

Application Report 312

LC-MS Analysis of Tricyclic Antidepressants Using Ascentis™ C8

This application demonstrates the suitability of the Ascentis C8 for the analysis of tricyclic antidepressants. Structures along with the optimized chromatogram obtained on the Ascentis C8 are presented.

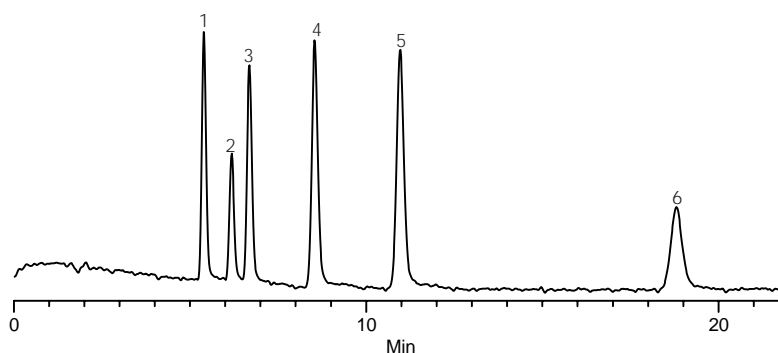
Key Words

protriptyline, 1225-55-4, P8813, maprotyline, 10347-81-6, M9651, nortriptyline, 894-71-3, N7261, mirtazepine, 61337-67-5, M0443, amitriptyline, 549-18-8, A8404, Ascentis C8, 581402-U

Author: Hugh M. Cramer

Acquisition System: Waters 2790
Micro Mass ZQ

Notebook Reference: 1558



G003209

Conditions

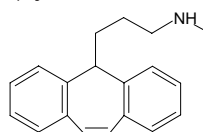
column: Ascentis C8, 15 cm x 2.1 mm I.D., 3 µm particles (581402-U)
mobile phase: 38:62, water with 0.1% ammonium acetate (34674):methanol with 0.1% ammonium acetate (34670)
flow rate: 0.2 mL/min.
temp.: 35 °C
det.: ESI+, SIR mode
injection: 2 µL
sample: 1 µg/mL in mobile phase

Peak IDs

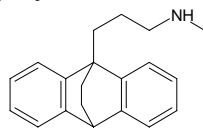
1. Protriptyline (m/z 264)
2. Maprotyline (m/z 278)
3. Nortriptyline (m/z 264)
4. Mirtazepine (m/z 266)
5. Amitriptyline (m/z 278)
6. Mianserin (m/z 265)

Structures

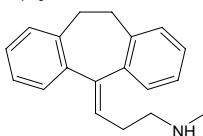
Protriptyline - G003205



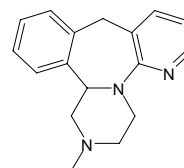
Maprotyline - G003206



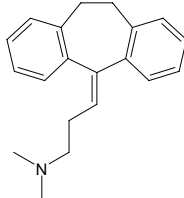
Nortriptyline - G002933



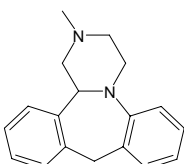
Mirtazepine - G003207



Amitriptyline - G002932



Mianserin - G003208



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