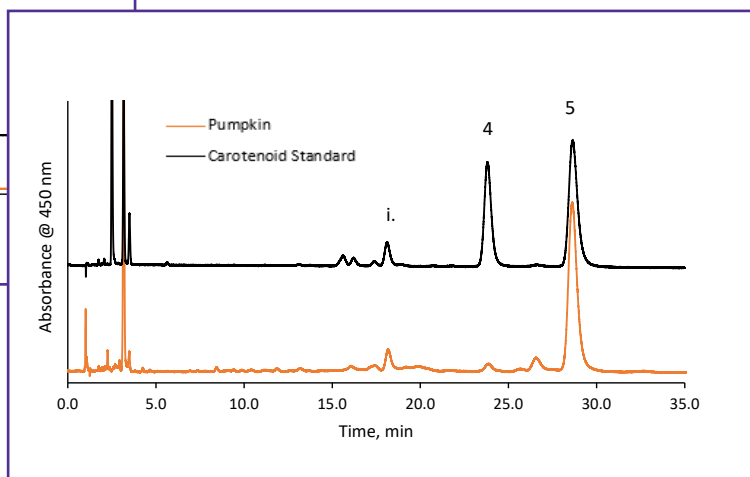
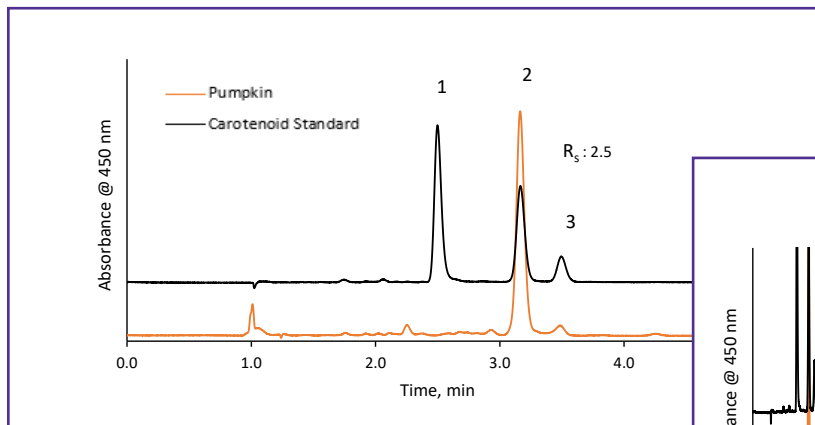




Carotenoid Analysis in Pumpkin

250-V



PEAK IDENTITIES

1. Astaxanthin
2. Lutein
3. Zeaxanthin
4. α - Carotene
5. β -Carotene
- i. unidentified isomers

TEST CONDITIONS:

Column: HALO® C30, 2.7 μ m, 4.6 x 150 mm
Part Number: 92114-730
Competitor: FPP C30, 3.0 μ m, 4.6 x 150 mm
Isocratic: 100% Methanol
Flow Rate: 1.5 mL/min
Initial HALO® Pressure: 277 bar
Temperature: 15 °C
Detection: 450 nm,

Injection Volume: 20.0 μ L
Sample Solvent: Methanol
Data Rate: 14 Hz
Response Time: 0.12 sec.
Flow Cell: 5 μ L semi-micro
LC System: LC System: Agilent 1100

Pumpkins contain high amounts of carotenoids, especially beta carotene. Carotenoids are fat-soluble compounds that can be split into two main groups called xanthophylls and carotenes. These compounds both contain anti-oxidant properties and some can be converted into vitamin A when released into the body. A liquid-liquid extraction is performed with 0.2g of pumpkin pulp. Carotenoids are extracted from the pumpkin and analyzed on a HALO® C30 column. The HPLC oven set at sub-ambient temperature enables optimum resolution of early eluting peaks.

