

# Prevail™ HPLC Columns

**With Prevail™ Columns, You'll Find a Solution for all Your HPLC Column Needs**

- **A General-Purpose Reversed-phase Column for a Wide Range of Applications**
- **Stability in Highly Aqueous Mobile Phases**
- **Excellent Retention of Non-polar Analytes**
- **A Polar-embedded Phase**
- **Specialty Phases for Specific Applications**
- **Formats for Your LC/MS Applications**



**Alltech**

UNP

Contact your Alltech office or distributor for current or local prices.

**Bulletin #460A**

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# Aqueous Mobile Phases . . .

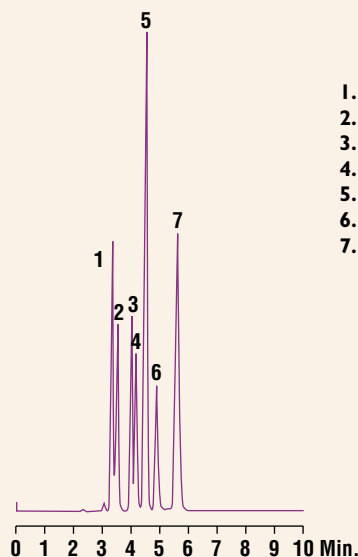
## - Separate Highly Polar Analytes Without Fear of Phase Collapse

- **Excellent Retention and Reproducibility of Highly-Polar Analytes**
- **No Phase Collapse**

Prevail™ HPLC columns offer exceptional versatility for difficult separations, including highly-polar analytes on C18. Traditional reversed-phase packings experience bonded phase collapse under highly aqueous (95+%) conditions. Prevail™ bonded phases remain fully extended, even under 100% aqueous conditions, for effective retention of highly polar analytes without the detrimental effects of phase collapse.

### Underivatized Amino Acids

CHROM-9449



1. Glycine (Gly)
2. Serine (Ser)
3. Aspartic Acid (Asp)
4. Glutamine (Gln)
5. Alanine (Ala)
6. Glutamic Acid (Glu)
7. Lysine (Lys)

**Column:** Prevail™ C18, 5µm, 250 x 4.6mm  
**Mobile Phase:** 5mM Heptafluorobutyric Acid pH 1.0 w/ 0.7% TFA  
**Flow Rate:** 1.0mL/min  
**Detector:** ELSD

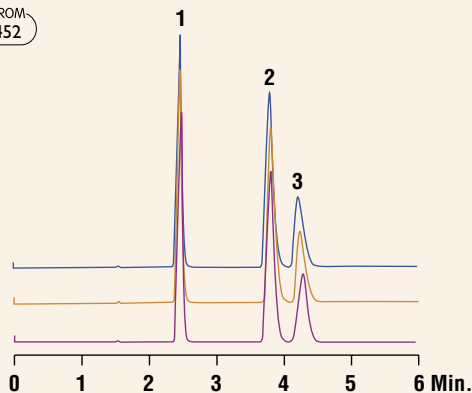
### Prevail™'s Bonded Phases are Stable in 100% Aqueous Conditions

CHROM-9450

Prevail™ C18, 5µm, 150 x 4.6mm

CHROM-9451

CHROM-9452



### Catecholamines

1. Norepinephrine
2. Epinephrine
3. 5-Hydroxydopamine

After 24 hrs.  
 After 8 hrs.  
 After 20 min.

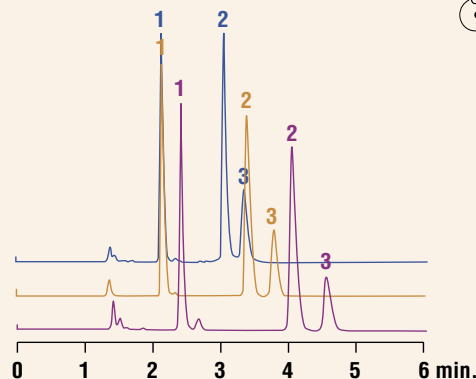
**Mobile Phase:** 25mM KH<sub>2</sub>PO<sub>4</sub>, pH 2.7  
**Flow Rate:** 1.0mL/min  
**Detector:** UV at 270nm

Competitor A C18, 5µm, 150 x 4.6mm

CHROM-9453

CHROM-9454

CHROM-9455

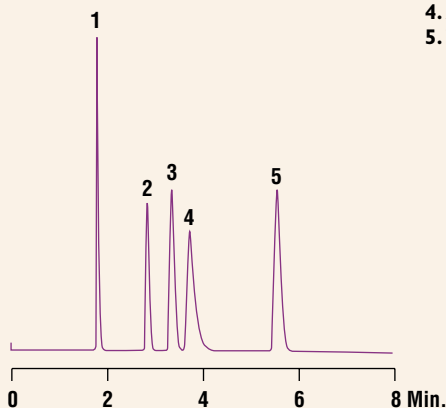


Prevail™ C18 remains stable and provides reproducible separations under highly aqueous conditions that cause traditional C18 phases to collapse.

### Nucleic Acid Bases

CHROM-9411

1. Cytosine
2. Uracil
3. Guanine
4. Adenine
5. Thymine

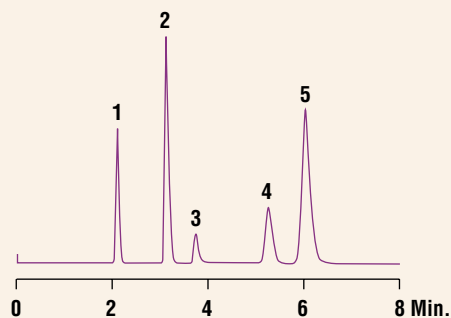


**Column:** Prevail™ C18, 5µm, 150 x 4.6mm  
**Mobile Phase:** 25mM KH<sub>2</sub>PO<sub>4</sub> pH 3.0:CH<sub>3</sub>CN (98:2)  
**Flow Rate:** 1.0mL/min  
**Detector:** UV at 254nm

### Nucleosides

CHROM-9410

1. Cytidine
2. Uridine
3. Xanthine
4. Guanosine
5. Adenosine

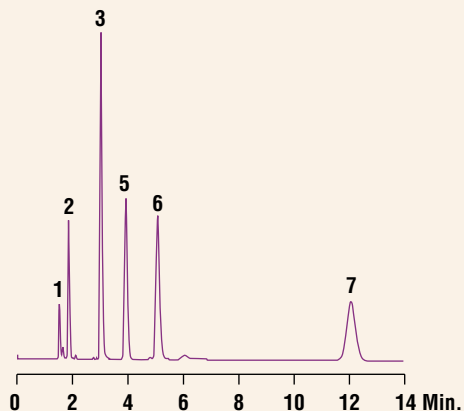


**Column:** Prevail™ C18, 5µm, 150 x 4.6mm  
**Mobile Phase:** 25mM KH<sub>2</sub>PO<sub>4</sub> pH 3.0:CH<sub>3</sub>CN (96:4)  
**Flow Rate:** 1.0mL/min  
**Detector:** UV at 254nm

### Water Soluble Vitamin Standards

CHROM-9388

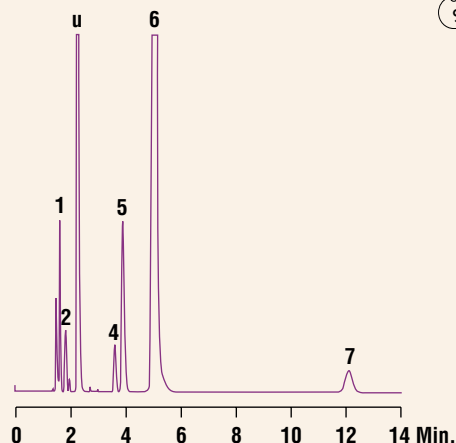
1. Thiamine
2. Ascorbic Acid
3. Nicotinic Acid
4. Fumaric Acid
5. Pyridoxine
6. Niacinamide
7. Pantothenic Acid
- u. Unknown



**Column:** Prevail™ C18, 5µm, 150 x 4.6mm  
**Mobile Phase:** 25mM KH<sub>2</sub>PO<sub>4</sub> pH 3.0:CH<sub>3</sub>CN (97:3)  
**Flow Rate:** 1.0mL/min  
**Detector:** UV at 212nm

### Water Soluble Vitamins From Multi-Vitamin Tablet

CHROM-9456



# Organic Mobile Phases . . .

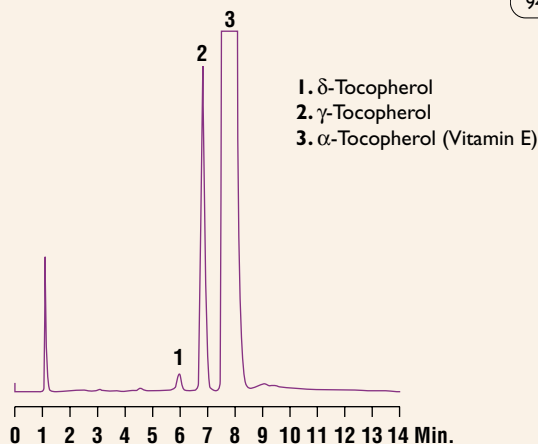
## - Separate Hydrophobic Analytes with Excellent Retention and Peak Shape

- Strongly Retain Hydrophobic Analytes
- Eliminate Concerns about Solubility of Non-Polar Compounds
- Increase Sensitivity in LC/MS and ELSD Applications

Many reversed-phase packings that tolerate highly aqueous conditions lack the hydrophobicity needed to retain compounds under 100% organic mobile phase conditions. Prevail™ packing's high carbon load retains hydrophobic analytes even under 100% organic mobile phase conditions. Using 100% organic mobile phases increases the solubility of highly hydrophobic compounds, eliminating analyte precipitation. Removing the aqueous mobile phase component increases sensitivity in LC/MS and ELSD applications where the mobile phase volatility is critical.

### Vitamin E Soft Gel Tablet

CHROM  
9458

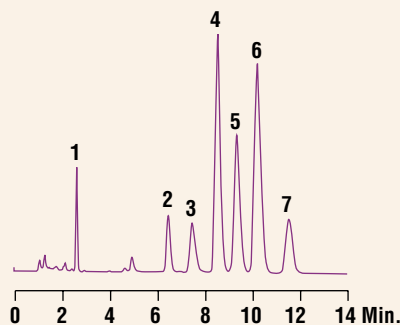


**Column:** Prevail™ C18, 5µm, 150 x 4.6mm  
**Mobile Phase:** CH<sub>3</sub>CN:MeOH (75:25)  
**Flow Rate:** 1.5mL/min  
**Detector:** ELSD

### Fat-Soluble Vitamins and Tocopherols

CHROM  
9390

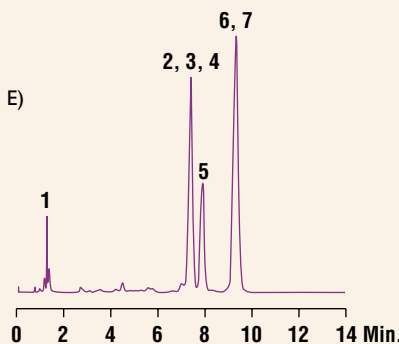
#### Prevail™ C18, 5µm, 150 x 4.6mm



**Mobile Phase:** CH<sub>3</sub>CN:MeOH (75:25)  
**Flow Rate:** 1.5mL/min  
**Detector:** UV at 220nm

CHROM  
9457

#### Competitor B C18, 5µm, 150 x 4.6mm



**Mobile Phase:** CH<sub>3</sub>CN:MeOH (75:25)  
**Flow Rate:** 1.5mL/min  
**Detector:** UV at 220nm

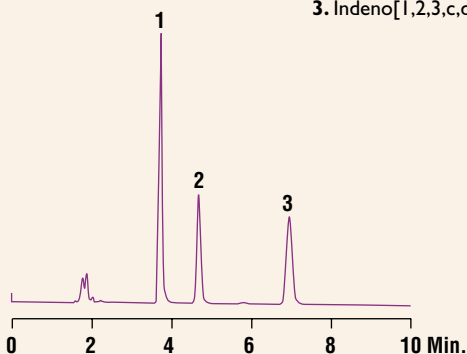
1. Vitamin A
2. δ-Tocopherol
3. γ-Tocopherol
4. α-Tocopherol (Vitamin E)
5. Vitamin D2
6. Vitamin D3
7. Vitamin K

Prevail™ C18's hydrophobicity separates non-polar compounds under high organic mobile phase conditions where other C18 columns fail.

### Polyaromatic Hydrocarbons

CHROM  
9391

1. Chrysene
2. Benzo[k]fluoranthene
3. Indeno[1,2,3,c,d]pyrene

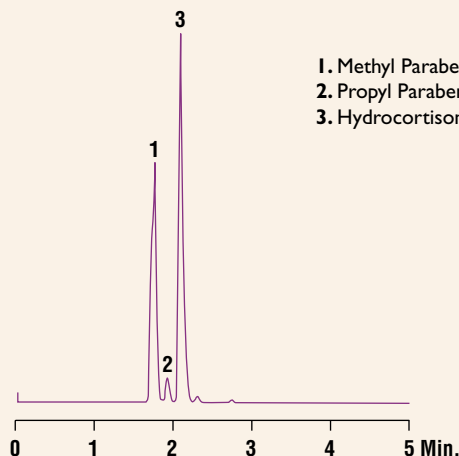


**Column:** Prevail™ C18, 5µm, 150 x 4.6mm  
**Mobile Phase:** CH<sub>3</sub>CN:MeOH (75:25)  
**Flow Rate:** 1.0mL/min  
**Detector:** UV at 254nm

### Hydrocortisone Acetate Cream

CHROM  
9463

1. Methyl Paraben
2. Propyl Paraben
3. Hydrocortisone Acetate

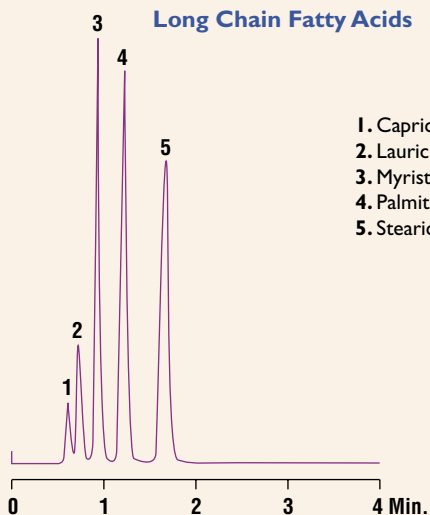


**Column:** Prevail™ C18, 5µm, 150 x 4.6mm  
**Mobile Phase:** CH<sub>3</sub>CN:H<sub>2</sub>O (90:10)  
**Flow Rate:** 1.0mL/min  
**Detector:** UV at 254nm

### Long Chain Fatty Acids

CHROM  
9459

1. Capric Acid (C10)
2. Lauric Acid (C12)
3. Myristic Acid (C14)
4. Palmitic Acid (C16)
5. Stearic Acid (C18)

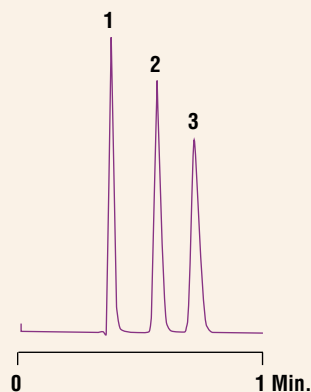


**Column:** Prevail™ C18, 3µm, 53 x 7mm, Rocket™  
**Mobile Phase:** CH<sub>3</sub>CN:MeOH (75:25)  
**Flow Rate:** 3.5mL/min  
**Detector:** ELSD

### Steroids

CHROM  
9392

1. Hydrocortisone
2. Testosterone
3. Progesterone



**Column:** Prevail™ C18, 3µm, 53 x 7mm, Rocket™  
**Mobile Phase:** MeOH:H<sub>2</sub>O (90:10)  
**Flow Rate:** 4.5mL/min  
**Detector:** UV at 254nm

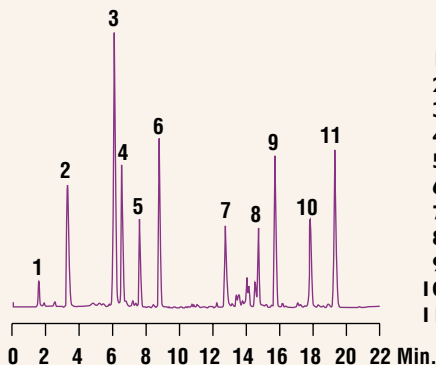
Use Prevail™ Rocket™ columns for fast analyses without degrading the separation.

# ... and Everything in Between

- The Most Versatile Choice for Your HPLC Column Needs

## Anti-bacterials

CHROM-9396

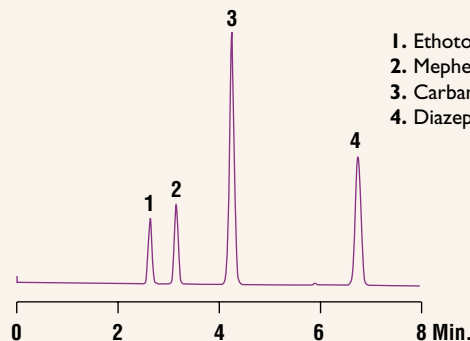


1. Neomycin
2. Amoxicillin
3. Vancomycin
4. Cefatrizine
5. Metampacillin
6. Cefotaxime
7. Unknown
8. Bacitracin
9. Piperacillin
10. Bacampacillin
11. Oxacillin

**Column:** Prevail™ C18, 5µm, 150 x 4.6mm  
**Mobile Phase:** A: 25mM KH<sub>2</sub>PO<sub>4</sub> pH 3.0  
 B: CH<sub>3</sub>CN  
**Gradient:** Time: | 0 | 15 | 22 |  
 %B: | 10 | 40 | 40 |  
**Flow Rate:** 1.0mL/min  
**Detector:** UV at 210nm

## Anti-convulsants

CHROM-9394

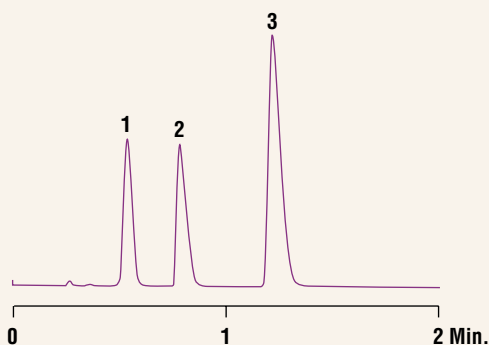


1. Ethotoin
2. Mephenytoin
3. Carbamazepine
4. Diazepam

**Column:** Prevail™ Phenyl, 5µm, 150 x 4.6mm  
**Mobile Phase:** A: H<sub>2</sub>O B: CH<sub>3</sub>CN  
**Gradient:** Time: | 0 | 15 |  
 %B: | 25 | 60 |  
**Flow Rate:** 1.5mL/min  
**Detector:** UV at 254nm

## Anti-hypertensives

CHROM-9395

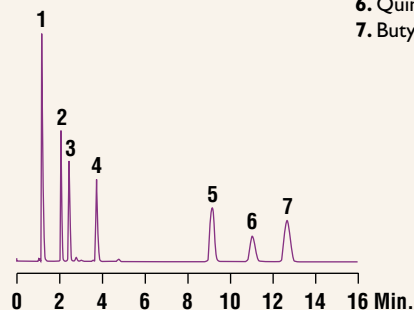


1. Metoprolol
2. Oxprenolol
3. Propranolol

**Column:** Prevail™ C18, 3µm, 53 x 7mm, Rocket™  
**Mobile Phase:** 25mM KH<sub>2</sub>PO<sub>4</sub> pH 3.0:CH<sub>3</sub>CN (70:30)  
**Flow Rate:** 4.0mL/min  
**Detector:** UV at 220nm

## Acids, Chelates, & Neutrals Mix

CHROM-9406

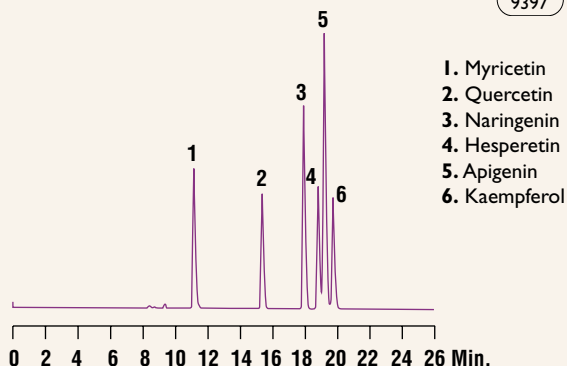


1. Uracil
2. Phenol
3. 4-Phenylbutyric Acid
4. N,N-Diethyl-m-Toluamide
5. Propylbenzene
6. Quinizarin
7. Butylbenzene

**Column:** Prevail™ C18, 5µm, 150 x 4.6mm  
**Mobile Phase:** 25mM KH<sub>2</sub>PO<sub>4</sub> pH 2.5:CH<sub>3</sub>CN (35:65)  
**Flow Rate:** 1.0mL/min  
**Detector:** UV at 254nm

### Polyphenolic Flavonoids

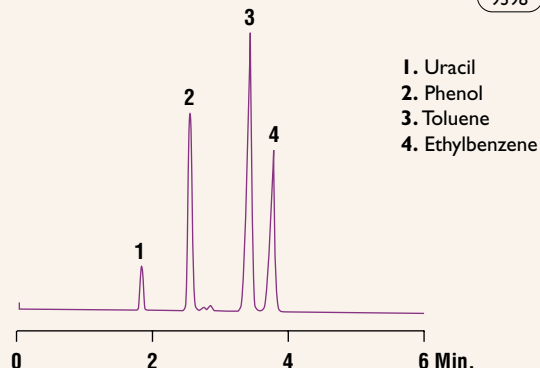
CHROM  
9397



**Column:** Prevail™ C18, 5µm, 150 x 4.6mm  
**Mobile Phase:** A: 25mM KH<sub>2</sub>PO<sub>4</sub> pH 2.5  
 B: CH<sub>3</sub>CN  
**Gradient:** Time: 0 | 15 | 26 |  
 %B: 20 | 40 | 40 |  
**Flow Rate:** 1.0mL/min  
**Detector:** UV at 280nm

### Aromatics

CHROM  
9398

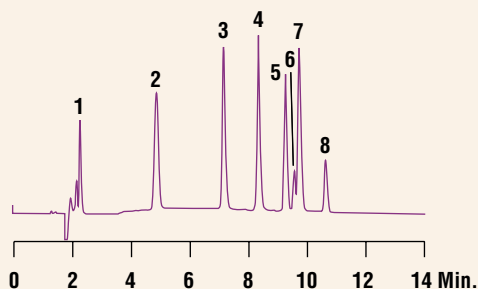


**Column:** Prevail™ Phenyl, 5µm, 150 x 4.6mm  
**Mobile Phase:** H<sub>2</sub>O:CH<sub>3</sub>CN (50:50)  
**Flow Rate:** 1.0mL/min  
**Detector:** UV at 254nm

### Peptides

CHROM  
9399

- |                          |                       |
|--------------------------|-----------------------|
| 1. GLY-TYR               | 5. Leucine Enkephalin |
| 2. VAL-TYR-VAL           | 6. Oxytocin           |
| 3. Methionine Enkephalin | 7. Angiotensin II     |
| 4. Physalemin            | 8. Substance P        |

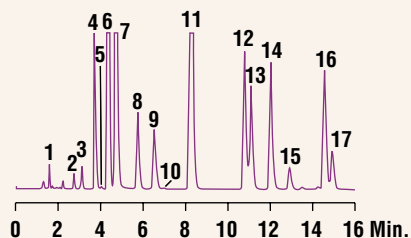


**Column:** Prevail™ C18, 5µm, 150 x 4.6mm  
**Mobile Phase:** A: 0.15%TFA in H<sub>2</sub>O  
 B: 0.13%TFA in CH<sub>3</sub>CN:H<sub>2</sub>O (95:5)  
**Gradient:** Time: 0 | 15 |  
 %B: 20 | 55 |  
**Flow Rate:** 1.0mL/min  
**Detector:** UV at 220nm

### Polyaromatic Hydrocarbons

CHROM  
9400

- |                   |                              |
|-------------------|------------------------------|
| 1. Benzene        | 10. 1,2-Dibenzanthracene     |
| 2. Naphthalene    | 11. Chrysene                 |
| 3. Acenaphthylene | 12. Benzo[b]fluoranthene     |
| 4. Fluorene       | 13. Benzo[k]fluoranthene     |
| 5. Acenaphthene   | 14. Benzo[a]perylene         |
| 6. Phenanthrene   | 15. 1,2,5,6-Dibenzanthracene |
| 7. Anthracene     | 16. 1,2-Dibenzoperylene      |
| 8. Fluoranthene   | 17. Indeno[1,2,3,c,d]pyrene  |
| 9. Pyrene         |                              |



**Column:** Prevail™ C18, 5µm, 150 x 4.6mm  
**Mobile Phase:** A: H<sub>2</sub>O  
 B: CH<sub>3</sub>CN  
**Gradient:** Time: 0 | 4 | 15 |  
 %B: 72 | 72 | 100 |  
**Flow Rate:** 1.5mL/min  
**Detector:** UV at 254nm

# Prevail™ Amide Columns

## - A Polar-Embedded Phase Improves Peak Shape for Polar Analytes in Neutral pH Mobile Phases

- **Polar-Embedded Group Improves Polar Sample Peak Shape**
- **Packing Media Provides Unique Selectivity**
- **Bonded Phase does not Collapse with 100% Aqueous Mobile Phases**

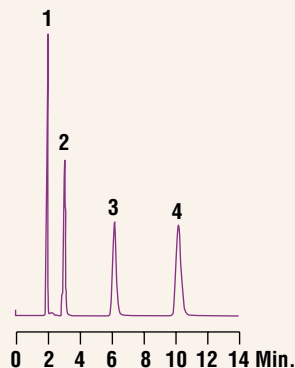
A polar-embedded group inserted into the hydrophobic chain of the Prevail™ Amide phase minimizes interaction of polar samples with silanols, providing symmetrical peaks for a wide variety of applications. The amide phase is especially useful at neutral pH where amines can interact strongly with ionized silanols. The presence of the amide group alters the selectivity of the reversed-phase packing, giving separations that are often hard to achieve on conventional reversed-phase columns.

The polar-embedded group also helps to wet the hydrophobic chains, and prevents phase collapse in highly aqueous mobile phases.

### Analgesics

CHROM-9385

1. Aspirin
2. Acetaminophen
3. Naproxen
4. Fenpropfen

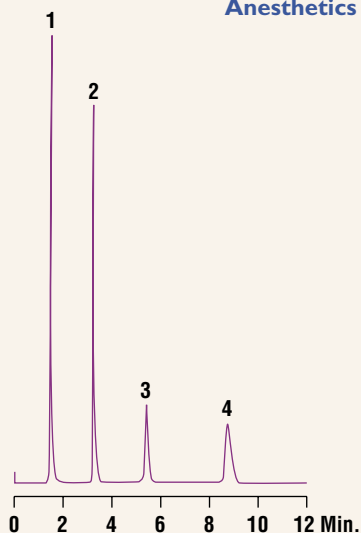


**Column:** Prevail™ Amide, 5µm, 150 x 4.6mm  
**Mobile Phase:** 20mM K<sub>2</sub>HPO<sub>4</sub>, pH7.0:CH<sub>3</sub>CN (75:25)  
**Flow Rate:** 1.0mL/min  
**Detector:** UV at 210nm

### Anesthetics

CHROM-9436

1. p-Aminobenzoic Acid
2. Benzocaine
3. Butacaine
4. Tetracaine

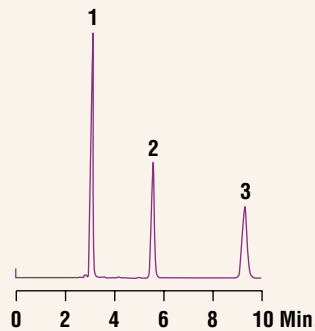


**Column:** Prevail™ Amide, 3µm, 150 x 4.6mm  
**Mobile Phase:** 20mM K<sub>2</sub>HPO<sub>4</sub>, pH 7.0:CH<sub>3</sub>CN (43:57)  
**Flow Rate:** 1.0mL/min  
**Detector:** UV at 210nm

### Anilines

CHROM-9412

1. Aniline
2. Dimethylaniline
3. Diethylaniline



**Column:** Prevail™ Amide, 5µm, 150 x 4.6mm  
**Mobile Phase:** 20mM K<sub>2</sub>HPO<sub>4</sub>, pH7.0:CH<sub>3</sub>CN (50:50)  
**Flow Rate:** 1.0mL/min  
**Detector:** UV at 210nm

# Prevail™ Organic Acid Columns

## - A New Standard for Organic Acid Analysis

- Silica-Based Column for Maximum Efficiency and High Resolution
- Short Run Times and High Sample Throughput at Ambient Temperature
- Acid Stable Media for Long Column Lifetimes
- Lower Cost than Polymeric Organic Acid Columns

Prevail™ Organic Acid (OA) columns separate common organic acids with an unsurpassed combination of resolution, speed, sensitivity, and simplicity. A simple acidic phosphate buffer and a Prevail™ OA column at ambient temperature will separate 11 short-chain organic acids in less than 6 minutes.

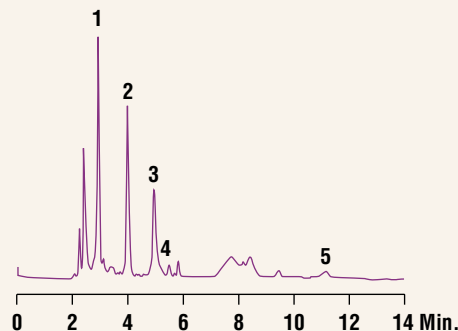
Need more resolution? Try the 250 x 4.6mm Prevail™ OA column. Want faster analyses? Choose the Prevail™ Organic Acid Rocket™ column.

Use pH to adjust column selectivity. Lowering the mobile phase pH progressively suppresses the ionization of the carboxylic acids, making them more hydrophobic. This gives you the ability to move these peaks relative to other peaks in the chromatogram, and it simplifies method development.

### Organic Acids in Rosé Wine

CHROM  
9414

1. Tartaric Acid
2. Malic Acid
3. Lactic Acid
4. Acetic Acid
5. Succinic Acid

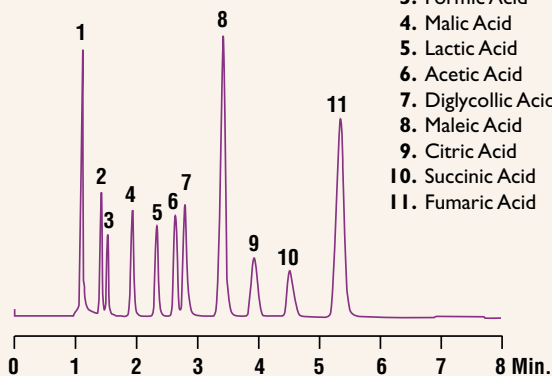


**Column:** Prevail™ Organic Acid, 5µm, 150 x 4.6mm  
**Mobile Phase:** 25mM KH<sub>2</sub>PO<sub>4</sub>, pH 2.5  
**Flow Rate:** 0.7mL/min  
**Detector:** UV at 210nm

### Organic Acid Standards

CHROM  
9384

1. Oxalic Acid
2. Tartaric Acid
3. Formic Acid
4. Malic Acid
5. Lactic Acid
6. Acetic Acid
7. Diglycollic Acid
8. Maleic Acid
9. Citric Acid
10. Succinic Acid
11. Fumaric Acid

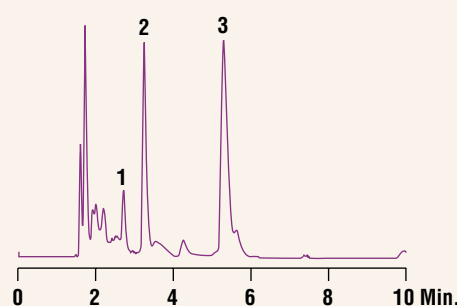


**Column:** Prevail™ Organic Acid, 5µm, 150 x 4.6mm  
**Mobile Phase:** 25mM KH<sub>2</sub>PO<sub>4</sub>, pH 2.5  
**Flow Rate:** 1.5mL/min  
**Detector:** UV at 210nm

### Organic Acids in Orange Juice

CHROM  
9478

1. Malic Acid
2. Ascorbic Acid
3. Citric Acid



**Column:** Prevail™ Organic Acid, 5µm, 150 x 4.6mm  
**Mobile Phase:** 25mM KH<sub>2</sub>PO<sub>4</sub>, pH 2.5  
**Flow Rate:** 1.0mL/min  
**Detector:** UV at 210nm

# Prevail™ Carbohydrate ES Columns

## – A Superior Solution for Carbohydrate Analysis

- **Longer Column Lifetime than Traditional Amino Columns**
- **More Versatile Than Ion Exclusion Columns**
- **Optimum Resolution and Peak Shapes at Ambient Temperature**
- **Range of Useful Formats**
- **Combine with Alltech's ELSD for the Carbohydrate Solution: Enhanced Detector Sensitivity, Flat Baselines, Gradient Capability, and Reduced Run Times**

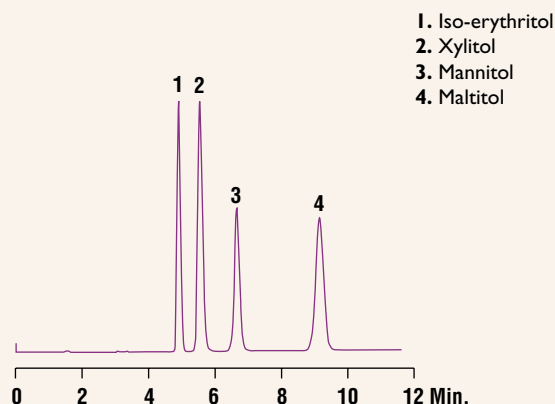
Prevail™ Carbohydrate ES offers performance superior to traditional amino columns and ion exclusion columns. Because of its rugged bonding technology, Carbohydrate ES delivers quiet, stable baselines and excellent peak shapes long after silica-based amino columns have died. Carbohydrate ES can also separate all carbohydrate classes from mono- to oligosaccharides and complex carbohydrates, making it superior in versatility to application-specific ion exclusion columns.

This column's full potential is realized when used in conjunction with the Evaporative Light Scattering Detection (ELSD). Gradients are powerful and effective when done with the Carbohydrate ES Column/ELSD combination. With gradients, run times are reduced, peak efficiencies are maximized, and detector sensitivity is enhanced.

Prevail™ Carbohydrate ES is a 5µm spherical packing offered in four hardware formats: 250 x 4.6mm; 150 x 4.6mm; 100 x 7mm Rocket™; 53 x 7mm Rocket™. For the most complex samples, use the 250 x 4.6mm or 100 x 7mm columns. For simpler mixtures and faster chromatography, consider using the 53 x 7mm Rocket™ format. Both 7mm i.d. Rocket™ formats offer the advantages of reduced backpressures and faster separations.

### Sugar Alcohols

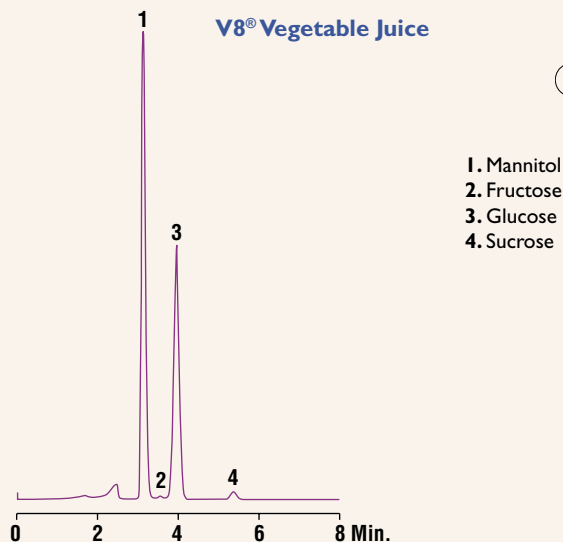
CHROM  
9352



**Column:** Prevail™ Carbohydrate ES, 250 x 4.6mm  
**Mobile Phase:** CH<sub>3</sub>CN:H<sub>2</sub>O (70:30)  
**Flow Rate:** 1.0mL/min  
**Detector:** ELSD

### V8® Vegetable Juice

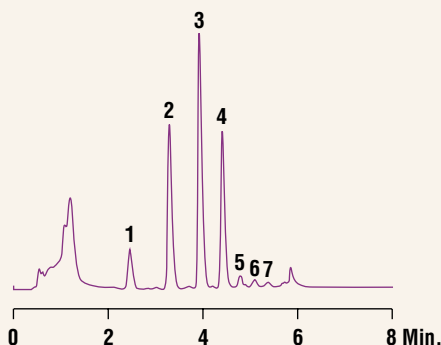
CHROM  
9485



**Column:** Prevail™ Carbohydrate ES, 5µm, 100 x 7mm, Rocket™  
**Mobile Phase:** CH<sub>3</sub>CN:H<sub>2</sub>O (80:20)  
**Flow Rate:** 2.0mL/min  
**Detector:** ELSD

### Sweetened Vending Machine Coffee

CHROM  
9477



1. Dextrose
2. Maltose
3. Maltotriose
4. Maltotetraose
5. Maltopentaose
6. Maltohexaose
7. Maltoheptaose

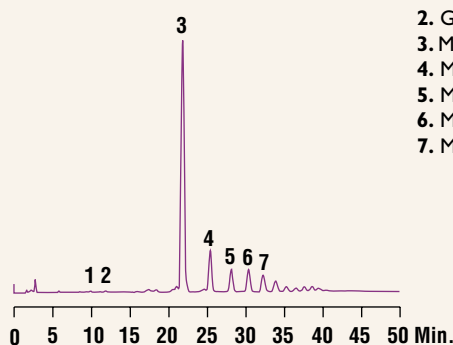
**Column:** Prevail™ Carbohydrate ES, 53 x 7mm, Rocket™  
**Mobile Phase:** A: CH<sub>3</sub>CN  
 B: H<sub>2</sub>O  
**Gradient:**

Time:	0	4
%B:	20	50

  
**Flow Rate:** 2.0mL/min  
**Detector:** ELSD

### Imported Ale

CHROM  
9351



1. Fructose
2. Glucose
3. Maltose
4. Maltotriose
5. Maltopentaose
6. Maltohexaose
7. Maltoheptaose

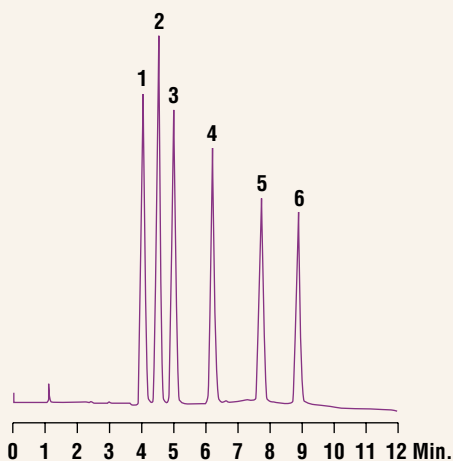
**Column:** Prevail™ Carbohydrate ES, 250 x 4.6mm  
**Mobile Phase:** A: CH<sub>3</sub>CN  
 B: H<sub>2</sub>O  
**Gradient:**

Time:	0	50
%B:	20	35

  
**Flow Rate:** 1.0mL/min  
**Detector:** ELSD

### Simple Sugars

CHROM  
9417



1. Mannitol
2. Fructose
3. Glucose
4. Sucrose
5. Raffinose
6. Stachyose

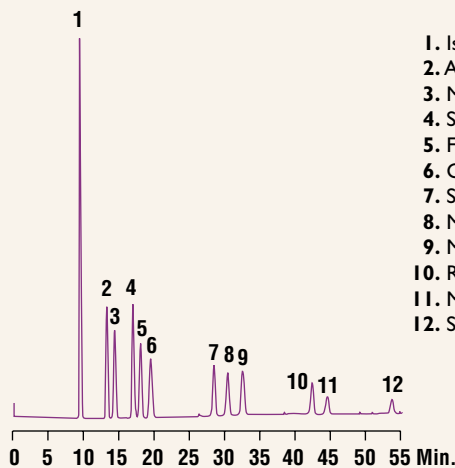
**Column:** Prevail™ Carbohydrate ES, 100 x 7mm, Rocket™  
**Mobile Phase:** A: CH<sub>3</sub>CN  
 B: H<sub>2</sub>O  
**Gradient:**

Time:	0	10
%B:	20	50

  
**Flow Rate:** 2.0mL/min  
**Detector:** ELSD

### Components Frequently Found in Fermentation Broths

CHROM  
9357



1. Iso-erythritol
2. Arabitol
3. Mannitol
4. Sorbitol
5. Fructose
6. Glucose
7. Sucrose
8. Maltitol
9. Maltose
10. Raffinose
11. Maltotriose
12. Stachyose

**Column:** Prevail™ Carbohydrate ES, 250 x 4.6mm  
**Mobile Phase:** A: CH<sub>3</sub>CN  
 B: H<sub>2</sub>O  
**Gradient:**

Time:	0	60
%B:	17	35

  
**Flow Rate:** 1.0mL/min  
**Detector:** ELSD

# Prevail™ LC/MS Columns

## - High Efficiency, No-Bleed LC/MS Columns

- High Resolving Power
- No-bleed Packings
- Stable Chemistry
- Variety of Formats

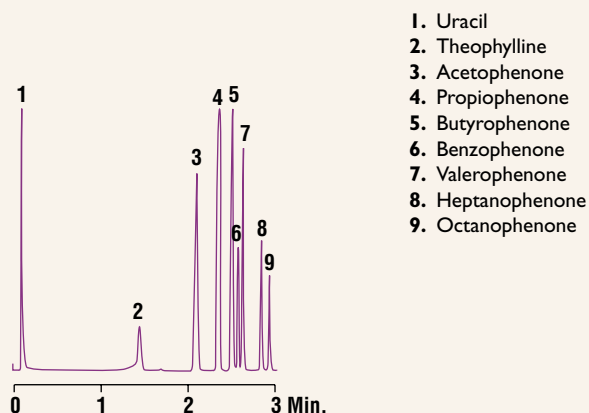
Short-chain organic acids (formic, acetic, trifluoroacetic) and their amine salts are often used as mobile phase modifiers in LC/MS systems because of their high volatility, leading to enhanced detector sensitivity. Alltech introduces Prevail™ LC/MS columns, which are exceedingly stable in these popular mobile phases. Prevail™ LC/MS columns have been tested under rigorous pH 1.0 conditions to ensure detector baseline stability by eliminating column bleed.

Prevail™ bonded phases use high purity, small particle silica. The highly stable bonding chemistry provides high efficiency, long column life and better chromatography through reduced silanol interaction. This results in increased sensitivity and high resolution, which delivers a more concentrated LC fraction to the MS interface.

Prevail™ columns offer the greatest mobile phase versatility, using 100% aqueous to 100% organic mobile phases without phase collapse. This material excels under a full spectrum of mobile phase conditions, including stability to pH 1.0.

### Fast Gradient

CHROM  
9460

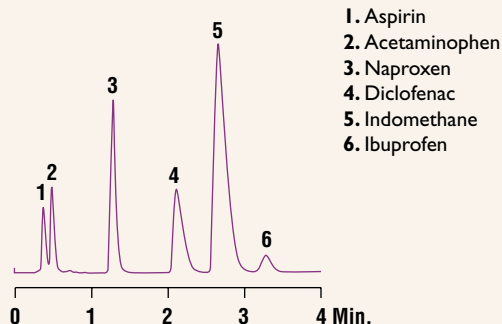


1. Uracil
2. Theophylline
3. Acetophenone
4. Propiophenone
5. Butyrophenone
6. Benzophenone
7. Valerophenone
8. Heptanophenone
9. Octanophenone

**Column:** Prevail™ C18, 3µm, 20 x 2.1mm, Expedite™  
**Mobile Phase:** A: 0.1% TFA in H<sub>2</sub>O  
 B: 0.08% TFA in CH<sub>3</sub>CN  
**Gradient:** Time: | 0 | 2 | 3 |  
 %B: | 0 | 100 | 100 |  
**Flow Rate:** 1.0mL/min  
**Detector:** UV at 254nm

### Analgesics/Anti-inflammatories

CHROM  
9445

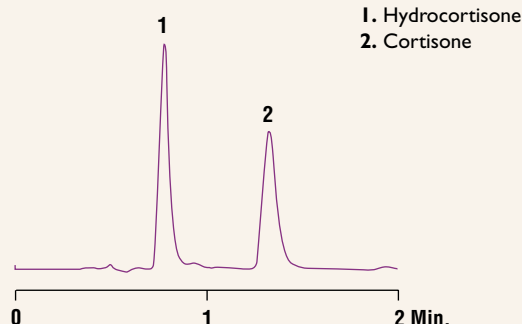


1. Aspirin
2. Acetaminophen
3. Naproxen
4. Diclofenac
5. Indomethane
6. Ibuprofen

**Column:** Prevail™ C18, 3µm, 50 x 2.1mm  
**Mobile Phase:** 50mM Ammonium Acetate, pH 5.4:  
 CH<sub>3</sub>CN(60:40)  
**Flow Rate:** 0.3mL/min  
**Detector:** UV at 254nm

### Corticosteroids

CHROM  
9444

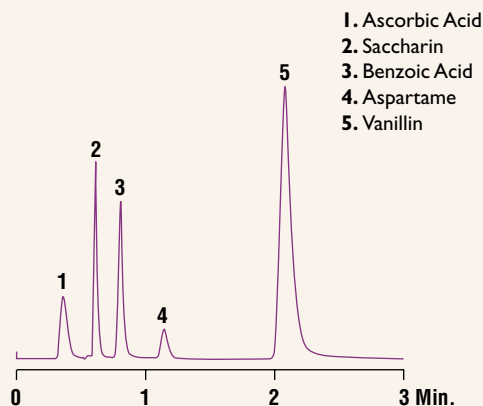


1. Hydrocortisone
2. Cortisone

**Column:** Prevail™ C18, 3µm, 50 x 2.1mm  
**Mobile Phase:** 50mM Ammonium Acetate, pH 5.4:  
 CH<sub>3</sub>CN (45:55)  
**Flow Rate:** 0.3mL/min  
**Detector:** UV at 230nm

### Beverage Additives

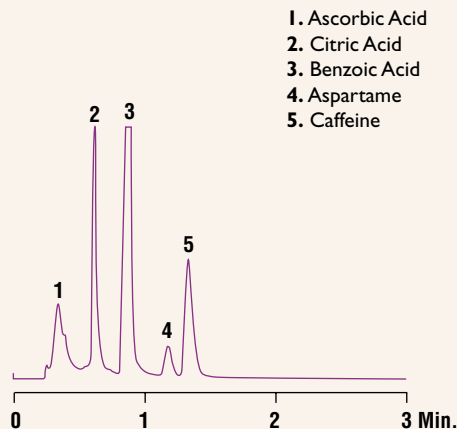
CHROM-9446



1. Ascorbic Acid
2. Saccharin
3. Benzoic Acid
4. Aspartame
5. Vanillin

### Diet Cola

CHROM-9447

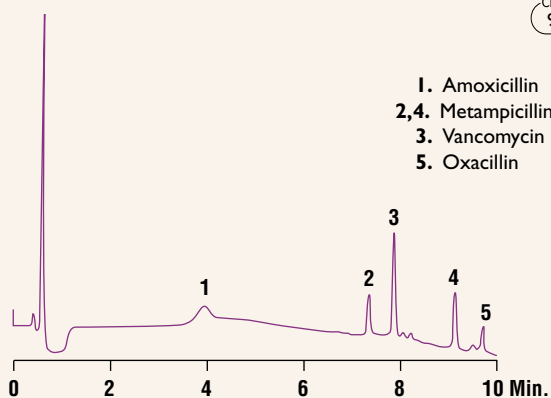


1. Ascorbic Acid
2. Citric Acid
3. Benzoic Acid
4. Aspartame
5. Caffeine

**Column:** Prevail™ C18, 3µm, 50 x 2.1mm  
**Mobile Phase:** 50mM Ammonium Acetate, pH 5.4:  
 CH<sub>3</sub>CN (80:20)  
**Flow Rate:** 0.3mL/min  
**Detector:** UV at 230nm

### Antibacterials

CHROM-9427



1. Amoxicillin
- 2,4. Metampicillin
3. Vancomycin
5. Oxacillin

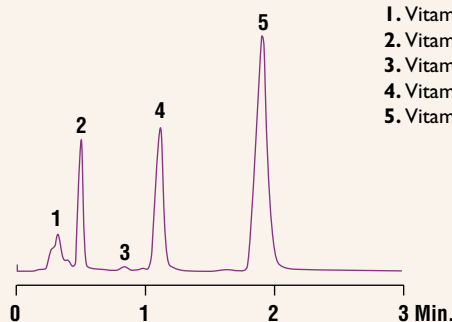
**Column:** Prevail™ C18, 3µm, 50 x 2.1mm  
**Mobile Phase:** A: 50mM Ammonium Acetate pH 5.4  
 B: CH<sub>3</sub>CN  
**Gradient:**

Time:	0	8	10
%B:	0	40	40

  
**Flow Rate:** 0.3mL/min  
**Detector:** UV at 220nm

### Fat Soluble Vitamins

CHROM-9434



1. Vitamin A degradant
2. Vitamin A
3. Vitamin K degradant
4. Vitamin E
5. Vitamin K

**Column:** Prevail™ C18, 3µm, 50 x 2.1mm  
**Mobile Phase:** MeOH  
**Flow Rate:** 0.5mL/min  
**Detector:** UV at 220nm

# Exceptional Stability . . .

## - Long Column Life Even Under Extreme Conditions

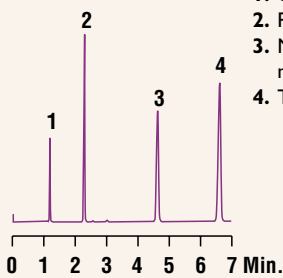
### Stability Study

CHROM  
9382

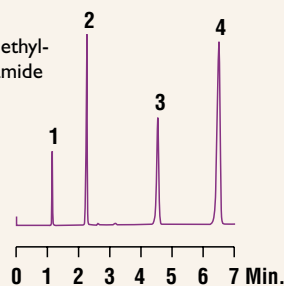
CHROM  
9383

#### Initial Separation

1. Uracil
2. Phenol
3. N,N-Diethylm-Toluamide
4. Toluene



#### After 500 Hours at pH 1.0 and 60°C



**Column:** Prevail™ C18, 5µm, 150 x 4.6mm  
**Mobile Phase:** CH<sub>3</sub>CN:H<sub>2</sub>O (58:42)  
**Flow Rate:** 1.0mL/min  
**Detector:** UV at 254nm

A Prevail™ C18 Column was washed for 500 hours at 60°C with an acetonitrile:water mobile phase adjusted to pH 1.0 with sulfuric acid. The column showed no chromatographic change.

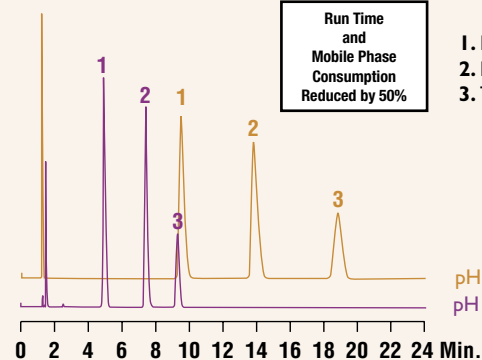
### Tricyclic Antidepressants

CHROM  
9408

CHROM  
9409

Run Time and Mobile Phase Consumption Reduced by 50%

1. Doxepin
2. Nortriptyline
3. Trimipramine



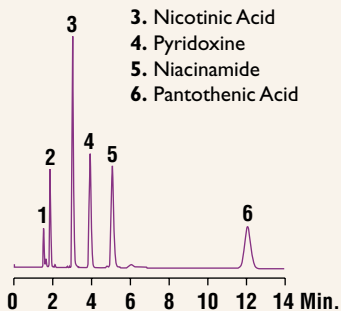
**Column:** Prevail™ C18, 5µm, 150 x 4.6mm  
**Mobile Phase:** 25mM KH<sub>2</sub>PO<sub>4</sub>:CH<sub>3</sub>CN (65:35)  
**Flow Rate:** 1.0mL/min  
**Detector:** UV at 210nm

Take advantage of the Prevail™ Column's stability by analyzing amines at lower pH to reduce the analysis time. The analysis done at pH 1.0 is completed in half the time.

## Switch Between 100% Aqueous and 100% Organic Mobile Phases On the Same Column

### Water Soluble Vitamins (100% Aqueous)

1. Thiamine
2. Ascorbic Acid
3. Nicotinic Acid
4. Pyridoxine
5. Niacinamide
6. Pantothenic Acid

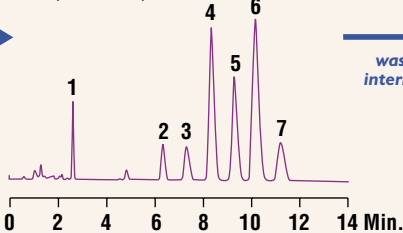


**Column:** Prevail™ C18, 5µm, 150 x 4.6mm  
**Mobile Phase:** 25mM KH<sub>2</sub>PO<sub>4</sub> pH 3.0: CH<sub>3</sub>CN (97:3)  
**Flow Rate:** 1.0mL/min  
**Detector:** UV at 212nm

Figure 1

### Fat Soluble Vitamins and Tocopherols (100% Organic)

1. Vitamin A
2. δ-Tocopherol
3. γ-Tocopherol
4. α-Tocopherol (Vitamin E)
5. Vitamin D2
6. Vitamin D3
7. Vitamin K

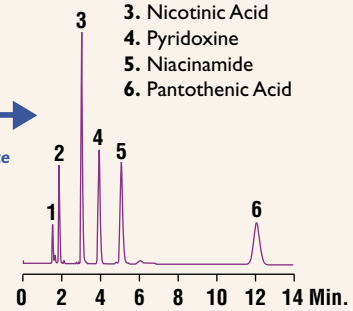


**Column:** Prevail™ C18, 5µm, 150 x 4.6mm  
**Mobile Phase:** CH<sub>3</sub>CN:MeOH (75:25)  
**Flow Rate:** 1.5mL/min  
**Detector:** UV at 220nm

Figure 2

### Water Soluble Vitamins (100% Aqueous)

1. Thiamine
2. Ascorbic Acid
3. Nicotinic Acid
4. Pyridoxine
5. Niacinamide
6. Pantothenic Acid

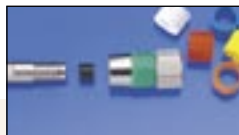


**Column:** Prevail™ C18, 5µm, 150 x 4.6mm  
**Mobile Phase:** 25mM KH<sub>2</sub>PO<sub>4</sub> pH 3.0: CH<sub>3</sub>CN (97:3)  
**Flow Rate:** 1.0mL/min  
**Detector:** UV at 212nm

Figure 3

Prevail™ columns have highly stable bonded phases that let you use one column for multiple mobile phase conditions. Even switching between extremes such as 100% aqueous (Figure 1) to 100% organic conditions (Figure 2), and back to 100% aqueous (Figure 3) on a routine basis is possible, provided that mobile phases are miscible.

## Prevail™ Analytical Columns



### Prevail™ Columns

PACKING	PARTICLE SIZE	LENGTH X I.D.	PART NO.
<b>C18</b>	3µm	150 x 2.1mm	<b>99200</b>
	3µm	50 x 4.6mm	<b>43829</b>
	3µm	100 x 4.6mm	<b>99202</b>
	3µm	150 x 4.6mm	<b>99204</b>
	5µm	150 x 2.1mm	<b>99206</b>
	5µm	150 x 4.6mm	<b>99208</b>
	5µm	250 x 4.6mm	<b>99210</b>
<b>C8</b>	3µm	150 x 2.1mm	<b>99212</b>
	3µm	50 x 4.6mm	<b>43922</b>
	3µm	100 x 4.6mm	<b>99214</b>
	3µm	150 x 4.6mm	<b>99216</b>
	5µm	150 x 2.1mm	<b>99218</b>
	5µm	150 x 4.6mm	<b>99224</b>
	5µm	250 x 4.6mm	<b>99229</b>
<b>Phenyl</b>	3µm	150 x 2.1mm	<b>99231</b>
	3µm	50 x 4.6mm	<b>43869</b>
	3µm	100 x 4.6mm	<b>99233</b>
	3µm	150 x 4.6mm	<b>99235</b>
	5µm	150 x 2.1mm	<b>99237</b>
	5µm	150 x 4.6mm	<b>99239</b>
	5µm	250 x 4.6mm	<b>99241</b>
<b>Cyano</b>	3µm	150 x 2.1mm	<b>99243</b>
	3µm	50 x 4.6mm	<b>43924</b>
	3µm	100 x 4.6mm	<b>99245</b>
	3µm	150 x 4.6mm	<b>99247</b>
	5µm	150 x 2.1mm	<b>99249</b>
	5µm	150 x 4.6mm	<b>99251</b>
	5µm	250 x 4.6mm	<b>99253</b>
<b>Amino</b>	3µm	150 x 2.1mm	<b>99255</b>
	3µm	50 x 4.6mm	<b>43926</b>
	3µm	100 x 4.6mm	<b>99257</b>
	3µm	150 x 4.6mm	<b>99259</b>
	5µm	150 x 2.1mm	<b>99261</b>
	5µm	150 x 4.6mm	<b>99263</b>
	5µm	250 x 4.6mm	<b>99265</b>
<b>Silica</b>	3µm	150 x 2.1mm	<b>99267</b>
	3µm	50 x 4.6mm	<b>43842</b>
	3µm	100 x 4.6mm	<b>99269</b>
	3µm	150 x 4.6mm	<b>99271</b>
	5µm	150 x 2.1mm	<b>99273</b>
	5µm	150 x 4.6mm	<b>99275</b>
	5µm	250 x 4.6mm	<b>99277</b>
<b>OA</b>	5µm	150 x 4.6mm	<b>88640</b>
	5µm	250 x 4.6mm	<b>88645</b>
	3µm	100 x 4.6mm	<b>88650</b>
	3µm	150 x 4.6mm	<b>88655</b>
<b>Amide</b>	5µm	150 x 4.6mm	<b>88660</b>
	5µm	250 x 4.6mm	<b>88665</b>
	3µm	100 x 4.6mm	<b>88670</b>
	3µm	150 x 4.6mm	<b>88675</b>
<b>Carbohydrate ES</b>	5µm	150 x 4.6mm	<b>35102</b>
	5µm	250 x 4.6mm	<b>35101</b>

## Prevail™ LC/MS Columns



### Prevail™ LC/MS Columns

PACKING	PARTICLE SIZE	LENGTH X I.D.	PART NO.	
<b>C18</b>	3µm	150 x 2.1mm	<b>99200</b>	
	3µm	100 x 2.1mm	<b>43871</b>	
	3µm	50 x 2.1mm	<b>43818</b>	
	<b>Expedite™</b>	3µm	20 x 2.1mm	<b>43827</b>
	<b>Expedite™</b>	3µm	10 x 2.1mm	<b>43861</b>
	<b>Expedite™</b>	3µm	20 x 4.6mm	<b>43804</b>
	<b>Expedite™</b>	3µm	10 x 4.6mm	<b>43878</b>
	<b>Expedite™</b>	3µm	33 x 7.0mm	<b>99280</b>
	<b>Phenyl</b>	3µm	150 x 2.1mm	<b>99231</b>
		3µm	100 x 2.1mm	<b>43872</b>
3µm		50 x 2.1mm	<b>43819</b>	
<b>Expedite™</b>		3µm	20 x 2.1mm	<b>43885</b>
<b>Expedite™</b>		3µm	10 x 2.1mm	<b>43873</b>
<b>Expedite™</b>		3µm	20 x 4.6mm	<b>43815</b>
<b>Expedite™</b>		3µm	10 x 4.6mm	<b>43887</b>
<b>Expedite™</b>	3µm	33 x 7.0mm	<b>99282</b>	
<b>Silica</b>	3µm	150 x 2.1mm	<b>99267</b>	
	3µm	100 x 2.1mm	<b>43805</b>	
	3µm	50 x 2.1mm	<b>43868</b>	
	<b>Expedite™</b>	3µm	20 x 2.1mm	<b>43826</b>
	<b>Expedite™</b>	3µm	10 x 2.1mm	<b>43841</b>
	<b>Expedite™</b>	3µm	20 x 4.6mm	<b>43816</b>
	<b>Expedite™</b>	3µm	10 x 4.6mm	<b>43858</b>
	<b>Expedite™</b>	3µm	33 x 7.0mm	<b>99284</b>

## Prevail™ High Speed Rocket™ Columns



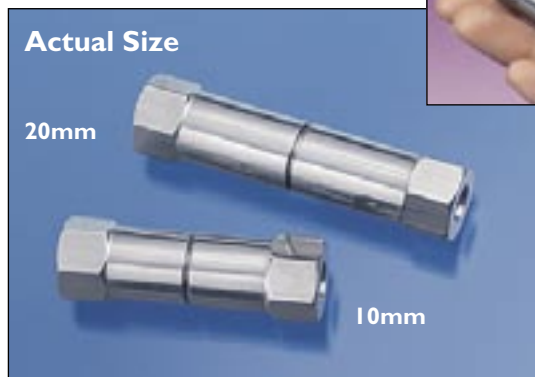
### Prevail™ Rocket™ Columns

PACKING	PARTICLE SIZE	LENGTH X I.D.	PART NO.
<b>C18</b>	3µm	53 x 7.0mm	<b>99279</b>
	3µm	33 x 7.0mm	<b>99280</b>
<b>Phenyl</b>	3µm	53 x 7.0mm	<b>99281</b>
	3µm	33 x 7.0mm	<b>99282</b>
<b>Silica</b>	3µm	53 x 7.0mm	<b>99283</b>
	3µm	33 x 7.0mm	<b>99284</b>
<b>OA</b>	3µm	53 x 7.0mm	<b>50755</b>
	3µm	33 x 7.0mm	<b>99292</b>
<b>Amide</b>	3µm	53 x 7.0mm	<b>50775</b>
	3µm	33 x 7.0mm	<b>99298</b>
<b>Carbohydrate ES</b>	5µm	53 x 7.0mm	<b>35104</b>
	5µm	100 x 7.0mm	<b>35103</b>

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## Expedite™ LC/MS Hardware for Fast, Low-Volume Applications

Expedite™ hardware is available in 10 or 20mm lengths, and 2.1 or 4.6mm i.d..



Expedite your LC/MS analyses with Alltech's high-speed, low-volume Expedite™ hardware. These fast analysis columns packed with high resolution Prevail™ media increase laboratory efficiency by doubling or even tripling sample throughput.

See Page 12,13 & 15 for our full line of Prevail™ LC/MS Columns

## Protect Your Prevail™ Investment with All-Guard™ Cartridges

- **Simple - Fewer Parts, Fewer Seals, Fewer Problems**
- **Fast - Change Cartridges in Seconds Without Tools**
- **Reliable - Pressure and Chromatographically Tested with Test Certificate Supplied**
- **Efficient - Matched Media & Low Dead Volume Maintain Chromatographic Performance**



### Prevail™ All-Guard™ Cartridges\*

PACKING	PARTICLE SIZE	LENGTH X I.D.	QTY.	PART No.
<b>C18</b>	5µm	7.5 x 4.6mm	3	<b>99286</b>
<b>C8</b>	5µm	7.5 x 4.6mm	3	<b>99287</b>
<b>Phenyl</b>	5µm	7.5 x 4.6mm	3	<b>99288</b>
<b>Cyano</b>	5µm	7.5 x 4.6mm	3	<b>99289</b>
<b>Amino</b>	5µm	7.5 x 4.6mm	3	<b>99290</b>
<b>Silica</b>	5µm	7.5 x 4.6mm	3	<b>99291</b>
<b>OA</b>	5µm	7.5 x 4.6mm	3	<b>96429</b>
<b>Amide</b>	5µm	7.5 x 4.6mm	3	<b>96443</b>
<b>All-Guard™ Guard Cartridge Holder</b>			1	<b>80101</b>

\*Requires Guard Holder

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# GRACE Davison

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