

# Application Report 341

## LC-MS Analysis of Barbituates Using Ascentis™ C8

Seven barbituates are separated on Ascentis C8 and detected by mass spectrometry.

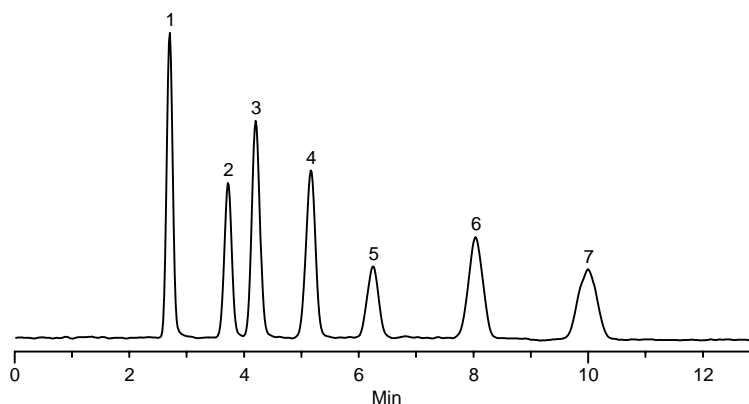
### Key Words

LC-MS, Ascentis C8, drugs of abuse, 34966, 39253, 57-44-3, B-0375, 50-06-6, P-1636, 76-73-3, S-1503, 57-33-0, P-3761, 77-02-1, 125-40-6, 115-38-8, 76-74-4, barbital, phenobarbital, aprobarbital, butabarbital, mephobarbital, pentobarbital, secobarbital, sedatives, 581424-U

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Acquisition System: W2795

Notebook Reference: 1549-89



G003306

### Conditions

column: Ascentis C8, 15 cm x 4.6 mm I.D., 5 µm particles (581424-U)  
mobile phase: 55:45, water:methanol  
flow rate: 1.0 mL/min., split to MS  
temp.: 35 °C  
det.: MS, ESI (-), Selected Ion Recording Mode  
injection: 5 µL  
sample: 1 µg/mL each in 50:50 water:methanol

### Peak IDs

1. Barbital (M-H) = 183.08
2. Phenobarbital (M-H) = 231.08
3. Aprobarbital (M-H) = 209.10
4. Butabarbital (M-H) = 211.11
5. Mephobarbital (M-H) = 245.10
6. Pentobarbital (M-H) = 225.13
7. Secobarbital (M-H) = 237.13

### Structures

Barbital - G002870



Mephobarbital - G002874



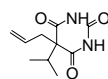
Phenobarbital - G002872



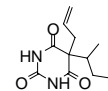
Pentobarbital - G002875



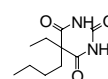
Aprobarbital - G002871



Secobarbital - G002876



Butabarbital - G002873



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