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Determination of Baicalin purity

A.1 Methods The abstract samples were extracted by ultrasonic wave and detected by high performance liquid chromatography.

A.2 Test instruments and appliances

A.2.1 Analytical balance, accuracy is 1/100,000th

A.2.2 Ultrasonic Cleaning Instrument: 250W, 20KHz

A.2.3 High performance liquid chromatograph

A.3 Reagents and solutions

A.3.1 Methanol, analytical pure

A.3.2 Water, secondary distilled water

A.3.3 Phosphoric acid, analytical pure

A.3.4 reference substance of baicalin

A.3.5 Preparation of mobile phase: mixed and prepared according to the ratio of methanol-water-phosphoric acid (47:53:0.2), obtained by filtration with microporous membrane.

A.3.6 Detector and detection wavelength: UV spectrophotometer, detection wavelength 280nm.

A.4 Methods of operation

A.4.1 Preparation of reference solution: Baicalin reference solution was accurately weighed (accurate to 0.01mg) and added with methanol to prepare A solution containing 70μg per 1mL as reference solution.

A.4.2 Preparation of test solution: Take the extract sample of Scutellaria baicalensis about 6mg, weigh it accurately, dissolve it in ultrasonic with methanol, and then use methanol as test solution.

A.4.3 Determination methods

Precisely absorb 10μl of reference solution and test solution, inject into liquid

chromatograph, and determine.

A.5 Calculation of results

The content of baicalin was calculated according to Equation (B.1) :

$$\text{Baicalin（%）} = \frac{S_1 \times C \times A}{S_0 \times (M - M \times B)} \times 100\% \quad \text{.....（B. 1）}$$

in：

S1-- Peak area value of test product solution;

S0-- Peak area value of comparison product solution;

C-- Concentration of comparison product solution (mg/ mL);

A-- Comparison product purity (%);

B-- Moisture purityof the sample (%);

M-- Concentration of test product solution (mg/ mL).