

Abstract

Charles University

Faculty of Pharmacy in Hradec Králové

Department of Analytical Chemistry

Candidate: Veronika Reiská

Supervisor: doc. PharmDr. Ludmila Matysová, Ph.D.

Title of diploma thesis: Development and validation of UHPLC method for determination of omeprazole in oral suspensions

The aim of the diploma thesis was to find out suitable conditions for method which enables to determinate the concentration of omeprazole in oral suspensions.

There was used the column Kinetex™ 1.7 μm, C18 100 A, 50 x 2.1 mm, (Phenomenex, USA) for analysis. The mobile phase was 0.025mol/L phosphate buffer and acetonitrile in ratio 74:26. A suitable pH value of 7.6 was chosen. The internal standard method of methylparaben was applied. The whole analysis was detected on the wavelength of 300 nm.

After finding of optimal conditions, 6 different samples of oral omeprazole suspensions were measured. The solution of the mobile phase was used for dissolution of samples.

The method was validated.

Keywords: omeprazole, UHPLC, oral suspensions.