

**CoreFocus**  
**Report**  
**No.6**

LC

Reversed-phase

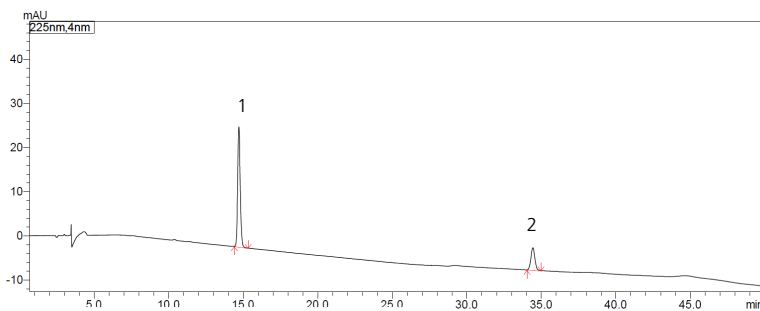
Shim-pack Series

**Shim-pack™ GIST C18**

**Analysis of Oxymatrine and Matrine in  
*Sophora***

**Keywords: Herbal medicine, Alkaloid**

Chromatogram of Standard Mix



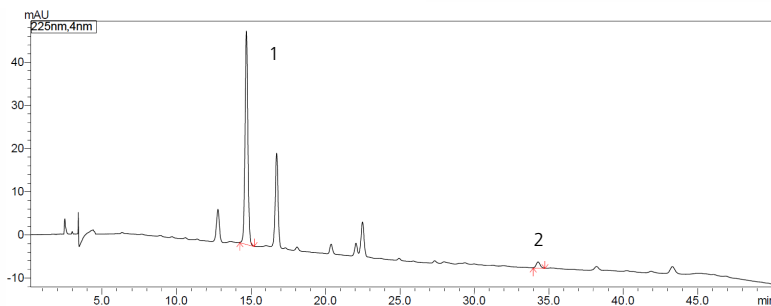
1. Oxymatrine
2. Matrine

Standard Mix  
Oxymatrine in Ethanol (50 µg/mL)  
Matrine in Ethanol (50 µg/mL)

Pretreatment procedure

- a. Collect sample (commercially available *Sophora* powder) and passed through No. 3 sieve.
- b. Weigh 0.3g of sample and transfer into a stoppered conical flask.
- c. Add 0.4mL of concentrated ammonia test solution and 25 mL of chloroform into flask.
- d. Close the stopper and reweigh.
- e. Ultrasonically treat it (power 250 W, frequency 33 kHz) for 40 minutes.
- f. After cooling, weigh the conical flask.
- g. Add chloroform to bring the final weight to the pre-reflux weight (Step d).
- h. Shake well and filter it.
- i. Collect 10mL of filtrate (Step h) and let the solvent dry.
- j. Add an appropriate amount of Absolute ethanol to dissolve the residue.
- k. Transfer into a 10mL flask and add Absolute ethanol to bring the final volume to 10mL and shake well.

Chromatogram of *Sophora*



Column	: Shim-pack GIST C18, (250 x 4.6 mm I.D., 5 µm), P/N: 227-30017-08
Mobile phase:	: A) 0.01 mol/L Ammonium acetate containing Ammonium hydroxide (pH8.1) B) Acetonitrile : Mobile phase A = 3 : 2
Time program	: B Conc. 0%B (0 min) → 30% (20 min) → 40% (40 min) → 60% (50 min)
Flow rate	: 1.0 mL/min
Column Temp.	: 20°C
Detection	: UV 225 nm
Injection Vol.	: 5 µL(Sample 1) / 7 µL(Sample 2)
Vial	: LabTotal™ Vial for LC/LCMS P/N: 227-34001-01

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