



陕西绿清生物工程有限公司

Shaanxi Green Bio-Engineering Co.,Ltd

Ferulic acid Detection Method

Application range: The purity of Ferulic acid was test by high performance liquid chromatography

Reductant: 1 Methyl alcohol (chromatographically pure) 2 Acetic acid 3 Instrument

Equipment

1 Instrument

(high performance liquid chromatograph)

Chromatographic column

Shim-PackCLC-ODS Analytical column ($150 \times 4.6\text{mm}, 5 \mu\text{m}$), The ferulic acid peak number of theoretical plates is 4000.

Ultraviolet absorption detector

2 Chromatographic condition

2.1 Moving phase:

methyl alcohol 1%

acetic acid =28:72

2.2 Test wave length: 323nm

2.3 Column temperature: Specimen preparation of indoor temperature:

2.3.1. Weigh the sample and absorb it accurately 25ml

2.3.2. Prepare the comparison products solution precisely and ferulic acid comparison products 30mg weighed and placed in a 50mL measuring bottle, dissolved in methyl alcohol, added to the scale, and mixed. Absorbed 5ml and put into 50ml bottle precisely, added methyl alcohol to the scale, mixing, get the the comparison solution.

2.3.3. Prepare the test solution and Accurately weigh 30mg ferulic acid comparison products, place it in a 50mL measuring bottle, dissolve it with methyl alcohol, added it to the scale, and mixing. After filtering with filter film, 5mL was precisely absorbed and placed in a 50mL measuring bottle. Methyl alcohol was added to the scale, mixed, and stay test.

3. "Accurate measurement" means that the accuracy of volume measurement shall conform to the precision requirements of national standards for the volume.

4. Operation steps:

1. Standard curve drawing accurately absorbs the above reference solution 4,8,12,16,20 μL and inject into HPLC, use ultraviolet absorption detector, The absorption value of ferulic acid was measured at wave length of 323nm, and the standard curve of peak area was drawn with the injection volume, and the regression equation was obtained by linear regression.

2. The absorption value of ferulic acid at wave length of 323nm was determined by injecting 10 μL of the sample solution into a HPLC with UV absorption detector and calculating its purity.