

Development and Method Validation for Estimation of Ibuprofen by Area Under Curve Method

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Abstract: *A UV visible spectrophotometric approach that is easy to use, precise, accurate, and affordable has been devised for the AUC method of ibuprofen drug measurement. Double-distilled water was used as a solvent in the preparation of the standard and sample solutions. The drug's quantitative determination was carried out in the wavelength region of 218–226 nm. Ibuprofen's linearity was demonstrated with a correlation coefficient value of 0.999 for the concentration range of 5–25 µg/ml. According to precision studies, the percentage relative standard deviation fell within the permissible bounds. The average recovery percentage was discovered to be 99.79%. The suggested approach has been verified in accordance with ICH regulations.*

Keywords: NSAID, ibuprofen, assay, UV spectrophotometry, AUC, electromagnetic radiation, Accuracy, precision studies, linearity.