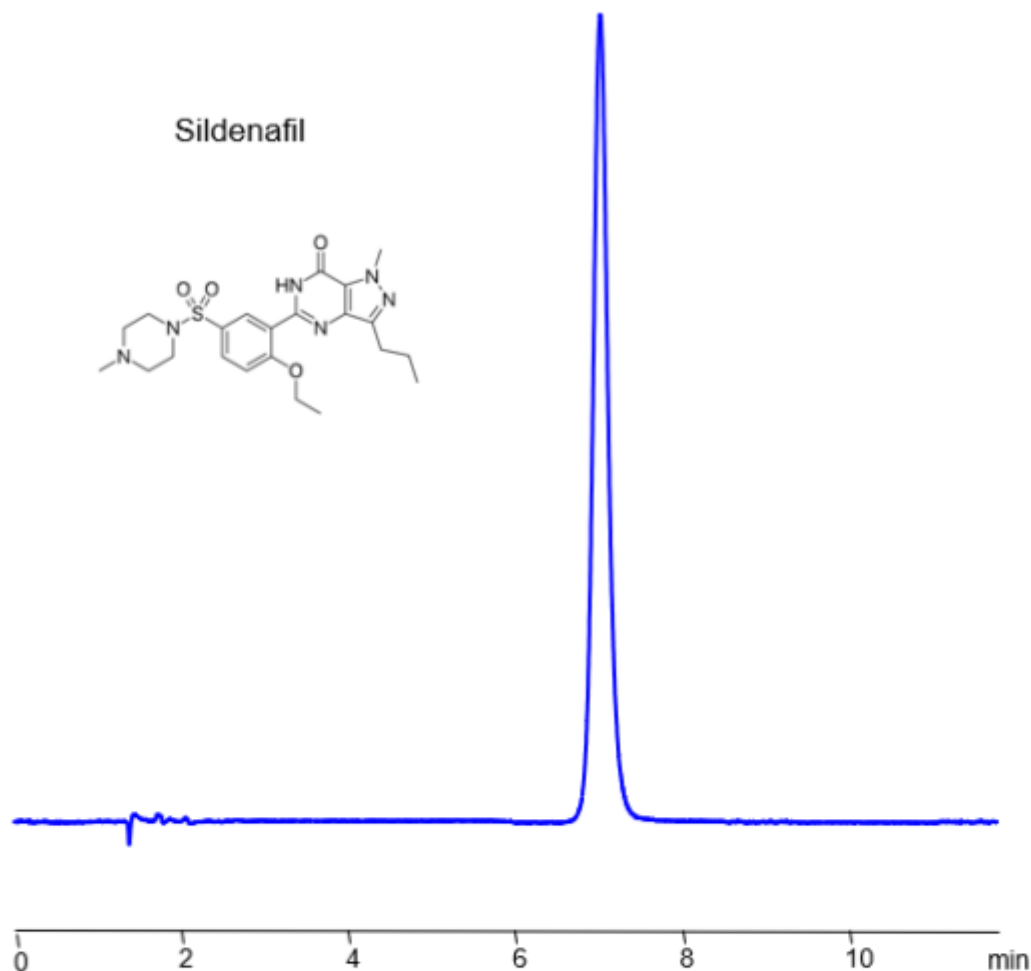


HPLC Method for Analysis of Sildenafil Citrate (Viagra) MS-compatible Mobile Phase on Primesep 100 Column

<https://sielc.com/hplc-determination-of-sildenafil-ms>

Chromatogram



Column:	Primesep 100
Column size:	4.6 × 150 mm, 5 µm
Column part number:	100-46.150.0510
Mobile phase:	MeCN/H ₂ O – 70/30%
Buffer:	Ammonium Formate pH 3.0 – 60 mM
Flow rate:	1.0 mL/min
Detection:	UV 294 nm, MS-compatible mobile phase

Description

Sildenafil Citrate (also known as Viagra) is one of the most popular medications used to treat erectile dysfunction and pulmonary hypertension. It works primarily through increasing bloodflow. It has the chemical formula C₂₈H₃₈N₆O₁₁S . It is a part of the group called phosphodiesterase 5 (PDE5) inhibitors, which prevent the enzyme called “phosphodiesterase type-5” from working.

Sildenafil (Viagra) can be retained and analyzed on a Primesep 100 mixed-mode stationary phase column using an isocratic analytical method with a simple mobile phase of water, Acetonitrile (MeCN), and an Ammonium Formate (AmFm) buffer. This analysis method can be detected in the UV regime at 294 nm, and due to the Ammonium Formate buffer, is also compatible with evaporative detection methods such as Evaporative Light Scattering Detection (ELSD), Charged Aerosol Detection (CAD), and Electrospray Ionization (ESI) for Mass Spectrometry (MS).

Method Parameters

Mobile Phase	MeCN – 70%
Buffer	Ammonium Formate pH 3.0 – 60 mM
Flow Rate	1.0 ml/min
Detection	λ_{max} 294 nm
Peak Retention Time	7.01 min
Class of Compounds	Drug
Analyzing Compounds	Sildenafil (Viagra)

HPLC Column Used

Primesep 100, 4.6 x 150 mm, 5 μ m, 100 Å, dual ended

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