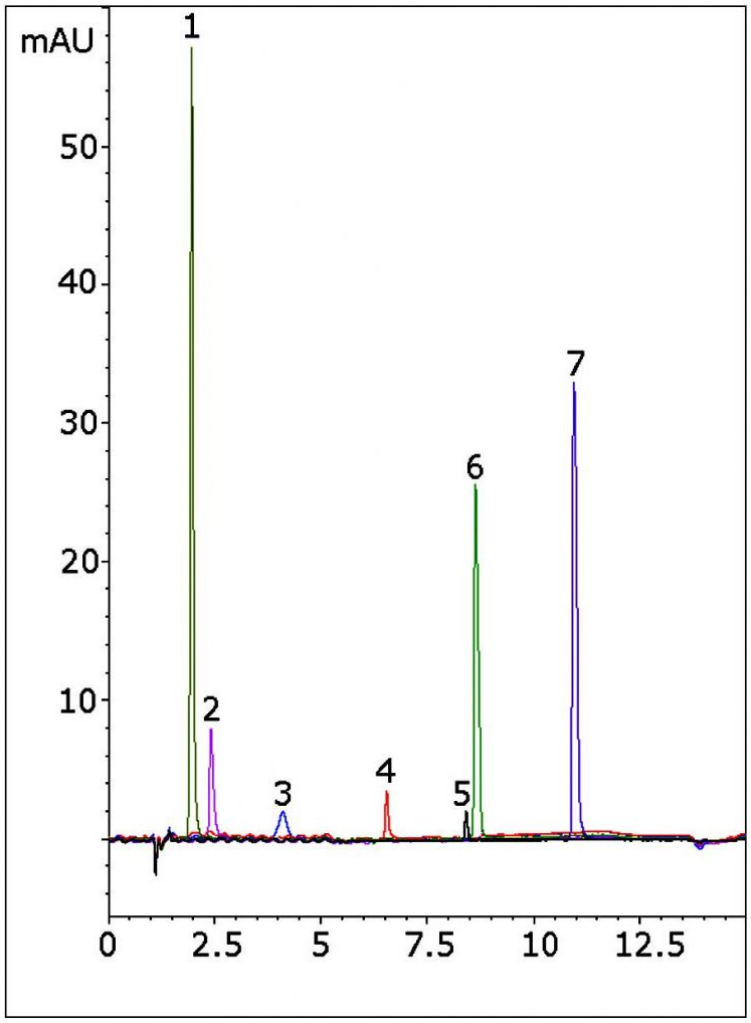
Separation of Polar Solutes with HPLC – AppNote

Niacin, Riboflavin, Folic Acid, Pyridoxine, Metformin, Thiamine

The Cogent Diol Column is a good addition to the TYPE-C™ Silica line of HPLC stationary phases. Here, a variety of common polar analytes are well-retained and separated.



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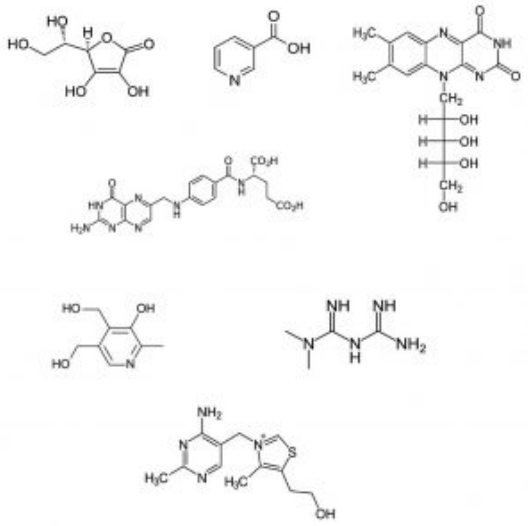

Peaks:

1. Ascorbic acid
2. Niacin
3. Riboflavin
4. Folic acid
5. Pyridoxine
6. Metformin
7. Thiamine

Method Conditions

Column: Cogent Diol™, 4µm, 100Å

Catalog No.: 40060-15P-3

Dimensions: 3.0 x 150mm

Mobile Phase:

A: DI Water / 0.1% Formic Acid (v/v)

B: Acetonitrile / 0.1% Formic Acid (v/v)

Gradient:

Time *(minutes)*	%B
0	95
3	95
10	40
12	40
13	95

Post Time: 5 minutes

Flow rate: 0.7 mL/minute

Detection: UV @ 254 nm

Injection vol.: 1µL

Sample Preparation: Mixture of reference standards in diluent of 50 / 50 Solvent A / Solvent B.

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t_0: 0.7 minutes

Note: *B and C Vitamins are hydrophilic and therefore may be difficult to retain in Reversed Phase methods. Metformin is a highly polar compound used for treatment of type 2 diabetes.*

Attachment

No 291 Separation of Polar Test Solutes pdf 0.3 Mb Download File

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