

APPLICATIONS

Upgrading Existing Methods to Gain Speed and Performance with a Kinetex[®] 2.6 μ m Polar C18 Column

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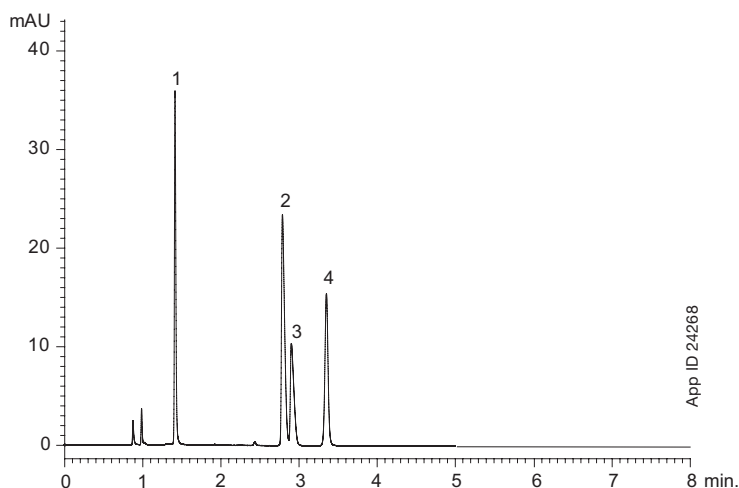
Overview/Summary

Typically, the advent of newer technologies allows customers to gain benefits, however sometimes these gains can be outweighed by an increase in complexity or costs. With the new Kinetex Polar C18, the opposite happens; customers can realize gains even using existing methodologies. With a 2.6 μ m core-shell particle size and polar modified surface, the Kinetex Polar C18 can easily upgrade existing fully porous 5 μ m and 3 μ m methods to shorten run times, increase sensitivity, and even provide greater resolution with much higher efficiency levels. Here we present three polar compound comparisons (Organic Acids, Water Soluble Vitamins, and Pharmaceutical Mix) between the older, fully porous Aqua C18 material and the Kinetex 2.6 μ m Polar C18 core-shell material to demonstrate the variety of gains that can be achieved when upgrading older methods to Kinetex Core-Shell Technology.

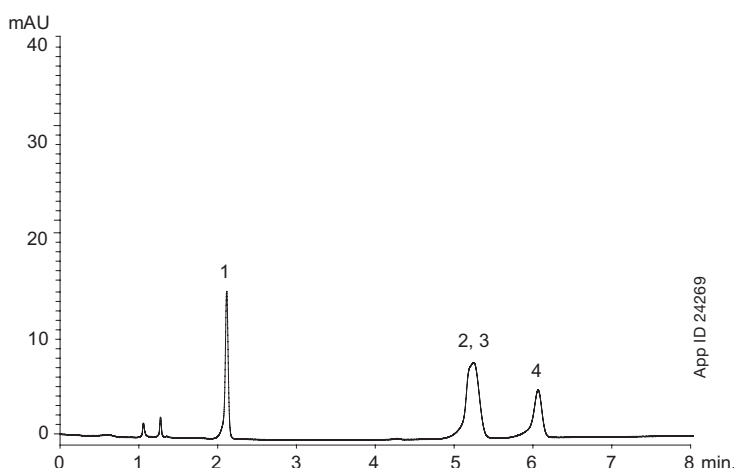
LC-UV Conditions

Columns: Kinetex 2.6 μ m Polar C18
Aqua 3 μ m C18
Dimensions: 150 x 4.6 mm
Mobile Phase: 20 mM Potassium Phosphate (pH 1.5)
Flow Rate: 1.5 mL/min
Temperature: 30 °C
Detection: UV @ 210 nm
Sample: 1. Malic Acid
2. Citric Acid
3. Fumaric Acid
4. Succinic Acid

Organic Acids Kinetex 2.6 μ m Polar C18

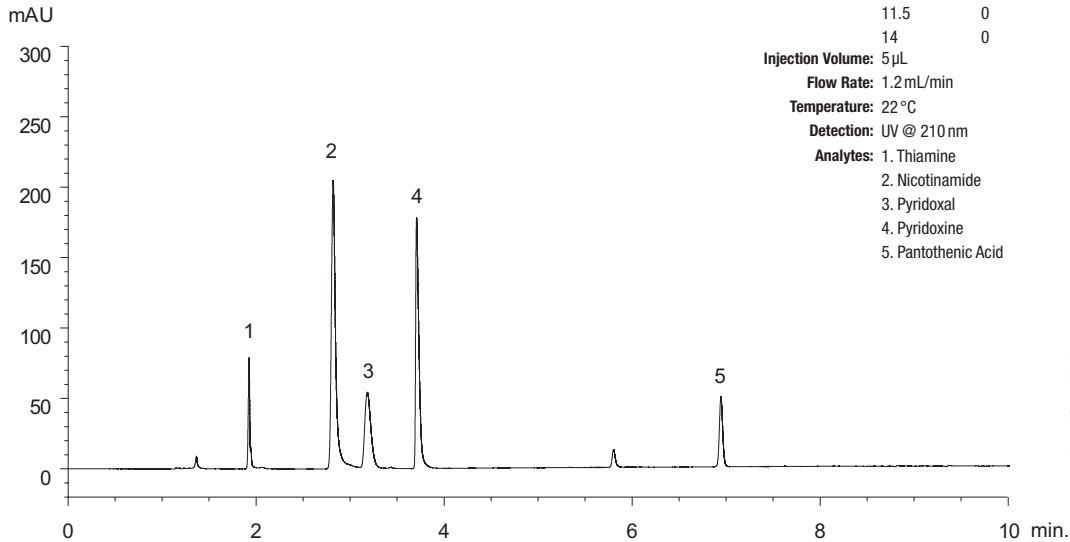


Aqua 3 μ m C18

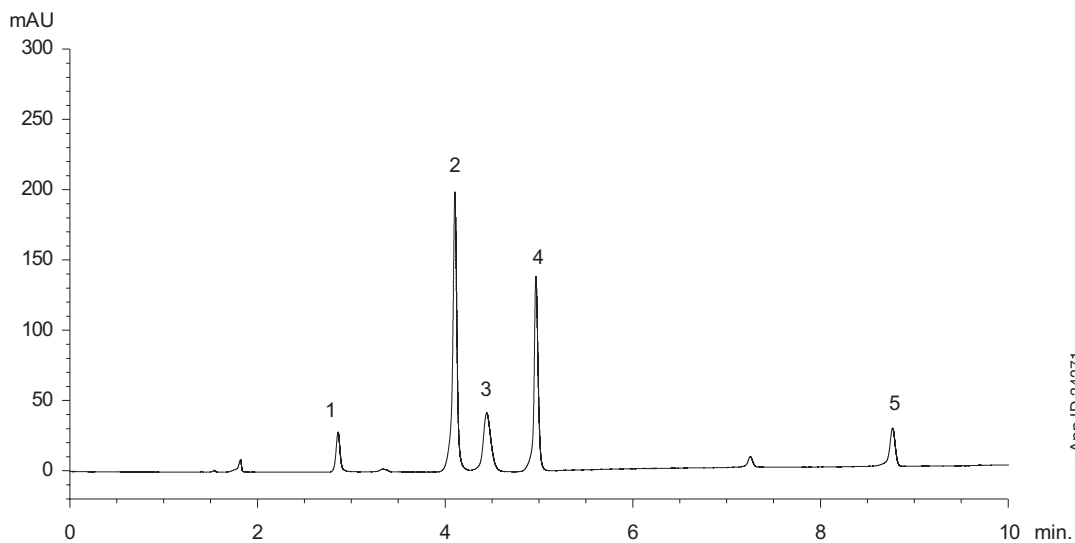


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Water Soluble Vitamins Kinetex® 2.6 µm Polar C18



Aqua 3 µm C18



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LC-UV Conditions

Column: Kinetex 2.6µm Polar C18

Aqua 3µm C18

Dimensions: 150 x 4.6 mm

Mobile Phase: A: 20 mM Ammonium Formate (pH 3.0)

B: Acetonitrile

Gradient: Time (min)	% B
0	5
10	95
11	95
11.5	5
14	5

Injection Volume: 5 µL

Flow Rate: 1.2 mL/min

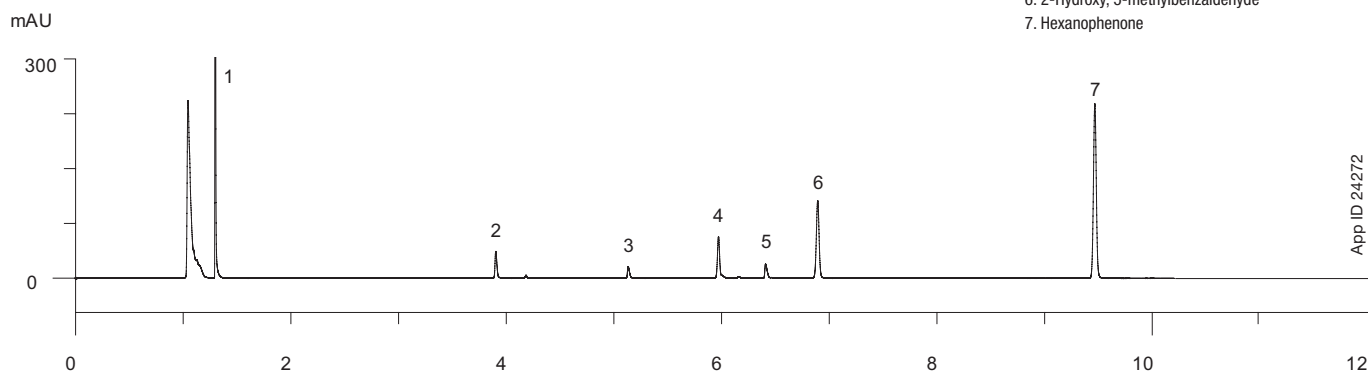
Temperature: 22 °C

Detection: UV @ 254 nm

- Analytes:**
1. Uracil
 2. Pindolol
 3. Chlorpheniramine
 4. Nortriptyline
 5. 3-Methyl, 4-Nitrobenzoic Acid
 6. 2-Hydroxy, 5-methylbenzaldehyde
 7. Hexanophenone

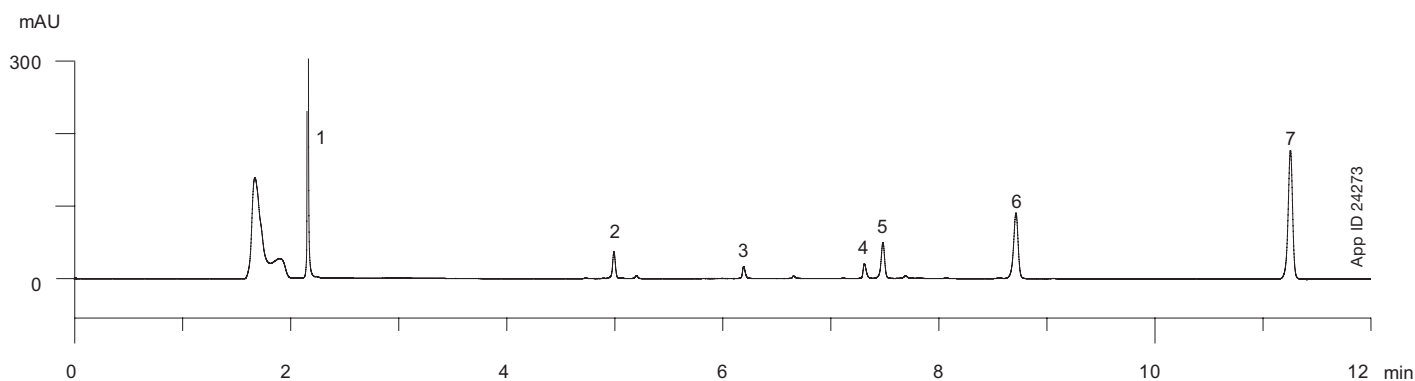
Pharmaceutical Mixture

Kinetex[®] 2.6 µm Polar C18



App ID 24272

Aqua 3 µm C18



App ID 24273



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Kinetex[®] Ordering Information

2.6 µm Minibore Columns (mm)					SecurityGuard [™] ULTRA Cartridges [‡]
Phases	30 x 2.1	50 x 2.1	100 x 2.1	150 x 2.1	3/pk
Polar C18	00A-4759-AN	00B-4759-AN	00D-4759-AN	00F-4759-AN	AJ0-9532 for 2.1 mm ID

2.6 µm MidBore [™] Columns (mm)					SecurityGuard [™] ULTRA Cartridges [‡]
Phases	30 x 3.0	50 x 3.0	100 x 3.0	150 x 3.0	3/pk
Polar C18	—	00B-4759-Y0	00D-4759-Y0	00F-4759-Y0	AJ0-9531 for 3.0 mm ID

2.6 µm Analytical Columns (mm)					SecurityGuard [™] ULTRA Cartridges [‡]
Phases	30 x 4.6	50 x 4.6	100 x 4.6	150 x 4.6	3/pk
Polar C18	—	00B-4759-E0	00D-4759-E0	00F-4759-E0	AJ0-9530 for 4.6 mm ID

[‡] SecurityGuard ULTRA Cartridges require holder, Part No.: AJ0-9000.



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