

Amphetamines

Extraction Protocol

Sample Preparation:

- Add 3 mL 0.1 M K_2HPO_4 (pH 6.0) to 5 mL urine

Condition:

- 6 mL methanol
- 6 mL 0.1 M K_2HPO_4 (pH 6.0)
- Do not let the phase go dry

Load:

- Add the urine sample

Rinse:

- 3 mL water
- 3 mL 1.0 M acetic acid
- 3 mL methanol

Elute:

- Place a collection tube beneath cartridge
- 3 mL methylene chloride/isopropyl alcohol/ hydrochloric acid (60/40/1)
- Collect the eluant

Analysis Preparation:

- Concentrate the eluant to dryness
- Do not use heat
- Do not over dry
- 0.5-1.0 mL toluene/acetonitrile (95/5)
- 25 μ L PFPA
- Cap
- Heat at 45°C for 10 min
- Cool to room temperature
- 1 mL 5% sodium bicarbonate
- Vortex 30-60 sec
- Inject 1-2 μ L of top layer

■ *All flow rates should not exceed 5 mL/min*

■ *Consult the EVIDEX™ Instruction Manual for complete method details*

Trademark Acknowledgements:
DB, EVIDEX J&W Scientific
Manufactured under H.P. U.S. Patent 4,293,415

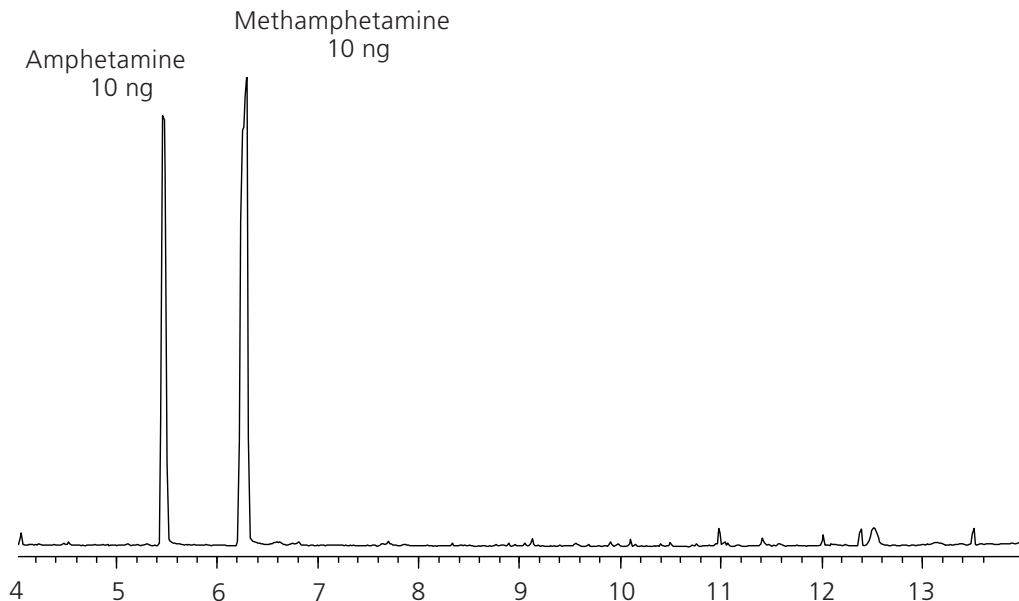
Reagents

- 0.1 M K_2HPO_4 (pH 6.0 \pm 0.1)
1.74 g potassium phosphate, dibasic (anhydrous) in 100 mL DI water. Adjust to pH 6.0 \pm 0.1 with phosphoric acid.
- 1.0 M acetic acid
5.7 mL glacial acetic acid diluted with DI water to 100 mL.
- Methylene chloride/isopropyl alcohol/HCl (60/40/1)
60 mL methylene chloride, 40 mL isopropyl alcohol, 1 mL concentrated hydrochloric acid. Make fresh daily.
- Toluene/acetonitrile (95/5)
95 mL toluene, 5 mL acetonitrile
- PFPA
Pentafluoropropionic acid anhydride
- 5% sodium bicarbonate
5 g of sodium bicarbonate in 100 mL DI water. Make fresh weekly.

Other reagents

Methanol
DI water

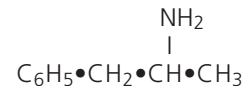
Amphetamines in Urine



Column: DB™-5ms EVDX
12 m x 0.20 mm I.D., 0.33 µm
J&W P/N: 128-8512
Carrier: Helium at 40 cm/sec measured at 65°C
Oven: 65°C for 1 min
65-325°C at 20°/min
Injector: Splitless, 250°C
45 sec purge activation time
Detector: MSD, 300°C transfer line

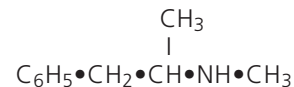
Amphetamine

- Formula Weight: 135.2
- PFP Quantitation Ions: 190, 118



Methamphetamine

- Formula Weight: 149.2
- PFP Quantitation Ions: 204, 160



Contact information:

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Marijuana (THC-COOH)

Extraction Protocol

Sample Preparation:

- Add 0.5 mL 10 N NaOH to 5 mL urine
- Cap
- Heat at 60°C for 20 min
- Cool to room temperature
- Adjust to pH 3.5 - 4.0 with ~2 mL acetic acid

Condition:

- 6 mL methanol
- 6 mL 0.1 N HCl
- Do not let the phase go dry

Load:

- Add 3 mL 0.1 N HCl to the cartridge
- Attach an 8 mL reservoir
- Add the urine sample

Rinse:

- Remove reservoir
- 3 mL water
- 3 mL acetonitrile/0.1 N HCl (4/6)
- 3 mL hexane

Elute:

- Place a collection tube beneath cartridge
- 3 mL ethyl acetate/hexane (50/50)
- Collect the eluant

Analysis Preparation:

- Concentrate the eluant to dryness
- Do not over dry
- 75 µL ethyl acetate
- 25 µL BSTFA/1% TMCS
- Cap
- Heat at 60°C for 10 min
- Inject 1-2 µL

- *All flow rates should not exceed 5 mL/min*

- *Consult the EVIDEX™ Instruction Manual for complete method details*

Trademark Acknowledgements:
DB, EVIDEX J&W Scientific
Manufactured under H.P. U.S. Patent 4,293,415

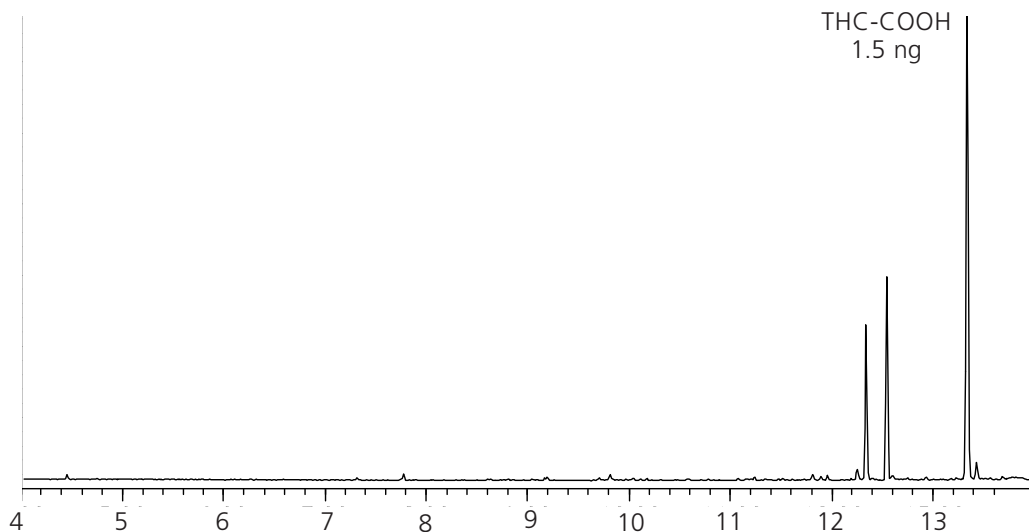
Reagents

- 10 N NaOH
40 g sodium hydroxide in 100 mL water.
- 0.1 N HCl
0.83 mL hydrochloric acid diluted with DI water to 100 mL.
- Acetonitrile/0.1 N HCl (4/6)
40 mL acetonitrile, 60 mL 0.1 N HCl
- Ethyl acetate/hexane (50/50)
50 mL ethyl acetate, 50 mL hexane
- BSTFA/1% TMCS
9 mL N,O-bis(trimethylsilyl) trifluoroacetamide, 0.1 mL trimethylchlorosilane, or can be purchased premixed.

Other reagents

Methanol
Hexane
DI water
Ethyl acetate
Acetic acid

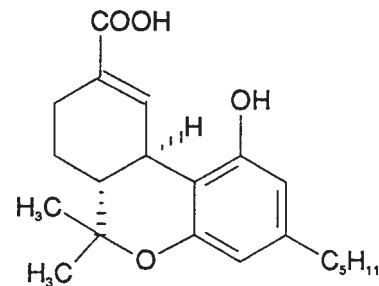
THC-COOH in Urine



Column: DB™-5ms EVDX
12 m x 0.20 mm I.D., 0.33 µm
J&W P/N: 128-8512
Carrier: Helium at 40 cm/sec measured at 65°C
Oven: 65°C for 1 min
65-325°C at 20°/min
Injector: Splitless, 250°C
45 sec purge activation time
Detector: MSD, 300°C transfer line

THC-COOH

- Formula Weight: 344.5
- TMS Quantitation Ions: 371, 473, 488



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Opiates

Extraction Protocol

Sample Preparation:

- Add 0.5 mL hydrochloric acid to 5 mL urine
- Cap
- Heat at 120°C for 20 min
- Cool to room temperature
- Add 0.75 mL 10 N NaOH
- Adjust to pH 6.5-7.5 with ~2.5 mL 0.5 M phosphoric acid

Condition:

- 6 mL methanol
- 6 mL 0.1 M K_2HPO_4 (pH 6.0)
- Do not let the phase go dry

Load:

- Add 3 mL 0.1 M K_2HPO_4 to the cartridge
- Attach an 8 mL reservoir
- Add the urine sample

Rinse:

- Remove reservoir
- 3 mL water
- 3 mL 0.1 M sodium acetate (pH 4.5)
- 3 mL methanol

Elute:

- Place a collection tube beneath cartridge
- 3 mL methylene chloride/isopropyl alcohol/ NH_4OH (78/20/2)
- Collect the eluant

Analysis Preparation:

- Concentrate the eluant to dryness
- Do not over dry
- 75 μ L ethyl acetate
- 25 μ L BSTFA/1% TMCS
- Cap
- Heat at 60°C for 10 min
- Inject 1-2 μ L

■ *All flow rates should not exceed 5 mL/min*

■ *Consult the EVIDEX™ Instruction Manual for complete method details*

Trademark Acknowledgements:
DB, EVIDEX J&W Scientific
Manufactured under H.P. U.S. Patent 4,293,415

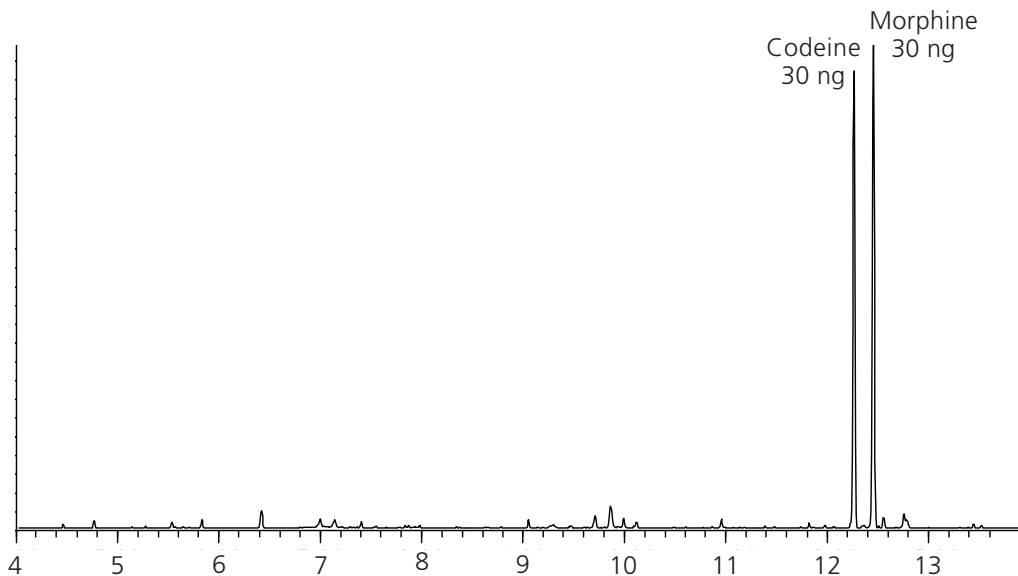
Reagents

- 10 N NaOH
40 g sodium hydroxide in 100 mL DI water.
- 0.1 M K_2HPO_4 (pH 6.0)
1.74 g potassium phosphate, dibasic (anhydrous) in 100 mL DI water. Adjust to pH 6.0 \pm 0.1 with phosphoric acid.
- 0.1 M sodium acetate (pH 4.5)
0.82 g in 100 mL DI water. Adjust to pH 4.5 \pm 0.1 with glacial acetic acid.
- Methylene chloride/isopropyl alcohol/ NH_4OH (78/20/2)
78 mL methylene chloride, 20 mL isopropyl alcohol, 2 mL ammonium hydroxide. Make fresh daily.
- BSTFA/1% TMCS
9 mL N,O-bis(trimethylsilyl)trifluoroacetamide, 0.1 mL trimethylchlorosilane, or can be purchased premixed.

Other reagents

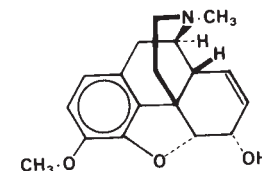
Methanol
DI water
Ethyl acetate
Hydrochloric acid
Phosphoric acid

Opiates in Urine



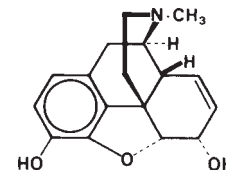
Column: DB™-5ms EVDX
12 m x 0.20 mm I.D., 0.33 µm
J&W P/N: 128-8512
Carrier: Helium at 40 cm/sec measured at 65°C
Oven: 65°C for 1 min
65-325°C at 20°/min
Injector: Splitless, 250°C
45 sec purge activation time
Detector: MSD, 300°C transfer line

Codeine



- Formula Weight: 299.4
- TMS Quantitation Ions: 371, 178

Morphine



- Formula Weight: 285.3
- TMS Quantitation Ions: 429, 236

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Phencyclidine (PCP)

Extraction Protocol

Sample Preparation:

- Add 3 mL 0.1 M K_2HPO_4 (pH 6.0) to 5 mL urine

Condition:

- 6 mL methanol
- 6 mL 0.1 M K_2HPO_4 (pH 6.0)
- Do not let the phase go dry

Load:

- Add the urine sample

Rinse:

- 3 mL water
- 3 mL 0.1 M sodium acetate
- 3 mL methanol

Elute:

- Place a collection tube beneath cartridge
- 3 mL methylene chloride/isopropyl alcohol/ NH_4OH (78/20/2)
- Collect the eluant

Analysis Preparation:

- Concentrate the eluant to dryness
- Do not over dry
- 100 μ L ethyl acetate
- Cap
- Inject 1-2 μ L

■ *All flow rates should not exceed 5 mL/min*

■ *Consult the EVIDEX™ Instruction Manual for complete method details*

Trademark Acknowledgements:
DB, EVIDEX J&W Scientific
Manufactured under H.P. U.S. Patent 4,293,415

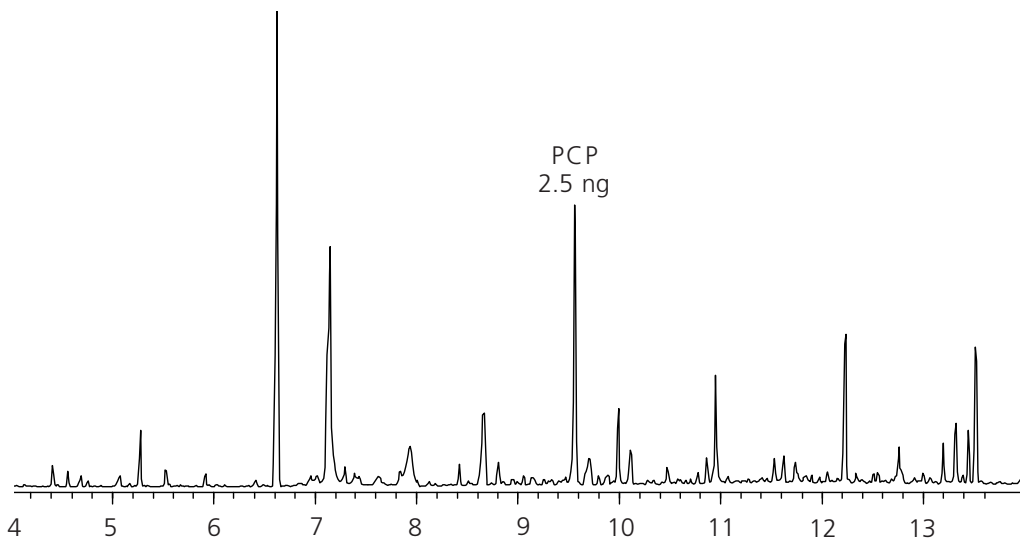
Reagents

- 0.1 M K_2HPO_4 (pH 6.0)
1.74 g potassium phosphate, dibasic (anhydrous) in 100 mL DI water. Adjust to pH 6.0 ± 0.1 with phosphoric acid.
- 0.1 M sodium acetate
0.82 g in 100 mL DI water. Adjust to pH 4.5 ± 0.1 with glacial acetic acid.
- Methylene chloride/isopropyl alcohol/ NH_4OH (78/20/2)
78 mL methylene chloride, 20 mL isopropyl alcohol, 2 mL ammonium hydroxide. Make fresh daily.

Other reagents

Methanol
DI water
Ethyl acetate

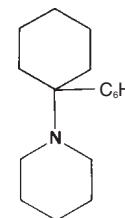
Phencyclidine (PCP) in Urine



Column: DB™-5ms EVDX
12 m x 0.20 mm I.D., 0.33 µm
J&W P/N: 128-8512
Carrier: Helium at 40 cm/sec measured at 65°C
Oven: 65°C for 1 min
65-325°C at 20°/min
Injector: Splitless, 250°C
45 sec purge activation time
Detector: MSD, 300°C transfer line

PCP

- Formula Weight: 243.4
- Quantitation Ions: 200, 243, 91



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Cocaine (Benzoyllecgonine)

Extraction Protocol

Sample Preparation:

- Add 3 mL 0.1 M K_2HPO_4 (pH 6.0) to 5 mL urine

Condition:

- 6 mL methanol
- 6 mL 0.1 M K_2HPO_4 (pH 6.0)
- Do not let the phase go dry

Load:

- Add the urine sample

Rinse:

- 3 mL water
- 3 mL 0.1 N HCl
- 3 mL methanol

Elute:

- Place a collection tube beneath cartridge
- 3 mL methylene chloride/isopropyl alcohol/ NH_4OH (7/8/20/2)
- Collect the eluant

Analysis Preparation:

- Concentrate the eluant to dryness
 - Do not over dry
 - 75 μ L ethyl acetate
 - 25 μ L BSTFA/1% TMCS
 - Cap
 - Heat at 60°C for 10 min
 - Inject 1-2 μ L
-
- *All flow rates should not exceed 5 mL/min*
 - *Consult the EVIDEX™ Instruction Manual for complete method details*

Trademark Acknowledgements:
DB, EVIDEX J&W Scientific
Manufactured under H.P. U.S. Patent 4,293,415

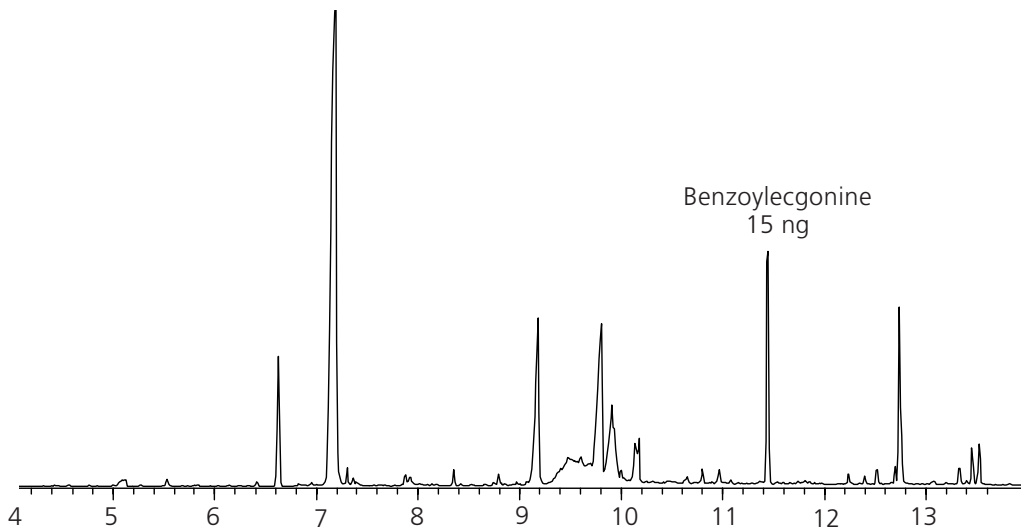
Reagents

- **0.1 M K_2HPO_4 (pH 6.0)**
1.74 g potassium phosphate, dibasic (anhydrous) in 100 mL DI water. Adjust to pH 6.0 \pm 0.1 with phosphoric acid.
- **0.1 N HCl**
0.83 mL hydrochloric acid diluted with DI water to 100 mL.
- **Methylene chloride/isopropyl alcohol/ NH_4OH (7/8/20/2)**
78 mL methylene chloride, 20 mL isopropyl alcohol, 2 mL ammonium hydroxide. Make fresh daily.
- **BSTFA/1% TMCS**
9 mL N,O-bis(trimethylsilyl)trifluoroacetamide, 0.1 mL trimethylchlorosilane, or can be purchased premixed.

Other reagents

Methanol
DI water
Ethyl acetate

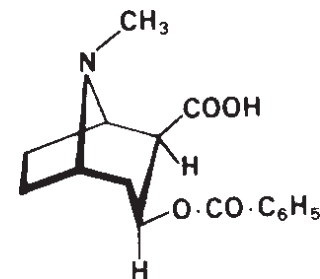
Benzoylecgonine in Urine



Column: DB™-5ms EVDX
12 m x 0.20 mm I.D., 0.33 µm
J&W P/N: 128-8512
Carrier: Helium at 40 cm/sec measured at 65°C
Oven: 65°C for 1 min
65-325°C at 20°/min
Injector: Splitless, 250°C
45 sec purge activation time
Detector: MSD, 300°C transfer line

Benzoylecgonine

- Formula Weight: 289.3
- TMS Quantitation Ions: 82, 240, 361



Contact information:

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