

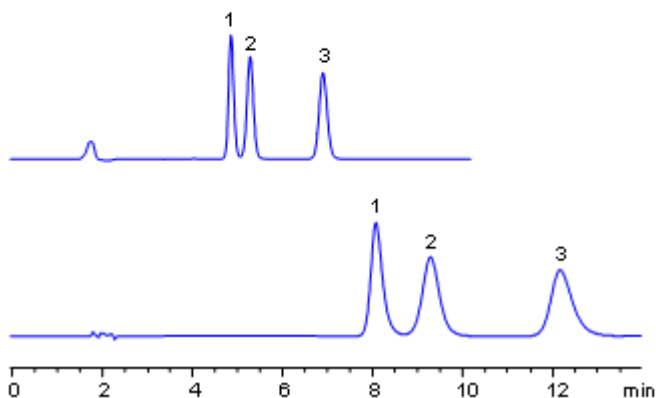
HPLC Separation of Codeine, Oxycodone, and Hydrocodone on Primesep 200

<https://sielc.com/Application-HPLC-Separation-of-Codeine-Oxycodone-and-Hydrocodone-Primesep-200>

Chromatogram

1. Codeine
2. Oxycodone
3. Hydroxycodone

Column size: 150 x 4.6 mm
Flow rate: 1.0 mL/min
Detection: UV 210 nm



Column: Primesep 100
Mobile phase: MeCN-30%, H₂SO₄-0.3%

Column: Primesep 200
Mobile phase: MeCN-20%, H₃PO₄-0.1%

Description

Codeine, oxycodone, and hydrocodone are analgesics with hydrophobic and basic properties. All three compounds are used as strong pain killers and cough suppressant. These compounds are controlled substances according to DEA. We developed a simple method for separation of these narcotics on Primesep 100 and Primesep 200 mixed-mode columns. All three compounds are separated by reversed-phase and cation-exchange mechanism, based on the difference in hydrophobic and ionic properties. This HPLC approach can be used to develop and validate a generic method for analysis of analgesics and other drugs. Compounds are monitored by common detection techniques.