STEP 2: Protocols

Strata-X-Drug B

	1	2	3
	Opiates, 6-MAM, PCP, Amphetamines, Methadone, Healthcare Opiates, and Propoxyphene*	Marijuana Metabolites	Cocaine Metabolites
Condition	Not Required		
Load	Pre-treated urine sample	Pre-treated urine sample	Pre-treated urine sample
Wash 1	600 µL of 100 mM Sodium acetate buffer (pH 5.0)	600 µL of 100 mM Sodium acetate buffer (pH 5.0)	600 µL of 0.1N Hydrochloric acid
Wash 2	600 µL Methanol	600 µL of Acetonitrile/100 mM Sodium acetate buffer (pH 5.0) (30:70)	600 µL Methanol
Dry	10 minutes under full vacuum	15 minutes under full vacuum	10 minutes under full vacuum
Elute	2x 300 µL of Ethyl acetate/ Isopropanol/ Ammonium hydroxide (70:20:10)	2x 300 µL of Ethyl acetate/Isopropanol (85:15)	2x 300 µL of Ethyl acetate/Isopropanol/ Ammonium hydroxide (70:20:10)

* Opiates, 6-MAM, PCP, Amphetamines, Methadone, Healthcare Opiates, and Propoxyphene can be extracted simultaneously or separately using the same SPE methodology.

Methods are written for 30 mg/well Strata-X-Drug B 96-Well Plate; however they can be scaled to accommodate smaller or larger sample sizes and sorbent masses.

Strata-X-Drug N

	1	2
	Barbiturates	Benzodiazepines
Condition	Not Required	
Load	Pre-treated urine sample	Pre-treated urine sample
Wash 1	600 µL of 0.1 N Hydrochloric acid (HCl)	600 µL of Acetonitrile/Water (20:80)
Wash 2	2x 600 µL of Methanol/ 0.1 N HCl (30:70)	—
Dry	10 minutes under full vacuum	10 minutes under full vacuum
Elute	2x 300 µL of Ethyl acetate/ Isopropanol (85:15)	2x 300 µL of Ethyl acetate/ Isopropanol (85:15)

Methods are written for 30 mg/well Strata-X-Drug N 96-Well Plate; however they can be scaled to accomodate smaller or larger sample sizes and sorbent masses.

Round Well Collection Plates (polypropylene)

Part No.	Well Bottom	Well Volume	Unit
AH0-7279	Round	1 mL	50/pk
AH0-8636	Round	2 mL	50/pk

Square Well Collection Plates (polypropylene)

Part No.	Well Bottom	Well Volume	Unit
AH0-7192	Conical	350 µL	50/pk
AH0-7193	Conical	1 mL	50/pk
AH0-7194	Conical	2 mL	50/pk
AH0-8635	Round-Conical	2 mL	50/pk

Round Well Sealing Mats

Part No.	Description	Material	Unit
AH0-8631	Pierceable, 7 mm diameter	Silicone	50/pk
AH0-8632	Pre-Slit, 7 mm diameter	Silicone	50/pk
AH0-8633	Pierceable, 8 mm diameter	Silicone	50/pk
AH0-8634	Pre-Slit, 8 mm diameter	Silicone	50/pk
AH0-7362	Sealing Tap Pad	—	10/pk

Square Well Sealing Mats

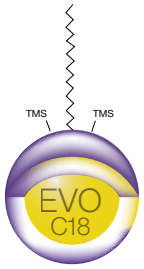
Part No.	Description	Material	Unit
AH0-8597	Pierceable	Silicone	50/pk
AH0-8598	Pre-Slit	Silicone	50/pk
AH0-8199	Pierceable	Santoprene™	100/pk
AH0-7195	Pierceable	Ethylene Vinyl Acetate (EVA)	50/pk
AH0-7362	Sealing Tap Pad	—	10/pk

For additional resources, visit ***www.phenomenex.com/strataxdrug***

STEP 3: Analyze Extracts

Kinetex® UHPLC/HPLC Core Shell LC Columns

Increased resolution, efficiency, and greater sensitivity.



Kinetex EVO C18
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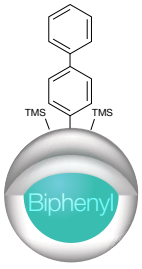

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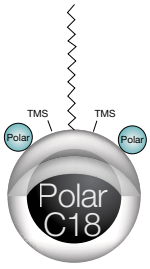

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Revision: 0

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General Methods

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STEP 1: Sample Pre-treatments

Opiates, 6-MAM, Benzodiazepines, (β-Glucuronidase Enzyme Hydrolysis)	
Campbell Enzyme:	1. Aliquot 200µL urine 2. Add 100µL 0.1 M Ammonium acetate buffer (pH 4, adjusted) 3. Add 100µL Campbell Science β-Glucuronidase Enzyme (Campbell Part No. DR2102) 4. Incubate 1 hour at 50°C
IMCSzyme®:	1. Aliquot 140µL urine 2. Add 80µL IMCS buffer (IMCS Part No. 04-EZ-RHB-20) 3. Add 30µL IMCS Enzyme (IMCS Part No. 04-E1F-010) 4. Incubate 30 min at 60°C
Kura Enzyme:	1. Aliquot 200µL urine 2. 100µL 0.1 M Ammonium acetate buffer (pH 5, adjusted) 3. 100µL Kura Enzyme Solution (Kura Part No. BG100-10ML) 4. Incubate 1 hr at 50°C

General Methods Inside

PCP **Cocaine Metabolites** **Methadone** **Propoxyphene** **Barbiturates**	To each 2mL urine sample, add 2mL of 100mM Sodium acetate buffer (pH 5.0) then vortex. Verify that pH is between 4.0 and 6.0.
Amphetamines	To each 2mL urine sample, add 1000µL of 100mM Phosphate buffer (pH. 6.0) and 1000µL of 0.35 M Sodium periodate. Vortex and incubate at room temperature for 25 minutes. Verify that the pH is between 5.5 and 6.5.
Marijuana Metabolites*	To each 2mL urine sample, add 100µL of 11.8 N Potassium hydroxide. Vortex then incubate at 60°C for 20 minutes. Cool and add ~450µL glacial acetic acid then vortex. Verify that the pH is between 4.0 and 6.0.

*For analysis of THC-OH and THC, use β-glucuronidase enzyme protocol.

If using Strata-X-Drug B Plus, perform hydrolysis directly in-well and turn on vacuum to initiate loading of sample. Verify that pH is between 4.0 and 6.0.

THANK YOU

for choosing Strata-X-Drug Solid Phase Extraction (SPE) Products

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