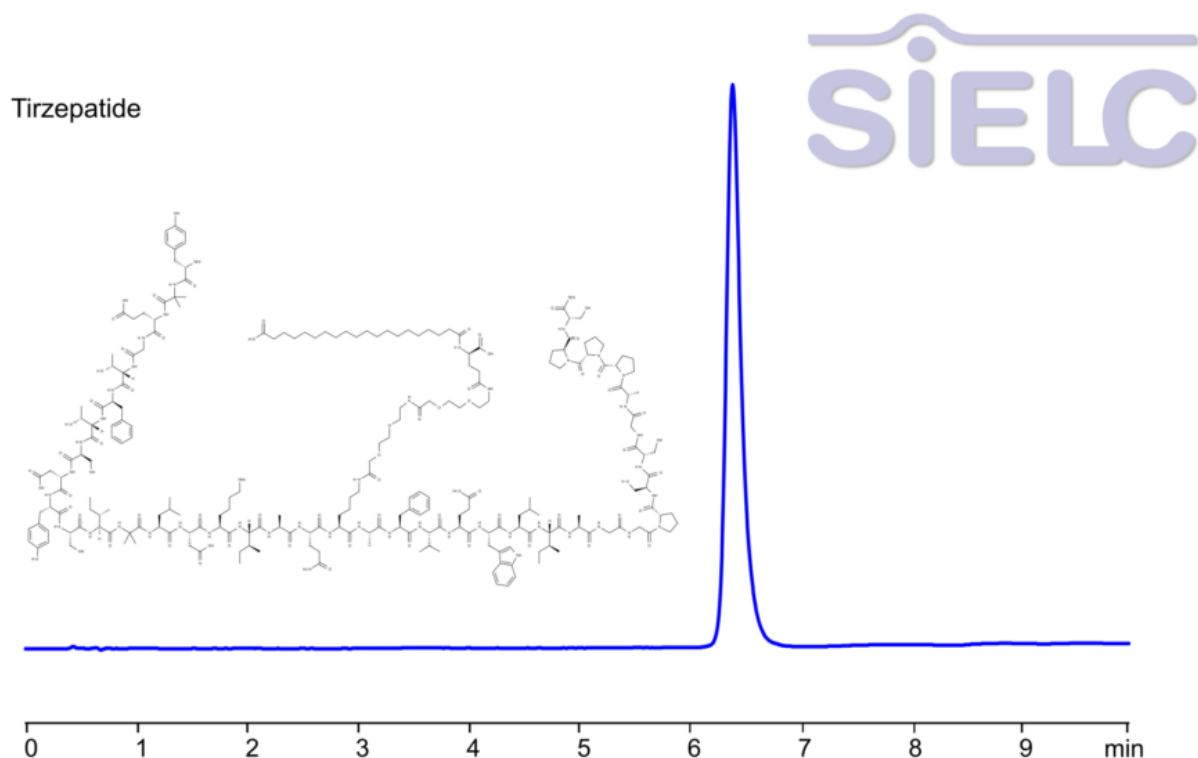


HPLC Method for the Analysis of Tirzepatide in Pharmaceutical Formulation Mounjaro on Primesep B Column

<https://sielc.com/hplc-method-for-analysis-tirzepatide>

Chromatogram



Column:	Primesep B
Column size:	3.2 × 50 mm, 5 µm
Column part number:	B-32.50.0510
Mobile phase:	Gradient MeCN - 30/70%, 10 min
Buffer:	TFA - 0.1%
Flow rate	0.5 mL/min
Detection:	UV 280 nm
Concentration:	0.5 mg/mL
Injection Volume:	5 µL
Diluent:	MeCN/H ₂ O - 50/50%
Limit of Detection:	24ppb

Description

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 Primesep B stationary phase column. The analysis utilizes an gradientc method with a simple mobile phase consisting of water, acetonitrile (MeCN), and TFA. Detection is performed using UV at 280

nm.

Method Parameters

Mobile Phase	Gradient MeCN – 30-70%, 10 mn
Buffer	TFA – 0.1%
Flow Rate	0.5 ml/min
Detection	UV 280 nm
LOD	24 ppb
Class of Compounds	GLP-1 Receptor Agonist
Analyzing Compounds	Tirzepatide

HPLC Column Used

Primesep B, 3.2 x 50 mm, 5 µm, 100 Å, dual ended

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