

# Application Report 240

## Analysis of Tricyclic Antidepressants Using Ascentis™ RP-Amide

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

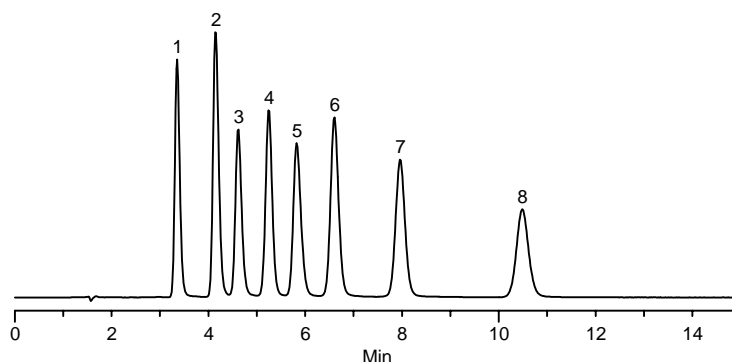
### Key Words

nordoxepin, 2887-91-4, N0392, desipramine, 58-28-6, D9786, nortriptyline, 894-71-3, N7261, doxepin, 1229-29-4, D4526, norclomipramine, 303-48-0, N1280, imipramine, 113-52-0, I2638, amitriptyline, 549-18-8, A8404, clomipramine, 17321-77-6, C7291, Ascentis RP-Amide, 565324-U

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Acquisition System: Cinnabar  
Waters 2690

Notebook Reference: 1551



G002935

### Conditions

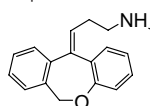
column: Ascentis RP-Amide, 15 cm x 4.6 mm I.D., 5 µm particles (565324-U)  
mobile phase: 25:75, 25 mM ammonium phosphate dibasic (pH 7.0 with phosphoric acid): methanol  
flow rate: 1.0 mL/min.  
temp.: 35 °C  
det.: UV at 254 nm  
injection: 10 µL  
sample: as indicated in 60:40 water:methanol

### Peak IDs

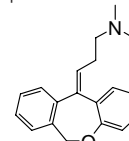
1. Nordoxepin (50 µg/mL)
2. Desipramine (50 µg/mL)
3. Nortriptyline (50 µg/mL)
4. Norclomipramine (50 µg/mL)
5. Doxepin (50 µg/mL)
6. Imipramine (50 µg/mL)
7. Amitriptyline (50 µg/mL)
8. Clomipramine (50 µg/mL)

### Structures

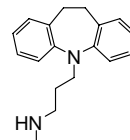
Nordoxepin - G002706



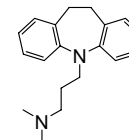
Doxepin - G002705



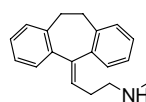
Desipramine - G002931



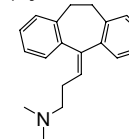
Imipramine - G002930



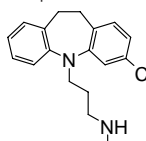
Nortriptyline - G002933



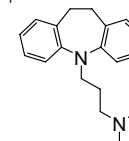
Amitriptyline - G002932



Norclomipramine - G002668



Clomipramine - G002667



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