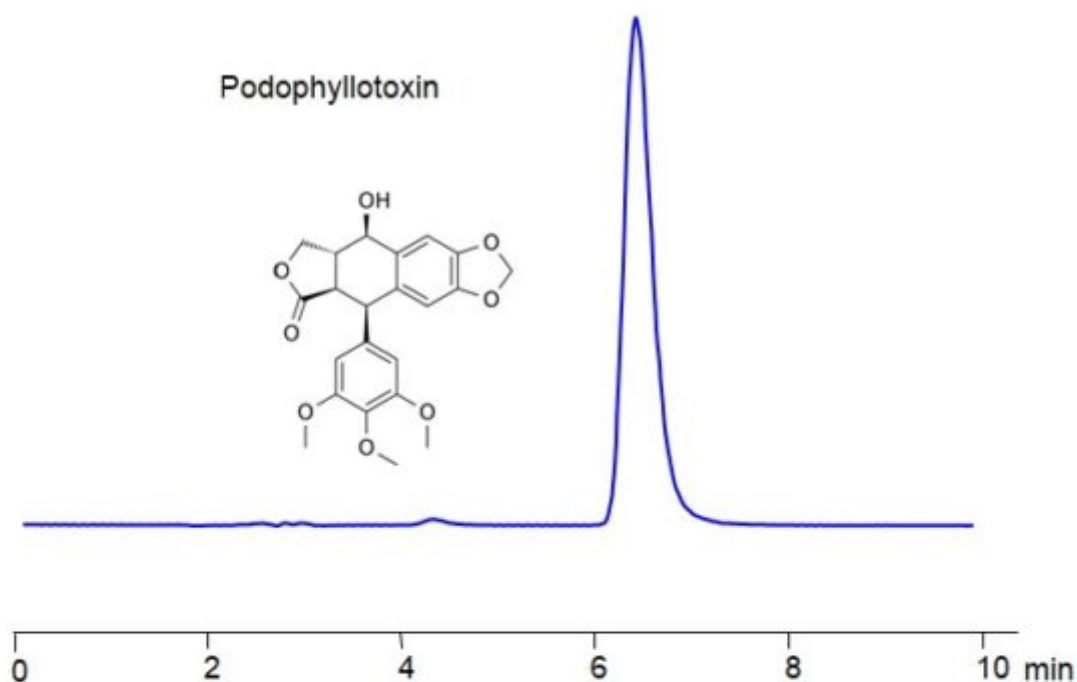


HPLC Method for Analysis of Podophyllotoxin on Newcrom R1 Column

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

Chromatogram



Column:	Newcrom R1
Column size:	2.1 × 100 mm, 5µm
Column part number:	NR1-21.100.0510
Mobile phase:	MeCN – 35%
Buffer:	Formic Acid – 0.2%
Flow rate:	0.2 ml/min
Detection:	UV 290 nm

Description

· HPLC Method for Analysis of Podophyllotoxin on Newcrom R1 Column by SIELC Technologies

Podophyllotoxin is a non-alkaloid toxin lignan with the chemical formula $C_{22}H_{22}O_8$. It is extracted from the roots and rhizomes of Podophyllum species. This compound has been used both in traditional medicine and in modern medicine for its various properties, especially its action against certain skin conditions. Podophyllotoxin is used topically (on the skin) to treat genital warts, which are caused by the human papillomavirus (HPV). It's found in several over-the-counter preparations, often as a solution or cream. It's believed that podophyllotoxin exerts its effect on warts by causing local irritation and stimulating the immune system to clear the HPV virus. Podophyllotoxin is also a precursor to several semi-synthetic compounds used in chemotherapy. Two of the most well-known drugs derived from podophyllotoxin are etoposide and teniposide. They are used to

treat a variety of malignancies. In cancer treatment, compounds derived from podophyllotoxin work by inhibiting the enzyme topoisomerase II, which is necessary for DNA replication. By doing so, they prevent cancer cells from dividing and growing.

Podophyllotoxin has valuable medical applications, from treating genital warts to serving as a base for powerful chemotherapy drugs. As with any medication or compound, it's essential to use it correctly and under the guidance of a healthcare provider to maximize benefits and minimize potential risks.

You can find detailed UV spectra of Podophyllotoxin and information about its various lambda maxima by visiting the following link.

Podophyllotoxin can be retained, separated and analyzed on a Newcrom R1 reverse phase stationary phase column using an isocratic analytical method with a simple mobile phase of water, Acetonitrile (MeCN), and a formic acid as a buffer. This analysis method can be detected using UV at 390 nm, an Evaporative Light Scattering Detector (ELSD), or any other evaporative detection method (CAD, ESI-MS)

Method Parameters

Mobile Phase	MeCN – 35%,
Buffer	Formic Acid – 0.2%
Flow Rate	0.2 ml/min
Detection	UV 290 nm
Class of Compounds	alkaloid
Analyzing Compounds	Podophyllotoxin

HPLC Column Used

Newcrom R1, 2.1 x 100 mm, 5 µm, 100 A, dual ended

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