Method name: Ferulic acid detection method

Scope of application: This method uses high performance liquid chromatography to measure the content of ferulic acid.

Reagents: 1. Methanol (chromatographically pure)

2. Acetic acid

Equipment: 1. Instruments

1.1 High performance liquid chromatograph

1.2 Column

Shim-Pack CLC-ODS analytical column (150 × 4.6mm, 5μm), the number of theoretical plates according to ferulic acid

Calculated as 4000.

1.3 UV absorption detector

2. Chromatographic conditions

2.1 Mobile phase: methanol 1% acetic acid water = 28: 72

2.2 Detection wavelength: 323nm

2.3 Column temperature: room temperature

Sample preparation: 1. Weigh the test sample

Pipette 25mL of the product accurately.

2. Preparation of reference solution

Precisely weigh 30mg of ferulic acid reference substance, put it in a 50mL measuring flask, add methanol to dissolve, and add to the mark,

Mix well. Accurately absorb 5mL and place it in a 50mL measuring flask, add methanol to the mark, mix well to obtain the reference solution.

3. Preparation of test solution

Precisely weigh 30mg of ferulic acid reference substance, put it in a 50mL measuring flask, add methanol to dissolve, and add to the mark,

Mix well. After filtering through the filter membrane, accurately absorb 5mL into a 50mL volumetric flask, add methanol to the mark, mix well,

To be tested.

Note: "Precision weighing" means that the weight should be accurate to one thousandth of the weight. "Precision measurement" means

The accuracy of measuring the volume should meet the precision requirements of the volume pipette in the national standard.

Steps:

1. Standard curve drawing

Accurately draw 4,8,12,16,20μL of the above reference solution into high-performance liquid chromatograph and absorb

Receive the detector, determine the absorption value of ferulic acid at a wavelength of 323nm, and plot the peak area with the injection volume