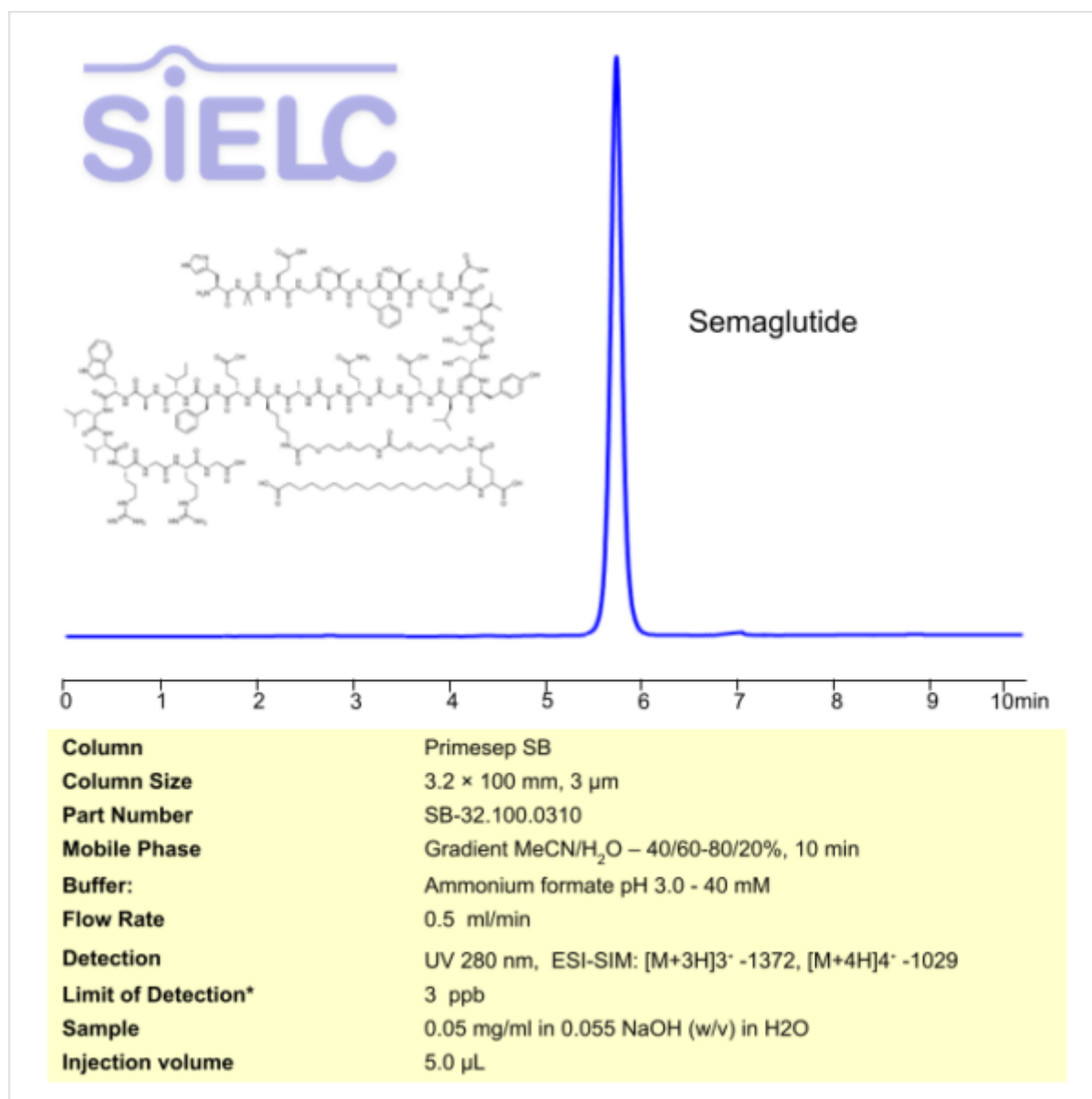


HPLC-MS Method for Analysis of Semaglutide on Primesep SB Column

<https://sielc.com/hplc-ms-method-for-analysis-semaglutide-primesep-sb>

Chromatogram



Description

· HPLC Method for Analysis of Semaglutide on Primesep SB Column by SIELC Technologies

Semaglutide is a GLP-1 receptor agonist used for managing type 2 diabetes and obesity. It mimics the effects of the natural hormone GLP-1, promoting insulin secretion, reducing glucagon levels, slowing gastric emptying, and suppressing appetite. These mechanisms help control blood sugar levels and support weight loss.

Semaglutide can be retained and analyzed using the Primesep SB stationary phase column. The analysis utilizes a gradient method with a simple mobile phase consisting of water, acetonitrile (MeCN), and Ammonium formate. Detection was performed using UV absorption at 280 nm. Mass spectrometric detection was carried out in ESI-SIM mode, monitoring the ions [M+3H]³⁺ at m/z 1372 and [M+4H]⁴⁺ at m/z 1029

Method Parameters

Mobile Phase	Gradient MeCN 40-80%, 10 min
Buffer	Ammonium Formate pH 3.0 – 40 mM
Flow Rate	0.5 ml/min
Detection	UV 280 nm, ESI-SIM: [M+3H] ³⁺ -1372, [M+4H] ⁴⁺ -1029
LOD	3 ppb
Class of Compounds	GLP-1 Receptor Agonist
Analyzing Compounds	Semaglutide

HPLC Column Used

Primesep SB, 3.2 x 100 mm, 3 µm, 100 Å, dual ended

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