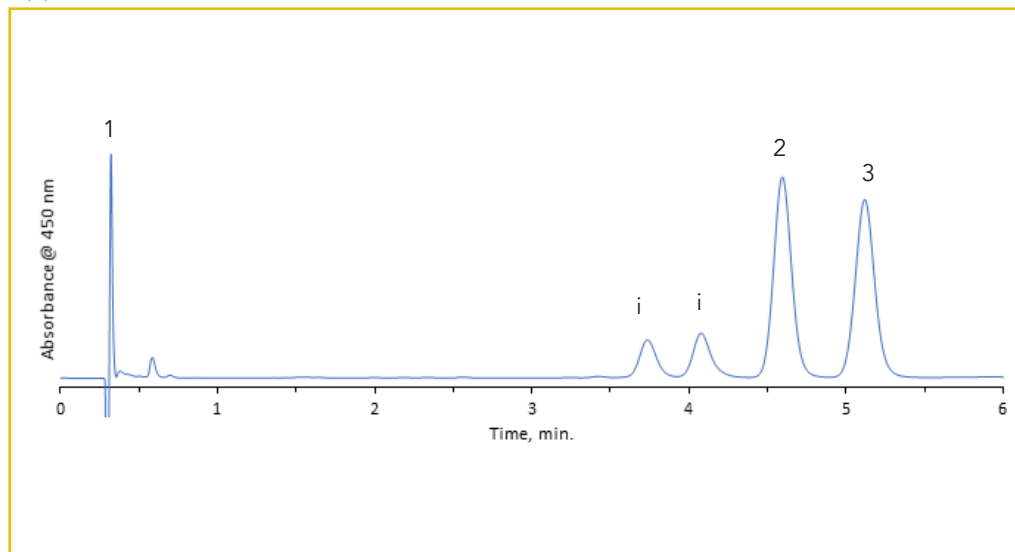




## Carotenoids Extracted from Carrot Juice Analyzed Using HALO® C30

Application Note 183-V



### PEAK IDENTITIES:

1. Lutein
  2.  $\alpha$ -carotene
  3.  $\beta$ -carotene
- i = Unidentified isomers

The carotenoids lutein,  $\alpha$ -carotene, and  $\beta$ -carotene were isolated from a commercially available carrot juice using liquid liquid extraction. Carotenes are responsible for the orange color in vegetables such as carrots and are considered antioxidants. The separation was performed on a HALO® C30 column with high resolution between the  $\alpha$ - and  $\beta$ -carotene peaks.

### TEST CONDITIONS:

**Column:** HALO 160 Å C30, 2.7  $\mu\text{m}$ ,  
2.1 x 50 mm  
**Part Number:** 92112-430  
**Isocratic:** 100% Methanol  
**Flow Rate:** 0.4 mL/min  
**Pressure:** 100 bar  
**Temperature:** 30 °C  
**Detection:** UV 450 nm, PDA  
**Injection Volume:** 2.5  $\mu\text{L}$   
**Sample Solvent:** Methanol/isopropyl alcohol  
**Response Time:** 0.025 sec  
**Data Rate:** 40 Hz  
**Flow Cell:** 1.0  $\mu\text{L}$   
**LC System:** Shimadzu Nexera X2

### STRUCTURES:

