ABSTRACT

An accurate and precise gradient stability indicating reverse phase high performance liquid chromatographic method is developed for simultaneous determination of sibutramine hydrochloride and Orlistat in the newly developed capsule formulation. The chromatography equipped with Zorbax SB Phenyl (250×4.6mm) 5µ column using a mobile phase of buffer (Dissolved 7.0 g of sodium perchlorate in 1000ml water, pH adjusted to 2.1 (+ 0.05) with ortho phosphoric acid, filtered through 0.45 µ filter.) and acetonitrile, the gradient program configured with a flow rate of 2.0 ml/min, ultraviolet detector at 210nm. The retention times of sibutramine hydrochloride and Orlistat were 8 and 31 min respectively. The method linearity was studied over the range of 50 to 150 ppm with r² of 0.9999 for sibutramine hydrochloride and 600 to 1800 ppm with r² of 0.9999 for Orlistat. Mean recovery for sibutramine hydrochloride and Orlistat were 100.09 and 100.02 respectively.

A simple fast, accurate, precise, and cost effective isocratic stability indicating reverse phase high performance liquid chromatographic method is developed for simultaneous determination of Halobetasol propionate and fusidic acid as well as its impurities in the newly developed cream formulation. The chromatography equipped with Zorbax SB phenyl (250X4.6mm) column using a mobile phase of buffer (0.1% triethylamine buffer pH adjusted to 2.0 with Orthophosphoric acid) acetonitrile, methanol in the ratio of 40:35:25 v/v with a flow rate of 1.5 ml/min, with ultraviolet detector configured at 240nm. Identified all impurities and Characterization of Sibutramine Hydrochloride Impurities.
A simple fast, accurate, precise, and cost effective stability indicating reverse phase high performance liquid chromatographic method is developed for simultaneous determination of Halobetasol propionate and Salicylic acid impurities in the newly developed Ointment formulation. The chromatography equipped with Inertsil C-8 (250X4.6mm) column using a mobile phase of buffer (0.1% of Orthophosphoric acid) and acetonitrile with a flow rate of 1.5 ml/min, with ultraviolet detector configured at 231nm. The method is found to be linear in the range of 0.118 to 17.734 µg/ml for 4 Hydroxy benzoic acid, 0.120 to 9.036 µg/ml for 4 Hydroxy isophthalic acid, 0.12 to 3.586 µg/ml for Phenol, 0.103 to 8.987 µg/ml for Salicylic acid, 0.069 to 1.480 µg/ml for Diflorasone 21 propionate, 0.071 to 1.472 µg/ml for Diflorasone 17 propionate 21mesylate and 0.057 to 1.514 µg/ml for Halobetasol propionate.

A simple fast, accurate, precise, and cost effective isocratic stability indicating reverse phase high performance liquid chromatographic method is developed for simultaneous determination of drotaverine hydrochloride and mefenamic acid in the newly developed tablet formulation. The chromatography equipped with Inertsil ODS 3V (250×4.6mm) 5µ column using a mobile phase of buffer (Dissolved 6.8 g of sodium acetate trihydrate in 1000 ml water, pH adjusted to 4.5 with acetic acid) and acetonitrile, in the ratio of 45:55 v/v with a flow rate of 1.5 ml/min, ultraviolet detector configured at 350 nm. The retention times of drotaverine hydrochloride and mefenamic acid were 3.05 and 9.52 min, respectively. The method was linear over the range of 16 to 47 ppm with r² of 0.9999 for drotaverine hydrochloride and 100 to 300 ppm with r² of 0.9999 for
Mefenamic acid. Mean recovery for drotaverine hydrochloride and mefenamic acid were 101.1 and 101.2 respectively.

A simple fast, accurate, precise and cost effective stability indicating reverse phase high performance liquid chromatographic method was developed for simultaneous determination of tazarotene and mometasone from cream formulation. The determination was carried out on an inertsil ODS-3, 250x4.6 mm, 5 micron column using a mobile of mix 0.05 molar potassium dihydrogen phosphate buffer, acetonitrile and tetrahydrofuran (30:60:10 %v/v). The flow rate and run time were 1.5 ml/min and 20 min respectively. The eluent was monitored at 254 nm. The method was found to be reproducible with good resolution between tazarotene and mometasone. The detector response was found to be linear in the concentration range of 6 µg/ml to 30 µg /ml for both tazarotene and mometasone. This method can be used for routine quality control and stability studies.

A fast, specific, accurate and precise RP-HPLC method was developed for the simultaneous estimation of butenafine hydrochloride and betamethasone in cream formulation.