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RP-HPLC Method development, Validation and Forced Degradation for Simultaneous estimation of Benserazide HCl and Levodopa in a Marketed Formulation

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Abstract : The objective of the study was to develop and validate a novel, stability indicating, simple, rapid, accurate, precise and isocratic reverse-phase high-performance liquid chromatographic (RP-HPLC) method for simultaneous estimation of benserazide HCl and levodopa in a marketed formulation. Chromatographic separation was achieved by using C18 Cosmosil 4.6 × 250 mm column with a mixture of phosphate buffer pH 2 and acetonitrile in proportion of 95:5 as mobile phase at a flow rate of 1.0 ml/min and column temperature 25°C. The detection was carried out at 210 nm using UV detector. The retention time for benserazide and levodopa was found to be 3.1 minutes and 6.6 minutes respectively and recoveries from tablet were between 98 and 102 %.

Keywords : Benserazide HCl, Levodopa, Reverse-phase high-performance liquid chromatography, validation, forced degradation.

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