LC/MS/MS Analysis of Drugs of Abuse: Generic Screening on Ascentis® Express F5

Shown here is a method to rapidly screen a sample for a variety of abused substances using an Ascentis Express F5 column. Fluka LC-MS Ultra CHROMASOLV solvents were used to supply low background interference and low particulate contaminants for robust, trouble-free operation. Cerilliant CRMs provided reliable identification and quantification.

market focus: Forensics and Toxicology

Analytical column: Ascentis Express F5, 10 cm x 2.1 mm I.D., 2.7 μm particles (53569-U)

Mobile phase: [A] 5 mM ammonium formate water pH 4.0 formic acid; [B] 5 mM ammonium formate (95:5 acetonitrile:water)

Gradient: 20%B for 0.5 min; to 100%B in 5.5 min; held at 100%B for 3 min

Flow rate: 0.3 mL/min

Pressure: 2538 psi (175 bar)

Column temp: 35 °C

Detector: MS, ESI(+), TIC, m/z 100-1000

Injection: 1 μL

Sample: each compound 1000 ng/mL in 40:60 (water:methanol)

Application No.: G005881

1. Benzoylecgonine
2. Morphine
3. Codeine
4. Oxycodone
5. Normeperidine
6. Hydrocodone
7. MDMA
8. Methamphetamine
9. Meperidine
10. Fentanyl
11. Propoxyphene

Related Products

- Analytical column: Ascentis Express F5, 2.7 Micron HPLC Column (Supelco 53569-U)
- Mobile phase component: Ammonium formate (Fluka 14266)
- Water (Fluka 14262)
- Methanol (Fluka 14262)
- Standard: Benzoylecgonine solution (Cerilliant B-004)
- Codeine solution (Cerilliant C-006)
- Oxycodone solution (Cerilliant O-002)
- Hydrocodone solution (Cerilliant H-003)
- (+)-MDMA solution (Cerilliant M-013)
- Meperidine solution (Cerilliant M-035)
- (+)-Methamphetamine solution (Cerilliant M-009)
- Morphine solution (Cerilliant M-005)
- Normeperidine solution (Cerilliant N-017)
- Oxycodone solution (Cerilliant O-002)
- (+)-Propoxyphene solution (Cerilliant P-011)

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