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The Detection of Tetrandrine Purity

A.1 Methods The 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 Triethylamine, analytical pure

A.3.2 Methanol, analytical pure

A.3.3 Water, secondary distilled water

A.3.4 Control substance of tetrandrine

A.3.5 Preparation of mobile phase: mixed and prepared according to the ratio of buffer solution to methanol (15:85) and filtered by microporous membrane.Buffer solution: 0.2% triethylamine aqueous solution.

A.3.6 Detector and detection wavelength: UV spectrophotometer, detection wavelength 282nm.

A.4 Methods of operation

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

A.4.2 Preparation of test product solution: A sample of tetrandrohexidin (10mg) was taken, accurately weighed and dissolved with ultrasonic methanol, and the methanol volume was fixed as the test product 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 tetrandrine was calculated according to Equation (B.1) :

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

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).