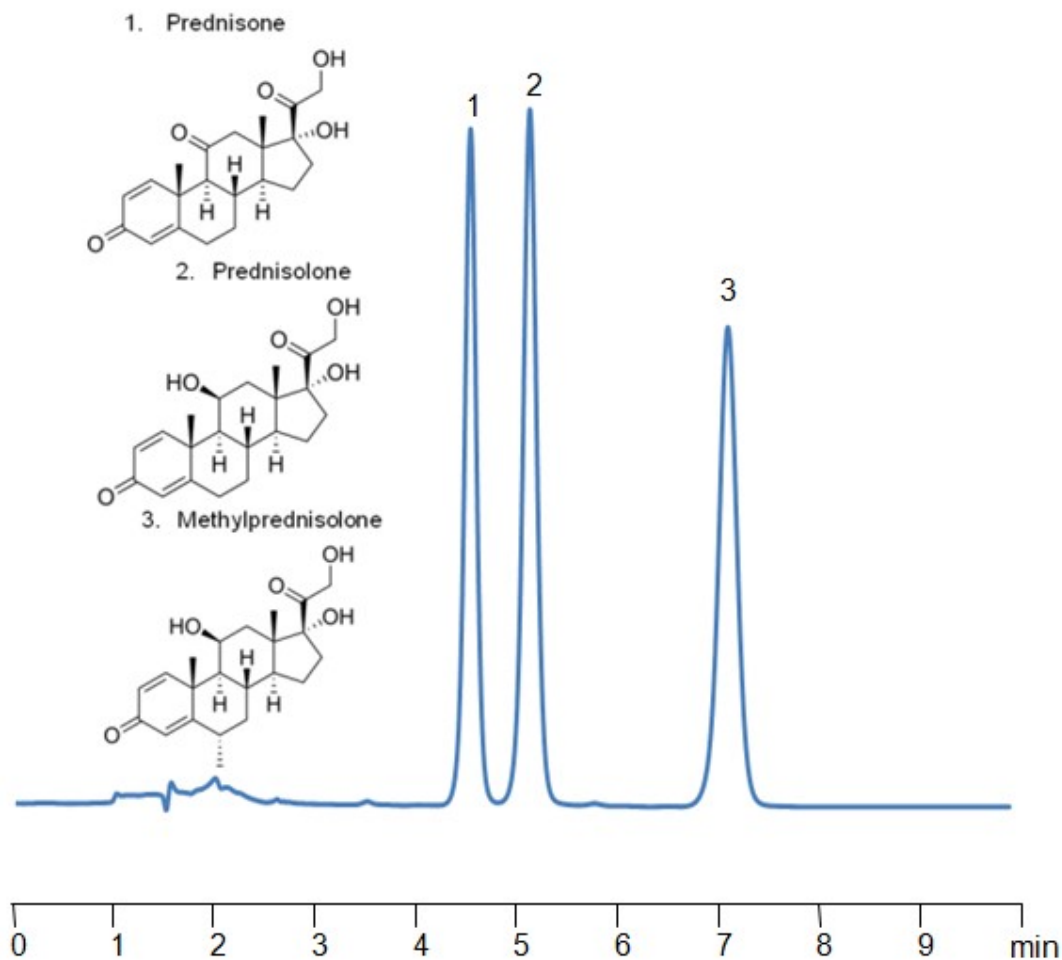


Alltesta HPLC Method for Separating Corticosteroids such as Prednisone, Prednisolone and Methylprednisolone on Primesep B Column

<https://sielc.com/alltesta-hplc-method-for-analysis-bile-corticosteroids>

Chromatogram



Column:	Primesep B
Column size:	3.2 × 150 mm, 5 µm
Column part number:	B-32.150.0510
Mobile phase:	MeCN/H ₂ O – 35/65%
Buffer:	H ₂ SO ₄ - 0.1%
Flow rate:	0.5 mL/min
Injection volume:	5 µl
Detection:	UV 275 nm

Description

HPLC Method for Analysis of Prednisone , Methylprednisolone , Prednisolone on Primesep B Column by SIELC Technologies

All three compounds have potent anti-inflammatory effects, making them valuable in treating conditions where inflammation plays a role.

Prednisone is a synthetic corticosteroid with the chemical formula $C_{21}H_{26}O_5$. It mimics the action of cortisol, a natural steroid produced by the adrenal glands. It primarily exerts its effects by binding to glucocorticoid receptors and regulating gene expression. It is commonly used to treat inflammatory conditions, autoimmune disorders, allergic reactions, and certain cancers. You can find detailed UV spectra of Prednisone and information about its various lambda maxima by visiting the following link.

Prednisolone is a steroid hormone with the molecular formula $C_{21}H_{28}O_5$. It is a synthetic version of natural hormones as well as a corticosteroid medication and is used to reduce inflammation and suppress the immune system. Some of the conditions that it treats include: allergic reactions, autoimmune diseases, respiratory illnesses, skin conditions, and certain blood disorders. Prednisolone is the active form of prednisone. When prednisone is ingested, the liver converts it into prednisolone. You can find detailed UV spectra of Prednisolone and information about its various lambda maxima by visiting the following link.

Methylprednisolone is a more potent than prednisone with the chemical formula $C_{22}H_{30}O_5$. It is used in various conditions, including severe allergic reactions, inflammatory conditions, and as a part of immunosuppressive regimens. You can find detailed UV spectra of Methylprednisolone and information about its various lambda maxima by visiting the following link.

Corticosteroids can be retained, separated, and analyzed using a Primesep B mixed-mode stationary phase column. The analysis utilizes an isocratic method with a simple mobile phase consisting of water, acetonitrile (MeCN), and sulfuric acid as a buffer. Detection is achieved using UV at 245 nm

Method Parameters

Mobile Phase	MeCN/H ₂ O – 35/65%
Buffer	H ₂ SO ₄ -0.1%
Flow Rate	0.5 ml/min
Detection	UV 275 nm
Class of Compounds	Corticosteroids
Analyzing Compounds	Prednisone, Methylprednisolone, Prednisolone

HPLC Column Used

Primesep B, 3.2 x 150 mm, 5 µm, 100 Å, dual ended

[Order this column at **hplc-shop.de** →](#)