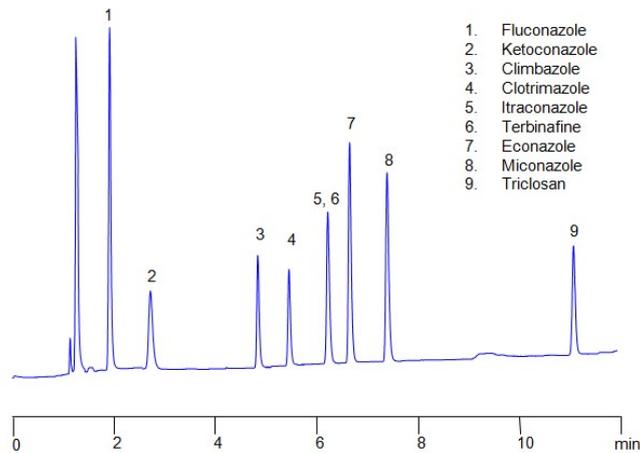


HPLC Method for Separation of a Mixture of Antifungal Agents on Newcrom R1 Column



Column:	Newcrom R1
Column size:	4.6 × 150 mm, 5 µm
Column part number:	NR1-46.150.0510
Mobile phase:	Gradient MeCN –40-90 %, 10 min, hold 2 min
Buffer:	H ₂ SO ₄ –0.2%
Flow rate:	1.0 ml/min
UV detection:	200 nm

Antifungal agents are drugs used to treat fungal infections. Depending on their mechanism of action and chemical structure, antifungal agents can be categorized into several classes. Here are some of the main classes and examples of antifungal agents:

Of these, fluconazole, itraconazole, ketoconazole, climbazole, clotrimazole, econazole, and miconazole belong to the azole class, which primarily acts by inhibiting the fungal enzyme lanosterol 14 α -demethylase. This enzyme is crucial for ergosterol synthesis, a vital component of fungal cell membranes. Terbinafine, on the other hand, inhibits squalene epoxidase, another enzyme important in ergosterol synthesis. Triclosan works through a different mechanism, targeting bacterial and fungal fatty acid synthesis.

Antifungal agents can be separated, retained, and analyzed on a Newcrom R1 reverse phase column using an gradient analytical method with a simple mobile phase of water, Acetonitrile (MeCN), and sulfuric acid as a buffer. This analysis method can be detected in the UV 200 nm.

Method Parameters

Column	Newcrom R1, 4.6 x 150 mm, 5 µm, 100 Å, dual ended
Mobile Phase	Gradient MeCN – 40-90%, 10 min, hold 2 min
Buffer	H ₂ SO ₄ – 0.2%
Flow Rate	1.0 mL/min
Detection	UV, 200 nm

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