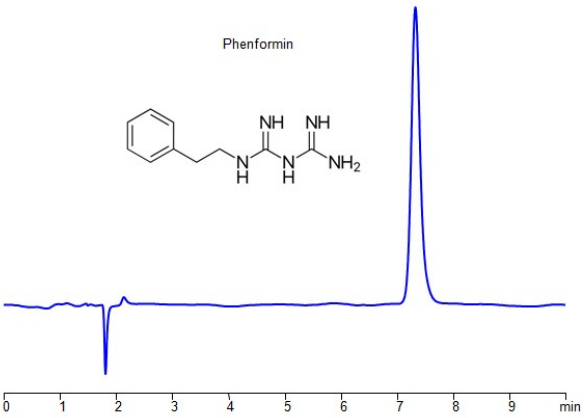
HPLC Method for Analysis of Phenformin on Primesep 100 Column



Column:	Primesep 100
Column size:	4.6 × 150 mm, 5 µm
Column part number:	100-46.150.0510
Mobile phase:	MeCN/H_2O – 75/25%
Buffer:	AmFm pH 3.0 - 30 mM
Flow rate:	1.0 mL/min
Detection:	UV 240 nm
Injection volume:	2.0 µL
Sample:	0.5 mg/ml
LOD:	13 ppb

Separation type: Liquid Chromatography Mixed-mode SIELC Technologies

Biguanides, including Moroxydine, Metformin, Proguanil, and Phenformin, are a group of organic compounds that share a common structural feature, namely the presence of two guanidine groups.

Phenformin is an antidiabetic biguanide that was previously used to treat type 2 diabetes. However, due to the risk of lactic acidosis (a serious side effect), it has been largely withdrawn from the market in many countries.

These biguanides exhibit various pharmacological activities, and while some are primarily used for antidiabetic purposes, others have applications in antiviral or antimalarial treatments. It’s important to note that the safety and efficacy of these drugs depend on proper medical supervision and adherence to prescribed dosages.

Phenformin can be retained and analyzed using a Primesep 100 mixed-mode stationary phase column. The analysis employs an isocratic method with a simple mobile phase comprising water, acetonitrile (MeCN), and ammonium formate as a buffer. This method allows for detection using UV at 240 nm

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

Method Parameters

Column	Primesep 100, 4.6 x 150 mm, 5 µm, 100 Å, dual ended
Mobile Phase	MeCN/H2O 75/25%
Buffer	AmFm pH 3.0 – 30 mM
Flow Rate	1.0 mL/min
Detection	UV 240 nm
Injection Volume	2 µl

Quelle: https://sielc.com/hplc-method-for-analysis-phenformin