



Column: [Kinetex™ 2.6 µm C18 100 Å LC Column 50 x 2.1 mm](#)

Part No: [00B-4462-AN](#)

Dimensions: 50 x 2.1 mm ID

Elution Type: Gradient

Elution A: 0.1% Formic acid and 5 mM ammonium acetate in H₂O

Elution B: 0.1% Formic acid and 5 mM ammonium acetate in 50-50ACN-Methanol

Gradient Profile:

Step No.	Time (min)	Pct A	Pct B
1	0	95	5
2	0.24	95	5
3	3.36	20	80
4	3.37	5	95
5	3.68	5	95
6	3.69	95	5
7	5.55	95	5

Flow Rate: 400 µL/min

Col. Temp: 25 °C

Detection: Mass Spectrometer (MS) @ amu (22°C)

Compounds:

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