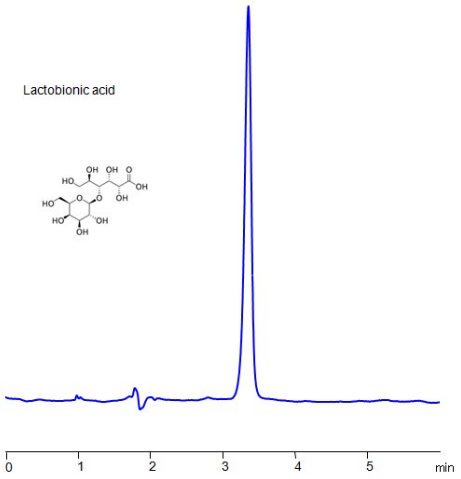
HPLC Method for Analysis of Lactobionic Acid on Newcrom BH Column



Column:	Newcrom BH
Column size:	4.6 x 150 mm, 5 µm, 100A
Column part number:	NBH-46.150.0510
Mobile phase:	MeCN/H_2O – 80/20%
Buffer:	$HClO_4$ – 0.1%
Flow rate:	1.0 mL/min
Detection:	UV 190 nm
Sample:	1 mg/ml in MeCN/H2O- 50/50%
Injection volume:	5 µl
LOD:	1 ppm

Separation type: Liquid Chromatography Reversed-phase

Lactobionic Acid is a compound derived from lactose, a sugar found in milk. It is a bionic acid, which is a type of sugar acid that contains both a sugar and a carboxylic acid group. Lactobionic acid has applications in various industries, including pharmaceuticals, cosmetics, and food production, due to its properties such as antioxidant activity and its ability to chelate metal ions. In pharmaceuticals, it is used as an excipient in formulations, while in cosmetics, it is found in skincare products for its hydrating and exfoliating properties. Additionally, it is used as a food additive, particularly in processed foods, as a stabilizer and antioxidant.

Lactobionic Acid can be retained and analyzed on a reversed-phase Newcrom BH column with a mobile phase consisting of water, Acetonitrile (MeCN), and perchloric acid. This analytical method can be detected with high resolution and peak symmetry at a wavelength of 190 nm using UV detection

*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	Newcrom BH, 4.6 x 150 mm, 5 µm, 100 Å, dual ended
Mobile Phase	MeCN/H2O – 80/20%
Buffer	HClO4 – 0.1%
Flow Rate	1.0 mL/min
Detection	UV 190 nm
Sample	1 mg/ml
Injection Volume	3 µL

Quelle: https://sielc.com/hplc-determination-of-lactobionic-acid