

Opiates in Urine Clean Screen FAS^t® Column



UCT Featured Products

CSFAS203
CLEAN SCREEN FAS^t®
200 mg, 3 mL Tube

BETA-GLUC-10
Selectrazyme®
Beta-glucuronidase

SLDA50ID21-5UM
Selectra® DA HPLC Column,
50 x 2.1 mm, 5 µm

Procedure:

1) Prepare Sample for Enzyme Hydrolysis of Glucuronides

- To 1-2 mL of urine sample, add 1 mL of acetate buffer (pH 5.0) containing 5,000 units/mL of Selectrazyme® β-glucuronidase.
- Optionally, add 1 mL of acetate buffer and 25-50 µL of concentrated β-glucuronidase.
- Vortex and heat for 1-2 hours at 65 °C.
- Allow sample to cool
- Do not adjust pH~ sample is ready to be added to the extraction column.

2) Load Sample and Sample Dilute Ratio

Sample Dilution Ratio: Sample Volume* : Diluent**
Volume

Note: *If sample is hydrolyzed add appropriate aliquot volume after hydrolysis is complete.

Dilution Ratio	Urine	Diluent**
1:1	500 µL	500 µL
1:4	200 µL	800 µL
1:9	100 µL	900 µL

** Diluent is 50:50 (Methanol: D.I. H₂O)

Sample and diluents are added in an appropriately labeled tube.

Add appropriate volume internal standard(s). It is recommended to use an internal standard volume of no more than 200 µL.

3) Extraction and Collection

- Set up extraction manifold with FAS^t cartridges and auto-sampler collection vials.
- Pour sample into FAS^t cartridge and elute sample directly into auto-sampler vials.

4) Analysis

- Cap vials and put directly onto LC/MS for analysis.



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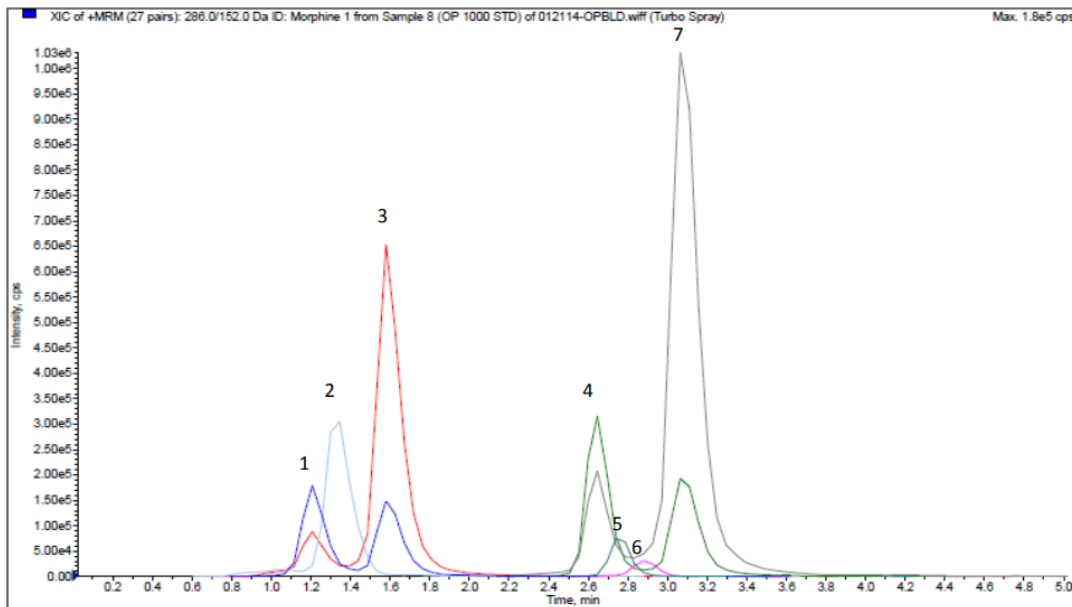
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Instrument Conditions (LC-MS/MS)

Chromatogram



Analyte	MRM Transitions		Relative Retention Time (min)
	Q1	Q3	
1. Morphine	286	152	1.21
2. Oxymorphone	302	227	1.30
3. Hydromorphone	286	185	1.60
4. Codeine	300	152	2.65
5. 6-MAM	328	165	2.75
6. Oxycodone	316	240	2.85
7. Hydrocodone	300	199	3.10

Instrument Parameters (Pesticides)

Mobile Phase A	0.1% Formic Acid in D.I. H ₂ O
Mobile Phase B	0.1% Formic Acid in Methanol
Flow Rate	0.6 mL/minute
Injection Volume	10 µL
Instrument	API 3200 Qtrap MS/MS with Shimadzu Prominence UFLC
LC Column	Selectra® DA HPLC Column 50 x 2.1 mm 5 µm
Polarity	Positive

Gradient

Time	%A	%B
0.00	85	15
7.00	40	60
7.01	20	80
8.00	85	15
9.00	STOP	STOP



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