

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

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Tofisopam

Chromatogram showing a single sharp peak at approximately 5.8 minutes. The x-axis represents time in minutes (0 to 10). The y-axis represents detector response. An inset mass spectrum shows a base peak at m/z 383 and a smaller peak at m/z 384.

CC(C)C1=CN=C(C2=CC(OC)=CC(OC)=C2)C3=CC(OC)=CC(OC)=C31

· High Performance Liquid Chromatography (HPLC) Method for Analysis of Tofisopam

Tofisopam is an anxiolytic medication belonging to the benzodiazepine class, but it differs from traditional benzodiazepines in that it has no significant sedative, muscle relaxant, or anticonvulsant properties. It is mainly used to treat anxiety and stress-related disorders while allowing the user to remain alert and functional.

Unlike classic benzodiazepines like diazepam or alprazolam, tofisopam does not cause drowsiness and has a lower potential for addiction and dependence. It is commonly prescribed in some countries, particularly in Eastern Europe and parts of Asia, but is not widely available in the U.S. or many Western countries.

Tofisopam can be retained and analyzed using the PrimeSep B stationary phase column. The analysis utilizes an gradientc method with a simple mobile phase consisting of water, acetonitrile (MeCN), and formic acid. Mass spectrometric detection was carried out in ESI-SIM mode, monitoring the ions [M+H]⁺ at m/z 383

Method Parameters

Mobile Phase	Gradient MeCN – 20-80%, 10 min
Buffer	Formic acid – 2%
Flow Rate	0.2 ml/min
Detection	ESI-SIM: [M+H] ⁺ 383
LOD	0.1 ppb
Class of Compounds	Drug
Analyzing Compounds	Tofisopam

HPLC Column Used

Newcrom R1, 3.2 x 100 mm, 5 µm, 100 Å, dual ended

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