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Method Development and Validation for Quantification of Active Content and Impurities of Clodinafop Propargyl and Its Enantiomeric Separation by High-Performance Liquid Chromatography

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Abstract : A rapid, sensitive and inexpensive method has been developed for complete analysis of Clodinafop Propargyl. Clodinafop Propargyl enantiomers were separated on chiral column, Chiral Pak AS-H (250 mm. 4.6mm x 5µm) with mobile phase n-hexane: IPA (96:4) at flow rate 1.5 ml/min. The effluent was monitored by UV detector at 230 nm. Clodinafop Propagyl content and impurity quantification was done with reverse phase HPLC. The present study describes a HPLC method using simple mobile phase for the quantification of Clodinafop Propargyl and its impurities. The method was validated and found to be accurate, precise, convenient and effective. Moreover, the lower solvent consumption along with short analytical run time led to a cost effective analytical method.

Keywords : Clodinafop Propargyl, method, validation, HPLC-UV
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