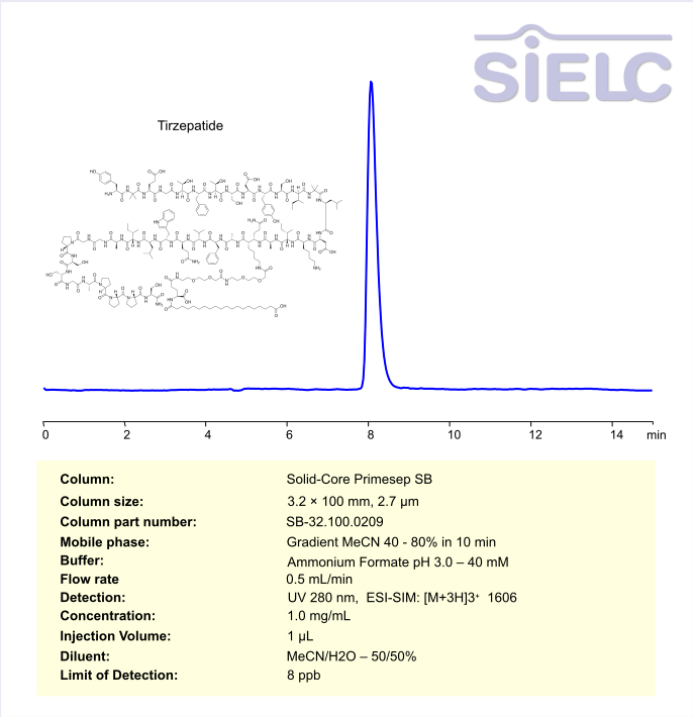
HPLC-MS Method for the Analysis of Tirzepatide in Pharmaceutical Formulation Mounjaro on Solid-Core Primesep SB Column



Tirzepatide is a synthetic peptide that functions as a dual agonist of the GLP-1 and GIP receptors. It is used in the treatment of type 2 diabetes and obesity. By mimicking the actions of both glucagon-like peptide-1 (GLP-1) and gastric inhibitory polypeptide (GIP), tirzepatide enhances insulin secretion, reduces blood sugar levels, promotes satiety, and aids in weight loss.

Tirzepatide 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 1606

*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 MeCN30-70%, 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 + -1606
Limit of Detection	8 ppb

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

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