

System repeatability: When the test is repeated 6 times with 10  $\mu\text{L}$  of the standard solution under the above operating conditions, the relative standard deviation of the peak area of magnolol is not more than 1.5%.

## Hangekobokuto Extract

半夏厚朴湯エキス

### **Change the Assay (1) as follows:**

**Assay (1)** Magnolol—Weigh accurately about 0.5 g of the dry extract (or an amount of the viscous extract, equivalent to about 0.5 g of the dried substance), add exactly 50 mL of diluted methanol (7 in 10), shake for 15 minutes, filter, and use the filtrate as the sample solution. Separately, weigh accurately about 10 mg of magnolol for assay, and dissolve in diluted methanol (7 in 10) to make exactly 100 mL. Pipet 5 mL of this solution, add diluted methanol (7 in 10) to make exactly 20 mL, and use this solution as the standard solution. Perform the test with exactly 10  $\mu\text{L}$  each of the sample solution and standard solution as directed under Liquid Chromatography <2.01> according to the following conditions, and determine the peak areas,  $A_T$  and  $A_S$ , of magnolol in each solution.

$$\text{Amount (mg) of magnolol} = M_S \times A_T/A_S \times 1/8$$

$M_S$ : Amount (mg) of magnolol for assay

### *Operating conditions—*

**Detector:** An ultraviolet absorption photometer (wavelength: 289 nm).

**Column:** A stainless steel column 4.6 mm in inside diameter and 15 cm in length, packed with octadecylsilanized silica gel for liquid chromatography (5  $\mu\text{m}$  in particle diameter).

**Column temperature:** A constant temperature of about 40°C.

**Mobile phase:** A mixture of water, acetonitrile and acetic acid (100) (50:50:1).

**Flow rate:** 1.0 mL per minute (the retention time of magnolol is about 15 minutes).

### *System suitability—*

**System performance:** Dissolve 1 mg each of magnolol for assay and honokiol in diluted methanol (7 in 10) to make 10 mL. When the procedure is run with 10  $\mu\text{L}$  of this solution under the above operating conditions, honokiol and magnolol are eluted in this order with the resolution between these peaks being not less than 2.5.

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