

## LC/MS/MS of Extended Opiates from urine using Strata-X-Drug B on a Kinetex C18 2.6µm, 50x2.1mm

**Column:** Kinetex® 2.6 µm C18 100 Å, LC Column 50 x 2.1 mm, Ea

**Dimensions:** 50 x 2.1 mm ID

**Order No:** 00B-4462-AN

**Elution Type:** Gradient

**Eluent A:** 5mM Ammonium acetate

**Eluent B:** 5mM Ammonium acetate in methanol

Gradient Profile:	Step No.	Time (min)	Pct A	Pct B
	1	0	85	15
	2	5.5	0	100
	3	6.5	0	100
	4	6.51	85	15
	5	9	85	15

**Flow Rate:** 500 µL/min

**Col. Temp.:** ambient

**Detection:** Mass Spectrometer (MS) @ amu (ambient)

**Detector Info:** <a target="\_blank"

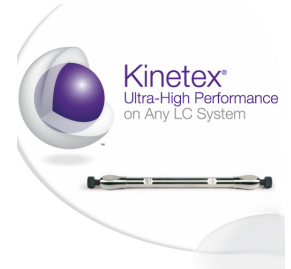
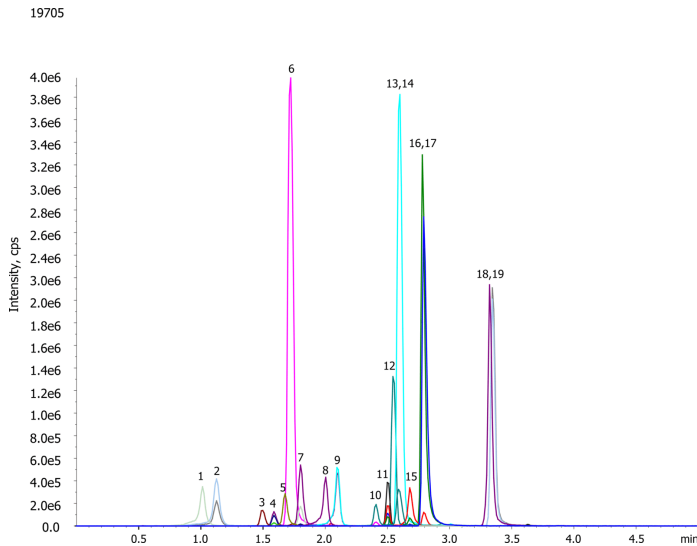
href="https://sciex.com/products/mass-spectrometers?utm\_campaign=2019%20application%20search&utm\_source=phenomenex&utm\_medium=referral">SCIEX<

Source: Cur-25, CAD-7, IS-5500, Tem-600, GS1 60, GS2 55

Dwell: 20ms

Polarity: Positive

API 4000



Products used in this application:



## LC/MS/MS of Extended Opiates from urine using Strata-X-Drug B on a Kinetex C18 2.6µm, 50x2.1mm

### ANALYTES:

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



# Sample Preparation Details

for HPLC Application ID No.: 19705

## LC/MS/MS of Extended Opiates from urine using Strata-X-Drug B on a Kinetex C18 2.6µm, 50x2.1mm

### PRODUCT DESCRIPTION:

Strata™-X-Drug B 33 µm Polymeric Strong Cation, 60 mg / 6 mL, Tubes , 30/Pk

Order No.: 8B-S128-UCH

### SOLID PHASE EXTRACTION (SPE) PROCEDURE:

**Note:** The solvent volumes shown below are for a 60 mg bed mass.

The solvent volumes will need to be adjusted for a smaller or larger bed mass.

#### Condition:

#### Load:

#### Wash:

#### Dry:

10 minutes @ full vacuum

#### Elute:

### Final Prep and Analysis:

Evaporate to dryness under a stream of nitrogen at 50 C . Reconstitute in 1 mL of 15% methanol.

Inject: 0 µL on HPLC Mass Spectrometer (MS) @ amu (ambient)

ANALYTES:	Spiked Conc. (ng/mL)	Log P	pKa	% Rec	%RSC (n=0)
1 Oxymorphone-d3	300			100	
2 Oxymorphone	300			99.4	
3 Morphine-d3	300			100	
4 Morphine	300			97.95	
5 Hydromorphone-d6	300			100	
6 O-Desmethyltramadol	300			101.89	
7 Hydromorphone	300			98.31	
8 Oxycodone-d6	300			100	
9 Oxycodone	300			99.74	
10 Codeine-d6	300			100	
11 Codeine	300			102.46	
12 N-Desmethyltramadol	300			100.3	
13 cis-Tramadol	300			102.65	
14 Hydrocodone-d6	300			100	
15 Hydrocodone	300			99.39	
16 Normeperidine-d4	300			100	
17 Normeperidine	300			100.56	
18 Meperidine-d4	300			100	
19 Meperidine	300			100.21	

**Note:** This method is designed as a convenient starting point for further investigation and can be tailored to meet your extraction goals.  
Call your local Phenomenex Representative for assistance in method development and optimization techniques.

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For more information contact your Phenomenex Representative at [international@phenomenex.com](mailto:international@phenomenex.com).



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[international@phenomenex.com](mailto:international@phenomenex.com)