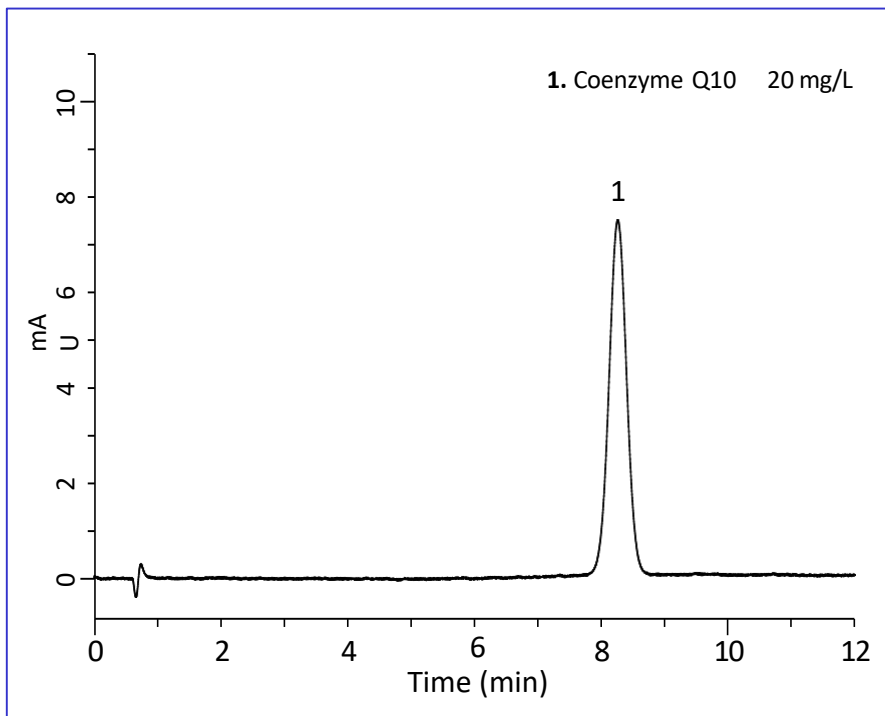


It is said that Coenzyme Q10 is an ingredient helping the energy production of bodies. Its synonyms are Vitamin Q, Ubidecarenone, and Ubiquinone. It is used as component of supplements, etc.

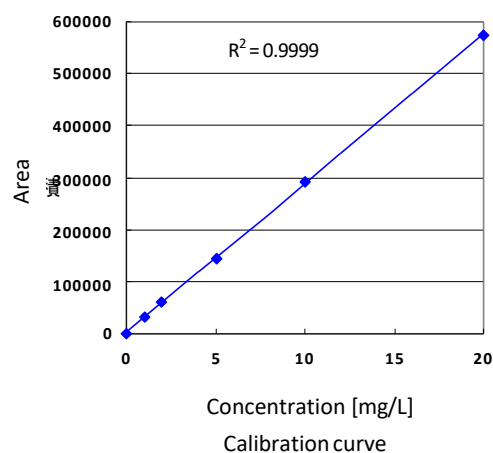
In this technical note, we introduce a rapid HPLC method to measure Coenzyme Q10 with UV detector and short reversed phase column.

Standard Solutions



HPLC Conditions

Column : Inertsil ODS-3
(3 μ m, 50 \times 4.6 mm I.D.)
Eluent : A) CH₃OH
B) C₂H₅OH
A/B = 65/35, v/v
Flow rate : 1.0 mL/min
Col. temp. : 40 $^{\circ}$ C
Detection : UV 275 nm
Inj. vol. : 5 μ L



Analysis of energy cream and supplement example

Sample preparation method example

Sample

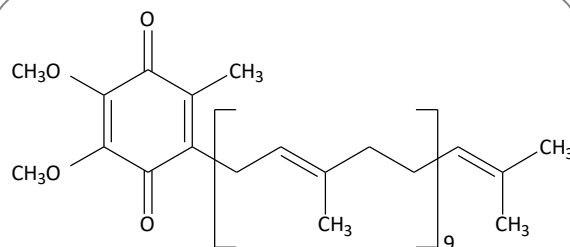
- Cream 1.0 g
- Supplement 0.2 g

Extraction

- 40 mL Ethanol
- Sometimes shaking in hot water bath (50 $^{\circ}$ C, 3 min)
- Dilute to volume to 50 mL with Ethanol
- Filtration (0.45 μ m Filter)
- 10 fold dilution with Ethanol

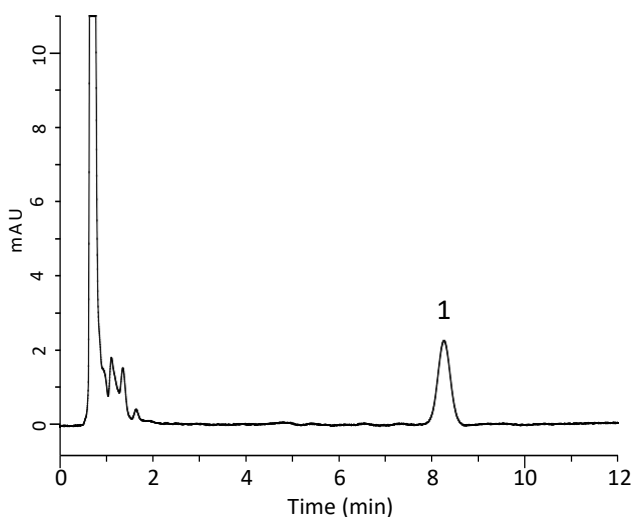
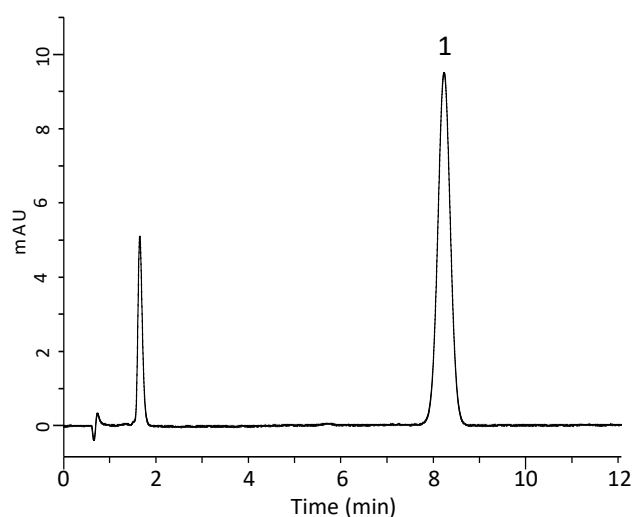
HPLC-UV

Chemical Structure



Coenzyme Q10

Structures are created using
Chemistry 4-D Draw which is provided by
ChemInnovation Software, Inc.

Extract of moisturizing cream**Extract of supplement**

1. Coenzyme Q10

HPLC Column

Inertsil ODS-3 3 μ m, 50 \times 4.6 mm I.D.
Cat. No. 5020-01774

Syringe Filter

GL Chromato Disk Sample Filters 25N
Pore Size: 0.45 μ m
Cat. No. 5040-28532

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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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