



Simultaneous Determination of Fluphenazine, Trifluoperazine, and Prochlorperazine in Pharmaceutical Preparations by HPLC Method

Jameel M. Dhabab^{1,*}, Assaf H. Tafueeq¹, Tarik Ak Nasser²

¹Chemistry Department-College of Science-Almustansirya University; ²Marine Chemistry-Basra Marine Center-Basra University

Received March 27, 2012; Accepted July 25, 2012

Abstract: A simple high performance liquid chromatographic method has been developed, for simultaneous determination of Fluphenazine (FLP), Trifluoperazine (TFP), and prochlorperazine (PCP) in pure and pharmaceutical preparations. The chromatographic method has been developed and tested for simultaneous separation and determination of three phenothiazine. The method is based on reverse-phase using a Luna C18 (2) (250x4.6) mm, 5 μ m particle size column. The separation is achieved by using isocratic elution and acetonitrile as the mobile phase. The mobile phase is pumped at a flow rate of 1.0 ml/min and UV detection at 250 nm. The column is maintained at 30C throughout the analysis. The total run time is 14 min. This method is obeyed Beer's law at 5-300 μ g/mL for Fluphenazine, 5-200 μ g/mL for Trifluoperazine and 10-500 μ g/mL⁻¹ for Prochlorperazine. The proposed method is characterized by specificity, accuracy, precision and linearity. The HPLC method is compared with British pharmacopoeia (BP) using F test. The developed method can be used successfully for quantitative determination of FLP, TFP and PCP in bulk, ampules and tablet dosage forms in pharmaceutical industry.

Keyword: HPLC, Fluphenazine, Trifluoperazine, Prochlorperazine, pharmaceutical preparation.

* Corresponding: E-Mail: jamilmosa@yahoo.com; Tel+9647902212187