

عنوان مقاله:

Liquid chromatography–tandem mass spectrometry (LC-MS) method for the assignment of enalapril and enalaprilat in human plasma

محل انتشار:

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خلاصه مقاله:

A rapid and sensitive liquid chromatography–tandem mass spectrometry (LC-MS) method was developed for the determination of enalapril and enalaprilat in human plasma. Detection of analytes was achieved by tandem mass spectrometry with electrospray ionization (ESI) interface in positive ion mode which was operated under the multiple-reaction monitoring mode. Sample pretreatment was involved in a one-step protein precipitation (PPT) with per chloric acid of plasma. The reconstituted samples were chromatographed on C₁₈ column by pumping methanol: water: acid formic ۷۴:۲۴:۲ (v/v) at a flow rate of ۰.۲ mL/min. Each plasma sample was chromatographed within ۱.۲۵ min. The standard curves were found to be linear in the range of ۰.۱–۲۰ ng/mL of enalapril and enalaprilat with mean correlation coefficient of ≥ 0.999 for each analyte. The intra-day and inter-day precision and accuracy results were well within the acceptable limits. The limit of quantification (LOQ) was ۰.۱ng/ml for enalapril and enalaprilat. The lower limit of detection (LOD) was ۰.۰۸ ng/ml for enalapril and enalaprilat.

کلمات کلیدی:

Enalapril, enalaprilat, LC - MS, human plasma

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