

**CoreFocus**  
**Report**  
**No.46**

LC

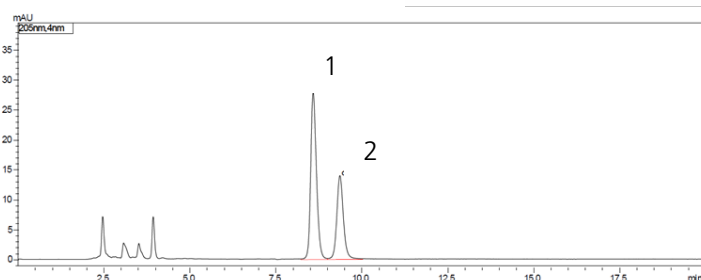
Reversed-phase

Shim-pack™ Series

**Shim-pack Scepter™ Diol-HILIC-120**  
**Analysis of Levocarnitine Oral Liquid**

**Keywords: Anthraquinones, L-Carnitine, antilipemic drug**

Chromatogram of Standard



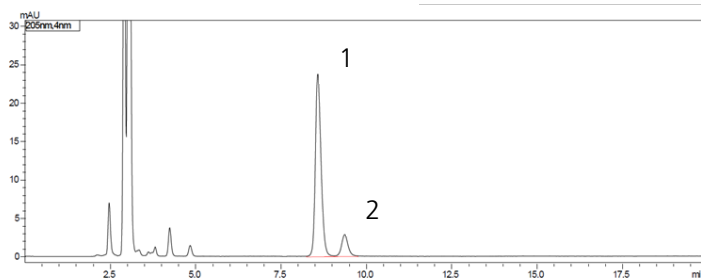
1. Aloe-Emodin 1,8-dihydroxy-3-(hydroxymethyl)anthraquinone
2. Impurity A

**Pretreatment procedure**

**<Standard>**

Measure 200  $\mu$ L of Levocarnitine mother solution (2 mg/mL, solvent: water) provided by the customer and 3  $\mu$ L of impurity A mother solution (0.5 mg/mL, solvent: water), add 800  $\mu$ L of Acetonitrile, and vortex to mix.

Chromatogram of Levocarnitine oral liquid



**< Levocarnitine oral liquid>**

Measure 300  $\mu$ L of Levocarnitine oral liquid test product mother solution (2 mg/mL, sample solvent: water) provided by the customer, add 700  $\mu$ L of Acetonitrile, and vortex to mix.

|                |                                                                                                                                                              |
|----------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Column         | : Shim-pack Scepter Diol-HILIC-120 (250 mm x 4.6 mm I.D., 5 $\mu$ m), P/N : 227-31051-06                                                                     |
| Mobile phase   | : A) 20 mmol/L Potassium dihydrogenphosphate aqueous solution containing Phosphorus acid (pH 4.35)<br>B) Acetonitrile<br>A : B = 25 : 75 (Isocratic elution) |
| Flow rate      | : 1.0 mL/min                                                                                                                                                 |
| Column temp.   | : 30°C                                                                                                                                                       |
| Injection vol. | : 20 $\mu$ L                                                                                                                                                 |
| Vial           | : LabTotal™ Vial for LC/LCMS, P/N : 227-34001-01                                                                                                             |
| Detection      | : UV at 205 nm                                                                                                                                               |

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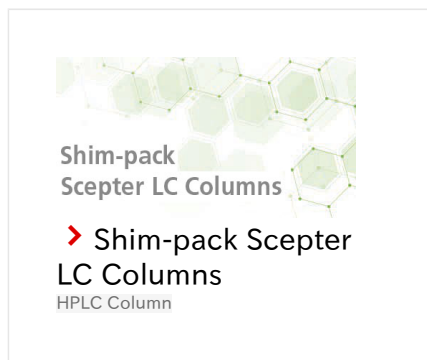
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