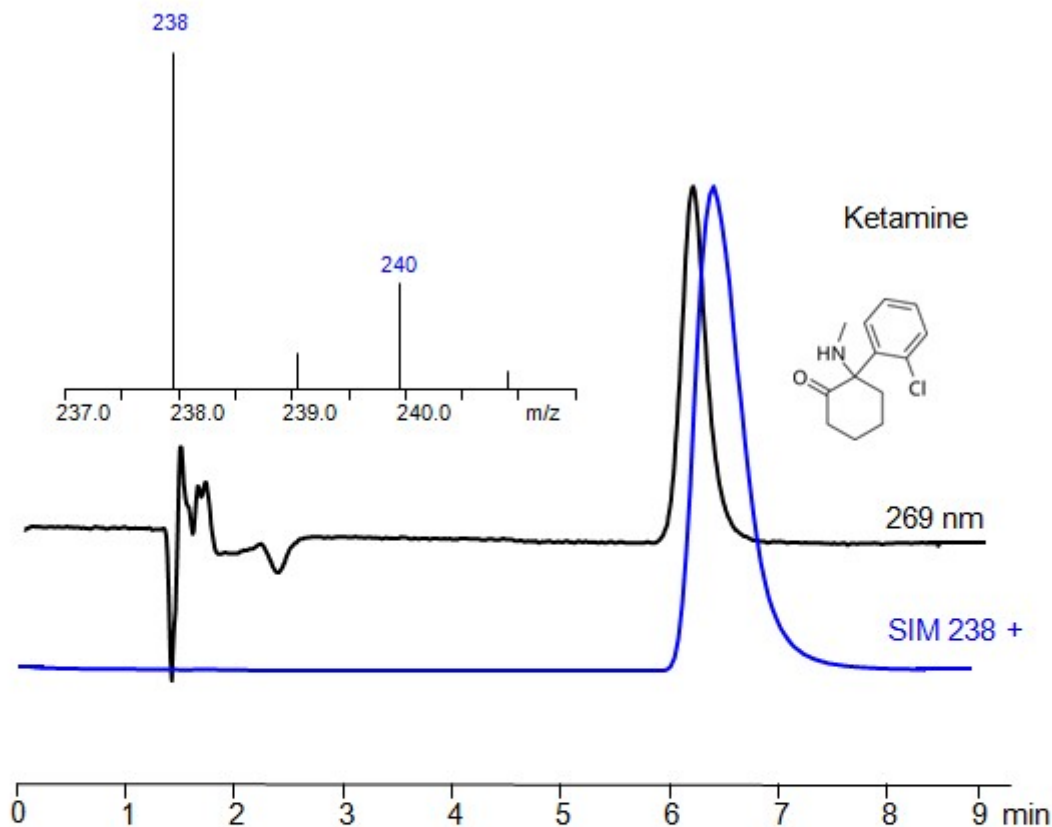


HPLC- MS Method for Analysis of Ketamine on Primesep 100 Column

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

Chromatogram



Column:	Primesep 100
Column size:	2.1 × 100 mm, 5 µm
Column part number:	100-21.100.0510
Mobile phase:	MeCN/H ₂ O – 80/20%
Buffer:	Ammonium formate pH 3.0 – 20 mM
Flow rate:	0.2 mL/min
Detection:	UV 269 nm, SIM 238 +

Description

· HPLC Method for Analysis of Ketamine on Primesep 100 Column by SIELC Technologies

Ketamine, also known as (RS)-2-(2-chlorophenyl)-2-(methylamino)cyclohexanone, is a medication with the chemical formula C₁₃H₁₆ClNO. It is primarily used for induction and maintenance of anesthesia in both humans and animals. It is classified as an arylcyclohexylamine. It also has analgesic and sedative properties. It has a unique mechanism of action, acting primarily as an antagonist of the N-methyl-D-aspartate (NMDA) receptor, which is involved in pain transmission and synaptic plasticity. Beyond its primary anesthetic use, ketamine has also been investigated for its rapid-acting antidepressant effects and is used in certain treatment-resistant cases of depression. Due to its potential for misuse and the hallucinogenic effects it can produce at

sub-anesthetic doses, ketamine is also classified as a controlled substance in many countries. You can find detailed UV spectra of Ketamine and information about its various lambda maxima by visiting the following link.

Ketamine can be retained, and analyzed on a Primesep 100 mixed-mode stationary phase column using an isocratic analytical method with a simple mobile phase of water, Acetonitrile (MeCN), and an ammonium formate as a buffer. This analysis method can be detected using UV at 269 nm, an Evaporative Light Scattering Detector (ELSD), or any other evaporative detection method (CAD, ESI-MS)

Method Parameters

Mobile Phase	MeCN – 80%,
Buffer	Ammonium Formate pH 3.0-20 mM
Flow Rate	0.2 ml/min
Detection	UV, 269 nm, SIM 238 +
Spray Voltage:	1.5 kV
Nebulizing gas:	1.5 L/min
Drying gas:	15 L/min
DL temp:	250 ■C
Heat Block:	400 ■C
Class of Compounds	Drug, arylcyclohexylamine
Analyzing Compounds	Ketamine

HPLC Column Used

Primesep 100, 2.1 x 100 mm, 5 µm, 100 A, dual ended

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