Development and Validation of First Order Derivative Method for Metronidazole in Bulk and Tablet Using UV Visible Spectroscopy

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Abstract: A simple spectrophotometric method has been developed for estimation of Metronidazole from bulk and tablet dosage form.The calibration curve was observed in the concentration range of 10-16 µg/ml.Inthe First order derivative spectroscopy, the absorbance was measured at λ_{min}=340.00 nm, λ_{max}=300.0 nm & Zero cross=319.0nm. Other studies of assay, accuracy and precision were determined and validated statically. The reproducibility and recovery of all the methods were with % RSD less than 2. The developed methods were found to be precise, accurate,rapid, and specificwhich can be successfully applied for the routine analysis.

Keywords : Assay, Accuracy, Precision, % Recovery, Metronidazole, First order derivative spectroscopy.

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