

Simultaneous determination of hyoscine N-butyl bromide and paracetamol in their binary mixture by RP-HPLC method

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Abstract

RP-HPLC chromatographic method was developed for the determination of hyoscine N-butyl bromide (HBB) and Paracetamol (PAR). In this chromatographic method, HBB and PAR were separated using C18 (25 cm × 4.6 mm i.d. 5 μm particle size) column as a stationary phase and water: methanol (50:50, V/V pH adjusted to 3.9 with CF₃COOH acid) as a mobile phase, maintaining the flow rate at 1.0 mL min⁻¹ with UV detection at 210 nm. The proposed method was successfully applied for the determination of HBB and PAR in pure form over a concentration range of 2.0–50.0 μg mL⁻¹ for HBB with mean percentage recovery of 100.10 ± 0.475 and over a concentration range of 5.0–200.0 μg mL⁻¹ for PAR with mean percentage recovery of 99.87 ± 0.942 and in their pharmaceutical formulations (Buscopan plus® tablets, Buscamol® tablets and Buscopan plus® suppositories).

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