

Vitamins – Water Soluble (Isocratic I)

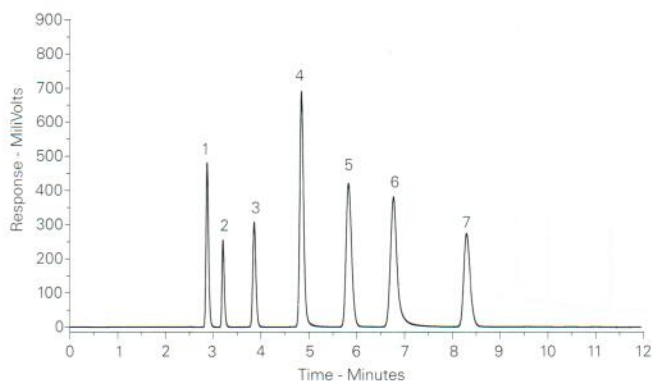
Application #AN2990

Conditions

Column: ACE 5 C18
Dimensions: 250 x 4.6 mm
Part Number: ACE-121-2546
Mobile Phase: 50 mM KH_2PO_4 pH 3.0
 in $\text{H}_2\text{O}/\text{MeOH}$ (97:3 v/v)
Flow Rate: 1 mL/min
Temperature: Ambient
Detection: UV, 205 nm

Analytes

1. Pyridoxamine
2. Thiamine (Vitamin B1)
3. L-Ascorbic acid (Vitamin C)
4. Nicotinic acid
5. Pyridoxal
6. Impurity
7. Pyridoxine



Vitamins – Water Soluble (Isocratic II)

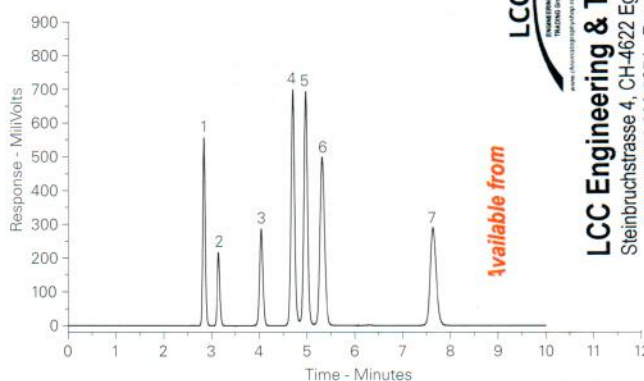
Application #AN2980

Conditions

Column: ACE 5 C8
Dimensions: 250 x 4.6 mm
Part Number: ACE-122-2546
Mobile Phase: 50 mM KH_2PO_4 pH 2.5 in
 $\text{H}_2\text{O}/\text{MeOH}$ (97:3 v/v)
Flow Rate: 1 mL/min
Temperature: Ambient
Detection: UV, 205 nm

Analytes

1. Pyridoxamine
2. Thiamine (Vitamin B1)
3. L-Ascorbic acid (Vitamin C)
4. Niacinamide (Vitamin B3)
5. Pyridoxal
6. Nicotinic acid
7. Pyridoxine



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Vitamins in Fruit Juice by Fast LC-MS

Application #AN2610

Conditions

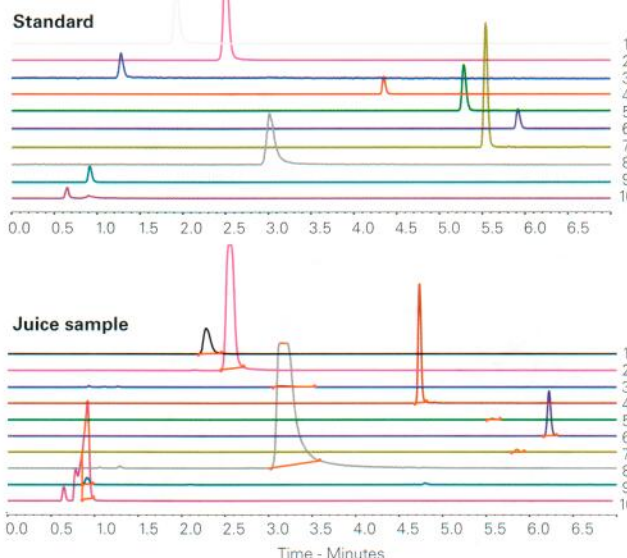
Column: ACE Excel 3 C18-PFP
Dimensions: 100 x 2.1 mm
Part Number: EXL-1110-1002U
Mobile Phase: A: 15 mM formic acid, adjusted to
 pH 3.8 with ammonia solution
 B: MeOH

Gradient:	Time (mins)	%B
	0.00	1
	1.00	1
	3.00	8
	3.10	25
	6.00	50
	6.50	50
	6.51	1
	9.00	1

Flow Rate: 0.4 mL/min
Temperature: 30 °C
Detection: LCMS-8040 triple quad MS
 ESI positive mode (ESI negative
 for ascorbic and citric acid)
 DL temperature: 250 °C
 Heat block temperature: 400 °C

Analytes

1. Thiamine (Vitamin B1)
(m/z 266.10 → 122.15)
2. Pyridoxine (Vitamin B6)
(m/z 170.20 → 152.15)
3. Nicotinic acid (Vitamin B3)
(m/z 124.00 → 78.00)
4. Pantothenic acid (Vitamin B5)
(m/z 220.30 → 90.05)
5. Cyanocobalamin (Vitamin B12)
(m/z 678.50 → 147.05)
6. Riboflavin (Vitamin B2)
(m/z 377.20 → 243.10)
7. Biotin (Vitamin B7)
(m/z 245.10 → 227.05)
8. Nicotinamide (Vitamin B3)
(m/z 123.20 → 80.05)
9. Ascorbic acid (Vitamin C)
(m/z 175.10 → 114.80)
10. Citric acid
(m/z 191.10 → 87.15)



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