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## SIMULTANEOUS DETERMINATION OF FIVE ISOSTEROIDAL ALKALOIDS IN SIBERIAN FRITILLARY BULB IN RAT PLASMA AND ITS APPLICATION IN PHARMACOKINETIC STUDY BY HPLC-MS/MS

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In this study, a sensitive high-performance liquid chromatography with tandem mass spectrometry (HPLC-MS/MS) method established for simultaneously determining five main isosteroidal alkaloids (imperialine-3-β-D glucoside (imperialine-G), imperialine, peimine, hupehenine and yibeinoside A) in Siberian Fritillary Bulb, was applied to pharmacokinetic studies in rat plasma. The plasma samples pretreated using liquid-liquid extraction with ethyl acetate were quantitated by multiple reaction monitoring (MRM) via positive electrospray ionization (ESI) mode. Chromatographic separation was performed on an Intersil ODS-2 column (5 μm, 4.6 × 150 mm) with a single fifteen minutes run using gradient elution. The mobile phase consisted of (A) 10 mM ammonium acetate (containing 0.1% of formic acid) and (B) methanol. Method validation results showed that the developed method had good accuracy and precision over the corresponding linearity range for all the analytes. Besides, bench-top, autosampler, freeze-thaw circulation and long-term storage stabilities met the acceptable limit. This study examined a specific and robust method which was successfully applied to analyze rat plasma samples for pharmacokinetic study of five isosteroidal alkaloids.

### Biography

Liming Ye has obtained his PhD Degree in 2008 from West China School of Pharmacy, Sichuan University, Chengdu, Sichuan Province, RP China. He is Professor of Pharmaceutical Analysis in West China School of Pharmacy, Sichuan University. His research interest is in the area of basic components analysis, the dynamic change rule study and standardization research of Traditional Chinese Medicine (TCM), as well as the establishment and study of predictive quantitative retention-activity relationship models of series medicine by biopartitioning micellar chromatography (BMC).

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