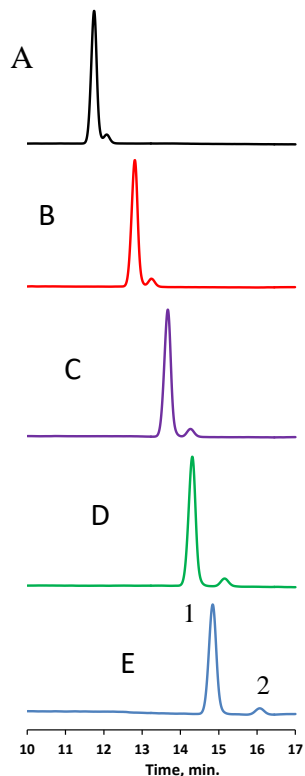


## Vitamin K1 Analysis: Temperature vs. Resolution



G0191

### PEAK IDENTITIES:

1. 2,3-*trans*-phyloquinone (K1)
2. *cis*-phyloquinone (K1)

	Resolution	Temperature
A	1.53	35°C
B	1.58	30°C
C	1.78	25°C
D	2.2	20°C
E	3.03	15°C

### TEST CONDITIONS:

Column: HALO 160 Å C30, 2.7 µm, 4.6 x 150 mm

Part Number: 92114-730

Mobile Phase A: Water

Mobile Phase B: Methanol

Isocratic: 95% B

Flow Rate: 1.5 mL/min

Back Pressure: 341 bar

Detection: 280 nm, PDA

Injection Volume: 1.0 µL

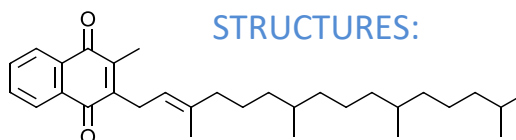
Sample Solvent: Methanol

Response Time: 0.12 sec.

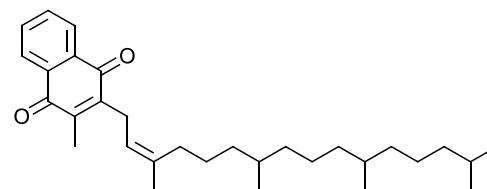
Flow Cell: 5 µL Semi-Micro

LC System: Agilent 1100 Series

### STRUCTURES:



Vitamin K1: 2,3-*trans*-phyloquinone



Vitamin K1: *cis*-phyloquinone

Vitamin K, a fat-soluble vitamin, is beneficial for blood clotting and bone health. Vitamin K1 is produced from plants and can be found in high amounts in green vegetables. Baseline resolution of the vitamin K1 isomers is increased as the temperature of the column decreases.