

Analysis of Fucoxanthin in Seaweed by HPLC

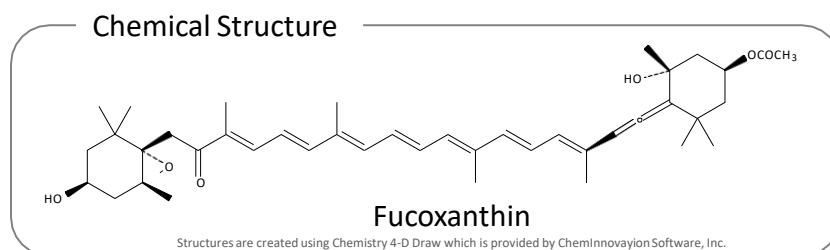
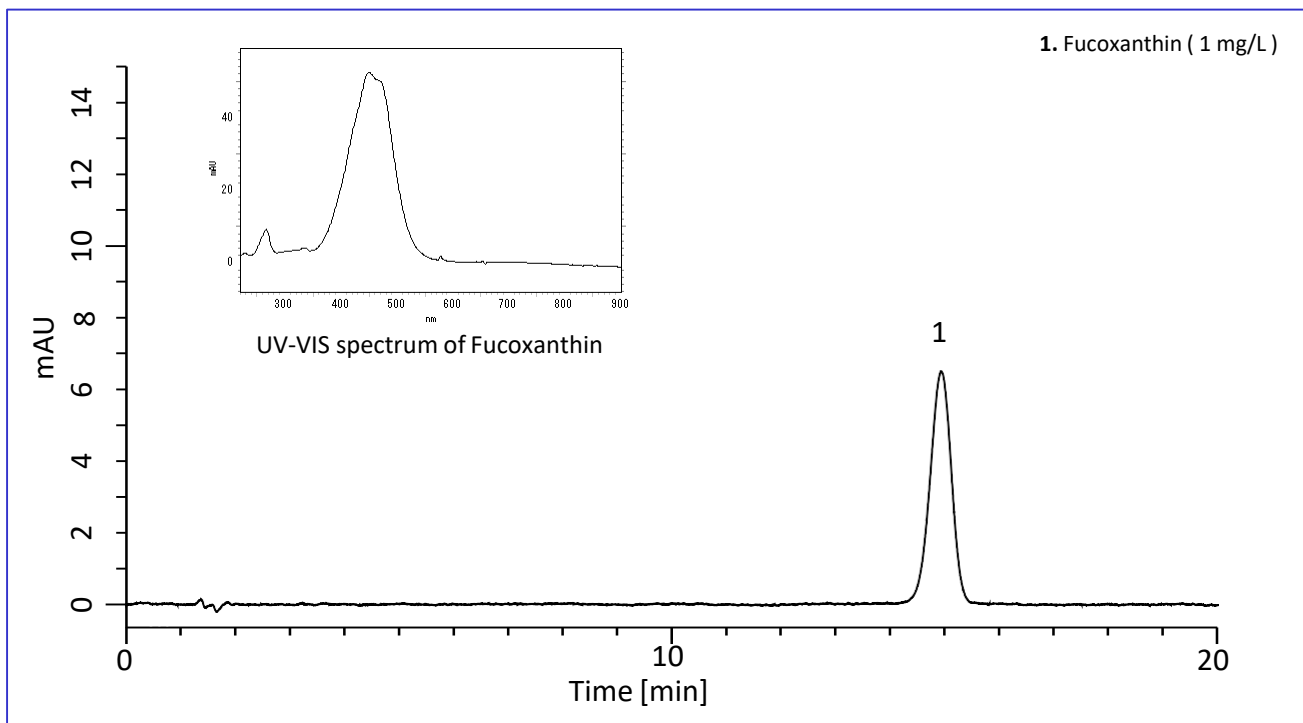
This is an application data of analyzing Fucoxanthin in food by HPLC. Fucoxanthin is a carotenoid, which exists in a lot of brown algae and is a strong antioxidative potency compound. Fucoxanthin are confirmed to have an anticancer effect in some experiment tests.

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 μ m, 150 x 4.6 mm I.D.)
Cat.No. 5020-04645

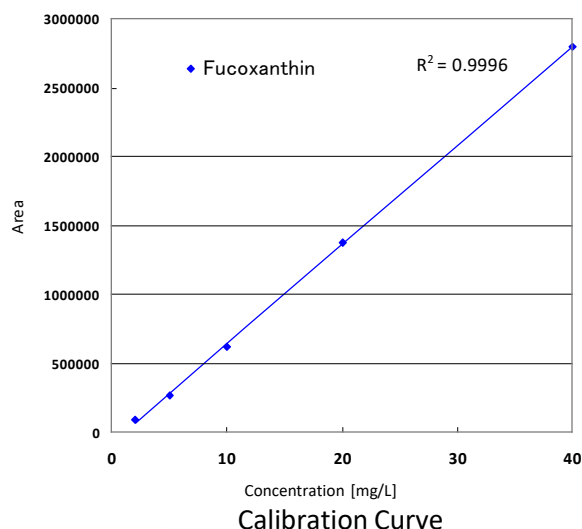
Mobile Phase : A) CH₃CN
B) H₂O
A/B = 75/25, v/v
(gradient mixer)

Flow Rate : 1 mL/min

Column Temp. : 40 °C

Detector : PDA 445nm

Injection Volume : 20 μ L



Analysis of seaweed

Pretreatment Conditions

Sample

0.5 g

Smash

Grind using mortar

Extract 1

Acetonitrile 10 mL
Shake 10 min
Centrifuging 3000 rpm 10 min

liquid Supernatant — Residue

Extract 2

— Extract 1
— Supernatant liquid

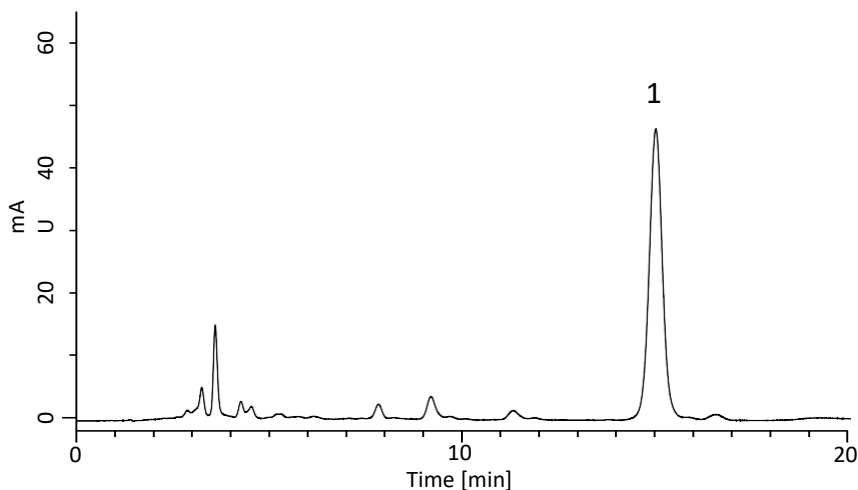
Final Volume

Adjust the final volume up to 25 mL using Acetonitrile

HPLC

Analysis of Extract of Wakame Seaweed

1. Fucoxanthin



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GL Sciences, Inc. Japan

22-1 Nishishinjuku 6-Chome
Shinjuku-ku, Tokyo,
163-1130, Japan
Phone: +81-3-5323-6620
Fax: +81-3-5323-6621
Email: world@glsc.co.jp
Web: www.glsciences.com

GL Sciences B.V.

De Sleutel 9
5652 AS Eindhoven
The Netherlands
Phone: +31 (0)40 254 95 31
Email: info@glsciences.eu
Web: www.glsciences.eu

GL Sciences (ShangHai) Ltd.

Tower B, Room 2003,
Far East International Plaza,
NO,317 Xianxia Road,
Changning District.
Shanghai, China P.C. 200032
Phone: +86 (0)21-6278-2272
Email: contact@glsciences.com.cn
Web: www.glsciences.com.cn

GL Sciences, Inc. USA

4733 Torrance Blvd. Suite 255
Torrance, CA 90503
Phone: 310-265-4424
Fax: 310-265-4425
Email: info@glsciencesinc.com
Web: www.glsciencesinc.com

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