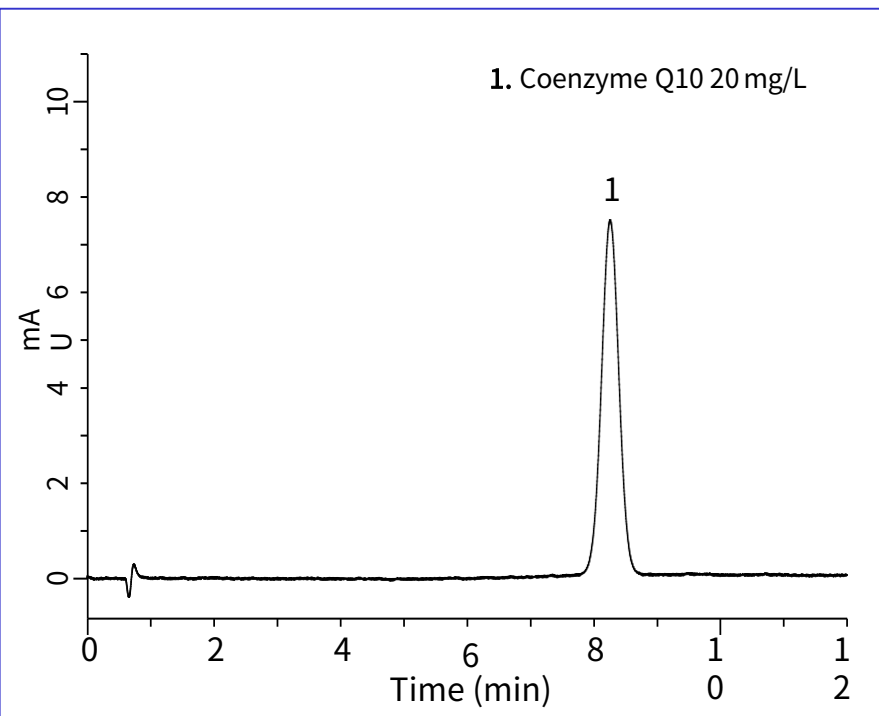


Analysis of Coenzyme Q10 in Supplements and Cosmetics

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.)

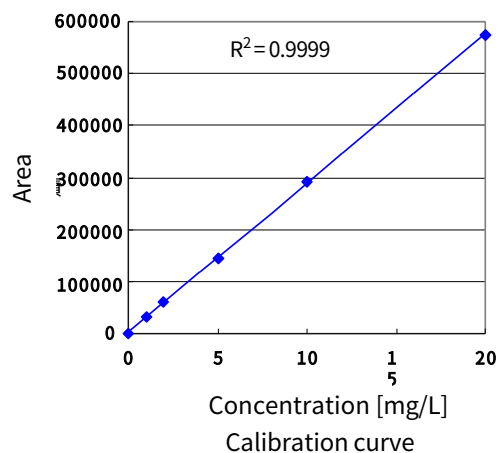
Eluent : A) CH₃OH
B) C₂H₅OH
A/B = 65/35, v/v

Flow rate : 1.0 mL/min

Col. temp. : 40 °C

Detection : UV 275 nm

Inj. vol. : 5 μ L



Analysis of energy cream and supplement example

Sample preparation method example

Sample

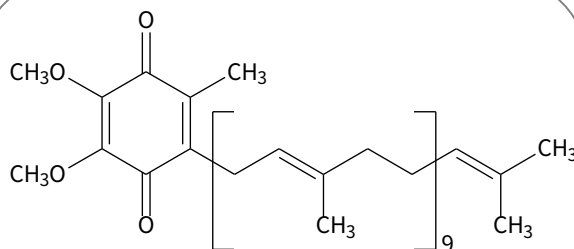
- Cream 1.0 g
- Supplement 0.2 g

Extraction

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

HPLC-UV

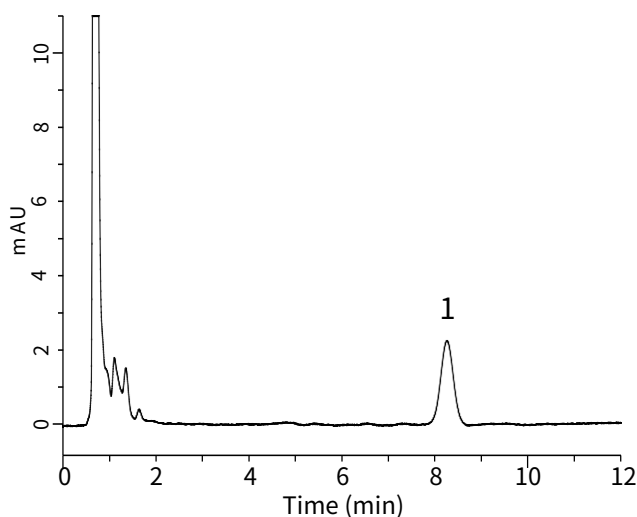
Chemical Structure



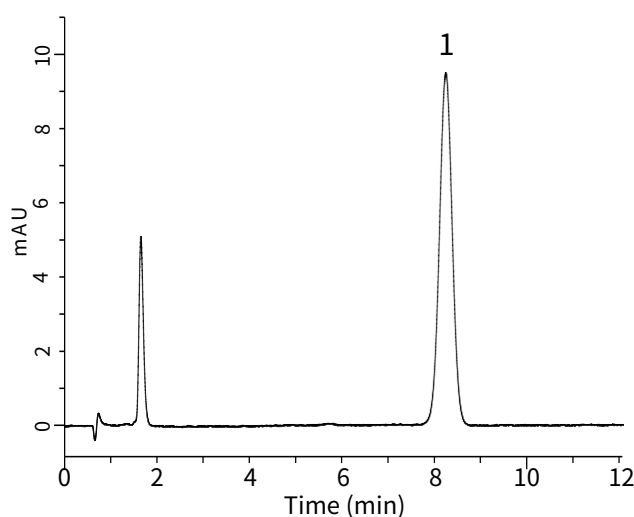
Coenzyme Q10

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 μm , 50 \times 4.6 mm I.D.
Cat. No. 5020-01774

Syringe Filter

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

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