DEVELOPMENT AND VALIDATION OF ANALYTICAL METHODS FOR SIMULTANEOUS ESTIMATION OF OFLOXACIN AND FLAVOXATE HCL IN BULK AND ITS TABLET DOSAGE FORM

By

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ABSTRACT

A rapid, sensitive, and specific RP-HPLC and UV Spectroscopy Method was developed and validated for simultaneous estimation of Ofloxacin and Flavoxate HCl in bulk and tablet dosage form. Spectrophotometric (Simultaneous Equation Method) and RP-HPLC were developed and validated in terms of linearity, precision, accuracy, LOD and LOQ for the simultaneous estimation of Ofloxacin and Flavoxate HCl.

In **Simultaneous Equation Method** the linearity range was found to be 5-30 µg/ml for both the drugs. Percentage recovery for Ofloxacin was found to be in range of 99.85-101.60%, while for Flavoxate HCl, it was found to be in range of 100.40-101.66%. LOD and LOQ values were found to be 0.78 and 2.37µg/ml for Ofloxacin and 0.99 and 3.00 µg/ml for Flavoxate HCl.

RP-HPLC method was carried out on Kromasil C18(250 x 4.6mm,i.d 5µ) column using filtered and degassed mixture of ACN: Methanol: water (30:20:50 v/v) pH 3 adjusted with 0.1% TEA and ortho-phosphoric Acid as a mobile phase at a flow rate 1ml/min and effluent was monitored at 322nm. Linearity range was found to be 10-60µg/ml for Ofloxacin and 10-60µg/ml for Flavoxate HCl. Percentage recovery for Ofloxacin was found to be in range of 99.18-99.37%, while for Flavoxate HCl, it was found to be in range of 99.33-100.08%. LOD and LOQ values were found to be 0.59 and 1.79 µg/ml for Ofloxacin and 0.90 and 2.74 µg/ml for Flavoxate HCl.

Key word: UV Spectrophotometry, RP-HPLC, Ofloxacin, Flavoxate HCl