

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.





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.: <u>40060-15P-3</u> 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 <i>(minutes)</i>	%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.

to: 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

Printed from the Chrom Resource Center Copyright 2025, All Rights Apply **MicroSolv Technology Corporation** 9158 Industrial Blvd. NE, Leland, NC 28451 Tel: (732) 380-8900 Fax: (910) 769-9435 Email: customers@mtc-usa.com Website: www.mtc-usa.com