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# REZEX™

Carbohydrate and Organic Acid LC

## Carbohydrate and Organic Acid Separations

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Accurate, reproducible analysis.*



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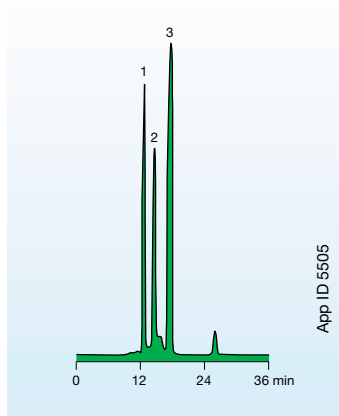
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# Select Applications On Rezex™ HPLC Columns

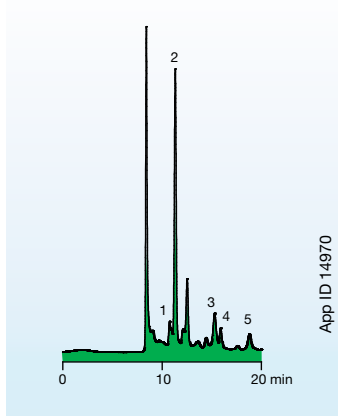
## Food and Beverage

### ▶ Apple Juice



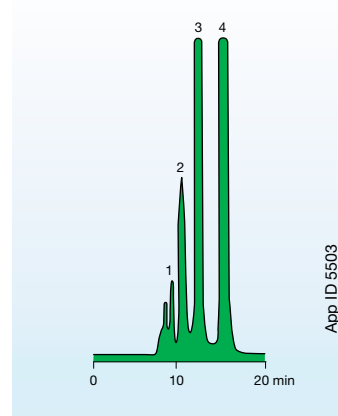
**Column:** Rezex RCM-Monosaccharide  
**Dimensions:** 300 x 7.8 mm  
**Part No.:** 00H-0130-K0  
**Recommended Guard Column:** 03B-0130-K0  
**Recommended Guard Cartridge:** AJ0-4493  
**Mobile Phase:** Water  
**Flow Rate:** 0.6 mL/min  
**Detection:** RI  
**Temperature:** 75 °C  
**Sample:** 1. Sucrose  
 2. Glucose  
 3. Fructose

### ▶ White Wine



**Column:** Rezex ROA-Organic Acid  
**Dimensions:** 300 x 7.8 mm  
**Part No.:** 00H-0138-K0  
**Recommended Guard Column:** 03B-0138-K0  
**Recommended Guard Cartridge:** AJ0-4490  
**Mobile Phase:** 0.005 N H<sub>2</sub>SO<sub>4</sub>  
**Flow Rate:** 0.5 mL/min  
**Detection:** UV @ 210 nm  
**Temperature:** 40 °C  
**Sample:** 1. Citric acid  
 2. Tartaric acid  
 3. Succinic acid  
 4. Lactic acid  
 5. Acetic acid

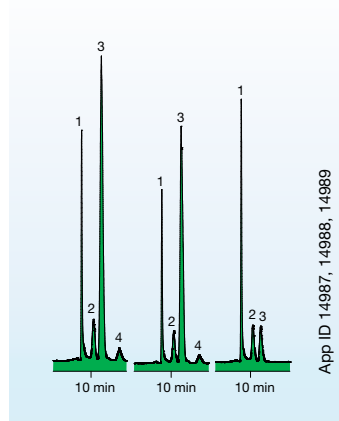
### ▶ Honey



**Column:** Rezex RCM-Monosaccharide  
**Dimensions:** 300 x 7.8 mm  
**Part No.:** 00H-0130-K0  
**Recommended Guard Column:** 03B-0130-K0  
**Recommended Guard Cartridge:** AJ0-4493  
**Mobile Phase:** Water  
**Flow Rate:** 0.6 mL/min  
**Detection:** RI  
**Temperature:** 75 °C  
**Sample:** 1. Dp 3  
 2. Dp 2  
 3. Glucose

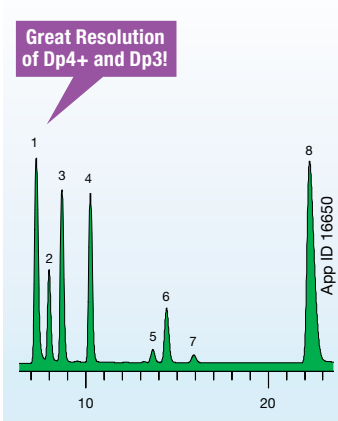
## Fermentation and Bioethanol

### ▶ Fermentation Broth



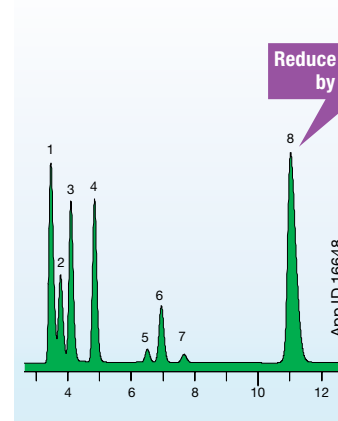
**Column:** Rezex RCM-Monosaccharide  
**Dimensions:** 300 x 7.8 mm  
**Part No.:** 00H-0130-K0  
**Recommended Guard Column:** 03B-0130-K0  
**Recommended Guard Cartridge:** AJ0-4493  
**Mobile Phase:** Water  
**Flow Rate:** 0.5 mL/min  
**Detection:** ELSD  
**Temperature:** 80 °C  
**Sample:** 1. Sucrose  
 2. Glucose  
 3. Galactose  
 4. Fructose

### ▶ Bioethanol



**Column:** Rezex ROA-Organic Acid  
**Dimensions:** 300 x 7.8 mm  
**Part No.:** 00H-0138-K0  
**Recommended Guard Column:** 03B-0138-K0  
**Recommended Guard Cartridge:** AJ0-4490  
**Mobile Phase:** 0.005 N Sulfuric Acid  
**Flow Rate:** 0.6 mL/min  
**Detection:** RI @ 40 °C  
**Temperature:** 60 °C  
**System:** Shimadzu® Prominence® LC-20A System  
**Sample:** 1. Dp4+ 5. Lactic Acid  
 2. Dp3 6. Glycerol  
 3. Maltose 7. Acetic Acid  
 4. Glucose 8. Ethanol

### ▶ Bioethanol



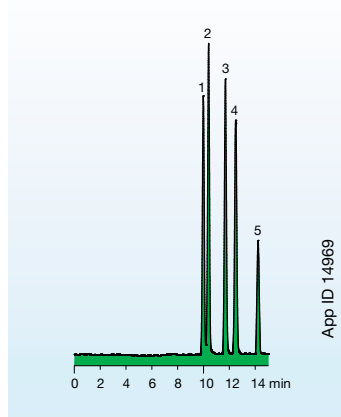
**Column:** Rezex ROA-Organic Acid  
**Dimensions:** 150 x 7.8 mm  
**Part No.:** 00F-0138-K0  
**Recommended Guard Column:** 03B-0138-K0  
**Recommended Guard Cartridge:** AJ0-4490  
**Mobile Phase:** 0.005 N Sulfuric Acid  
**Flow Rate:** 0.6 mL/min  
**Detection:** RI @ 40 °C  
**Temperature:** 60 °C  
**System:** Shimadzu Prominence LC-20A System  
**Sample:** 1. Dp4+ 5. Lactic Acid  
 2. Dp3 6. Glycerol  
 3. Maltose 7. Acetic Acid  
 4. Glucose 8. Ethanol

\* SecurityGuard Analytical Cartridges require universal holder Part No.: KJO-4282

# Select Applications On Rezex™ HPLC Columns

## Saccharides

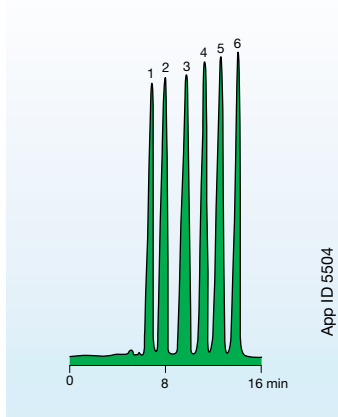
### ▶ Monosaccharides with Organic Acids



App ID 14969

**Column:** Rezex ROA-Organic Acid  
**Dimensions:** 300 x 7.8 mm  
**Part No.:** 00H-0138-K0  
**Recommended Guard Column:** 03B-0138-K0  
**Recommended Guard Cartridge\*:** AJ0-4490  
**Mobile Phase:** 0.1 % formic acid  
**Flow Rate:** 0.5 mL/min  
**Detection:** ELSD  
**Temperature:** 75 °C  
**Sample:** 1. Citric acid  
 2. Tartaric acid  
 3. Glucose  
 4. Fructose  
 5. Succinic acid

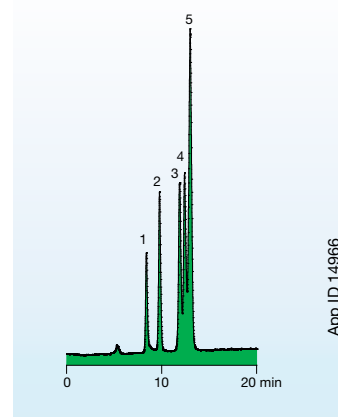
### ▶ Saccharides



App ID 5504

**Column:** Rezex RCM-Monosaccharide  
**Dimensions:** 300 x 7.8 mm  
**Part No.:** 00H-0130-K0  
**Recommended Guard Column:** 03B-0130-K0  
**Recommended Guard Cartridge\*:** AJ0-4493  
**Mobile Phase:** Water  
**Flow Rate:** 0.6 mL/min  
**Detection:** RI  
**Temperature:** 85 °C  
**Sample:** 1. Melezitose  
 2. Maltose  
 3. Glucose  
 4. Mannose  
 5. Fructose  
 6. Ribitol

### ▶ Saccharides

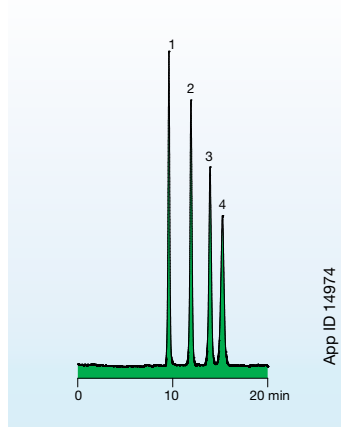


App ID 14966

**Column:** Rezex RAM-Carbohydrate  
**Dimensions:** 300 x 7.8 mm  
**Part No.:** 00H-0131-K0  
**Recommended Guard Cartridge\*:** AJ0-4491  
**Mobile Phase:** Water  
**Flow Rate:** 0.6 mL/min  
**Detection:** ELSD  
**Temperature:** 75 °C  
**Sample:** 1. Melezitose  
 2. Mannose  
 3. Maltose  
 4. Fructose  
 5. Glucose

## Carbohydrates

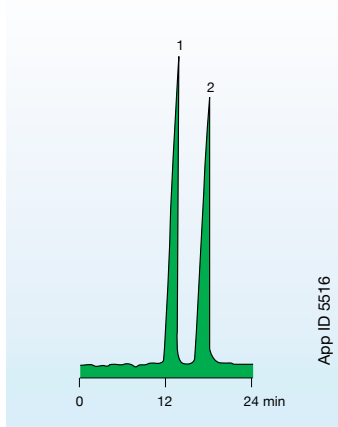
### ▶ Carbohydrates



App ID 14974

**Column:** Rezex RAM-Carbohydrate  
**Dimensions:** 300 x 7.8 mm  
**Part No.:** 00H-0131-K0  
**Recommended Guard Cartridge\*:** AJ0-4491  
**Mobile Phase:** Water  
**Flow Rate:** 0.6 mL/min  
**Detection:** ELSD  
**Temperature:** 80 °C  
**Sample:** 1. Sucrose  
 2. Glucose  
 3. Arabinose  
 4. Ribose

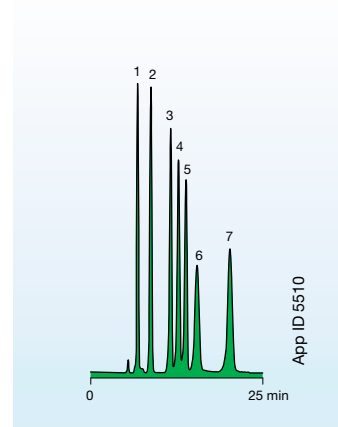
### ▶ Carbohydrates



App ID 5516

**Column:** Rezex RCU-USP Sugar Alcohols  
**Dimensions:** 250 x 4.0 mm  
**Part No.:** 00G-0130-D0  
**Recommended Guard Column:** 03A-0130-D0  
**Recommended Guard Cartridge\*:** AJ0-4493  
**Mobile Phase:** Water  
**Flow Rate:** 0.2 mL/min  
**Detection:** RI  
**Temperature:** 30 °C  
**Sample:** 1. Mannitol  
 2. Sorbitol

### ▶ Carbohydrates



App ID 5510

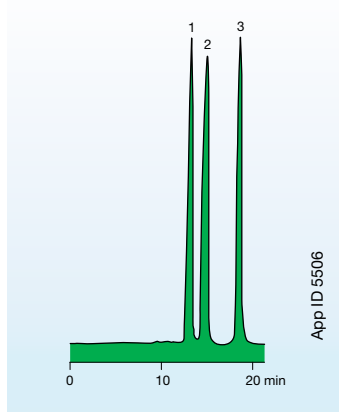
**Column:** Rezex RNM-Carbohydrate  
**Dimensions:** 300 x 7.8 mm  
**Part No.:** 00H-0136-K0  
**Recommended Guard Column:** 03B-0136-K0  
**Mobile Phase:** Water  
**Flow Rate:** 0.6 mL/min  
**Detection:** RI  
**Temperature:** 75 °C  
**Sample:** 1. Stachyose  
 2. Cellobiose  
 3. Glucose  
 4. Fructose  
 5. Arabinose  
 6. Ribose  
 7. Salicin  
 (1 % solution of each)

\* SecurityGuard Analytical Cartridges require universal holder Part No.: KJ0-4282

# Select Applications On Rezex™ HPLC Columns

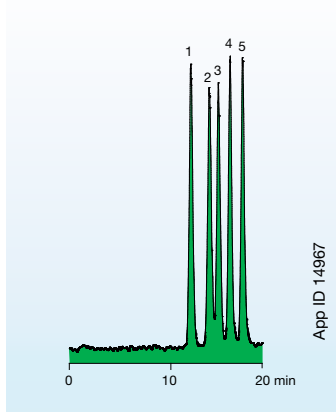
## Carbohydrates / Saccharides (Cont'd)

### ▶ Carbohydrates



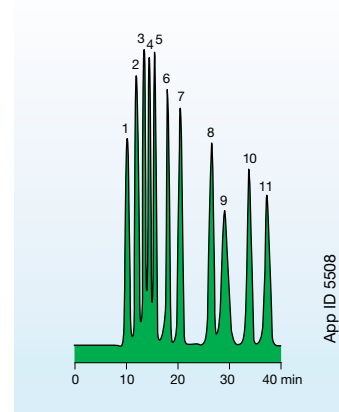
**Column:** Rezex RKP-Potassium  
**Dimensions:** 300 x 7.8 mm  
**Part No.:** 00H-3252-K0  
**Mobile Phase:** Water  
**Flow Rate:** 0.4 mL/min  
**Detection:** RI  
**Temperature:** 85 °C  
**Sample:** 1. Maltotriose  
 2. Maltose  
 3. Glucose

### ▶ Wood Saccharides



**Column:** Rezex RPM-Monosaccharide  
**Dimensions:** 300 x 7.8 mm  
**Part No.:** 00H-0135-K0  
**Recommended Guard Column:** 03B-0135-K0  
**Recommended Guard Cartridge\*:** AJ0-4492  
**Mobile Phase:** Water  
**Flow Rate:** 0.6 mL/min  
**Detection:** ELSD  
**Temperature:** 85 °C  
**Sample:** 1. D-Cellobiose  
 2. α-D-glucose  
 3. D-(+)-Xylose  
 4. D-(+)-Galactose  
 5. D-(-)-Arabinose

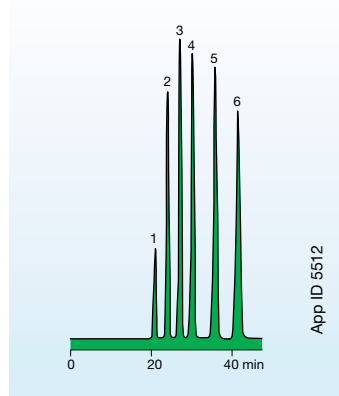
### ▶ Saccharides and Alcohols



**Column:** Rezex RPM-Monosaccharide  
**Dimensions:** 300 x 7.8 mm  
**Part No.:** 00H-0135-K0  
**Recommended Guard Column:** 03B-0135-K0  
**Recommended Guard Cartridge\*:** AJ0-4492  
**Mobile Phase:** Water  
**Flow Rate:** 0.6 mL/min  
**Detection:** RI  
**Temperature:** 75 °C  
**Sample:** 1. Stachyose 7. meso-Erythritol  
 2. Maltose 8. Mannitol  
 3. Glucose 9. Salicin  
 4. Xylose 10. Xylitol  
 5. Galactose 11. Sorbitol  
 6. Fructose

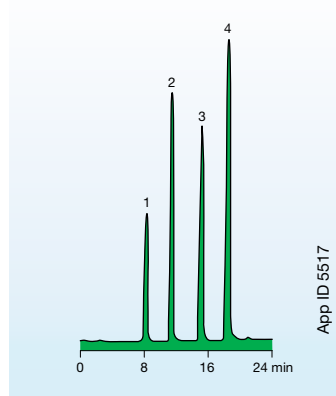
## Alcohols

### ▶ Alcohols



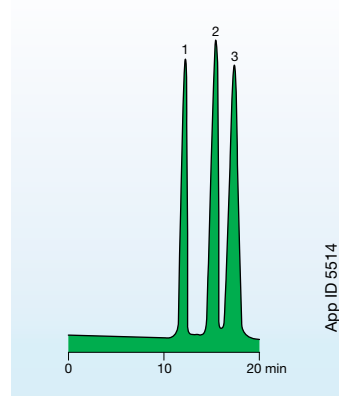
**Column:** Rezex RHM-Monosaccharide  
**Dimensions:** 300 x 7.8 mm  
**Part No.:** 00H-0132-K0  
**Recommended Guard Column:** 03B-0132-K0  
**Recommended Guard Cartridge\*:** AJ0-4490  
**Mobile Phase:** Water  
**Flow Rate:** 0.6 mL/min  
**Detection:** RI  
**Temperature:** 60 °C  
**Sample:** 1. Methanol  
 2. Ethanol  
 3. Isopropanol  
 4. n-Propanol  
 5. sec-Butanol  
 6. n-Butanol

### ▶ Carboxylic Acids



**Column:** Rezex ROA-Organic Acid  
**Dimensions:** 300 x 7.8 mm  
**Part No.:** 00H-0138-K0  
**Recommended Guard Column:** 03B-0138-K0  
**Recommended Guard Cartridge\*:** AJ0-4490  
**Mobile Phase:** Water + 0.5% Trifluoroacetic Acid  
**Flow Rate:** 1.0 mL/min  
**Detection:** RI  
**Temperature:** 40 °C  
**Sample:** 1. Acetylene Carboxylic Acid  
 2. Maleic Acid  
 3. Succinic Acid  
 4. Fumaric Acid

### ▶ Amino Sugars



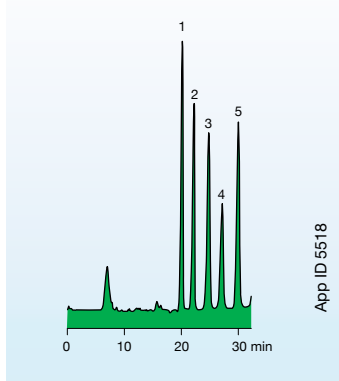
**Column:** Rezex ROA-Organic Acid  
**Dimensions:** 300 x 7.8 mm  
**Part No.:** 00H-0138-K0  
**Recommended Guard Column:** 03B-0138-K0  
**Recommended Guard Cartridge\*:** AJ0-4490  
**Mobile Phase:** 1% Phosphoric Acid  
**Flow Rate:** 0.6 mL/min  
**Detection:** RI  
**Temperature:** Ambient  
**Sample:** 1. Glucose  
 2. N-Acetylglucose  
 3. N-Acetylgalactosamine

\* SecurityGuard Analytical Cartridges require universal holder Part No.: KJ0-4282

# Select Applications On Rezex™ HPLC Columns

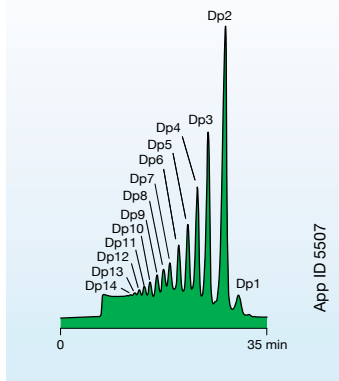
## Other Applications

### ▶ Food Softeners



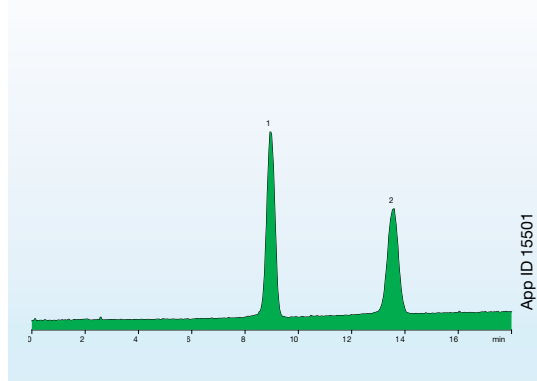
**Column:** Rezex RCM-Monosaccharide  
**Dimensions:** 300 x 7.8 mm  
**Part No.:** 00H-0130-K0  
**Recommended Guard Column:** 03B-0130-K0  
**Recommended Guard Cartridge\*:** AJ0-4493  
**Mobile Phase:** Water  
**Flow Rate:** 0.5 mL/min  
**Detection:** RI  
**Temperature:** 60 °C  
**Sample:** 1. Glycerol  
 2. Methoxypolyethylene Glycol  
 3. Triethylene Glycol  
 4. Sorbitol  
 5. Urea

### ▶ Oligosaccharides



**Column:** Rezex RSO-Oligosaccharide  
**Dimensions:** 200 x 10 mm  
**Part No.:** 00P-0133-N0  
**Recommended Guard Column:** 03R-0133-N0  
**Mobile Phase:** Water  
**Flow Rate:** 0.3 mL/min  
**Detection:** RI  
**Temperature:** 75 °C  
**Sample:** Malto-Oligosaccharides as shown

### ▶ Oligosaccharides



**Column:** Rezex RPM-Monosaccharide  
**Dimensions:** 100 x 7.8 mm  
**Part No.:** 00D-0135-K0  
**Recommended Guard Column:** 03B-0135-K0  
**Recommended Guard Cartridge\*:** AJ0-4492  
**Mobile Phase:** Water  
**Flow Rate:** 0.6 mL/min  
**Detection:** ELSD (Ambient)  
**Temperature:** 80 °C  
**Sample:** 1. Mannitol  
 2. Sorbitol

### ▶ Applications (partial list)

Compound	Rezex Phase	App ID No.
Acetic acid	ROA	5515
	RHM	14962
Acetylene carboxylic acid	ROA	5517
Arabinose	RNM	5510
	RAM	14974
Citric acid	ROA	5515
	RHM	14970
D-Cellobiose	RNM	5510
	RPM	14967
D-(+)-Galactose	RPM	14967
	RPM	14967
D-(-)-Arabinose	RPM	14967
	RPM	14968
Ethanol	ROA	5512
Formic acid	ROA	5515
	RHM	14962
Fructose	RCM	5504, 5505, 14975, 14981, 14977, 14987
		5508, 14985
	RNM	5510
	RAM	14966
	ROA	5517
Fumaric acid	ROA	5517
Galactose	RPM	5508
	RCM	14977, 14987
Glucose	RCM	5504, 5505, 14975, 14977, 14979, 14981, 14987, 14983
		5508, 14985
	RKP	5506
	ROA	5514
	RNM	5510
	RAM	14966, 14974
	RCM	5518
Isopropanol	ROA	5512
Lactic acid	RHM	14970, 14971
Maleic acid	ROA	5517
Malto-Oligosaccharides	RSO	5507
Maltose	RCM	5504, 14975
	RPM	5508, 14985
	RKP	5506
	RAM	14966
	RKP	5506
Maltotriose	RKP	5506
Mannitol	RPM	5508, 14968
	RCU	5516

Chat with us for assistance in selecting the right column for your needs





Compound	Rezex Phase	App ID No.
Mannose	RCM	5504, 14975
	RPM	14985
	RAM	14966
Melezitose	RCM	5504, 14975
	RPM	14985
	RAM	14966
meso-Erythritol	RPM	5508
Methanol	ROA	5512
Methoxypolyethylene Glycol	RCM	5518
n-Butanol	ROA	5512
n-Propanol	ROA	5512
N-Acetylgalactosamine	ROA	5514
N-Acetylglucose	ROA	5514
Oxalic acid	ROA	5515
	RHM	14962
Ribose	RNM	5510
	RAM	14974
Ribitol	RCM	5504, 14975
	RAM	14966
	RHM	14991
	RPM	14985
Salicin	RPM	5508
	RNM	5510
sec-Butanol	ROA	5512
Sorbitol	RPM	5508, 14968
	RCM	5518, 14977
	RCU	5516
Stachyose	RPM	5508
	RNM	5510
Succinic acid	ROA	5515
	RHM	14962
	RCM	5505, 14981, 14977, 14987
Sucrose	RAM	14974
	RCM	5504
Tartaric acid	RHM	14970
	RCM	5518
Triethylene glycol	RCM	5518
Urea	RCM	5518
Xylitol	RPM	5508, 14968
Xylose	RPM	5508

\* SecurityGuard Analytical Cartridges require universal holder Part No.: KJ0-4282

\*\* For applications not in this brochure, copies are available through Phenomenex or your local Phenomenex distributor.

# Specifications And Operating Recommendations

	RCM Monosaccharide	RSO Oligosaccharide	RNO Oligosaccharide	RNM Carbohydrate	RAM Carbohydrate
Part No.	00H-0130-K0	00P-0133-N0	00P-0137-N0	00H-0136-K0	00H-0131-K0
Ionic Form	Calcium	Silver	Sodium	Sodium	Silver
Standard Dimensions	300 x 7.8 mm	200 x 10 mm	200 x 10 mm	300 x 7.8 mm	300 x 7.8 mm
Matrix	Sulfonated Styrene Divinyl Benzene				
Cross Linking	8 %	4 %	4 %	8 %	8 %
Particle Size (µm)	8	12	12	8	8
Min. Efficiency (p/m) based on last peak	35,000	N/A	N/A	30,000	35,000
Typical Pressure (psi @ Testing Flow Rate)	260	115	130	170	285
Max. Pressure (psi @ Max Flow Rate)	1,000	300	300	1,000	1,000
Max. Flow Rate (mL/min)	1.0	0.3	0.3	1.0	1.0
Max. Temperature (°C)	85	85	85	85	85
Typical Mobile Phase	Water	Water	Water	Water	Water
pH Range	Neutral	Neutral	Neutral	Neutral	Neutral
Guard Column Part No.	03B-0130-K0	03R-0133-N0	03R-0137-N0	03B-0136-K0	03B-0131-K0
<b>Cleaning, Regeneration and Storage</b>					
Organic Modifiers (Max)	5 % Methanol, IPA, EtOH				
Inorganic Modifiers	5 % CaSO <sub>4</sub> , Ca(NO <sub>3</sub> ) <sub>2</sub> , CaCl <sub>2</sub>	5 % Silver Nitrate	5 % Sodium Salts	5 % Sodium Salts	2 % Silver Nitrate
Avoid	Acids, Bases, Non-Calcium Salts or Metal Ions, > 30 % Acetonitrile	Acids, Bases, Non-Silver Salts or Metal Ions, > 30 % Acetonitrile	Acids, Bases, Non-Sodium Salts or Metal Ions, > 30 % Acetonitrile	Acids, Bases, Non-Sodium Salts or Metal Ions, > 30 % Acetonitrile	Acids, Bases, Non-Silver Salts or Metal Ions, > 30 % Acetonitrile
					
Cleaning Solvent	100 % Water	100 % Water	100 % Water	100 % Water	100 % Water
Flow Rate (mL/min)	0.4	0.1	0.1	0.4	0.4
Temperature (°C)	85	85	85	85	85
Duration (hrs)	12	12	12	12	12
Regeneration Solvent	0.1 M Ca(NO <sub>3</sub> ) <sub>2</sub>	0.1 M AgNO <sub>3</sub>	0.1 M NaNO <sub>3</sub>	0.1 M NaNO <sub>3</sub>	0.1 M AgNO <sub>3</sub>
Flow Rate (mL/min)	0.2	0.1	0.2	0.2	0.2
Temperature (°C)	85	85	85	85	85
Duration (hrs)	4-16	4-16	4-16	4-16	4-16
Ship/Storage Solvent	Water	Water	Water	Water	Water

	RPM Monosaccharide	RHM Monosaccharide	ROA Organic Acid	RFQ Fast Acid	RCU Sugar Alcohols
Part No.	00H-0135-K0	00H-0132-K0	00H-0138-K0	00D-0223-K0	00G-0130-D0
Ionic Form	Lead	Hydrogen	Hydrogen	Hydrogen	Calcium
Standard Dimensions	300 x 7.8 mm	300 x 7.8 mm	300 x 7.8 mm	100 x 7.8 mm	250 x 4.0 mm
Matrix	Sulfonated Styrene Divinyl Benzene				
Cross Linking	8 %	8 %	8 %	8 %	8 %
Particle Size (µm)	8	8	8	8	8
Min. Efficiency (p/m) based on last peak	35,000	35,000	50,000 (Acetic Acid)	30,000	12,000
Typical Pressure (psi @ Testing Flow Rate)	190	275	580	365	90
Max. Pressure (psi @ Max Flow Rate)	1,000	1,000	1,000	1,000	1,000
Max. Flow Rate (mL/min)	1.0	1.0	1.0	1.0	0.5
Max. Temperature (°C)	85	85	85	85	85
Typical Mobile Phase	Water	Water	0.005 N H <sub>2</sub> SO <sub>4</sub>	0.005 N H <sub>2</sub> SO <sub>4</sub>	Water
pH Range	Neutral	1-8	1-8	1-8	Neutral
Guard Column Part No.	03B-0135-K0	03B-0132-K0	03B-0138-K0	03B-0223-K0	03A-0130-D0
<b>Cleaning, Regeneration and Storage</b>					
Organic Modifiers (Max)	5 % Methanol, IPA, EtOH				
Inorganic Modifiers	5 % Lead Nitrate	5 % HNO <sub>3</sub> , H <sub>3</sub> PO <sub>4</sub>	5 % HNO <sub>3</sub> , H <sub>3</sub> PO <sub>4</sub>	5 % HNO <sub>3</sub> , H <sub>3</sub> PO <sub>4</sub>	5 % CaSO <sub>4</sub> , Ca(NO <sub>3</sub> ) <sub>2</sub> , CaCl <sub>2</sub>
Avoid	Acids, Bases, Non-Lead Salts or Metal Ions, > 30 % Acetonitrile	Acids, Bases, Salts or Metal Ions, > 30 % Acetonitrile	Acids, Bases, Salts or Metal Ions, pH > 3, > 30 % Acetonitrile	Acids, Bases, Salts or Metal Ions, pH > 3, > 30 % Acetonitrile	Acids, Bases, Non-Calcium Salts or Metal Ions, > 30 % Acetonitrile
					
Cleaning Solvent	100 % Water	100 % Water	100 % Water	100 % Water	100 % Water
Flow Rate (mL/min)	0.4	0.4	0.4	0.4	0.1
Temperature (°C)	85	85	85	85	85
Duration (hrs)	12	12	12	12	12
Regeneration Solvent	0.1 M Pb(NO <sub>3</sub> ) <sub>2</sub>	0.025 M H <sub>2</sub> SO <sub>4</sub>	0.025 M H <sub>2</sub> SO <sub>4</sub>	0.025 M H <sub>2</sub> SO <sub>4</sub>	0.1 M Ca(NO <sub>3</sub> ) <sub>2</sub>
Flow Rate (mL/min)	0.2	0.2	0.2	0.2	0.1
Temperature (°C)	85	85	85	85	85
Duration (hrs)	4-16	4-16	4-16	4-16	4-16
Ship/Storage Solvent	Water	Water	0.005 N H <sub>2</sub> SO <sub>4</sub>	0.005 N H <sub>2</sub> SO <sub>4</sub>	Water



# Ordering Information

## Rezex HPLC Columns

Columns					Guards		SecurityGuard <sup>™</sup> Cartridges (mm)
Description	Part No.	Cross Linkage	Ionic Form	Size (mm)	Part No.	Size (mm)	4 x 3.0* /10pk
RCM-Monosaccharide	00F-0130-KO	8%	Calcium	150 x 7.8	03B-0130-KO	50 x 7.8	AJO-4493
RCM-Monosaccharide	00H-0130-KO	8%	Calcium	300 x 7.8	03B-0130-KO	50 x 7.8	AJO-4493
RHM-Monosaccharide	00H-0132-KO	8%	Hydrogen	300 x 7.8	03B-0132-KO	50 x 7.8	AJO-4490
RAM-Carbohydrate	00H-0131-KO	8%	Silver	300 x 7.8	—	—	AJO-4491
RSO-Oligosaccharide	00P-0133-NO	4%	Silver	200 x 10.0	03R-0133-NO	60 x 10.0	—
RNO-Oligosaccharide	00P-0137-NO	4%	Sodium	200 x 10.0	03R-0137-NO	60 x 10.0	—
RPM-Monosaccharide (for USP procedure)	00H-0135-KO	8%	Lead	300 x 7.8	03B-0135-KO	50 x 7.8	AJO-4492
	00D-0135-KO	8%	Lead	100 x 7.8	03B-0135-KO	50 x 7.8	AJO-4492
RNM-Carbohydrate	00H-0136-KO	8%	Sodium	300 x 7.8	03B-0136-KO	50 x 7.8	—
ROA-Organic Acid	00F-0138-E0	8%	Hydrogen	150 x 4.6	—	—	AJO-4490
ROA-Organic Acid	00G-0138-E0	8%	Hydrogen	250 x 4.6	—	—	AJO-4490
ROA-Organic Acid	00F-0138-KO	8%	Hydrogen	150 x 7.8	03B-0138-KO	50 x 7.8	AJO-4490
ROA-Organic Acid	00H-0138-KO	8%	Hydrogen	300 x 7.8	03B-0138-KO	50 x 7.8	AJO-4490
RKP-Potassium	00H-3252-KO	8%	Potassium	300 x 7.8	—	—	—
RFQ-Fast Acid	00D-0223-KO	8%	Hydrogen	100 x 7.8	03B-0223-KO	50 x 7.8	AJO-4490
RCU-USP Sugar Alcohols	00G-0130-DO	8%	Calcium	250 x 4.0	03A-0130-DO	30 x 4.0	AJO-4493

for ID: 3.2-8.0 mm

\* SecurityGuard Analytical Cartridges require universal holder Part No.: KJO-4282

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