Vitamins in Fruit Juice by Fast LC-MS

ACE®
Ultra-inert
UHPLC & HPLC Columns

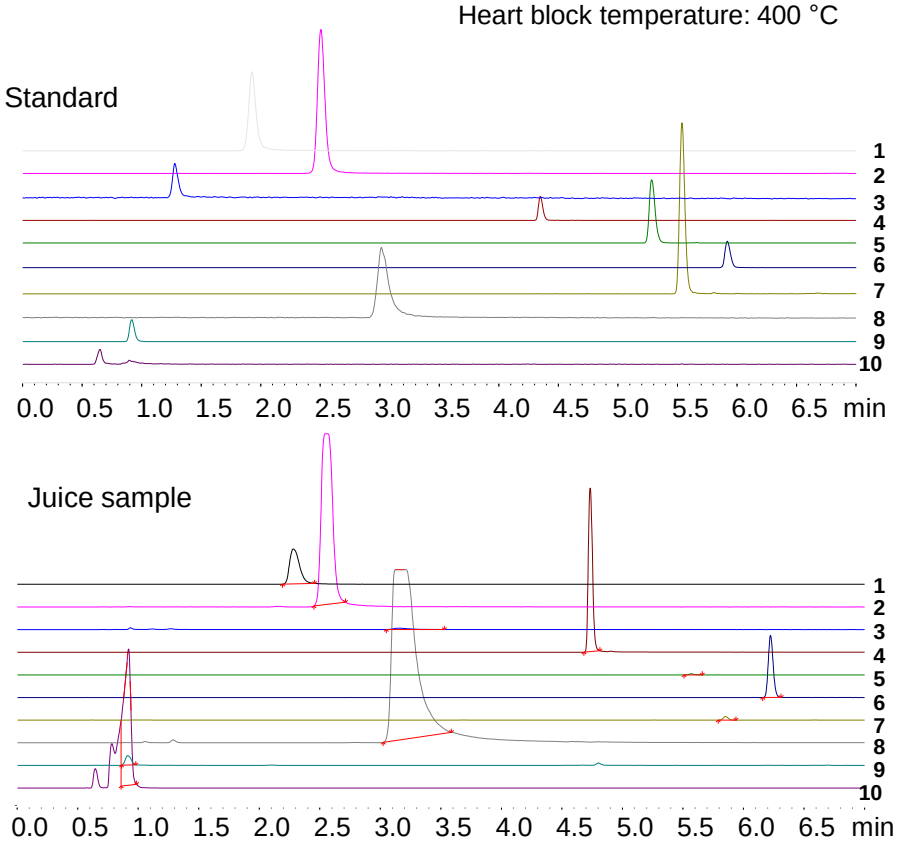
Application #AN2610

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

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 Heart block temperature: 400 °C



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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