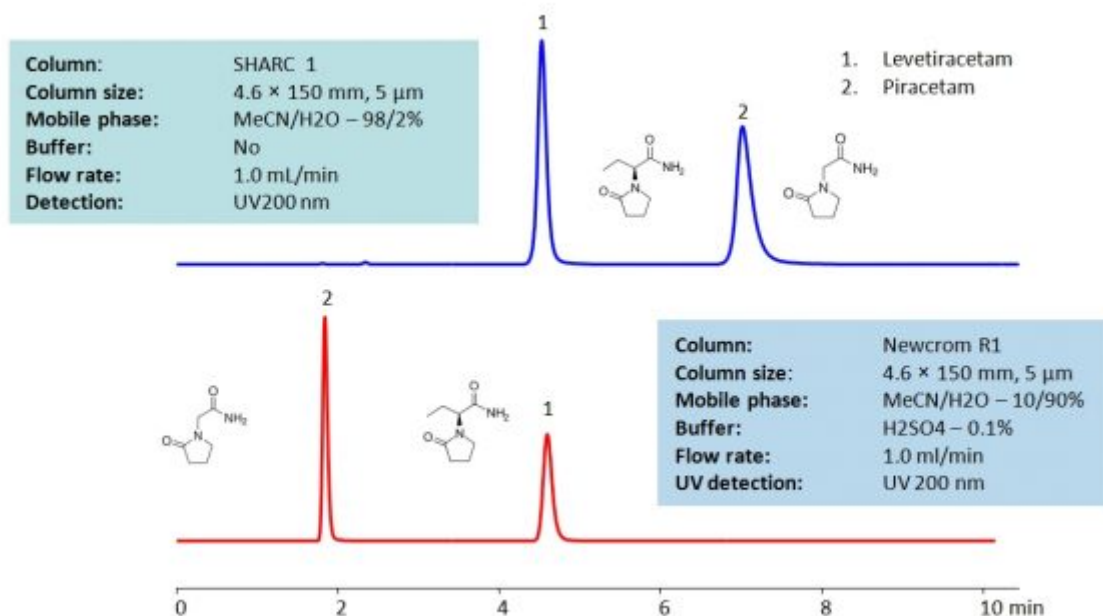


HPLC Method for Simultaneous Analysis of Piracetam and Levetiracetam in Pharmaceuticals

<https://sielc.com/hplc-separation-of-piracetam-and-levetiracetam>

Chromatogram



Description

· High Performance Liquid Chromatography (HPLC) Method for Analysis of Piracetam and Levetiracetam

Piracetam has been marketed as a treatment for myoclonus, vertigo, dyslexia, and sickle cell anemia. It is approved for use across many European countries, but is not approved by the FDA in the United States. Its chemical formula is C₆H₁₀N₂O₂.

Levetiracetam, on the other hand, is an FDA Approved common treatment for generalized epilepsy and the prevention of seizures. It is currently unknown how exactly levetiracetam works as a treatment as it does not exhibit pharmacologic actions similar to other anticonvulsants. Its chemical formula is C₈H₁₄N₂O₂.

These racetams can be detected in the low UV regime. There are two effective methods for retaining, separating, and analyzing these compounds. The first uses a SHARC 1 hydrogen-bonding column and a mobile phase consisting of acetonitrile (MeCN) and water without a buffer. The second uses Newcrom R1 mixed-mode column and a mobile phase consisting of acetonitrile (MeCN) and water with a sulfuric acid (H₂SO₄) buffer. Either analysis method can be UV detected at 200 nm with high resolution.

Method Parameters

Mobile Phase	MeCN/H ₂ O -10/90%
Buffer	H ₂ SO ₄ – 0.1%
Flow Rate	1.0 mL/min
Detection	UV 200 nm

Class of Compounds	Drug, Racetam
Analyzing Compounds	Piracetam,Levetiracetam

HPLC Column Used

Newcrom R1, 4.6×150 mm, 5 µm, 100A

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