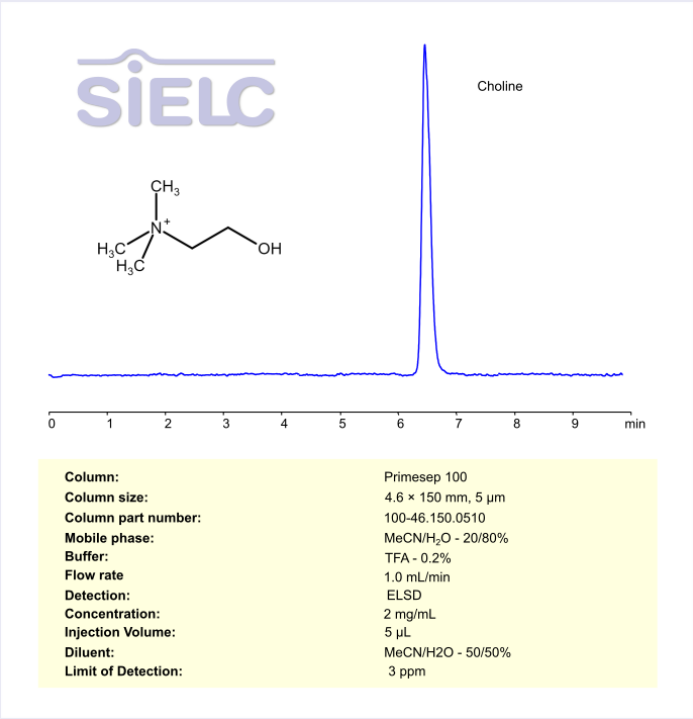
ELSD HPLC Method for Analysis of Choline on Primesep 100 Column



Column:	Primesep 100
Column size:	4.6 × 150 mm, 5 µm
Column part number:	100-46.150.0510
Mobile phase:	MeCN/H_2O - 20/80%
Buffer:	TFA - 0.2%
Flow rate	1.0 mL/min
Detection:	ELSD
Concentration:	2 mg/mL
Injection Volume:	5 µL
Diluent:	MeCN/H2O - 50/50%
Limit of Detection:	3 ppm

Choline is an essential nutrient that plays a vital role in many physiological processes in the body. While it is not classified as a vitamin or mineral, it is often grouped with the B-complex vitamins due to its similar functions.

Sources of Choline: Choline can be obtained through diet and is found in a variety of foods:

Eggs (especially the yolks) Liver (beef and chicken) Fish (salmon and cod) Soybeans and soy products Moderate Sources:

Broccoli Brussels sprouts Peanuts Whole grains Supplements:

Choline supplements, such as choline bitartrate, phosphatidylcholine, or citicoline, are available for those who may have difficulty getting enough through diet alone.

Choline can be retained, and analyzed using a Primesep 100 mixed-mode stationary phase column. The analysis utilizes a gradient method with a simple mobile phase consisting of water, acetonitrile (MeCN), and TFA as a buffer. Detection is carried out using ELSD

*LOD was determined for this combination of instrument, method, and analyte, and it can vary from one laboratory to another even when the same general type of analysis is being performed.

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Method Parameters

Column	Primesep 100, 4.6 x 150 mm, 5 µm, 100 Å, dual ended
Mobile Phase	MeCN40%
Buffer	Ammonium Formate pH 3.0 – 40 mM
Flow Rate	1 mL/min
Detection	ELSD, the nebulizer and evaporator temperatures 50°C, with a gas flow rate of 1.6 Standard Liters per Minute (SLM)

Quelle: https://sielc.com/hplc-method-for-analysis-choline-ps100