

Analysis of paracetamol, pseudo-ephedrine and brompheniramine in comtrex tablets using chemometric methods.

Amr Mohamed Badawy ,Souha Hosam Youssef, Maha Abdel Moneim Hegazy, Dalia Mohame

Abstract

Paracetamol (PAR), pseudoephedrine hydrochloride (PSE) and brompheniramine maleate (BRM) are co-formulated drugs that are widely used in the Egyptian market for the relief of symptoms associated with common cold. Their severely overlapped spectra were resolved by two simple, accurate and precise chemometric techniques, principal component regression method (PCR) and partial Least Squares methods (PLS). The proposed methods were rapid, cost effective and were successfully applied for the analysis of laboratory prepared mixtures and the combined dosage form. Good recoveries were obtained for PCR method, 100.42, 100.05 and 98.96 % and for PLS method 100.04, 99.95 and 100.36 % for PAR, PSE and BRM, respectively. The methods were validated according to the ICH guidelines. Comparison of the applied methods with the reported method was done and no significant difference was found regarding accuracy and precision.

World Journal of Pharmacy and Pharmaceutical Sciences 2017, May