

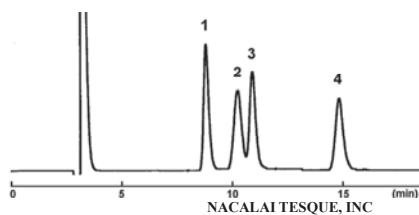
(8) Carbohydrates

● Oligosaccharides

COSMOSIL Application Data

Column: Sugar-D
Column size: 4.6mmI.D.-250mm
Mobile phase: Acetonitrile / H₂O = 75/25
Flow rate: 1.0 ml/min
Temperature: 30°C
Detection: RI

Sample:
1; Sucrose (10µg)
2; Maltose (10µg)
3; D-(+)-Trehalose (10µg)
4; D-(+)-Raffinose (10µg)

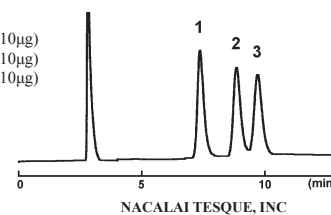


● Cyclodextrins

COSMOSIL Application Data

Column: Sugar-D
Column size: 4.6mmI.D.-250mm
Mobile phase: Acetonitrile / H₂O = 65/35
Flow rate: 1.0 ml/min
Temperature: 30°C
Detection: RI

Sample: 1; α-Cyclodextrin (10µg)
2; β-Cyclodextrin (10µg)
3; γ-Cyclodextrin (10µg)

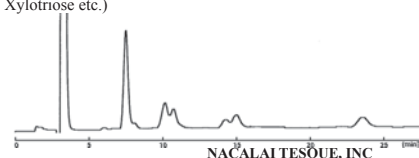


● Xylooligosaccharides

COSMOSIL Application Data

Column: Sugar-D
Column size: 4.6mmI.D.-250mm
Mobile phase: Acetonitrile / H₂O = 75/25
Flow rate: 1.0 ml/min
Temperature: 30°C
Detection: RI

Sample: Xylooligosaccharides (50µg)
(Xylobiose, Xylotriose etc.)



● Isomaltooligosaccharides

COSMOSIL Application Data

Column: Sugar-D
Column size: 4.6mmI.D.-250mm
Mobile phase: Acetonitrile / H₂O = 75/25
Flow rate: 1.0 ml/min
Temperature: 30°C
Detection: RI

Sample: Isomaltooligosaccharides (50µg)
(Isomaltose, Isomaltotriose, Panose etc.)

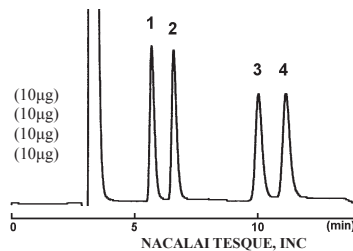


● Anticariious Foods Components

COSMOSIL Application Data

Column: Sugar-D
Column size: 4.6mmI.D.-250mm
Mobile phase: Acetonitrile / H₂O = 75/25
Flow rate: 1.0 ml/min
Temperature: 30°C
Detection: RI

Sample:
1; meso-Erythritol [meso-Erythrite] (10µg)
2; Xylitol (10µg)
3; Palatinose (10µg)
4; Maltitol (10µg)

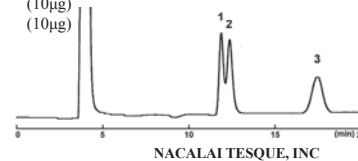


● Infusion Solution Components

COSMOSIL Application Data

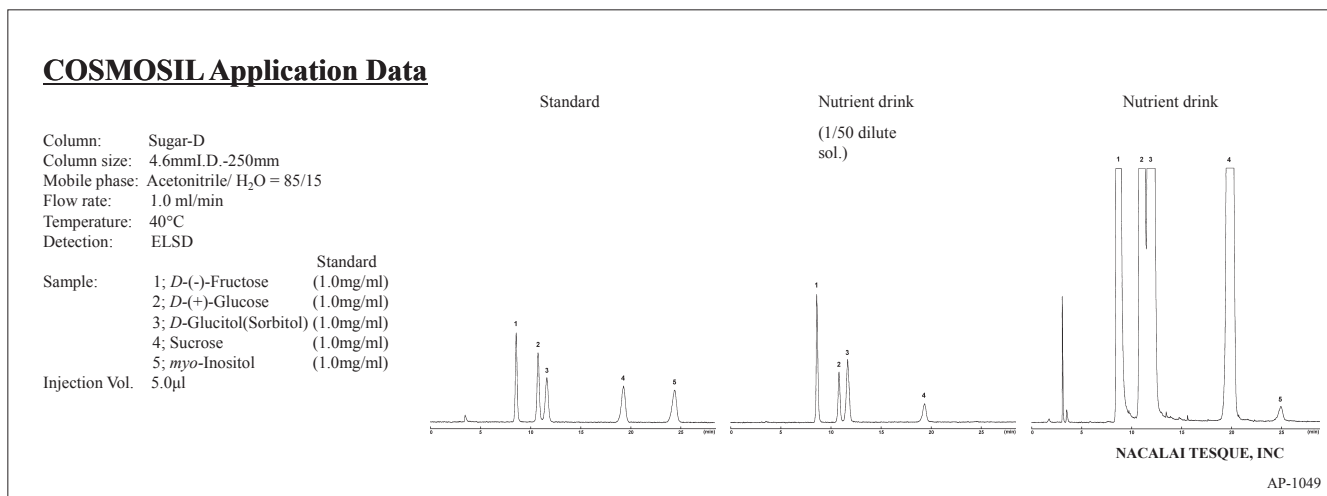
Column: Sugar-D
Column size: 4.6mmI.D.-250mm
Mobile phase: Acetonitrile / H₂O = 85/15
Flow rate: 1.0 ml/min
Temperature: 50°C
Detection: RI

Sample: 1; Xylitol (10µg)
2; D-(-)-Fructose (10µg)
3; D-(+)-Glucose (10µg)

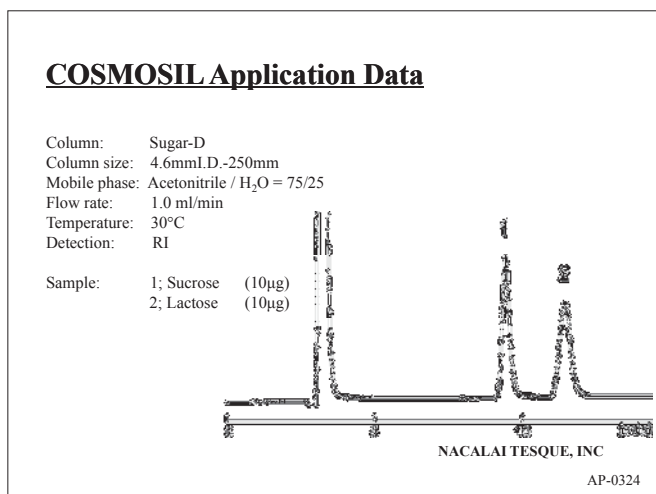


(8) Carbohydrates

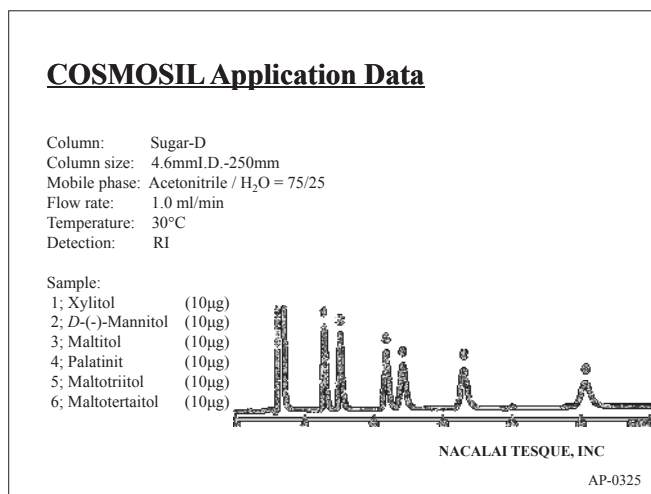
• Energy Drink



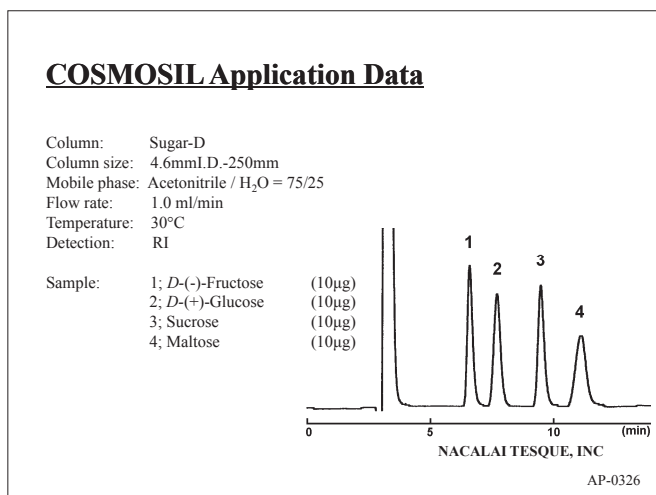
• Chocolate Components



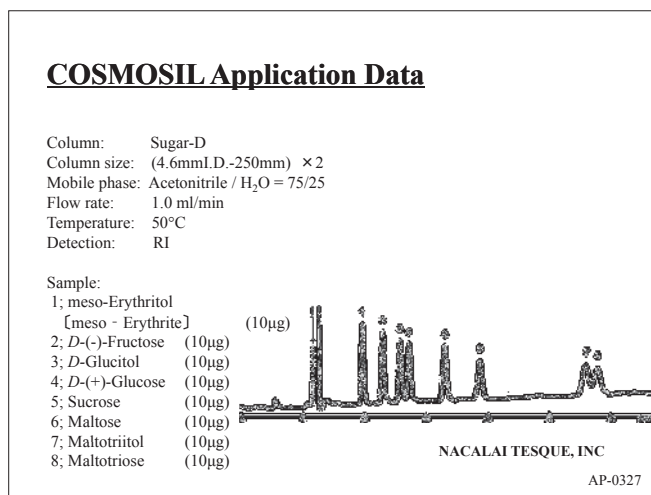
• Gum Components



• Cold Beverage Components



• Sports Drink Components



(8) Carbohydrates

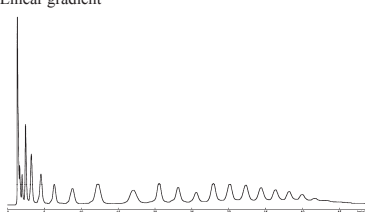
● PA-Glucose Oligomer

COSMOSIL Application Data

Column: 5C₁₈-PAQ
Column size: 4.6mm I.D.-150mm
Mobile phase: A: 20mmol/l Acetate Buffer(pH3.3)
B: 20mmol/l Acetate Buffer(pH3.3)+0.5%Butanol
B(0→100%) 45min Linear gradient

Flow rate: 1.0 ml/min
Temperature: 30°C
Detection: FLS at Ex.320nm
Em. 400nm

Sample:
PA-Glucose Oligomer(DP=3-22)



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AP-0379

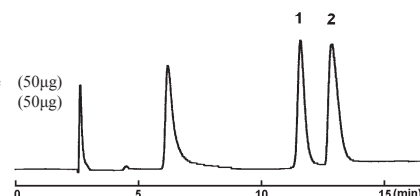
● Phosphorylated Sugars

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 (50µg)
2; D-Glucose-6-phosphate (50µg)



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AP-0317

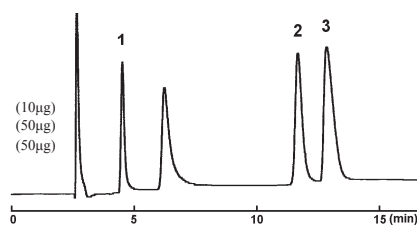
● Phosphorylated Sugars

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-(+)-Glucose (10µg)
2; α-D-Glucose-1-phosphate (50µg)
3; D-Glucose-6-phosphate (50µg)



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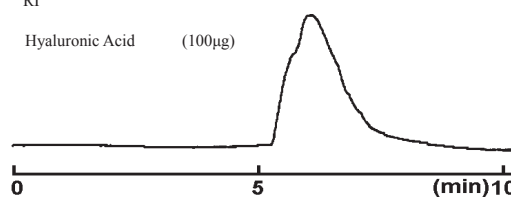
AP-0314

● Hyaluronic Acid

COSMOSIL Application Data

Column: CNT-1000
Column size: 7.5mm I.D.-300mm
Mobile phase: 20mmol/l Phosphate Buffer(pH7),100mmol/l Na₂SO₄
Flow rate: 1.0 ml/min
Temperature: 30°C
Detection: RI

Sample: Hyaluronic Acid (100µg)



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AP-1081

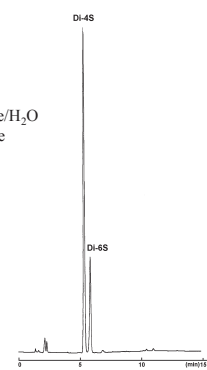
● Enzyme digests of Chondroitin Sulfate A

COSMOSIL Application Data

Column: Cholest
Column size: 4.6mm I.D.-150mm
Mobile phase: A: 1mmol/l Tetrabutylammonium Bisulfate/H₂O
B: 1mmol/l Tetrabutylammonium Bisulfate
-Acetonitrile/H₂O=67/33
B conc. 20%→65%(7min)→65%(12min)

Flow rate: 1.0 ml/min
Temperature: 40°C
Detection: UV240nm

Sample: Chondroitin Sulfate A
Chondroitinase AC-II digested



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AP-1082

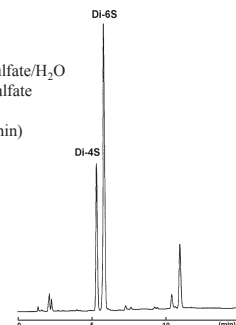
● Enzyme digests of Chondroitin Sulfate C

COSMOSIL Application Data

Column: Cholest
Column size: 4.6mm I.D.-150mm
Mobile phase: A: 1mmol/l Tetrabutylammonium Bisulfate/H₂O
B: 1mmol/l Tetrabutylammonium Bisulfate
-Acetonitrile/H₂O=67/33
B conc. 20%→65%(7min)→65%(12min)

Flow rate: 1.0 ml/min
Temperature: 40°C
Detection: UV240nm

Sample: Chondroitin Sulfate C
Chondroitinase AC-II digested



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AP-1083