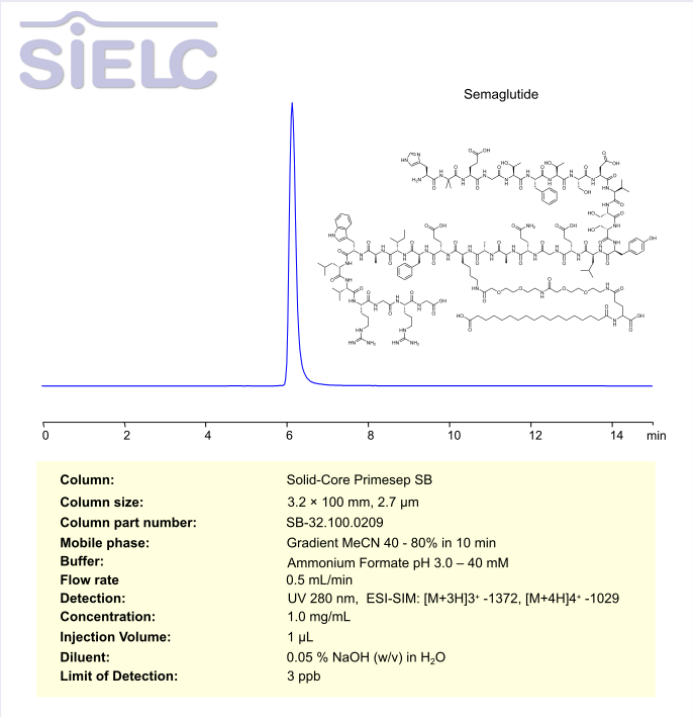
HPLC-MS Method for Analysis of Semaglutide on Solid-Core Primesep SB Column



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 Solid-Core 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

*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.

Method Parameters

Mobile Phase	Gradient MeCN40-80%, 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
Limit of Detection	3 ppb

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

AugustaChrom - Dr. Roland Kießwetter
Tel.: +49 821 599 783 70
Fax: +49 821 599 783 71
E-Mail: info@hplc-shop.de