陕西绿清生物工程有限公司
Shaanxi Green Bio-Engineering Co.,Ltd

Determination of the content of naringin in Rhizoma Drynariae extract

A.1 Reagents and materials

A.1.1 B fermentation: pure ingredients.

A.1.2 Formic acid: highly pure.

A.2 Apparatus and equipment

High-efficiency spectrum analyzer: Spectral detector or other spectrum detector specified in GB/T27579-2015 chapter.

A.3 Reference altitude conditions

A.3.1 Chromatographic column: 18 chromatographic column, length 250 inner diameter, 4.6mm, particle size 5μm; or other round chromatographic column.

A.3. Mobile phase: composed of ethyl acetate and formic acid aqueous solution (23.3:76.7).

A.3.3 Column temperature: 30℃.

A.3.4 Pump: isocratic pump.

A.3.5 Flow rate: 0.9mL/min.

A.3.6 Injection volume: 10μL.

A.3.7 Detection wavelength: 283nm.

A.3.8 Running time: about 12min.

A.4 Analysis steps

A.4.1 Preparation of reference solution

Accurately weigh 0.01g naringenin reference substance, accurate to 0.0001g, dissolve with mobile phase, transfer to a 100mL volumetric flask, and add mobile phase

Make the volume to 100mL. The resulting solution was filtered with a 0.45μm filter membrane, and the filtrate was used for later use.

A.4.2 Preparation of sample solution

Accurately weigh 0.01g sample, accurate to 0.0001g, dissolve it with mobile phase, transfer it into a 100mL volumetric flask, and add mobile phase to the volume.

100mL. The resulting solution was filtered with a 0.45μm filter membrane, and the filtrate was used for later use.

A.4.3 Determination

Under A.3 reference chromatographic conditions, the reference solution and the sample solution were measured, and the main peak area was recorded.

A.5 Result calculation

The mass fraction w1 of naringenin content is calculated according to formula (A.1):

$$W_1 = \frac{A_1 \times m_2 \times w_2}{} X100\% \quad \ldots\ldots\ldots\ldots\ldots\ldots\ldots\ldots\ldots\ldots (A.1)$$

Where:

A1-the peak area value of the main peak in the chromatogram of the sample solution;

m2-the quality of the reference substance, in grams (g);

w2———The mass fraction of naringenin content in the reference substance, %;

A2-the peak area value of the main peak in the chromatogram of the reference solution solution;

m1——The mass of the sample, in grams (g).