Original Article Received: February 22, 201 Revised version: March 2, 2010

Accepted: March 6, 2010

A Quantitative Method Using One Marker for Simultaneous Assay of Steroidal Saponins in Rhizoma Paridis

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SUMMARY. Current quality control patterns are limited to industrial application, for most the natural chemical reference substances are expensive and unavailable. Here in, quantitative analysis of multi-components with single marker (QAMS) method, is established and validated to simultaneously determine five steroidal saponins (Paris-VII, Paris-H, Paris-II, Dioscin, Paris-I) in Rhizoma Paridis. Using Paris-I as the contrast, the relative correction factors (RCF) of the other four steroidal saponins are determined by HPLC-UV. With in the linear ranges, the values of RCF of Paris-I to Paris-VII, Paris-H, Paris-II and Dioscin are 0.877, 1.087, 0.975 and 1.127, respectively. The RCF has a good reproducibility in various instruments, chromatographic columns (RSD = 0.88 % ~ 4.52 %). According to their RCF, five steroidal saponins are simultaneously determined in Rhizoma Paridis by one marker.

KEY WORDS: Quantitative analysis of multi-components by a single marker, Relative correction factor, HPLC, Steroidal saponins, Rhizoma Paridis.

1171 ISSN 0326-2383

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