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High-Performance Liquid Chromatographic Method with Diode Array Detection (HPLC-DAD) Analysis of Naproxen and Omeprazole Active Isomers

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Abstract : Chiral separation and analysis of omeprazole and naproxen enantiomers in tablets were achieved using high-performance liquid chromatographic method with diode array detection (HPLC-DAD). Kromasil Cellucoat chiral column was used as a stationary phase for separation and the eluting solvent consisted of hexane, isopropanol and trifluoroacetic acid in a ratio of: 90, 9.9 and 0.1, respectively. The chromatographic system was suitable for the enantiomeric separation and analysis of active isomers of the drugs. Resolution values of 2.17 and 3.84 were obtained after optimization of the chromatographic conditions for omeprazole and naproxen isomers, respectively. The determination of S-isomers of each drug in their dosage form was fully validated.

Keywords : chiral analysis, esomeprazole, S-Naproxen, HPLC-DAD
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