

## Expanded healthcare opiates (propyl derivatives) from urine by Screen C on a ZB-Drug1

**Column:** Zebtron™ ZB-Drug-1, GC Cap. Column 10 m x 0.18 mm x 0.18 µm, Ea  
**Phase:** Proprietary Drug Phase  
**Dimensions:** 10 meters x 0.18 mm x 0.18 µm  
**Order No:** 7CD-G023-08  
**Oven Profile:** 150 °C to 320 °C @ 25 °C/min for 5 min

**Carrier Gas:** Constant Flow Helium, 0.7 mL/min  
**Injection:** Split 10:1 1 µL @ 260°C  
**Detection:** Mass Selective (MSD) (320°C)

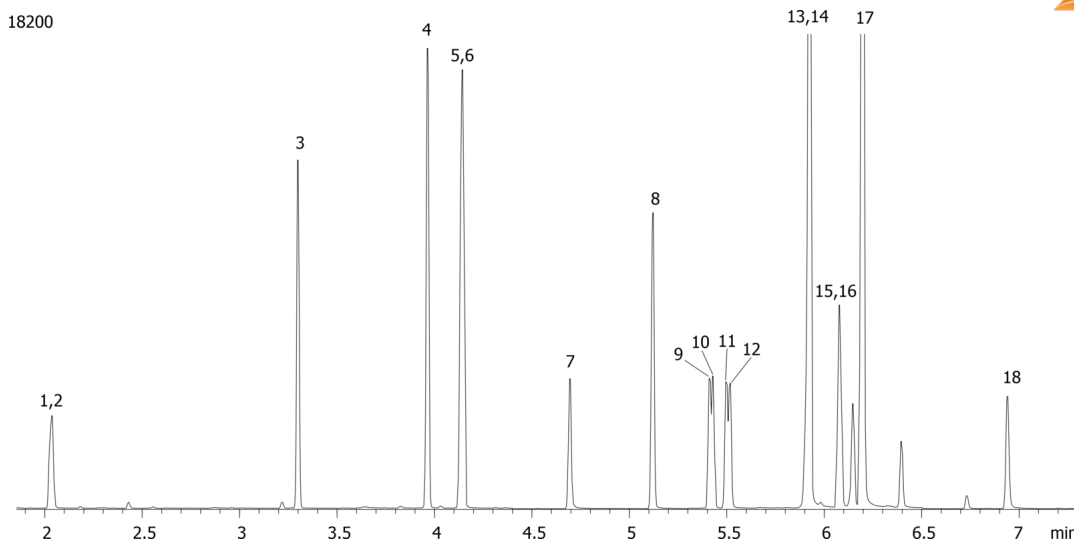
**Analyst Note:** Analytes are 12 µg/mL derivatized with propionic anhydride (Tramadols are 24µg/mL)

Sim ions:

(Quant ion\*) D4-Meperidine (\*251,222): Meperidine (\*247,218,246): Tramadol (\*58,188): O-Desmethyltramadol (\*58,174): D4-Normeperidine (\*191,236): Normeperidine (\*187,232,289): N-Desmethyltramadol (\*305,276,248): Hydrocodone (\*299,242,214): D6-Codeine (\*361,288,235): Codeine (\*355,282,229):



Products used in this application:



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### ANALYTES:

- 1 Meperidine-d4
- 2 Meperidine
- 3 Tramadol
- 4 O-Desmethyltramadol
- 5 Normeperidine-d4
- 6 Normeperidine
- 7 N-Desmethyltramadol
- 8 Hydrocodone
- 9 Codeine-d6
- 10 Codeine
- 11 Oxycodone-d6
- 12 Oxycodone
- 13 Hydromorphone-d6
- 14 Hydromorphone
- 15 Morphine-d3
- 16 Morphine
- 17 Oxymorphone
- 18 Norcodeine

