



## Determination of a Hydrogenation Product of Sauchinone in Rat Plasma by LC-MS

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**SUMMARY.** SaH (a hydrogenation product of sauchinone) is a potential hepatoprotective compound. This study develops a quantitative determination method of SaH in rat plasma. The analysis of analytes extracted from plasma by liquid-liquid extraction using ethyl acetate were achieved on a Symmetry-C<sub>18</sub> column (4.6 mm I.D. × 75 mm, 3.5 μm), and eluted by methanol-deionized water (v/v = 85:15) at a flow rate of 0.2 mL/min. The m/z ratios [M+Na]<sup>+</sup>, 381.6 for SaH and 395.7 for IS, were recorded simultaneously and used to monitor their *in vivo* concentrations. The calibration curve with the concentrations of SaH vs peak area ratio (SaH/IS) exhibited a satisfying linearity over the range of 0.025-10.0 μg/mL. This simple and sensitive method was thoroughly validated, and successfully applied to estimate pharmacokinetic parameters of SaH in rat plasma after intravenous administration.

**RESUMEN.** SaH (un producto de hidrogenación de sauchinona) es un potencial compuesto hepatoprotector. En este estudio desarrollamos un método de determinación cuantitativa de SaH en plasma de rata. El análisis de los analitos extraídos de plasma usando acetato de etilo se lograron en una columna Symmetry-C<sub>18</sub> (4,6 mm ID x 75 mm, 3,5 μm) y se eluyó con metanol-agua desionizada (v/v = 85:15) a 0,2 mL/min. Las relaciones m/ [M+Na]<sup>+</sup>, 381,6 para SaH y 395,7 para IS se registraron de forma simultánea y se utilizaron para controlar sus concentraciones *in vivo*. La curva de calibración con las concentraciones de SaH vs relación de área de pico (SaH/IS) exhibió una linealidad satisfactoria en el rango de 0,025 a 10,0 mg/mL. Este método simple y sensible fue totalmente validado y aplicado con éxito para estimar los parámetros farmacocinéticos de SaH en plasma de rata después de su administración intravenosa.

**KEY WORDS:** LC-MS, Pharmacokinetics, Rat plasma, SaH.

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