



## An HPLC Method for the Determination of Auraptene in Dog Plasma: Application to Pharmacokinetic Study

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**SUMMARY.** A simple and sensitive high-performance liquid chromatography (HPLC) method was developed and validated for the determination of auraptene (AUR) in dog plasma. The chromatographic separation of AUR was achieved on a C18 column using isocratic elution with acetonitrile-0.1 % formic acid (volume ratio 84.5:15.5). AUR was detected at 322 nm. Sample extraction with ethyl acetate resulted in high recoveries of AUR. A linear curve over the concentration range 10.2-408.8 ng/mL ( $r^2 = 0.9995$ ) was obtained. Satisfactory intra-day and inter-day precisions were achieved with RSDs less than 9.5 % and the average recovery factors were in the range of 99.1-106.2 %. The method was used to determine the plasma concentration-time profiles for AUR after oral doses of 50, 100 and 200 mg/kg in dogs. A nonlinear pharmacokinetics was found in dogs at doses from 50 to 200 mg/kg. No significant accumulation of AUR in dogs following multiple doses was observed.

**KEY WORDS:** Auraptene, Pharmacokinetics, HPLC, Dog plasma.

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