

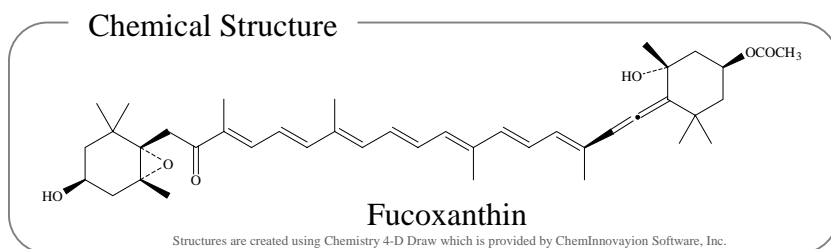
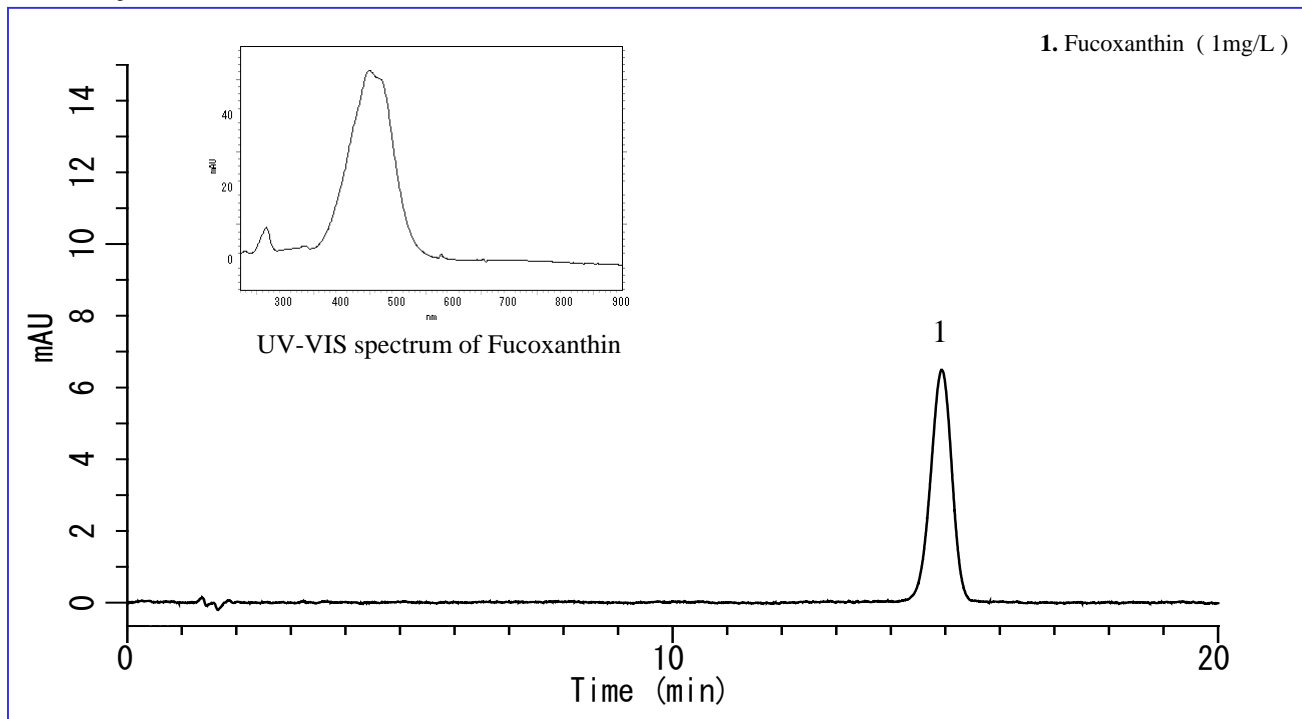
This is an application data of analyzing Fucoxanthin in food by HPLC. Fucoxanthin is a carotenoid, which exists in a lot of brown algae and is a strong antioxidative potency compound. Fucoxanthin are confirmed to have an anticancer effect in some experiment tests.

As a sample preparation procedure, solvent extraction was first done and then a centrifugation separation was conducted to remove suspended solids.

Detection was made by a GL-7452 PDA detector and confirmed a good peak.

(K. Suzuki)

## Analysis of Standard Solution



### Analytical Conditions

**Column** : Inertsil ODS-3  
(4  $\mu$  m, 150 x 4.6 mm I.D.)  
Cat.No. 5020-04645

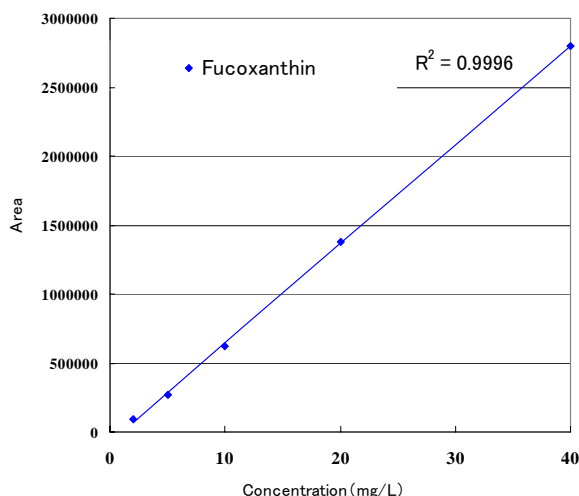
**Mobile Phase** : A) CH<sub>3</sub>CN  
B) H<sub>2</sub>O  
A/B = 75/25, v/v  
(gradient mixer)

**Flow Rate** : 1 mL/min

**Column Temp.** : 40 °C

**Detector** : PDA 445nm

**Injection Volume** : 20  $\mu$  L



Calibration Curve

## Analysis of seaweed

### Pretreatment Conditions

#### Sample

0.5g

#### Smash

Grind using mortar

#### Extract 1

Acetonitrile 10mL  
Shake 10min  
Centrifuging 3000rpm 10min

Supernatant liquid — Residue

#### Extract 2

Extract 1  
Supernatant liquid

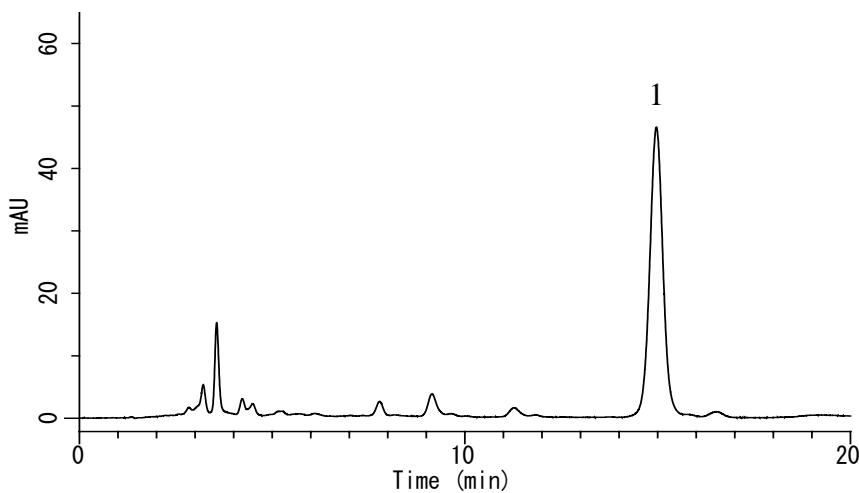
#### Final Volume

Adjust the final volume up to  
25mL using Acetonitrile

#### HPLC

### Analysis of Extract of Wakame Seaweed

#### 1. Fucoxanthin

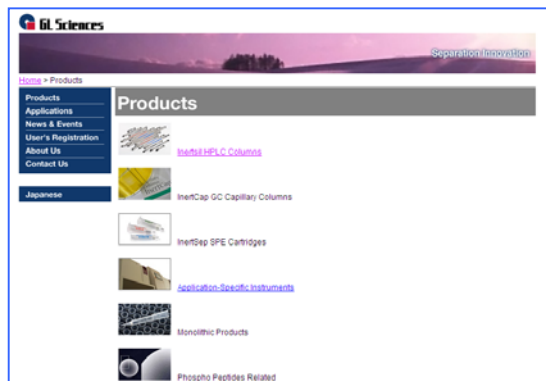


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