

Simultaneous HPTLC Determination of Aceclofenac and Drotaverine Hydrochloride in Tablet Dosage Form

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Abstract: A normal-phase simple, rapid and precise high performance thin – layer chromatographic method has been developed for simultaneous quantitative determination of Aceclofenac and Drotaverine hydrochloride in a tablet dosage form. The analysis was performed on Silica gel 60F₂₅₄ on aluminum plates with acetonitrile – ethyl acetate – triethylamine, 2 : 7.6 : 0.4 v/v as a mobile phase. Detection and quantitation were performed densitometrically at wavelength 282nm. The developed method was validated for linearity, precision, solution stability, accuracy and robustness parameters. The linearity of Aceclofenac and Drotaverine hydrochloride were in the range of 50-150 µg/mL and 40-120µg/mL respectively. The correlation coefficient of Aceclofenac and Drotaverine hydrochloride were observed 0.9992 and 0.9995 respectively. Accuracy was checked by performing recovery studies from the pharmaceutical preparation. The average was found to be 99.48 ± 1.62% for Aceclofenac and 99.32 ± 1.52% for Drotaverine hydrochloride. The proposed HPTLC method was found to be accurate, precise and rapid for the simultaneous determination of Aceclofenac and Drotaverine hydrochloride in tablet dosage form.

Keywords: Drotaverine hydrochloride, Aceclofeanc, HPTLC

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