

Shukla R, Shivkumar R, Shivan KN. Development of a UV-spectrophotometric method for the simultaneous determination of tramadol hydrochloride and paracetamol in bulk and marketed product. *Bull. Pharm. Res.* 2011;1(1):62-6.

Abstract: A specific, rapid and simple UV spectrophotometric method with good sensitivity was developed and validated for the simultaneous quantification of tramadol HCl and paracetamol in bulk and marketed product by simultaneous equation method. From the optical characteristics of the proposed methods, it was found that the λ_{\max} of tramadol-HCl and paracetamol was found to 271 nm and 248 nm respectively. Tramadol HCl and paracetamol obey linearity within the concentration range of 2.5-15 $\mu\text{g/ml}$ and 3-15 $\mu\text{g/ml}$. The %RSD is less than 2%. The percentage recovery values of pure drug from the pre-analyzed formulations were in between 99-103%. The analysis of the formulation showed good result in concentration in range of 98-101%. This analytical method is also applicable in ordinary laboratories and can be adopted for quality control tests for these drugs in marketed formulation.

Key words: UV spectrophotometric method, Tramadol-HCl, Paracetamol, Simultaneous determination.

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