

Determination of Glucosamine in Dietary Supplements Using a Compact Ion Chromatography System

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Key Words

HPIC, HPAE-PAD, Integrion, CarboPac PA20, Glucosamine, Glucose, Fructose, Dietary Supplements, Herbal Products

Introduction

This application proof note demonstrates a rapid, rugged HPAE-PAD method for determining glucosamine in dietary supplement tablets, gelatin capsules, and fortified liquids based on the method published in Application Note 197.¹ In this proof note, the method is performed using a Thermo Scientific™ Dionex™ Integrion™ HPIC™ system.

Method

IC System:	Thermo Scientific Dionex Integrion HPIC system
Columns:	Thermo Scientific™ Dionex™ CarboPac™ PA20 Analytical (3 × 150 mm) Thermo Scientific Dionex CarboPac PA20 Guard (3 × 30 mm)
Eluent:	20 mM KOH
Flow Rate:	0.5 mL/min
Injection Volume:	10 µL
Temperature:	30 °C
Detection:	Pulsed amperometry, using Thermo Scientific Dionex Carbohydrate Disposable Au Working Electrodes

Reference

1. Thermo Scientific Application Note 197: Determination of Glucosamine in Dietary Supplements Using HPAE-PAD, Sunnyvale, CA [Online] http://www.thermoscientific.com/content/dam/tfs/ATG/CMD/CMD%20Documents/Application%20&%20Technical%20Notes/Chromatography/Ion%20Chromatography/IC%20and%20RFIC%20Accessories/66760-AN197_IC_Glucosamine_DietarySupplements_29May08_LPN2001_01.pdf (accessed Dec. 28, 2015)

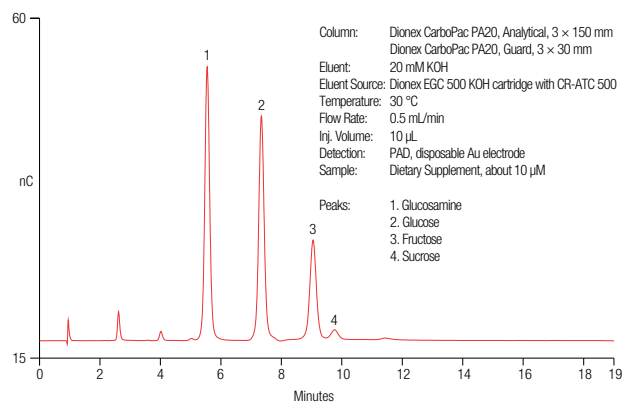
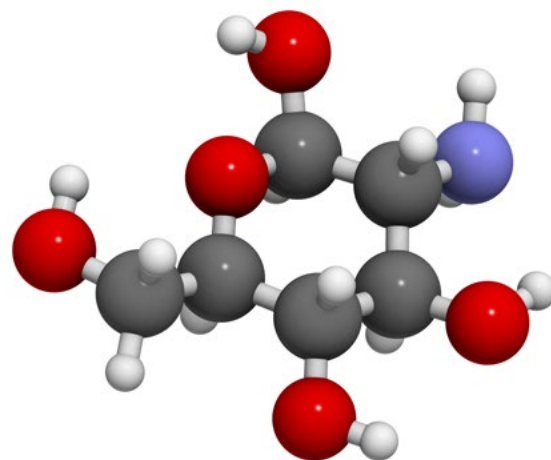


Figure 1. Separation of anions in a glucosamine-containing dietary supplement using HPIC.

For application support, visit the [AppsLab Library](http://www.thermoscientific.com/appslib) 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/appslib



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