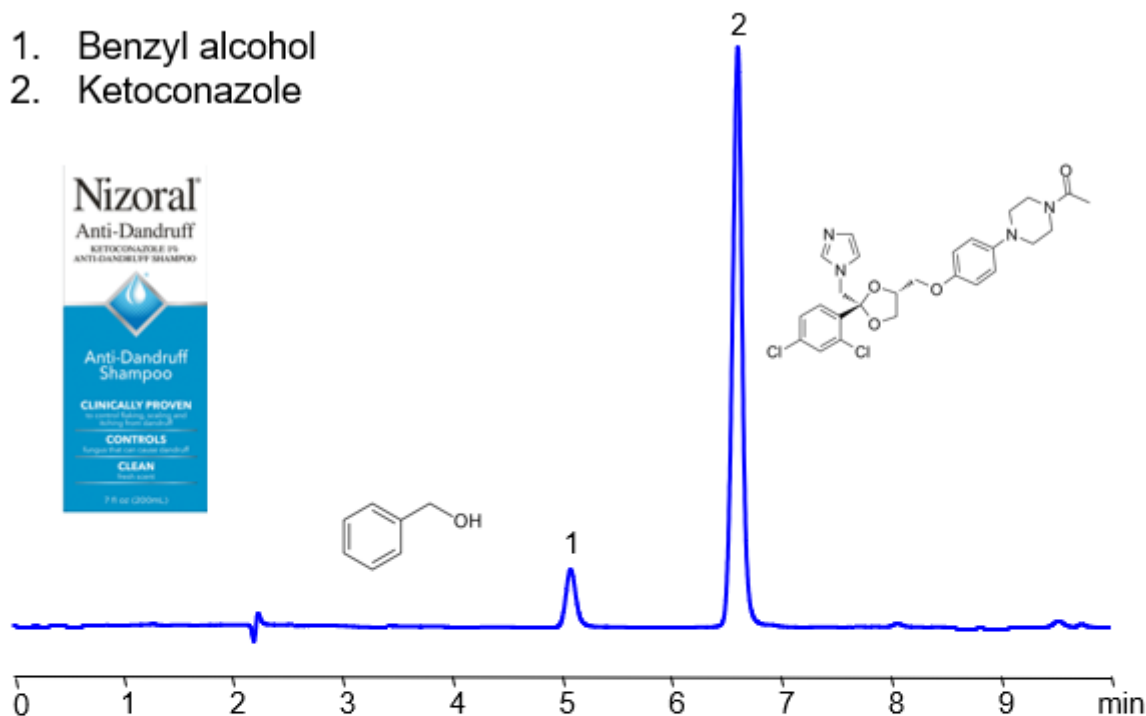


## HPLC Method for Determination of Ketoconazole in Nizoral Shampoo on Primesep B Column

<https://sielc.com/hplc-determination-of-ketoconazole-nizoral>

### Chromatogram



|                            |                                |
|----------------------------|--------------------------------|
| <b>Column:</b>             | Primesep B                     |
| <b>Column size:</b>        | 4.6 × 150 mm, 5 µm             |
| <b>Column part number:</b> | B-46.150.0510                  |
| <b>Mobile phase:</b>       | Gradient MeCN – 10-50%, 10 min |
| <b>Buffer:</b>             | Ammonium Formate pH 3.5 –20 mM |
| <b>Flow rate:</b>          | 1.0 mL/min                     |
| <b>Detection:</b>          | UV 250 nm                      |

### Description

· Method for Determination of Ketoconazole in Nizoral Shampoo on Primesep B by SIELC Technologies

Ketoconazole, also known as Nizoral, is an antifungal compound with the chemical formula  $C_{26}H_{28}Cl_2N_4O_4$ . It is used to treat dandruff and is commonly available as a shampoo. It is applied to skin to treat other fungal infections. Ketoconazole also has antiandrogen and antiglucocorticoid properties. It works through interfering with the fungal synthesis of ergosterol and other enzymes. You can find detailed UV spectra of Ketoconazole and information about its various lambda maxima by visiting the following link.

Benzyl alcohol , also known as a-cresol) is a popular organic solvent and preservative with the chemical formula C<sub>7</sub>H<sub>8</sub>O . It is found in over-the-counter medications, topical creams, lotions, shampoos, and facial cleansers as an antibacterial, preservative, and fungicide. It's a colorless liquid with a mild pleasant aromatic scent and is found in a variety of plants, primarily fruit, teas, and essential oils. You can find detailed UV spectra of Benzyl alcohol and information about its various lambda maxima by visiting the following link.

Ketoconazole can be retained, analyzed, and separated on Primesep B reverse-phase column using a gradient analytical method with a mobile phase consisting of Acetonitrile (MeCN), water, and Ammonium formate (AmFm) as the ionic modifier. This analysis method can be UV detected at 250 nm with high resolution and peak symmetry.

#### Method Parameters

|                            |                               |
|----------------------------|-------------------------------|
| <b>Mobile Phase</b>        | Gradient MeCN – 10-50%        |
| <b>Buffer</b>              | Ammonium Formate pH 3.5-20 mM |
| <b>Flow Rate</b>           | 1.0 ml/min                    |
| <b>Detection</b>           | UV 250 nm                     |
| <b>Peak Retention Time</b> | 6.72                          |
| <b>Class of Compounds</b>  | Drug                          |
| <b>Analyzing Compounds</b> | Ketoconazole                  |

#### HPLC Column Used

**Primesep B, 4.6 x 150 mm, 5 µm, 100 Å, dual ended**

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