



## A Simple LC–ESI–MS Method for the Determination of Norvancomycin in Rat Plasma and Application to Pharmacokinetic Study

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**SUMMARY.** A simple and sensitive LC–ESI–MS method for determination of norvancomycin in plasma was developed and validated over the concentration range of 20–2,000 ng/mL. After addition of vancomycin as internal standard (IS), protein precipitation with 5 % trichloroacetic acid was employed for the sample preparation. Chromatographic separation was performed on a Zorbax SB-C18 (100 mm×2.1 mm, 3.5 μm) column with 10:90 (v/v) acetonitrile–0.1 % formic acid as mobile phase. The MS data acquisition was accomplished by selective ions monitoring (SIM) mode with positive electrospray ionization (ESI) interface. The limit of quantification (LOQ) was 20 ng/mL. For inter-day and intra-day tests, the precision (RSD) for the entire validation was less than 12 %. The developed method was successfully applied to pharmacokinetic studies of norvancomycin in rats following single intravenous administration dose of 10 mg/Kg.

**KEY WORDS:** LC–ESI–MS, Norvancomycin; Rat plasma; Pharmacokinetics.

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