



Quantitative Determination and Pharmacokinetics of Salvianolic Acid L, a Novel Phenolic Acid Constituent from *Salvia miltiorrhiza*, in Rat Plasma by High-Performance Liquid Chromatography

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SUMMARY. A simple, rapid and selective HPLC method was developed for the determination of a novel phenolic acid constituent in rat plasma, salvianolic acid L (SAL), extracted from the dried root of *Salvia miltiorrhiza* (Danshen). Plasma samples were extracted by ethyl acetate after addition of the internal standard tinidazole. The appropriate separations were achieved using a C₁₈ column with the mobile phase composed of a mixture of acetonitrile/water/formic acid (35:65:0.1, v/v/v) at the flow rate of 0.8 mL/min, and the wavelength of determination by diode-array detector (DAD) detection was 327 nm. Good linearity ($r = 0.9996$) was obtained within the concentration of 0.05-50 $\mu\text{g/mL}$. The intra- and inter-day assay precisions ranged from 0.60 to 5.91 % and 3.52 to 7.00 %, respectively. The accuracy was between 95.8 to 103.8 %. In addition, the stability and extraction recovery involved in the method were also validated. This method was successfully applied to investigate the pharmacokinetic study of SAL in rats after a single intravenous administration dose of 2.0, 4.0, and 8.0 mg/kg, respectively.

KEY WORDS: Danshen, HPLC, Pharmacokinetics, *Salvia miltiorrhiza*, Salvianolic acid L.

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