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A Newly-developed RP-HPLC Method for the Analysis of Epristeride in Rat Serum and its Validation

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***SUMMARY*. A newly-developed reversed-phase high-performance liquid chromatographic (RP-HPLC) method has been applied for the detection of serum concentration of epristeride in rat serum. The method involves the selective extraction of epristeride from serum and the RP-HPLC assay with ultraviolet (UV) detection at λ = 266 nm does not require protein precipitation. Samples containing epristeride were chromatographed on a Phenomenex Luna II column in phosphate buffer (pH = 8.0) and methanol at the ratio of 30:70 as the mobile phase at a flow rate of 1.0 mL/min. Under these conditions, the retention time was 6.29 min in a run time of 10.00 min. Chloroform was found to be a good extraction solvent with an extraction efficiency of 97.1 % and produced a high separated chromatogram. The limit of detection (LOD) and the limit of quantification (LOQ) were 2.5 and 7.6 ng/mL, respectively. The RP-HPLC method for the analysis of epristeride in rat serum developed here was selective, simple, sensitive, accurate and linear. The high sensitive method was applied for the determination of serum concentration of epristeride in rat.**

KEY WORDS: Epristeride, Serum, RP-HPLC.

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