Journal of Innovations in Pharmaceutical and Biological Sciences (JIPBS)
ISSN: 2349-2759
Available online at www.jipbs.com

Research article

Validation of spectrophotometric dissolution method for modified release Trimetazidine pharmaceutical dosage form

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Key words: Trimetazidine, Spectrophotometric method.

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Abstract

A spectrophotometric method was validated for the determination of trimetazidine (modified released) rate of release. The dissolution conditions comprised of USP II (Paddle), with a Dissolution medium (Phosphate Buffer pH 6.8.) with Revolution 75 rpm. Detection was carried out at 231± 1 nm. The linear regression analysis data for the calibration plots showed good linear relationship within the concentration range 0.00800 mg/ml-0.03200 mg/ml. The value of correlation coefficient was found to be 1.00. The recovery of trimetazidine hydrochloride was about 95–105%. Based on the test results of linearity, accuracy and precision the range of method is established 80%-120%. The method was validated as per ICH guidelines.