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Apigenin Test Method

1.0 Purpose

Calculate the absolute content of apigenin in the product through the test results of the product and the reference product.

2.0 scope

This regulation is applicable to the quality control of products in the production process of Aktinchem.

3.0 Instruments and reagents

3.1. Instruments and equipment Shimadzu LC-20AT high performance liquid phase, Kromasil C18 250*4.6 3.5um chromatographic column, Sartorius precision weighing balance, KH-50B ultrasonic cleaner, 100ml volumetric flask, 20ml volumetric flask.

3.2. Reagents Chromatography acetonitrile, analytical pure methanol, ultrapure water.

4.0 Regulations

4.1 Finished product quality control

4.1.1 Sampling: accurately weigh 25mg apigenin standard substance into a 100ml volumetric flask. Accurately weigh 25mg apigenin sample in 100ml volumetric flask.

4.1.2 Sample configuration: Add an appropriate amount of analytically pure methanol to the volumetric flask containing the standard products, dissolve the sample by ultrasound, place it at room temperature, dilute to the mark, and shake well for later use. Prepare the apigenin sample solution in the same way.

4.1.3 HPLC preparation: Open the HPLC system, set acetonitrile-0.03% H_3PO_4 water=40:60 to start the equilibrium, wavelength 254nm, column temperature 30° C, flow rate 1.0ml/min.

4.1.4 Sample detection: draw 10ul standard product and then inject the filtrate into the high performance liquid chromatograph for detection, and record the complete spectrum. Equilibrate the detection system, draw 10ul of crude product and then inject the filtrate into the liquid chromatograph for detection, and record the complete chromatogram.

4.1.5 Result calculation

After the detection result is processed, record the peak area of the standard product and the peak area of the product.

$$X = \frac{S_1 \cdot m_x \cdot V_1}{S \cdot V \cdot m} \cdot 100\%$$

$$S \cdot V \cdot m$$

X—Absolute content of apigenin in crude product%

S—peak area of standard product

S₁—peak area of sample m—Standard sample volume mg

m_1 -sample sample volume mg

V -standard volume volume ml

V_1 -sample volume volume ml

x - standard content%

Finally calculate the content of apigenin in the product

5.0 Terms/Definitions

Concentration: the amount of solute contained in a unit solution

Mobile phase: the substance that carries the component to be measured and moves forward during the chromatographic process

6.0 References/Related Documents

The 2015 Chinese Pharmacopoeia.