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Forced Degradation Study of Rifaximin Formulated Tablets to Determine Stability Indicating Nature of High-Performance Liquid Chromatography Analytical Method

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Abstract : Forced degradation study of Rifaximin was conducted to determine the stability indicating potential of HPLC testing method for detection of Rifaximin in formulated tablets to be employed for quality control and stability testing. The questioned method applied with mobile phase methanol: water (70:30), 5µm, 250 x 4.6mm, C18 column, wavelength 293nm and flow rate of 1.0 ml/min. Forced degradation study was performed under oxidative, acidic, basic, thermal and photolytic conditions. The applied method successfully determined the degradation products after acidic and basic degradation without interfering with Rifaximin detection. Therefore, the method was said to be stability indicating and can be applied for quality control and stability testing of Rifaxmin tablets during its shelf life.

Keywords : forced degradation, high-performance liquid chromatography, method validation, rifaximin, stability indicating method
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