

ABSTRACT

Enalapril and its metabolite Enalaprilat were determined by gas chromatography – mass spectrometry (GC – MS) and high – performance liquid chromatography (HPLC). For HPLC, the detection limit of enalapril and enalaprilat was 10ng/ml in methanol, whereas for the GC – MS, the detection limit was 6.25ng/ml in plasma. These methods were compared and GC – MS was selected for routine analysis.

Enalapril and Enalaprilat in plasma were extracted and cleaned up by using Sep – Pak C18. Enalapril and Enalaprilat were detected after reaction with diazomethane and were identified by gas chromatography – mass spectrometry as methyl ester. Detection by selected ion monitoring (SIM) was selected to m/z 220 (enalaprilat) and m/z 234 (enalapril). Diazepam was used as an internal standard. This method is applied to the pharmacokinetic analysis of enalapril and enalaprilat in body fluids.