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Stability Indicating High Performance Liquid Chromatographic Method for the Estimation of Carisoprodol in Bulk and in Tablet Dosage form

D. Murali* and C. Rambabu

Department of Biochemistry, Acharya Nagarjuna University, Guntur, Andhra Pradesh, India-522510

Abstract: Simple and sensitive stability indicating HPLC method was developed for the determination of Carisoprodol in bulk and in their tablet formulation. Effective chromatographic separation was achieved on Zorbax Eclipse plus C18 (250 x 4.6 mm; 5 µm particle size) analytical column through isocratic elution mode. The mobile phase composed of 10mM potassium dihydrogen orthophosphate-methanol-acetonitrile in the ratio of 60:20:20 (*v/v/v*). Detection was performed at 240 nm. Analytical performance of the proposed method was statistically validated with respect to linearity, precision, accuracy, robustness, ruggedness, specificity, detection and quantification limits. The linearity range was 1-30 µg/ml with correlation coefficient 0.9995. Carisoprodol was also subjected to acid, base, oxidative and dry heat stress degradation conditions. The degradation products obtained were well resolved from the carisoprodol. The validated stability indicating HPLC method was successfully applied to the analysis of Carisoprodol in their pharmaceutical tablets.
Key words : Carisoprodol, stability indicating, HPLC, tablet dosage forms.

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