

# NOVEL UV SPECTROPHOTOMETRIC METHOD FOR SIMULTANEOUS ESTIMATION OF MONTELUKAST SODIUM AND OLOPATADINE HYDROCHLORIDE USING ABSORBANCE CORRECTION PRINCIPLE

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## ABSTRACT

A simple, accurate and economical UV spectroscopic method has been developed for the simultaneous estimation of olopatadine hydrochloride and montelukast sodium. The developed method is based on the determination of the two drugs using UV absorbance correction principle. The wavelengths chosen for analysis were 352 nm for montelukast sodium (as absorbance due to the other drug was nil at this wavelength) and 298.5 nm for olopatadine hydrochloride (corrected for absorbance due to montelukast sodium) with water as diluent. The Beer-Lambert's range for the two drugs was found to be 2-100  $\mu\text{g mL}^{-1}$  at 298.5 nm and 2-70  $\mu\text{g mL}^{-1}$  at 352 nm for montelukast sodium with  $r^2$  of  $\geq 0.990$ . The developed method was validated as per ICH guidelines and the percentage assay results were within acceptable limits. The developed method can thus be successfully used for the regular analysis of olopatadine hydrochloride and montelukast sodium in bulk and in combination.