

Shrivastava J, Shah K, Mahadik M, Dhaneshwar SR. Application of HPTLC in the simultaneous estimation of thiocolchicoside and diclofenac in bulk drug and pharmaceutical dosage form. *Bull. Pharm. Res.* 2011;1(3):34-7.

Abstract: A simple, precise and accurate HPTLC method was developed for the simultaneous estimation of thiocolchicoside (THIO) and diclofenac potassium (DICLO) as the bulk drug and in capsule dosage form. Chromatographic separation was performed on silica gel 60 F₂₅₄ as the stationary phase and the toluene: acetone: methanol: formic acid (5:2:2:0.01 v/v/v/v) as mobile phase. Densitometric evaluation of the separated zones was performed at 280 nm. The two drugs were satisfactorily resolved with R_f values of 0.29±0.02 and 0.71±0.02 for THIO and DICLO, respectively. The accuracy and reliability of the method was assessed by evaluation of linearity (160-800 ng spot⁻¹ for THIO and 1000-5000 ng spot⁻¹ for DICLO), precision (repeatability RSD 0.658-0.788% and intermediate RSD 0.579-1.012% for THIO, and repeatability RSD 0.340-1.092% and intermediate RSD 0.429-1.007% for DICLO), accuracy (100.97±0.921% for THIO and 99.22±0.022% for DICLO) and specificity, in accordance with ICH guidelines.

Key words: Thiocolchicoside, Diclofenac potassium, HPTLC, Validation, ICH guidelines.

References: [13](#)

Total Pages: 04

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