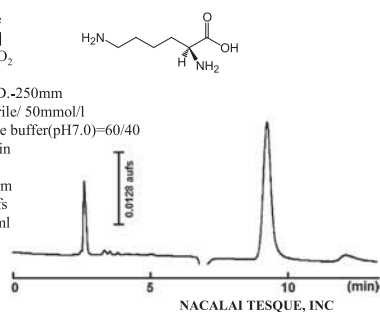
COSMOSIL Chromatogram Index

Sample: D-Leucyl-L-tyrosine
CAS No.: [3303-29-5]
Molecular formula: $C_{15}H_{22}N_2O_4$
Column: HILIC
Column size: 4.6mm I.D.-250mm
Mobile phase: Acetonitrile/ 10mmol/l Ammonium acetate=70/30
Flow rate: 1.0 ml/min
Temperature: 30°C
Detection: UV 254nm
Attenuation: 0.128 auFS
Sample conc.: 10.0mg/ml
Injection volume: 1.0µl
Retention time: 7.79min
Capacity factor: 1.96



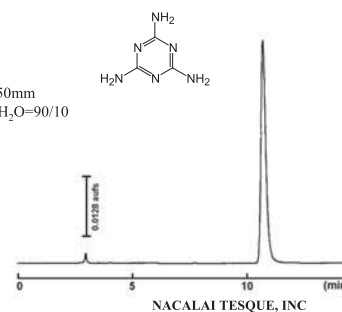
COSMOSIL Chromatogram Index

Sample: L-Lysine
CAS No.: [56-87-1]
Molecular formula: $C_6H_{14}N_2O_2$
Column: HILIC
Column size: 4.6mm I.D.-250mm
Mobile phase: Acetonitrile/ 50mmol/l
Phosphate buffer(pH7.0)=60/40
Flow rate: 1.0 ml/min
Temperature: 30°C
Detection: UV210 nm
Attenuation: 0.128 auFS
Sample conc.: 10.0mg/ml
Injection volume: 2.0µl
Retention time: 9.26min
Capacity factor: 2.55



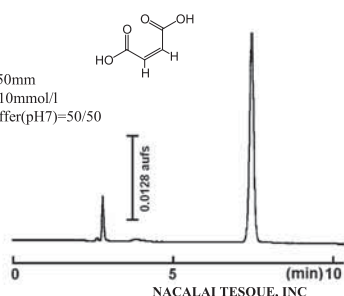
COSMOSIL Chromatogram Index

Sample: Melamine
CAS No.: [108-78-1]
Molecular formula: $C_3H_6N_6$
Column: HILIC
Column size: 4.6mm I.D.-250mm
Mobile phase: Acetonitrile/ H_2O =90/10
Flow rate: 1.0 ml/min
Temperature: 30°C
Detection: UV240 nm
Attenuation: 0.128 auFS
Sample conc.: 1.0mg/ml
Injection volume: 1.0µl
Retention time: 10.79min
Capacity factor: 2.79



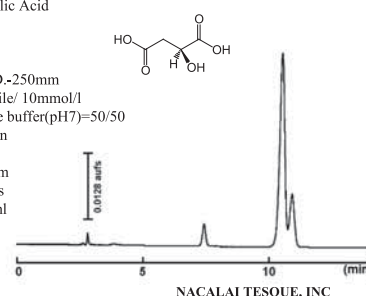
COSMOSIL Chromatogram Index

Sample: Maleic Acid
CAS No.: [110-16-7]
Molecular formula: $C_4H_4O_4$
Column: HILIC
Column size: 4.6mm I.D.-250mm
Mobile phase: Acetonitrile/ 10mmol/l
Phosphate buffer(pH7)=50/50
Flow rate: 1.0 ml/min
Temperature: 30°C
Detection: UV210 nm
Attenuation: 0.128 auFS
Sample conc.: 0.1mg/ml
Injection volume: 0.5µl
Retention time: 7.45min
Capacity factor: 1.62



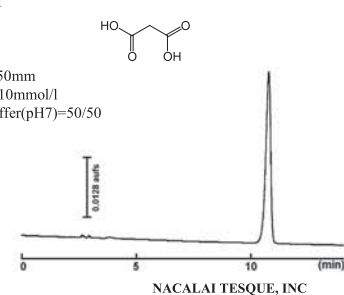
COSMOSIL Chromatogram Index

Sample: L-(-)-Malic Acid
CAS No.: [97-67-6]
Molecular formula: $C_4H_6O_5$
Column: HILIC
Column size: 4.6mm I.D.-250mm
Mobile phase: Acetonitrile/ 10mmol/l
Phosphate buffer(pH7)=50/50
Flow rate: 1.0 ml/min
Temperature: 30°C
Detection: UV210 nm
Attenuation: 0.128 auFS
Sample conc.: 10.0mg/ml
Injection volume: 0.5µl
Retention time: 10.55min
Capacity factor: 2.71



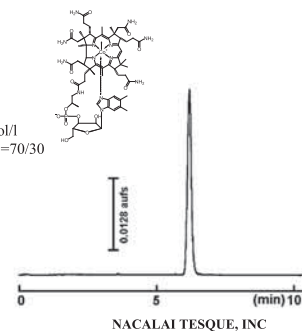
COSMOSIL Chromatogram Index

Sample: Malonic Acid
CAS No.: [141-82-2]
Molecular formula: $C_3H_4O_4$
Column: HILIC
Column size: 4.6mm I.D.-250mm
Mobile phase: Acetonitrile/ 10mmol/l
Phosphate buffer(pH7)=50/50
Flow rate: 1.0 ml/min
Temperature: 30°C
Detection: UV210 nm
Attenuation: 0.128 auFS
Sample conc.: 10.0mg/ml
Injection volume: 0.5µl
Retention time: 10.78min
Capacity factor: 2.81



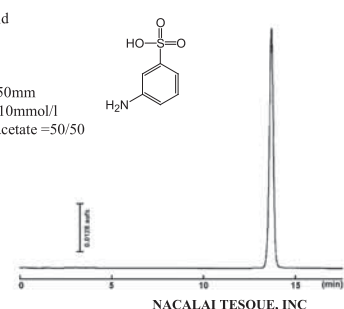
COSMOSIL Chromatogram Index

Sample: Mecobalamin
CAS No.: [13422-55-4]
Molecular formula: $C_{63}H_{91}CoN_{13}O_{14}P$
Column: HILIC
Column size: 4.6mm I.D.-250mm
Mobile phase: Acetonitrile/ 10mmol/l
Ammonium acetate =70/30
Flow rate: 1.0 ml/min
Temperature: 30°C
Detection: UV266 nm
Attenuation: 0.128 auFS
Sample conc.: 0.5mg/ml
Injection volume: 1.0µl
Retention time: 6.22min
Capacity factor: 1.35



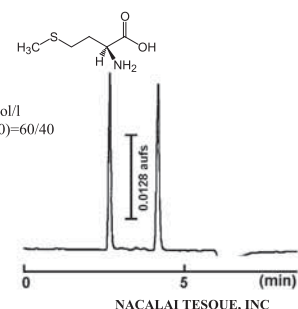
COSMOSIL Chromatogram Index

Sample: Metanilic Acid
CAS No.: [121-47-1]
Molecular formula: $C_6H_7NO_3S$
Column: HILIC
Column size: 4.6mm I.D.-250mm
Mobile phase: Acetonitrile/ 10mmol/l
Ammonium acetate =50/50
Flow rate: 1.0 ml/min
Temperature: 30°C
Detection: UV254 nm
Attenuation: 0.128 auFS
Sample conc.: 1.0mg/ml
Injection volume: 1.0µl
Retention time: 13.68min
Capacity factor: 3.80



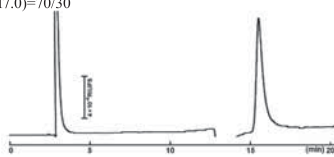
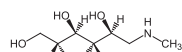
COSMOSIL Chromatogram Index

Sample: L-Methionine
CAS No.: [63-68-3]
Molecular formula: $C_5H_{11}NO_2S$
Column: HILIC
Column size: 4.6mm I.D.-250mm
Mobile phase: Acetonitrile/ 10mmol/l
Citrate buffer(pH7.0)=60/40
Flow rate: 1.0 ml/min
Temperature: 30°C
Detection: UV210 nm
Attenuation: 0.128 auFS
Sample conc.: 1.0mg/ml
Injection volume: 0.5µl
Retention time: 4.15min
Capacity factor: 0.54



COSMOSIL Chromatogram Index

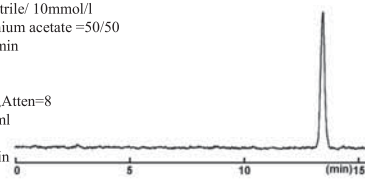
Sample: *N*-Methylglucamine
CAS No.: [6284-40-8]
Molecular formula: $C_7H_{17}NO_5$
Column: HILIC
Column size: 4.6mm I.D.-250mm
Mobile phase: Acetonitrile/ 10mmol/l Citrate buffer(pH7.0)=70/30
Flow rate: 1.0 ml/min
Temperature: 30°C
Detection: RI
Attenuation: 4×10^5 RIU/FS
Sample conc.: 10.0mg/ml
Injection volume: 2.0µl
Retention time: 15.52min
Capacity factor: 4.22



NACALAI TESQUE, INC

COSMOSIL Chromatogram Index

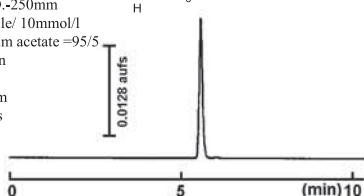
Sample: *N*-Methylhydroxylamine
CAS No.: [593-77-1]
Molecular formula: CH_3NO_2
Column: HILIC
Column size: 4.6mm I.D.-250mm
Mobile phase: Acetonitrile/ 10mmol/l Ammonium acetate =50/50
Flow rate: 1.0 ml/min
Temperature: 30°C
Detection: ELSD
Attenuation: Gain=6, Atten=8
Sample conc.: 1.0mg/ml
Injection volume: 2.0µl
Retention time: 13.45min
Capacity factor: 4.21



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COSMOSIL Chromatogram Index

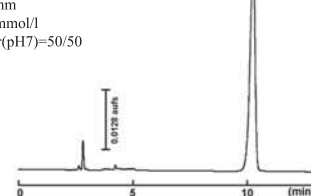
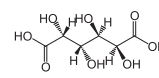
Sample: 6-Methyl-2-thiouracil
CAS No.: [56-04-2]
Molecular formula: $C_5H_6N_2OS$
Column: HILIC
Column size: 4.6mm I.D.-250mm
Mobile phase: Acetonitrile/ 10mmol/l Ammonium acetate =95/5
Flow rate: 1.0 ml/min
Temperature: 30°C
Detection: UV260 nm
Attenuation: 0.128 auFS
Sample conc.: 0.1mg/ml
Injection volume: 0.5µl
Retention time: 5.58min
Capacity factor: 0.84



NACALAI TESQUE, INC

COSMOSIL Chromatogram Index

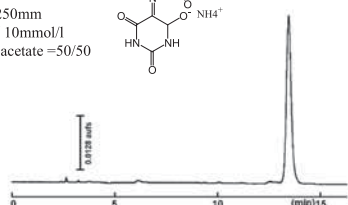
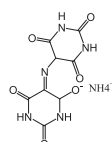
Sample: Mucic Acid
CAS No.: [526-99-8]
Molecular formula: $C_6H_{10}O_8$
Column: HILIC
Column size: 4.6mm I.D.-250mm
Mobile phase: Acetonitrile/ 10mmol/l Phosphate buffer(pH7)=50/50
Flow rate: 1.0 ml/min
Temperature: 30°C
Detection: UV210 nm
Attenuation: 0.128 auFS
Sample conc.: 10.0mg/ml
Injection volume: 1.0µl
Retention time: 10.27min
Capacity factor: 2.62



NACALAI TESQUE, INC

COSMOSIL Chromatogram Index

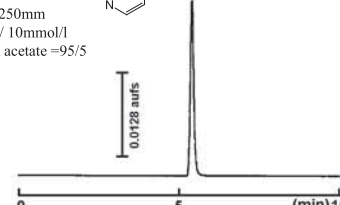
Sample: Murexide
CAS No.: [3051-09-0]
Molecular formula: $C_8H_6N_4O_6$
Column: HILIC
Column size: 4.6mm I.D.-250mm
Mobile phase: Acetonitrile/ 10mmol/l Ammonium acetate =50/50
Flow rate: 1.0 ml/min
Temperature: 30°C
Detection: UV220 nm
Attenuation: 0.128 auFS
Sample conc.: 1.0mg/ml
Injection volume: 0.5µl
Retention time: 13.47min
Capacity factor: 3.69



NACALAI TESQUE, INC

COSMOSIL Chromatogram Index

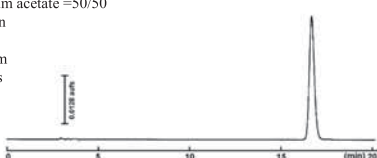
Sample: Nicotinamide
CAS No.: [98-92-0]
Molecular formula: $C_6H_6N_2O$
Column: HILIC
Column size: 4.6mm I.D.-250mm
Mobile phase: Acetonitrile/ 10mmol/l Ammonium acetate =95/5
Flow rate: 1.0 ml/min
Temperature: 30°C
Detection: UV254 nm
Attenuation: 0.128 auFS
Sample conc.: 0.2mg/ml
Injection volume: 1.0µl
Retention time: 5.40min
Capacity factor: 0.77



NACALAI TESQUE, INC

COSMOSIL Chromatogram Index

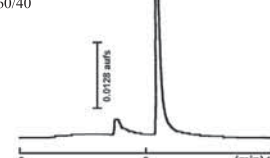
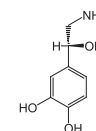
Sample: Nicotinic Acid
CAS No.: [59-67-6]
Molecular formula: $C_6H_5NO_2$
Column: HILIC
Column size: 4.6mm I.D.-250mm
Mobile phase: Acetonitrile/ 10mmol/l Ammonium acetate =50/50
Flow rate: 1.0 ml/min
Temperature: 30°C
Detection: UV254 nm
Attenuation: 0.128 auFS
Sample conc.: 1.0mg/ml
Injection volume: 0.5µl
Retention time: 16.67min
Capacity factor: 4.87



NACALAI TESQUE, INC

COSMOSIL Chromatogram Index

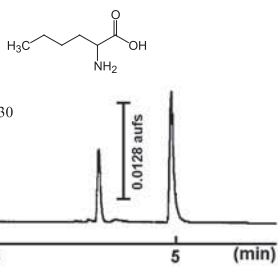
Sample: *L*-Noradrenaline
CAS No.: [51-41-2]
Molecular formula: $C_8H_{11}NO_3$
Column: HILIC
Column size: 4.6mm I.D.-250mm
Mobile phase: Acetonitrile/ 10mmol/l Citrate buffer(pH7.0)=60/40
Flow rate: 1.0 ml/min
Temperature: 30°C
Detection: UV254 nm
Attenuation: 0.128 auFS
Sample conc.: 5.0mg/ml
Injection volume: 1.0µl
Retention time: 5.47min
Capacity factor: 1.07



NACALAI TESQUE, INC

COSMOSIL Chromatogram Index

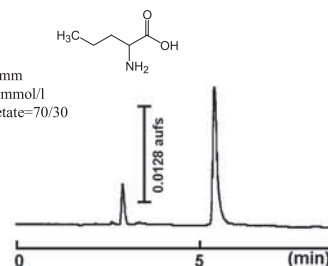
Sample: *DL*-Norleucine
CAS No.: [616-06-8]
Molecular formula: $C_6H_{13}NO_2$
Column: HILIC
Column size: 4.6mm I.D.-250mm
Mobile phase: Acetonitrile/ 10mmol/l
Ammonium acetate=70/30
Flow rate: 1.0 ml/min
Temperature: 30°C
Detection: UV210 nm
Attenuation: 0.128 auFS
Sample conc.: 5.0mg/ml
Injection volume: 1.0µl
Retention time: 4.89min
Capacity factor: 0.86



NACALAI TESQUE, INC

COSMOSIL Chromatogram Index

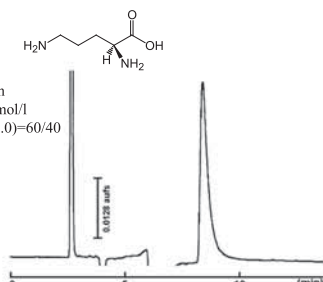
Sample: *DL*-Norvaline
CAS No.: [760-78-1]
Molecular formula: $C_6H_{11}NO_2$
Column: HILIC
Column size: 4.6mm I.D.-250mm
Mobile phase: Acetonitrile/ 10mmol/l
Ammonium acetate=70/30
Flow rate: 1.0 ml/min
Temperature: 30°C
Detection: UV 210nm
Attenuation: 0.128 auFS
Sample conc.: 10.0mg/ml
Injection volume: 0.5µl
Retention time: 5.43min
Capacity factor: 1.07



NACALAI TESQUE, INC

COSMOSIL Chromatogram Index

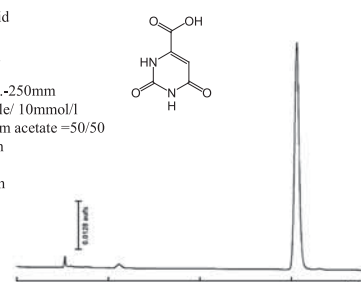
Sample: *L*-Ornithine
CAS No.: [70-26-8]
Molecular formula: $C_6H_{12}N_2O_2$
Column: HILIC
Column size: 4.6mm I.D.-250mm
Mobile phase: Acetonitrile/ 10mmol/l
Citrate buffer(pH7.0)=60/40
Flow rate: 1.0 ml/min
Temperature: 30°C
Detection: UV210 nm
Attenuation: 0.128 auFS
Sample conc.: 10.0mg/ml
Injection volume: 2.0µl
Retention time: 8.39min
Capacity factor: 2.10



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COSMOSIL Chromatogram Index

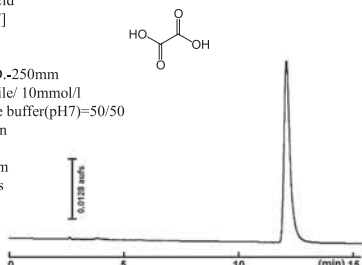
Sample: Orotic Acid
CAS No.: [65-86-1]
Molecular formula: $C_4H_4N_2O_4$
Column: HILIC
Column size: 4.6mm I.D.-250mm
Mobile phase: Acetonitrile/ 10mmol/l
Ammonium acetate =50/50
Flow rate: 1.0 ml/min
Temperature: 30°C
Detection: UV220 nm
Attenuation: 0.128 auFS
Sample conc.: 0.5mg/ml
Injection volume: 1.0µl
Retention time: 15.24min
Capacity factor: 4.36



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COSMOSIL Chromatogram Index

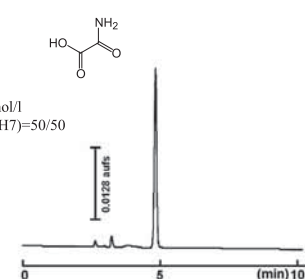
Sample: Oxalic Acid
CAS No.: [144-62-7]
Molecular formula: $C_2H_2O_4$
Column: HILIC
Column size: 4.6mm I.D.-250mm
Mobile phase: Acetonitrile/ 10mmol/l
Phosphate buffer(pH7)=50/50
Flow rate: 1.0 ml/min
Temperature: 30°C
Detection: UV210 nm
Attenuation: 0.128 auFS
Sample conc.: 5.0mg/ml
Injection volume: 0.5µl
Retention time: 12.08min
Capacity factor: 3.27



NACALAI TESQUE, INC

COSMOSIL Chromatogram Index

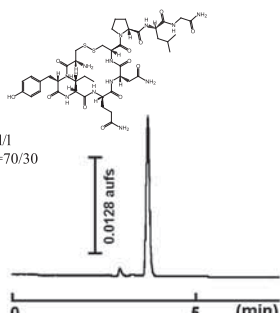
Sample: Oxamic Acid
CAS No.: [471-47-6]
Molecular formula: $C_2H_3NO_3$
Column: HILIC
Column size: 4.6mm I.D.-250mm
Mobile phase: Acetonitrile/ 10mmol/l
Phosphate buffer(pH7)=50/50
Flow rate: 1.0 ml/min
Temperature: 30°C
Detection: UV210 nm
Attenuation: 0.128 auFS
Sample conc.: 0.1mg/ml
Injection volume: 1.0µl
Retention time: 4.83min
Capacity factor: 0.71



NACALAI TESQUE, INC

COSMOSIL Chromatogram Index

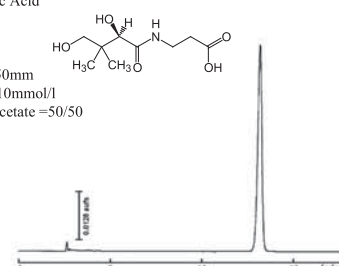
Sample: Oxytocin
CAS No.: [50-56-6]
Molecular formula: $C_{43}H_{66}N_{12}O_{12}S_2$
Column: HILIC
Column size: 4.6mm I.D.-250mm
Mobile phase: Acetonitrile/ 10mmol/l
Ammonium acetate =70/30
Flow rate: 1.0 ml/min
Temperature: 30°C
Detection: UV220 nm
Attenuation: 0.128 auFS
Sample conc.: 0.4mg/ml
Injection volume: 0.5µl
Retention time: 3.71min
Capacity factor: 0.39



NACALAI TESQUE, INC

COSMOSIL Chromatogram Index

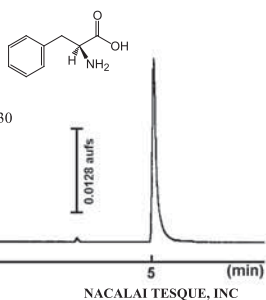
Sample: *D*-Pantothenic Acid
CAS No.: [79-83-4]
Molecular formula: $C_8H_{17}NO_5$
Column: HILIC
Column size: 4.6mm I.D.-250mm
Mobile phase: Acetonitrile/ 10mmol/l
Ammonium acetate =50/50
Flow rate: 1.0 ml/min
Temperature: 30°C
Detection: UV220 nm
Attenuation: 0.128 auFS
Sample conc.: 10.0mg/ml
Injection volume: 1.0µl
Retention time: 13.21min
Capacity factor: 3.60



NACALAI TESQUE, INC

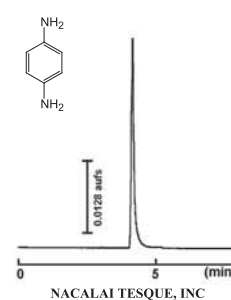
COSMOSIL Chromatogram Index

Sample: L-(-)-Phenylalanine
CAS No.: [63-91-2]
Molecular formula: $C_9H_9NO_2$
Column: HILIC
Column size: 4.6mm I.D.-250mm
Mobile phase: Acetonitrile/ 10mmol/l Ammonium acetate=70/30
Flow rate: 1.0 ml/min
Temperature: 30°C
Detection: UV 254nm
Attenuation: 0.128 auFS
Sample conc.: 10.0mg/ml
Injection volume: 0.5µl
Retention time: 5.10min
Capacity factor: 0.94



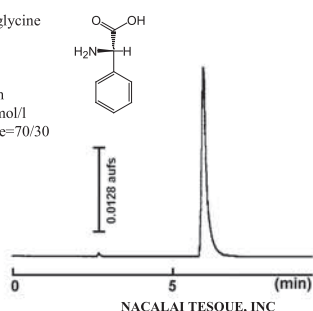
COSMOSIL Chromatogram Index

Sample: p-Phenylenediamine
CAS No.: [106-50-3]
Molecular formula: $C_6H_8N_2$
Column: HILIC
Column size: 4.6mm I.D.-250mm
Mobile phase: Acetonitrile/ 10mmol/l Ammonium acetate =95/5
Flow rate: 1.0 ml/min
Temperature: 30°C
Detection: UV254 nm
Attenuation: 0.128 auFS
Sample conc.: 0.1mg/ml
Injection volume: 0.5µl
Retention time: 4.15min
Capacity factor: 0.36



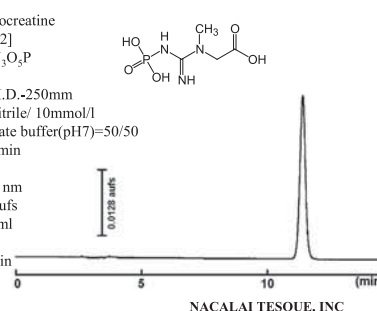
COSMOSIL Chromatogram Index

Sample: L-(+)-α-Phenylglycine
CAS No.: [2935-35-5]
Molecular formula: $C_9H_9NO_2$
Column: HILIC
Column size: 4.6mm I.D.-250mm
Mobile phase: Acetonitrile/ 10mmol/l Ammonium acetate=70/30
Flow rate: 1.0 ml/min
Temperature: 30°C
Detection: UV254 nm
Attenuation: 0.128 auFS
Sample conc.: 5.0mg/ml
Injection volume: 1.0µl
Retention time: 5.96min
Capacity factor: 1.27



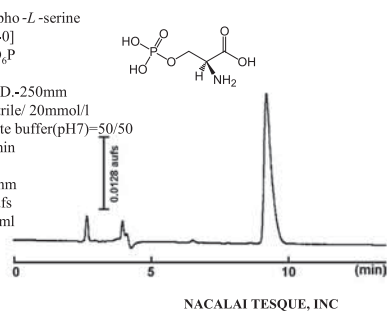
COSMOSIL Chromatogram Index

Sample: Phosphocreatine
CAS No.: [67-07-2]
Molecular formula: $C_2H_{10}N_3O_3P$
Column: HILIC
Column size: 4.6mm I.D.-250mm
Mobile phase: Acetonitrile/ 10mmol/l Phosphate buffer(pH7)=50/50
Flow rate: 1.0 ml/min
Temperature: 30°C
Detection: UV220 nm
Attenuation: 0.128 auFS
Sample conc.: 1.0mg/ml
Injection volume: 1.0µl
Retention time: 11.42min
Capacity factor: 3.00



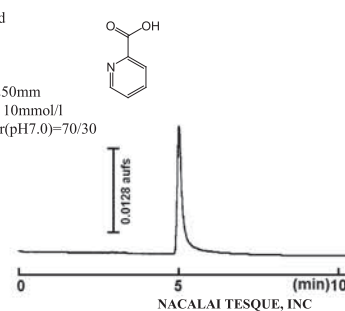
COSMOSIL Chromatogram Index

Sample: O-Phospho-L-serine
CAS No.: [407-41-0]
Molecular formula: $C_3H_8NO_6P$
Column: HILIC
Column size: 4.6mm I.D.-250mm
Mobile phase: Acetonitrile/ 20mmol/l Phosphate buffer(pH7)=50/50
Flow rate: 1.0 ml/min
Temperature: 30°C
Detection: UV210 nm
Attenuation: 0.128 auFS
Sample conc.: 10.0mg/ml
Injection volume: 3.0µl
Retention time: 9.19min
Capacity factor: 2.24



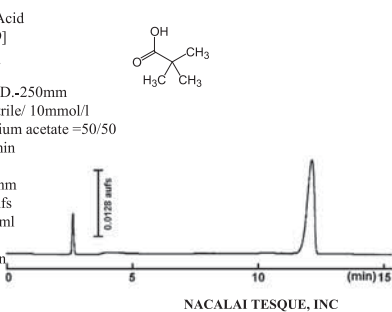
COSMOSIL Chromatogram Index

Sample: Picolinic acid
CAS No.: [98-98-6]
Molecular formula: $C_6H_5NO_2$
Column: HILIC
Column size: 4.6mm I.D.-250mm
Mobile phase: Acetonitrile/ 10mmol/l Citrate buffer(pH7.0)=70/30
Flow rate: 1.0 ml/min
Temperature: 30°C
Detection: UV254 nm
Attenuation: 0.128 auFS
Sample conc.: 0.5mg/ml
Injection volume: 0.5µl
Retention time: 5.03min
Capacity factor: 0.92



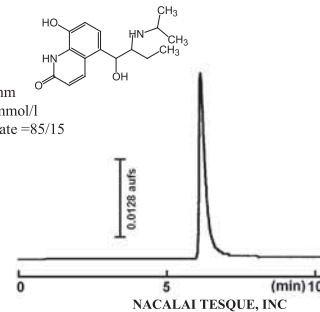
COSMOSIL Chromatogram Index

Sample: Pivalic Acid
CAS No.: [75-98-9]
Molecular formula: $C_5H_{10}O_2$
Column: HILIC
Column size: 4.6mm I.D.-250mm
Mobile phase: Acetonitrile/ 10mmol/l Ammonium acetate =50/50
Flow rate: 1.0 ml/min
Temperature: 30°C
Detection: UV210 nm
Attenuation: 0.128 auFS
Sample conc.: 10.0mg/ml
Injection volume: 1.0µl
Retention time: 12.14min
Capacity factor: 3.28



COSMOSIL Chromatogram Index

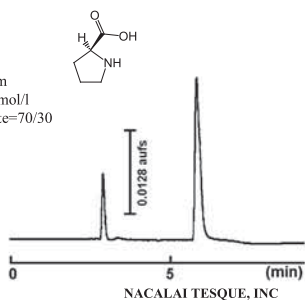
Sample: Procatrol
CAS No.: [72332-33-3]
Molecular formula: $C_{16}H_{23}N_2O_3$
Column: HILIC
Column size: 4.6mm I.D.-250mm
Mobile phase: Acetonitrile/ 20mmol/l Ammonium acetate =85/15
Flow rate: 1.0 ml/min
Temperature: 30°C
Detection: UV254 nm
Attenuation: 0.128 auFS
Sample conc.: 0.5mg/ml
Injection volume: 0.5µl
Retention time: 6.17min
Capacity factor: 1.25



COSMOSIL Chromatogram Index

Sample: L-Proline
CAS No.: [147-85-3]
Molecular formula: $C_5H_9NO_2$
Column: HILIC
Column size: 4.6mm I.D.-250mm
Mobile phase: Acetonitrile/ 10mmol/l Ammonium acetate=70/30

Flow rate: 1.0 ml/min
Temperature: 30°C
Detection: UV210 nm
Attenuation: 0.128 auFS
Sample conc.: 10.0mg/ml
Injection volume: 1.0µl
Retention time: 5.83min
Capacity factor: 1.22

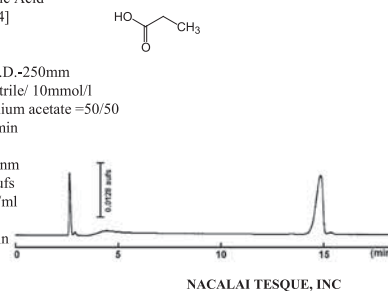


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COSMOSIL Chromatogram Index

Sample: Propionic Acid
CAS No.: [79-09-4]
Molecular formula: $C_3H_6O_2$
Column: HILIC
Column size: 4.6mm I.D.-250mm
Mobile phase: Acetonitrile/ 10mmol/l Ammonium acetate =50/50

Flow rate: 1.0 ml/min
Temperature: 30°C
Detection: UV210 nm
Attenuation: 0.128 auFS
Sample conc.: 10.0mg/ml
Injection volume: 2.0µl
Retention time: 14.85min
Capacity factor: 4.24

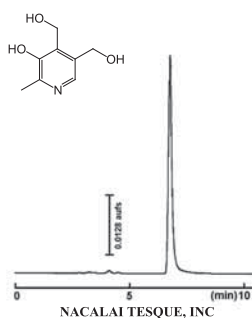


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COSMOSIL Chromatogram Index

Sample: Pyridoxine
CAS No.: [65-23-6]
Molecular formula: $C_8H_{11}NO_3$
Column: HILIC
Column size: 4.6mm I.D.-250mm
Mobile phase: Acetonitrile/ 10mmol/l Ammonium acetate =90/10

Flow rate: 1.0 ml/min
Temperature: 30°C
Detection: UV220 nm
Attenuation: 0.128 auFS
Sample conc.: 1.0mg/ml
Injection volume: 0.5µl
Retention time: 6.78min
Capacity factor: 1.35

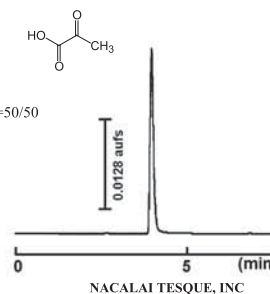


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COSMOSIL Chromatogram Index

Sample: Pyruvic Acid
CAS No.: [127-17-3]
Molecular formula: $C_3H_4O_3$
Column: HILIC
Column size: 4.6mm I.D.-250mm
Mobile phase: Acetonitrile/ 20mmol/l Phosphate buffer(pH7)=50/50

Flow rate: 1.0 ml/min
Temperature: 30°C
Detection: UV220 nm
Attenuation: 0.128 auFS
Sample conc.: 1.0mg/ml
Injection volume: 2.0µl
Retention time: 3.97min
Capacity factor: 0.39

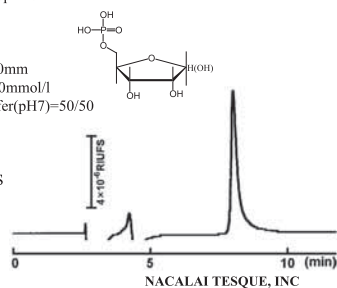


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COSMOSIL Chromatogram Index

Sample: Ribose-5-phosphate
CAS No.: [4300-28-1]
Molecular formula: $C_5H_{11}O_8P$
Column: HILIC
Column size: 4.6mm I.D.-250mm
Mobile phase: Acetonitrile/ 20mmol/l Phosphate buffer(pH7)=50/50

Flow rate: 1.0 ml/min
Temperature: 30°C
Detection: RI
Attenuation: 4×10^{-5} RIU/FS
Sample conc.: 10.0mg/ml
Injection volume: 5.0µl
Retention time: 8.02min
Capacity factor: 2.06

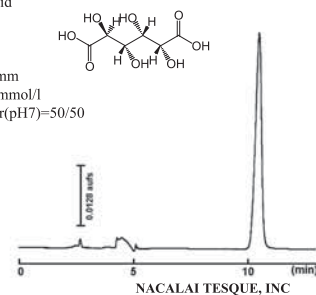


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COSMOSIL Chromatogram Index

Sample: D-Saccharic Acid
CAS No.: [87-73-0]
Molecular formula: $C_6H_{10}O_8$
Column: HILIC
Column size: 4.6mm I.D.-250mm
Mobile phase: Acetonitrile/ 10mmol/l Phosphate buffer(pH7)=50/50

Flow rate: 1.0 ml/min
Temperature: 30°C
Detection: UV210 nm
Attenuation: 0.128 auFS
Sample conc.: 10.0mg/ml
Injection volume: 2.0µl
Retention time: 10.48min
Capacity factor: 2.69

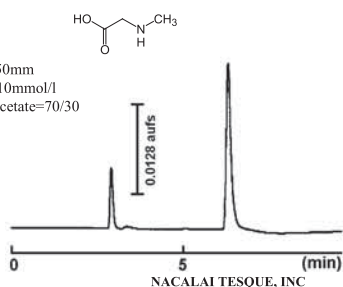


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COSMOSIL Chromatogram Index

Sample: Sarcosine
CAS No.: [107-97-1]
Molecular formula: $C_3H_7NO_2$
Column: HILIC
Column size: 4.6mm I.D.-250mm
Mobile phase: Acetonitrile/ 10mmol/l Ammonium acetate=70/30

Flow rate: 1.0 ml/min
Temperature: 30°C
Detection: UV 210nm
Attenuation: 0.128 auFS
Sample conc.: 10.0mg/ml
Injection volume: 1.0µl
Retention time: 6.30min
Capacity factor: 1.40

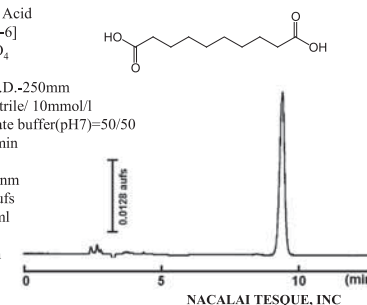


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COSMOSIL Chromatogram Index

Sample: Sebacic Acid
CAS No.: [111-20-6]
Molecular formula: $C_{10}H_{18}O_4$
Column: HILIC
Column size: 4.6mm I.D.-250mm
Mobile phase: Acetonitrile/ 10mmol/l Phosphate buffer(pH7)=50/50

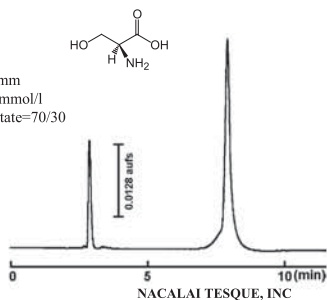
Flow rate: 1.0 ml/min
Temperature: 30°C
Detection: UV210 nm
Attenuation: 0.128 auFS
Sample conc.: 5.0mg/ml
Injection volume: 1.5µl
Retention time: 9.43min
Capacity factor: 2.28



NACALAI TESQUE, INC

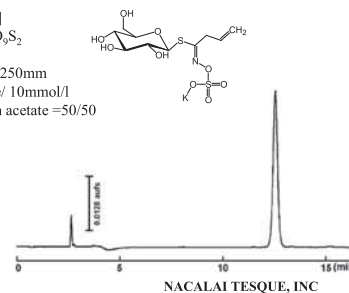
COSMOSIL Chromatogram Index

Sample: L-Serine
CAS No.: [56-45-1]
Molecular formula: $C_3H_7NO_3$
Column: HILIC
Column size: 4.6mm I.D.-250mm
Mobile phase: Acetonitrile/ 10mmol/l Ammonium acetate=70/30
Flow rate: 1.0 ml/min
Temperature: 30°C
Detection: UV210 nm
Attenuation: 0.128 aufs
Sample conc.: 10.0mg/ml
Injection volume: 2.0µl
Retention time: 7.92min
Capacity factor: 2.01



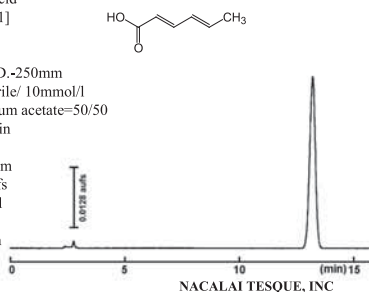
COSMOSIL Chromatogram Index

Sample: Sinigrin
CAS No.: [3952-98-5]
Molecular formula: $C_{10}H_{16}KNO_9S_2$
Column: HILIC
Column size: 4.6mm I.D.-250mm
Mobile phase: Acetonitrile/ 10mmol/l Ammonium acetate =50/50
Flow rate: 1.0 ml/min
Temperature: 30°C
Detection: UV210 nm
Attenuation: 0.128 aufs
Sample conc.: 1.0mg/ml
Injection volume: 1.0µl
Retention time: 12.57min
Capacity factor: 3.38



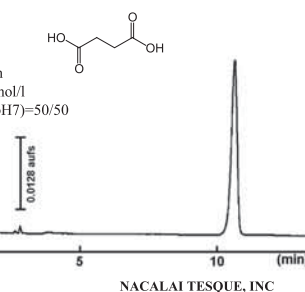
COSMOSIL Chromatogram Index

Sample: Sorbic Acid
CAS No.: [110-44-1]
Molecular formula: $C_8H_8O_2$
Column: HILIC
Column size: 4.6mm I.D.-250mm
Mobile phase: Acetonitrile/ 10mmol/l Ammonium acetate=50/50
Flow rate: 1.0 ml/min
Temperature: 30°C
Detection: UV254 nm
Attenuation: 0.128 aufs
Sample conc.: 0.1mg/ml
Injection volume: 0.5µl
Retention time: 13.19min
Capacity factor: 3.59



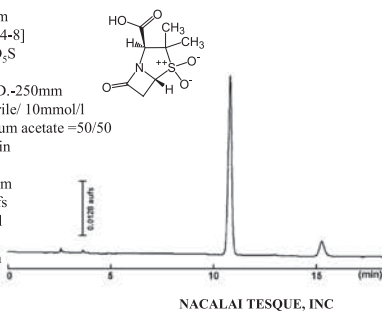
COSMOSIL Chromatogram Index

Sample: Succinic Acid
CAS No.: [110-15-6]
Molecular formula: $C_4H_6O_4$
Column: HILIC
Column size: 4.6mm I.D.-250mm
Mobile phase: Acetonitrile/ 10mmol/l Phosphate buffer(pH7)=50/50
Flow rate: 1.0 ml/min
Temperature: 30°C
Detection: UV210 nm
Attenuation: 0.128 aufs
Sample conc.: 10.0mg/ml
Injection volume: 0.5µl
Retention time: 10.64min
Capacity factor: 2.74



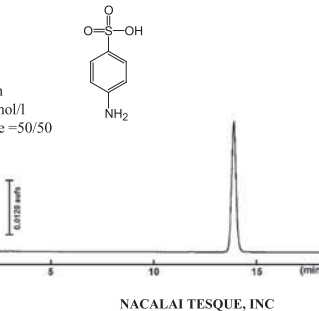
COSMOSIL Chromatogram Index

Sample: Sulbactam
CAS No.: [68373-14-8]
Molecular formula: $C_8H_{11}NO_5S$
Column: HILIC
Column size: 4.6mm I.D.-250mm
Mobile phase: Acetonitrile/ 10mmol/l Ammonium acetate =50/50
Flow rate: 1.0 ml/min
Temperature: 30°C
Detection: UV220 nm
Attenuation: 0.128 aufs
Sample conc.: 5.0mg/ml
Injection volume: 0.5µl
Retention time: 10.86min
Capacity factor: 2.81



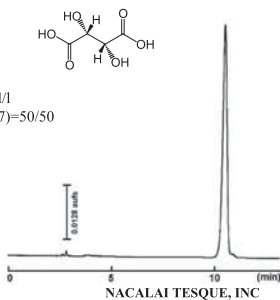
COSMOSIL Chromatogram Index

Sample: Sulfanilic acid
CAS No.: [121-57-3]
Molecular formula: $C_6H_7NO_3S$
Column: HILIC
Column size: 4.6mm I.D.-250mm
Mobile phase: Acetonitrile/ 10mmol/l Ammonium acetate =50/50
Flow rate: 1.0 ml/min
Temperature: 30°C
Detection: UV254 nm
Attenuation: 0.128 aufs
Sample conc.: 0.10mg/ml
Injection volume: 1.0µl
Retention time: 13.87min
Capacity factor: 3.87



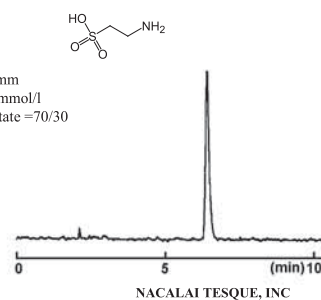
COSMOSIL Chromatogram Index

Sample: L-(+)-Tartaric Acid
CAS No.: [87-69-4]
Molecular formula: $C_4H_6O_6$
Column: HILIC
Column size: 4.6mm I.D.-250mm
Mobile phase: Acetonitrile/ 10mmol/l Phosphate buffer(pH7)=50/50
Flow rate: 1.0 ml/min
Temperature: 30°C
Detection: UV210 nm
Attenuation: 0.128 aufs
Sample conc.: 10.0mg/ml
Injection volume: 1.5µl
Retention time: 10.52min
Capacity factor: 2.70



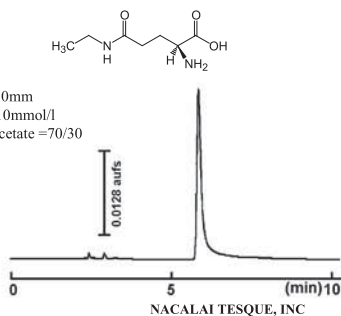
COSMOSIL Chromatogram Index

Sample: Taurine
CAS No.: [107-35-7]
Molecular formula: $C_2H_7NO_3S$
Column: HILIC
Column size: 4.6mm I.D.-250mm
Mobile phase: Acetonitrile/ 10mmol/l Ammonium acetate =70/30
Flow rate: 1.0 ml/min
Temperature: 30°C
Detection: ELS
Attenuation: Gain=6, Atten=8
Sample conc.: 1.0mg/ml
Injection volume: 1.0µl
Retention time: 6.40min
Capacity factor: 1.25



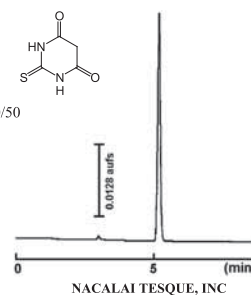
COSMOSIL Chromatogram Index

Sample: *L*-Theanine
CAS No.: [3081-61-6]
Molecular formula: C₇H₁₄N₂O₃
Column: HILIC
Column size: 4.6mm I.D.-250mm
Mobile phase: Acetonitrile/ 10mmol/l
Ammonium acetate =70/30
Flow rate: 1.0 ml/min
Temperature: 30°C
Detection: UV220 nm
Attenuation: 0.128 aufs
Sample conc.: 5.0mg/ml
Injection volume: 0.5µl
Retention time: 5.89min
Capacity factor: 1.21



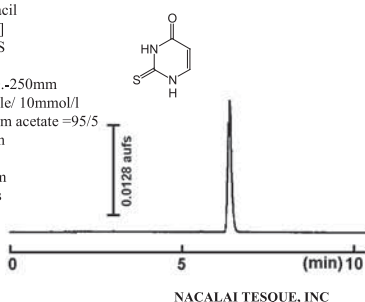
COSMOSIL Chromatogram Index

Sample: 2-Thiobarbituric Acid
CAS No.: [504-17-6]
Molecular formula: C₄H₄N₂O₃S
Column: HILIC
Column size: 4.6mm I.D.-250mm
Mobile phase: Acetonitrile/ 10mmol/l
Phosphate buffer(pH7)=50/50
Flow rate: 1.0 ml/min
Temperature: 30°C
Detection: UV254 nm
Attenuation: 0.128 aufs
Sample conc.: 0.1mg/ml
Injection volume: 0.5µl
Retention time: 5.18min
Capacity factor: 0.82



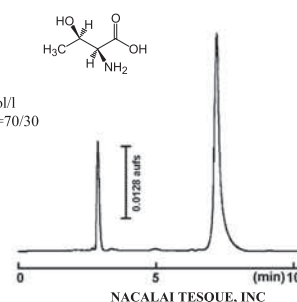
COSMOSIL Chromatogram Index

Sample: 2-Thiouracil
CAS No.: [141-90-2]
Molecular formula: C₄H₄N₂O₂S
Column: HILIC
Column size: 4.6mm I.D.-250mm
Mobile phase: Acetonitrile/ 10mmol/l
Ammonium acetate =95/5
Flow rate: 1.0 ml/min
Temperature: 30°C
Detection: UV260 nm
Attenuation: 0.128 aufs
Sample conc.: 0.1mg/ml
Injection volume: 0.5µl
Retention time: 6.38min
Capacity factor: 1.11



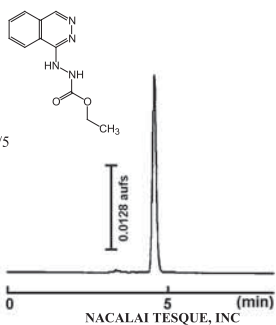
COSMOSIL Chromatogram Index

Sample: *L*-Threonine
CAS No.: [72-19-5]
Molecular formula: C₄H₉NO₃
Column: HILIC
Column size: 4.6mm I.D.-250mm
Mobile phase: Acetonitrile/ 10mmol/l
Ammonium acetate=70/30
Flow rate: 1.0 ml/min
Temperature: 30°C
Detection: UV210 nm
Attenuation: 0.128 aufs
Sample conc.: 10.0mg/ml
Injection volume: 2.0µl
Retention time: 7.19min
Capacity factor: 1.73



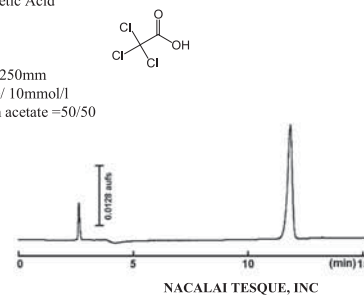
COSMOSIL Chromatogram Index

Sample: Todalazine
CAS No.: [14679-73-3]
Molecular formula: C₁₁H₁₂N₂O₂
Column: HILIC
Column size: 4.6mm I.D.-250mm
Mobile phase: Acetonitrile/ 10mmol/l
Ammonium acetate =95/5
Flow rate: 1.0 ml/min
Temperature: 30°C
Detection: UV240 nm
Attenuation: 0.128 aufs
Sample conc.: 0.5mg/ml
Injection volume: 0.5µl
Retention time: 4.56min
Capacity factor: 0.51



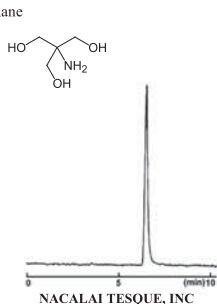
COSMOSIL Chromatogram Index

Sample: Trichloroacetic Acid
CAS No.: [76-03-9]
Molecular formula: C₂HCl₃O₂
Column: HILIC
Column size: 4.6mm I.D.-250mm
Mobile phase: Acetonitrile/ 10mmol/l
Ammonium acetate =50/50
Flow rate: 1.0 ml/min
Temperature: 30°C
Detection: UV210 nm
Attenuation: 0.128 aufs
Sample conc.: 1.0mg/ml
Injection volume: 1.0µl
Retention time: 11.83min
Capacity factor: 3.17



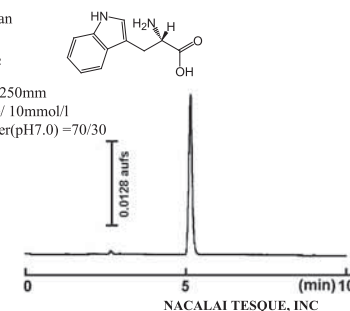
COSMOSIL Chromatogram Index

Sample: Tris(hydroxymethyl)aminomethane
CAS No.: [77-86-1]
Molecular formula: C₄H₁₁NO₃
Column: HILIC
Column size: 4.6mm I.D.-250mm
Mobile phase: Acetonitrile/ 10mmol/l
Ammonium acetate =80/20
Flow rate: 1.0 ml/min
Temperature: 30°C
Detection: ELSD
Attenuation: Gain=6, Atten=8
Sample conc.: 2.0mg/ml
Injection volume: 1.0µl
Retention time: 6.47min
Capacity factor: 1.48



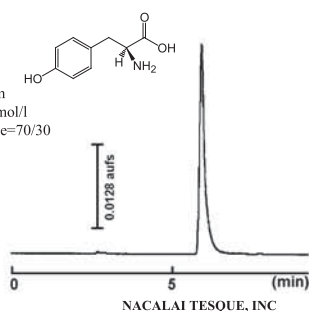
COSMOSIL Chromatogram Index

Sample: *L*-Tryptophan
CAS No.: [73-22-3]
Molecular formula: C₁₁H₁₂N₂O₂
Column: HILIC
Column size: 4.6mm I.D.-250mm
Mobile phase: Acetonitrile/ 10mmol/l
Citrate buffer(pH7.0) =70/30
Flow rate: 1.0 ml/min
Temperature: 30°C
Detection: UV254 nm
Attenuation: 0.128 aufs
Sample conc.: 0.5mg/ml
Injection volume: 0.5µl
Retention time: 5.14min
Capacity factor: 0.95



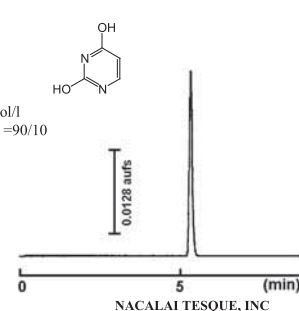
COSMOSIL Chromatogram Index

Sample: L-Tyrosine
CAS No.: [60-18-4]
Molecular formula: $C_9H_{11}NO_3$
Column: HILIC
Column size: 4.6mm I.D.-250mm
Mobile phase: Acetonitrile/ 10mmol/l Ammonium acetate=70/30
Flow rate: 1.0 ml/min
Temperature: 30°C
Detection: UV 254nm
Attenuation: 0.128 a.u.f.s
Sample conc.: 5.0mg/ml
Injection volume: 1.0µl
Retention time: 5.92min
Capacity factor: 1.25



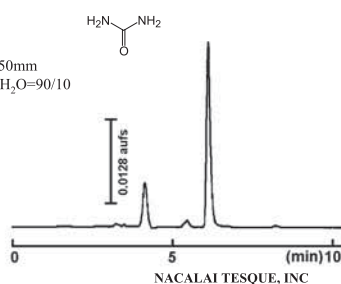
COSMOSIL Chromatogram Index

Sample: Uracil
CAS No.: [66-22-8]
Molecular formula: $C_4H_4N_2O_2$
Column: HILIC
Column size: 4.6mm I.D.-250mm
Mobile phase: Acetonitrile/ 10mmol/l Ammonium acetate =90/10
Flow rate: 1.0 ml/min
Temperature: 30°C
Detection: UV260 nm
Attenuation: 0.128 a.u.f.s
Sample conc.: 0.1mg/ml
Injection volume: 0.5µl
Retention time: 5.33min
Capacity factor: 0.84



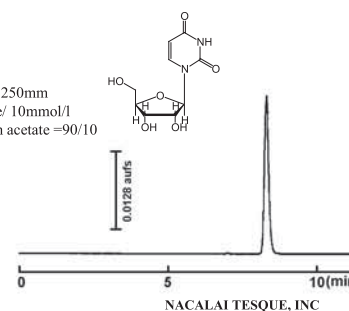
COSMOSIL Chromatogram Index

Sample: Urea
CAS No.: [57-13-6]
Molecular formula: CH_4N_2O
Column: HILIC
Column size: 4.6mm I.D.-250mm
Mobile phase: Acetonitrile/ H_2O =90/10
Flow rate: 1.0 ml/min
Temperature: 30°C
Detection: UV210 nm
Attenuation: 0.128 a.u.f.s
Sample conc.: 10.0mg/ml
Injection volume: 2.0µl
Retention time: 6.12min
Capacity factor: 1.15



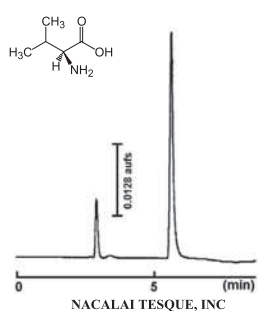
COSMOSIL Chromatogram Index

Sample: Uridine
CAS No.: [58-96-8]
Molecular formula: $C_9H_{12}N_2O_6$
Column: HILIC
Column size: 4.6mm I.D.-250mm
Mobile phase: Acetonitrile/ 10mmol/l Ammonium acetate =90/10
Flow rate: 1.0 ml/min
Temperature: 30°C
Detection: UV260 nm
Attenuation: 0.128 a.u.f.s
Sample conc.: 0.1mg/ml
Injection volume: 1.0µl
Retention time: 8.30min
Capacity factor: 1.86



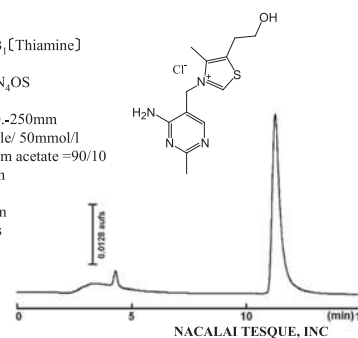
COSMOSIL Chromatogram Index

Sample: L-Valine
CAS No.: [72-18-4]
Molecular formula: $C_6H_{11}NO_2$
Column: HILIC
Column size: 4.6mm I.D.-250mm
Mobile phase: Acetonitrile/ 10mmol/l Ammonium acetate=70/30
Flow rate: 1.0 ml/min
Temperature: 30°C
Detection: UV210 nm
Attenuation: 0.128 a.u.f.s
Sample conc.: 10.0mg/ml
Injection volume: 1.0µl
Retention time: 5.63min
Capacity factor: 1.14



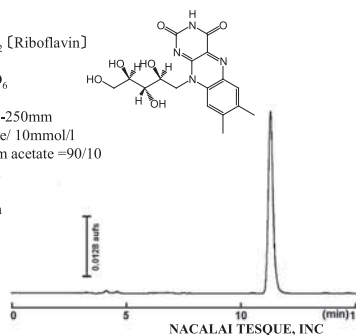
COSMOSIL Chromatogram Index

Sample: Vitamin B₁ [Thiamine]
CAS No.: [67-03-8]
Molecular formula: $C_{12}H_{17}ClN_4OS$
Column: HILIC
Column size: 4.6mm I.D.-250mm
Mobile phase: Acetonitrile/ 50mmol/l Ammonium acetate =90/10
Flow rate: 1.0 ml/min
Temperature: 30°C
Detection: UV220 nm
Attenuation: 0.128 a.u.f.s
Sample conc.: 1.0mg/ml
Injection volume: 1.0µl
Retention time: 11.25min
Capacity factor: 2.93



COSMOSIL Chromatogram Index

Sample: Vitamin B₂ [Riboflavin]
CAS No.: [83-88-5]
Molecular formula: $C_{17}H_{20}N_4O_6$
Column: HILIC
Column size: 4.6mm I.D.-250mm
Mobile phase: Acetonitrile/ 10mmol/l Ammonium acetate =90/10
Flow rate: 1.0 ml/min
Temperature: 30°C
Detection: UV220 nm
Attenuation: 0.128 a.u.f.s
Sample conc.: 1.0mg/ml
Injection volume: 0.5µl
Retention time: 11.33min
Capacity factor: 2.92



Reference List

References list

No.	Title	AUTHOR	JOURNAL	ISSUE	PAGE	YEAR
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3	Comparison of 2-amino-[3-11C] isobutyric acid and 2-deoxy-2-[18F]fluoro-D-glucose in nude mice with xenografted tumors and acute inflammation	Tsuji, Atsushi B; Kato, Koichi; Sugyo, Aya; Okada, Maki; Sudo, Hitomi; Yoshida, Chisato; Wakizaka, Hidekatsu; Zhang, Ming-Rong; Saga, Tsuneo	Nuclear Medicine Communications	33 (10)	1058–1064	2012
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6	Characterization and use of hydrophilic interaction liquid chromatography type stationary phases in supercritical fluid chromatography	Caroline West, Syame Khater, Eric Lesellier	Journal of Chromatography A	1250	182-195	2012
7	Analysis of 8-hydroxy-2'-deoxyguanosine in human urine using hydrophilic interaction chromatography with tandem mass spectrometry	Chiemi Hosozumi, Akira Toriba, Thanyarat Chuesaard, Takayuki Kameda, Ning Tang, Kazuichi Hayakawa	Journal of Chromatography B	893-894	173-176	2012
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11	Retention and selectivity of stationary phases for hydrophilic interaction chromatography	Yong Guo, Sheetal Gaiki	Journal of Chromatography A	1218 (35)	5920-5938	2011
12	Chromatographic characterization of hydrophilic interaction liquid chromatography stationary phases: Hydrophilicity, charge effects, structural selectivity, and separation efficiency	Yuusuke Kawachi, Tohru Ikegami, Hirota Takubo, Yuka Ikegami, Masatoshi Miyamoto, Nobuo Tanaka	Journal of Chromatography A	1218 (35)	5903-5919	2011
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