

ABSTRACT

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Title of diploma thesis: Development of HPLC method for determination of vancomycine in clinical research

The aim of this diploma thesis was to develop optimal conditions for the chromatographic determination of vancomycin for clinical routine practice.

The chromatographic separation was carried out by KinetexTM C18 column, 2.6 µm particle size, 50 × 4.6 mm (Phenomenex, USA) in combination with potassium phosphate buffer (pH 4.5) and acetonitrile (90 : 10, v/v) as the mobile phase. As internal standard was chosen cefuroxime. For analytes determination UV detection at 220 nm wavelength was applied.

After optimization of separation conditions, the method was applied to biological material. Samples were easily modified using the protein precipitation.

The method was partially validated.

Keywords: vancomycin, HPLC-UV, plasma samples