Simultaneous Determination of Candesartan Cilexetil and Hydrochlorothiazide by High-Performance Liquid Chromatography

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Abstract:

A high performance liquid chromatographic method was developed for simultaneous determination of candesartan cilexetil and hydrochlorothiazide in binary mixtures and in pharmaceutical dosage forms. Active substances were separated by gradient system in the mobile phase, consisting of acetonitrile and 0.02M sodium acetate. The flow rate of the mobile phase was 1 mL/min. Separation was achieved on Kromasil 100 C18 column (4.6 mm i.d. x 25 cm length, 5 µm). Detection was carried out using UV detector set at 265 nm. The detector response was linear in the range of 16-200 ng/ injection (10 µl) for candesartan cilexetil and 12.5-1250 ng/injection (10 µl) for hydrochlorothiazide. The relative standard deviation of the recovered amounts of candesartan and hydrochlorothiazide were 0.27 and 0.60%, respectively. The limit of detections were 4 ± 0.05 and 5 ± 0.06 ng/ injection for hydrochlorothiazide and, candesartan, respectively. The method was applied for the determination of candesartan and hydrochlorothiazide in pharmaceutical tablets.

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