



## Analysis of Gingerol and Shogaol

Gingerol and shogaol are the spicy-flavored components contained in ginger, and their effects include immunocell activation, increasing bile secretion, and alleviation of headache and nausea. Gingerol is largely present in raw ginger. While raw ginger contains little shogaol, the amount increases when ginger is dried or heated.

In this report, gingerol and shogaol in raw ginger and packaged ginger were analyzed and the results are presented here.



High Performance Liquid Chromatograph Chromaster®

### Analysis of Gingerol and Shogaol in Ginger

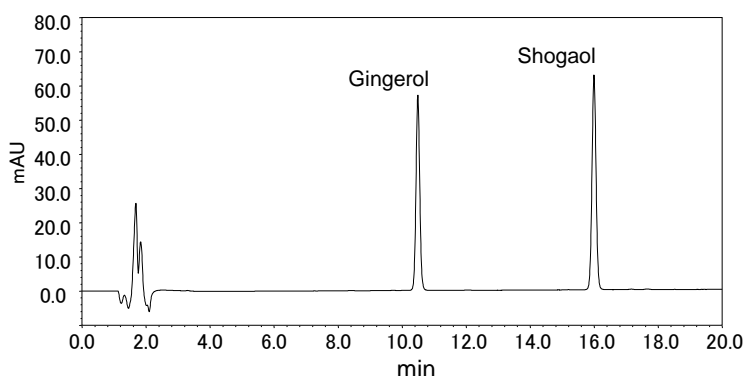


Figure 1 Chromatogram of Standard Solution (100 mg/L)

Table 1 Analytical Conditions

Column	LaChrom II C18 (5 μm) 4.6 mm I.D. x 150 mm
Mobile phase	A : H <sub>2</sub> O B : CH <sub>3</sub> CN
Gradient	A/B=60/40 → 20/80 (20 min)
Flow rate	1.0 mL/min
Column temp	40°C
Detection wavelength	UV 280 nm
Injection vol.	10 μL

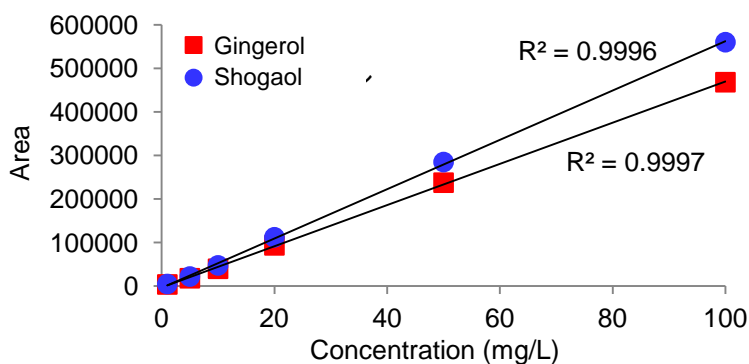


Figure 2 Calibration Curve

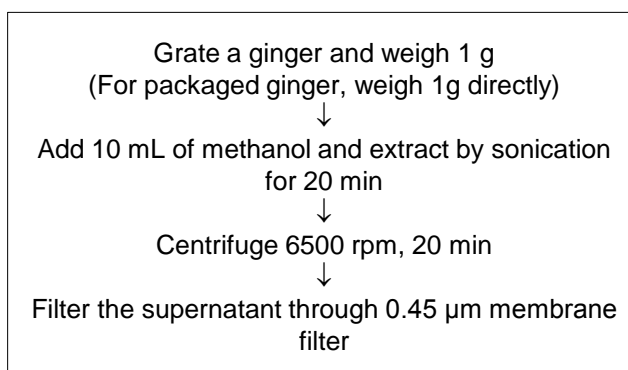


Figure 3 Preparation Method for Ginger

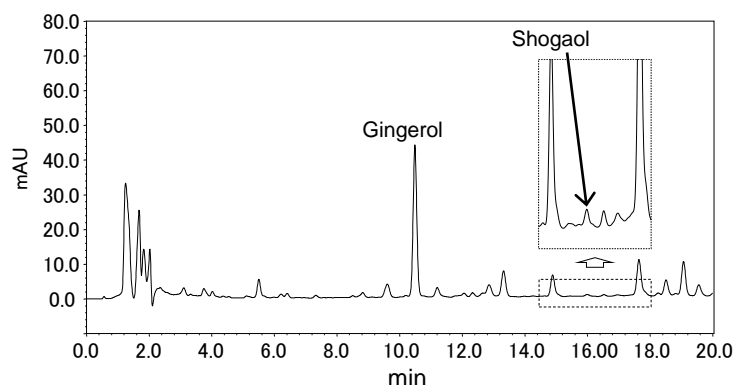


Figure 4 Chromatogram of Raw Ginger

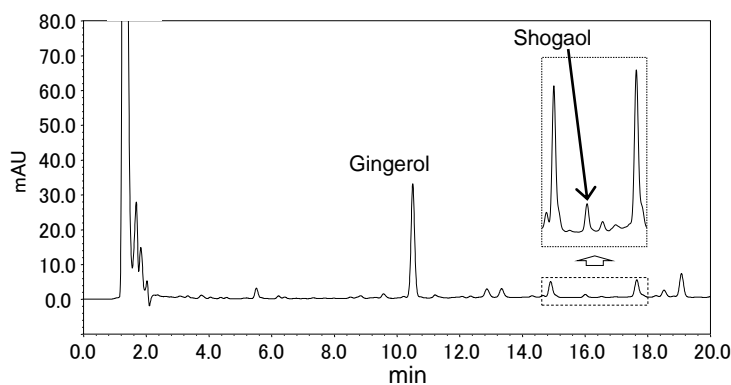


Figure 5 Chromatogram of Tubed Ginger

NOTE: These data are an example of measurement; the individual values cannot be guaranteed.