Determination of Six Bioactive Components in

Yu-Ping-Feng-San by High Performance Liquid

Chromatography

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Abstract

High performance liquid chromatography was employed to simultaneously determine the contents of six bioactive marker substances (cimifugin, prim-O-glucosylcimifugin, atractylon, atractylenolides I, II and III) in Yu-Ping-Feng-San. The separation was performed on a LiChrospher 100 RP-18e column by gradient elution with acetonitrile-water (v/v) (0 min, 16:84; 15 min, 20:80; 20 min, 50:50; 35 min, 55:45; 40 min, 75:25; 45 min, 80:20; 65 min, 85:15) as the mobile phase at a flow-rate of 1.0 mL/min, with detection at 220 nm or 277 nm. Benzophenone was used as the internal standard and six regression equations revealed linear relationships between the peak-area ratios (marker substances/internal standard) and concentrations. The repeatability and reproducibility (relative standard deviation) of the method were in the ranges of 0.03-1.07% and 0.13-1.21%, respectively.