Water Soluble Vitamins in Green Vegetables by LC-MS/MS

ACE®
Ultra-inert
UHPLC & HPLC Columns

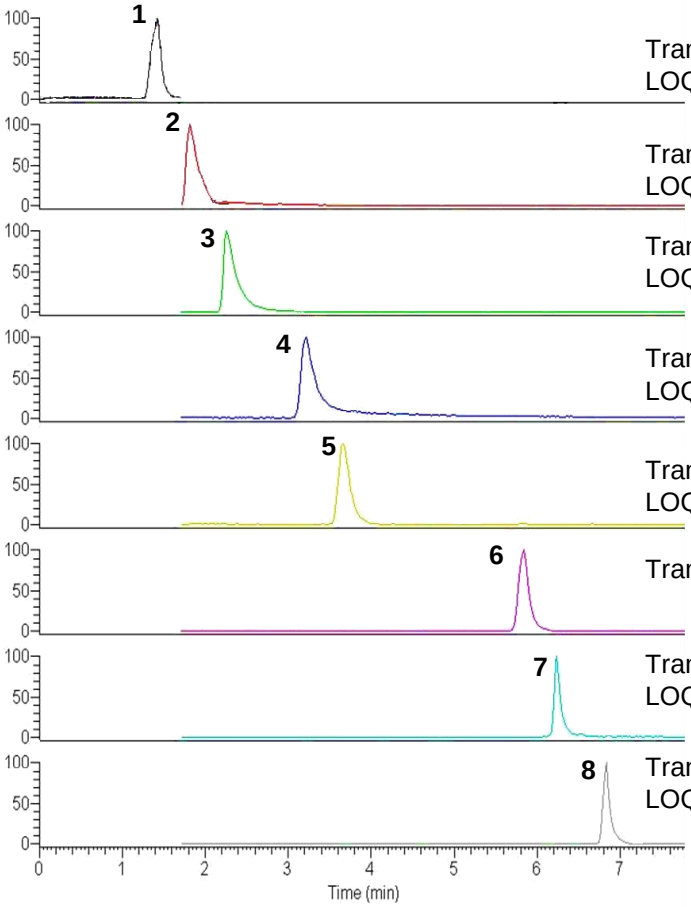
Application #AN1860

Conditions

Column:	ACE 3 C18
Dimensions:	100 x 2.1 mm
Part Number:	ACE-111-1002
Mobile Phase:	A: 10 mM ammonium acetate pH 4.5 in H_2O
	B: 0.1% acetic acid in MeOH
	C: 0.3% acetic acid in MeOH

Time (mins)	%A	%B	%C
0	90	10	0
3	90	10	0
4	50	0	50
7	50	0	50
10	0	100	0

Flow Rate:	0.2 mL/min
Injection:	10 µL
Temperature:	20 °C
Detection:	TSQ triple quad MS; SRM mode
	-ESI for vitamin C
	+ESI for B vitamins



Transition *m/z* 174.9 → 115.2
LOQ 128.1 ng/mL

Transition *m/z* 265.1 → 122.1
LOQ 2.4 ng/mL

Transition *m/z* 169.9 → 152.1
LOQ 0.6 ng/mL

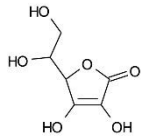
Transition *m/z* 123.0 → 80.3
LOQ 13.2 ng/mL

Transition *m/z* 220.0 → 202.1
LOQ 23.3 ng/mL

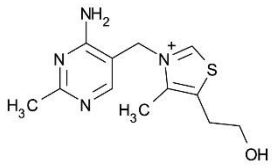
Transition *m/z* 180.1 → 105.2

Transition *m/z* 442.0 → 294.9
LOQ 1.9 ng/mL

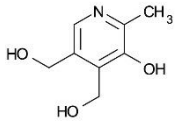
Transition *m/z* 377.1 → 243.0
LOQ 0.2 ng/mL



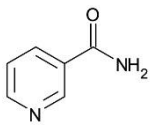
1. Ascorbic acid



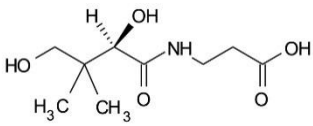
2. Thiamine



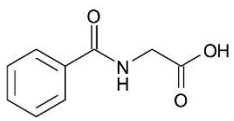
3. Pyridoxine



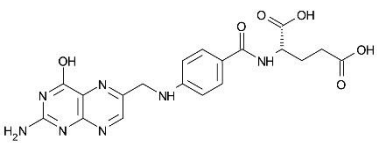
4. Nicotinamide



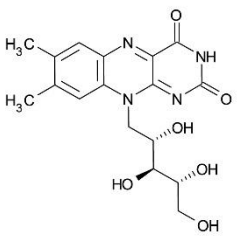
5. Pantothenic acid



6. Hippuric acid (IS)



7. Folic acid



8. Riboflavin

Reproduced with permission of Foodomics Laboratory, CIAL-CSIC, Madrid, Spain
© 2015 ACT Ltd. All rights reserved. All products are available worldwide.