



Research article

A validated HPTLC method for estimation of Nitazoxanide in bulk and formulation

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Abstract

A simple, specific, accurate, reproducible and precise high performance thin layer chromatographic method was developed for estimation of Nitazoxanide (NTZ) in pharmaceutical formulation. This method involved Camag high performance thin layer chromatography (HPTLC) system comprising of Linomat IV sample applicator with Merck precoated aluminium sheets Silica Gel 60 F254 of 10 x 10 cm size and 200 mm thickness. The mobile phase consisting of ethyl acetate : iso-octane (5 : 5 v/v). The detection was carried out densitometrically using UV detector in absorbance mode at 360 nm. The R_f value was 0.44, proving good resolution. The method is sensitive to detect Nitazoxanide (NTZ). The correlation coefficient was >0.99. The method was validated for accuracy, precision, specificity, linearity, range, ruggedness and robustness. The proposed method was successfully used to determine the drug content of marketed formulation.

Keywords: Nitazoxanide, HPTLC, validation.

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