

Assay for Citrate and Phosphate in Pharmaceutical Formulations Using a Compact IC System

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Key Words

Integrion, IonPac AG11, EGC 500, Citric Acid, Pharmaceuticals

Introduction

Citric acid is a common ingredient found in pharmaceutical formulations. This application proof note demonstrates a determination of citrate and phosphate in pharmaceutical formulations using the method published in Application Note 164.¹ In this proof note, the method is performed using a Thermo Scientific™ Dionex™ Integrion™ ion chromatography system in combination with a Thermo Scientific™ Dionex™ IonPac™ AS11 hydroxide-selective, anion-exchange column, an electrolytic eluent generator to automatically produce an isocratic potassium hydroxide eluent, and suppressed conductivity detection.

Method

IC System:	Thermo Scientific Dionex Integrion IC system
Columns:	Thermo Scientific Dionex IonPac AS11 Analytical (4 × 250 mm) Thermo Scientific Dionex IonPac AG11 Guard (4 × 50 mm)
Eluent:	20 mM KOH
Flow Rate:	2 mL/min
Injection Volume:	10 µL
Temperature:	30 °C
Detection:	Suppressed conductivity, Thermo Scientific™ Dionex™ AERS™ 500 Electrolytically Regenerated Suppressor, 4 mm, 15 °C, 99 mA, recycle mode

Reference

1. Thermo Scientific Dionex Application Note 164: Assay for Citrate and Phosphate in Pharmaceutical Formulations Using Ion Chromatography. Sunnyvale, CA [Online] http://www.thermoscientific.com/content/dam/tfs/ATG/CMD/CMD%20Documents/Application%20&%20Technical%20Notes/Chromatography/GC%20HPLC%20and%20UHPLC%20Columns%20and%20Accessories/Chromatography%20Column%20Accessories/49183-AN164_LPN1643.pdf (accessed Jan. 8, 2016)

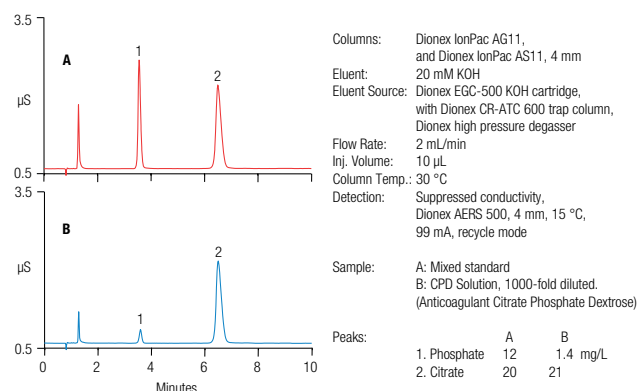


Figure 1. Phosphate and citrate in standard (A) and sample (B).

For application support, visit the [AppsLab Library](#) where you can find detailed method information, chromatograms and related compound information. All the information needed to run, process and report the analysis is available in ready-to-use eWorkflows, which can be executed directly in your chromatography data system. www.thermoscientific.com/appslab



www.thermoscientific.com/integrion

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