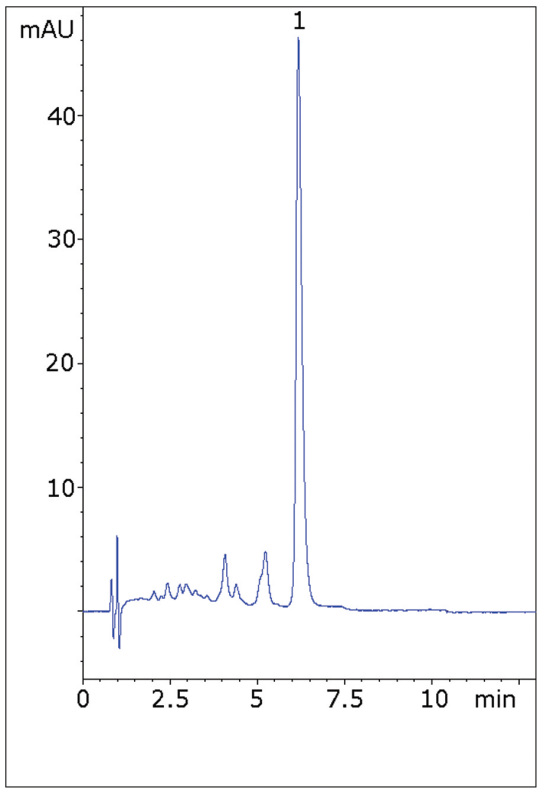
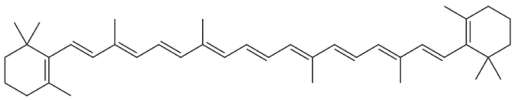
ß-Carotene Capsule

Separation from other matrix peaks





beta-Carotene

Note: Beta-carotene is found in many fruits and vegetables. It is responsible for the orange color in carrots, pumpkins, sweet potatoes, and others. In terms of nutrition, beta-carotene is a metabolic precursor to Vitamin A.

Method Conditions

Column: **Cogent Phenyl Hydride™**, 4µm, 100Å

Catalog No.: 69020-7.5P

Dimensions: 4.6 x 75 mm

Mobile Phase: A: DI H_2O / 0.1% formic acid (v/v)
B: Acetonitrile / 0.1% formic acid (v/v)

Gradient:

time (min.)	%B
0	70
1	70
6	90
9	90
10	70

Post Time: 3 min

Injection vol.: 10µL

Flow rate: 1.0 mL/min

Detection: UV 452 nm

Sample: A beta-carotene capsule was opened and the contents were transferred to a 25mL volumetric flask containing a portion of methanol. The solution was sonicated 15 min and diluted to mark with methanol. After mixing, a portion was filtered with a 0.45µm nylon syringe filter (MicroSolv Tech Corp.).

Peak: 1. ß-Carotene

t_0: 0.9 min

Discussion

Beta-carotene may be taken as a dietary supplement in capsule form. In this case, a wide variety of matrix peaks were observed in the chromatographic data. It is possible that some of these peaks are various isomers of all-trans ß-carotene or other similar carotenes. In any case, resolution was obtained from the other matrix peaks, which allows for accurate quantitation of ß-carotene in the capsule.

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