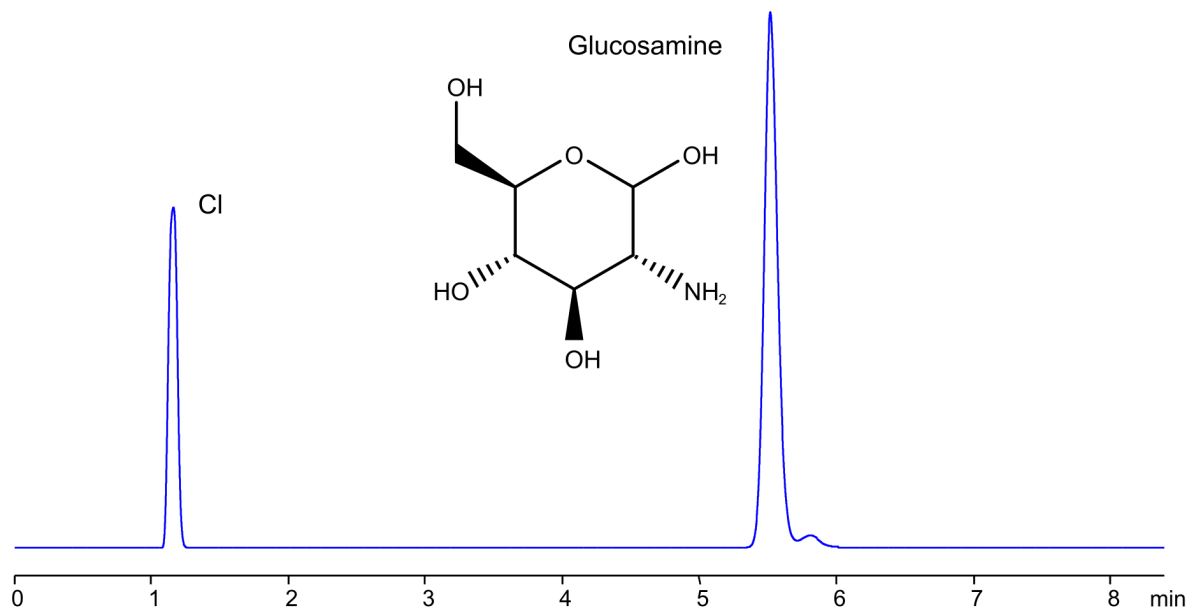


ELSD-HPLC Method for Analysis of Glucosamine (Hydrochloride) on Primesep S Column

<https://sielc.com/hplc-method-for-analysis-of-glucosamine>

Chromatogram



Column:	Primesep S
Column size:	4.6 × 100 mm, 5 µm
Column part number:	S-46.100.0510
Mobile phase:	MeCN/H ₂ O - 50/50%
Buffer:	AmFm pH 3.0 - 40 mM
Flow rate	1.0 mL/min
Detection:	ELSD, the nebulizer and evaporator temperatures 40°C, with a gas flow rate of 1.6 Standard Liters per Minute (SLM)
Concentration:	6.7 mg/mL
Injection Volume:	2 µL
Diluent:	MeCN/H ₂ O - 50/50%
Limit of Detection:	149 ppb

Description

· HPLC Method for Analysis of Glucosamine on Primesep S Column by SIELC Technologies

Glucosamine is a naturally occurring compound primarily found in cartilage, which cushions and supports joints. It is widely used as a dietary supplement to promote joint health and alleviate symptoms of osteoarthritis, such as stiffness and pain. Commonly sourced from shellfish or produced synthetically, glucosamine is available in forms like glucosamine sulfate, glucosamine hydrochloride, and N-acetyl glucosamine. It supports the repair and maintenance of cartilage and connective tissues, playing a

vital role in joint flexibility and mobility.

Glucosamine can be retained and analyzed using an Primesep S mixed-mode stationary phase column. The analysis employs an isocratic method with a simple mobile phase consisting of water, acetonitrile (MeCN), and ammonium formate as a buffer. Detection is achieved using ELSD.

Method Parameters

Mobile Phase	MeCN/H ₂ O – 50/50%
Buffer	Ammonium formate pH 3.0 – 40 mM
Flow Rate	1.0 ml/min
Detection	ELSD, the nebulizer and evaporator temperatures 40°C, with a gas flow rate of 1.6 Standard Liters per Minute (SLM)
Sample	6.7 mg/ml
Injection volume	2 µl
LOD*	149 ppb
Class of Compounds	Quaternary amines
Analyzing Compounds	Glucosamine

HPLC Column Used

Primesep S, 4.6 x 100 mm, 5 µm, 100 A, dual ended

[Order this column at hplc-shop.de →](http://hplc-shop.de)