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Development and Validation of Stability Indicating RP-HPLC Method for Niacin in its Pharmaceutical Formulations

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ABSTRACT

A new, simple, rapid, selective, precise and accurate isocratic reverse phase high performance liquid Chromatography assay method has been developed for estimation of Niacin in tablet formulations. The separation was achieved by using column Primsep A 100, 150 × 4.6 mm, 5 µm, in mobile phase pH 2.5 Phosphate Buffer and Acetonitrile in the ratio of 600:400 v/v. The flow rate was 1.0 mL.min^{-1} and the separated Niacin was detected using UV detector at the wavelength of 262 nm. The retention time of Niacin, was noted to be 3.68 min respectively, indicative of rather shorter analysis time. The method was validated as per ICH guidelines. The proposed method was found to be accurate, reproducible, and consistent.

Keywords: Liquid Chromatography, Niacin, Validation.