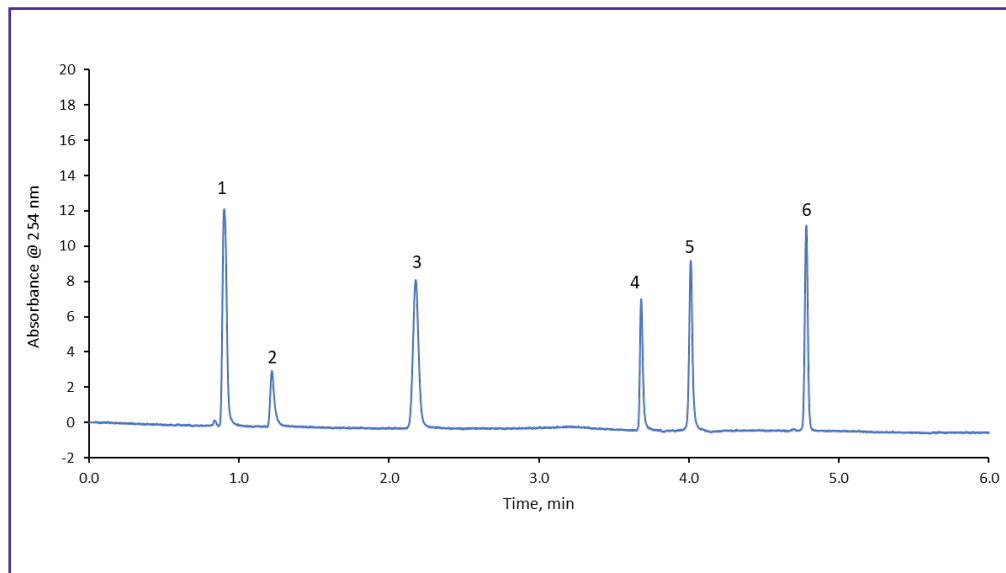




## Water-Soluble Vitamins Separated on HALO® Penta-HILIC

361



### PEAK IDENTITIES:

1. Nicotinamide (B3)
2. Pyridoxine (B6)
3. Riboflavin (B2)
4. Thiamine (B1)
5. Ascorbic Acid (C)
6. Cyanocobalamin (B12)

### TEST CONDITIONS:

Column: HALO 90 Å Penta-HILIC, 2.7 µm, 2.1 x 150 mm

Part Number: 92812-705

Mobile Phase A: 10 mM ammonium acetate + 0.05% acetic acid in 90/10 water/acetonitrile

Mobile Phase B: 10 mM ammonium acetate + 0.05% acetic acid in 10/90 water/acetonitrile

Gradient:	Time	%B
	0.00	100
	1.00	100
	6.00	50
	7.00	100
	12.00	100

Flow Rate: 0.5 mL/min

Pressure: 202 bar

Temperature: 40 °C

Detection: UV 254 nm, PDA

Injection Volume: .5 µL

Sample Solvent: 50/50 water/acetonitrile

Data Rate: 40 Hz

Response Time: 0.05 sec

Flow Cell: 1 µL

LC System: Shimadzu Nexera X2

An alternative method to reversed-phase for analysis of water soluble vitamins is demonstrated on a HALO® Penta-HILIC column using HILIC conditions. All of the vitamins are baseline resolved and the separation is complete in less than 5 minutes.

While there can be resistance and challenges to using HILIC mode, this separation shows how useful it can be in terms of retention and resolution.

