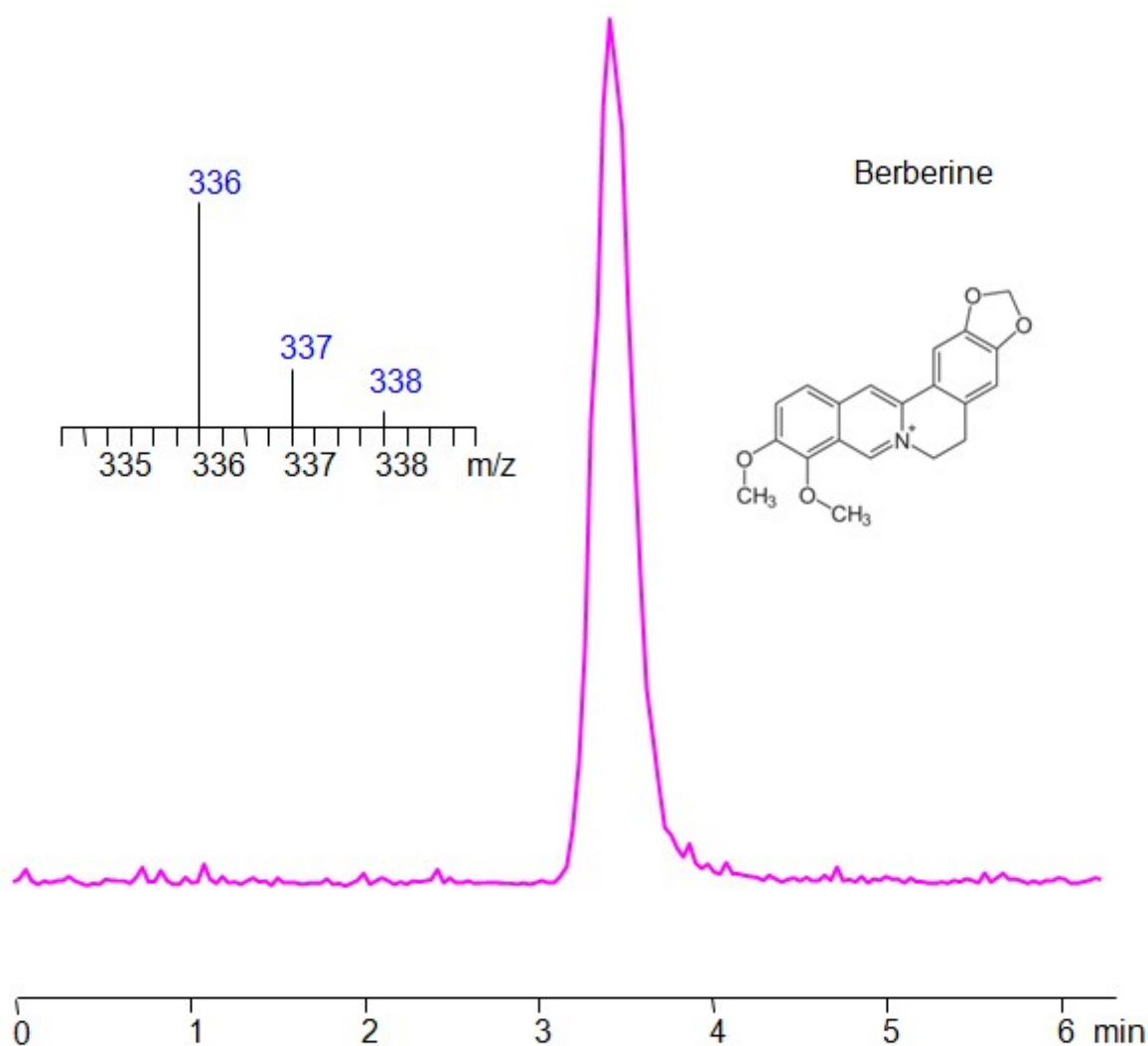


# HPLC MS Method for Analysis of Berberine on Primesep B Column

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

## Chromatogram



|                            |                                 |
|----------------------------|---------------------------------|
| <b>Column:</b>             | Primesep B                      |
| <b>Column size:</b>        | 3.2 × 100 mm, 5 µm              |
| <b>Column part number:</b> | B-32.100.0510                   |
| <b>Mobile phase:</b>       | MeCN/H <sub>2</sub> O -10/90%   |
| <b>Buffer:</b>             | Ammonium formate pH 3.0 – 40 mM |
| <b>Flow rate:</b>          | 0.5 mL/min                      |
| <b>Detection:</b>          | SIM 336 +                       |

## Description

· HPLC Method for Analysis of Berberine on Primesep B Column by SIELC Technologies

Berberine is a naturally occurring alkaloid with the chemical formula C<sub>20</sub>H<sub>18</sub>NO<sub>4</sub>. It is found in several plants, including the roots, rhizomes, and stem bark of plants such as *Berberis* species (barberry), *Coptis chinensis* (goldthread), and *Hydrastis canadensis* (goldenseal). Berberine has been used in traditional medicine for its various medicinal properties, including

antimicrobial, anti-inflammatory, and antioxidant effects. Some studies suggest that berberine may help regulate blood sugar levels and improve insulin sensitivity, making it of interest in diabetes research. It has been investigated for potential benefits in managing cholesterol levels. Berberine has also shown promise in preclinical studies for its potential anticancer properties. In traditional medicine, berberine-containing plants have been used for treating various conditions. You can find detailed UV spectra of Berberine and information about its various lambda maxima by visiting the following link.

Berberine can be retained, 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 ammonium formate as a buffer. Detection is achieved using LC MS 336 + positive mode

#### Method Parameters

|                     |                                             |
|---------------------|---------------------------------------------|
| Mobile Phase        | MeCN/H <sub>2</sub> O – 10%                 |
| Buffer              | Ammonium formate pH 3.0 – 40 mM             |
| Flow Rate           | 0.5 ml/min                                  |
| Detection           | SIM 336+                                    |
| Samples             | 0.1 mg/mL in MeCN/H <sub>2</sub> O – 50/50% |
| Injection volume    | 1 µl                                        |
| LOD*                | 80 ppb                                      |
| Class of Compounds  | Alkaloid, Quaternary ammonium               |
| Analyzing Compounds | Berberine                                   |

#### HPLC Column Used

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

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