



Strata-X-Drug

KEEP IT CLEAN

Solid Phase Extraction Solutions
for Drugs of Abuse Analysis

- ▶ Neutral Drugs of Abuse
- ▶ Basic Drugs of Abuse



Strata™-X-Drug B: Basic Drugs of Abuse

Working with basic drugs?

Here are 3 reasons why Strata-X-Drug B SPE is your cleanup solution.

B

1. Extract 9 Drug Classes using 3 Methods and Only 1 Sorbent

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

* Opiates, 6-MAM, PCP, Amphetamines, Propoxyphene, Healthcare Opiates and Methadone can be extracted simultaneously or separately using the same SPE methodology. Methods are written for 60 mg/6 mL Strata-X-Drug B; however they can be scaled to accommodate smaller or larger sample sizes and sorbent masses.

2. Specialized QC Tests (see page 4)

3. Reliable Results for 22 Drugs of Abuse (see page 5)



Working with neutral drugs?

Here are 3 reasons why Strata-X-Drug N SPE is your cleanup solution.

N

1. Extract 13 Neutral Drugs from 2 Drug Classes

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

Methods are written for 100 mg/6 mL Strata-X-Drug N; however they can be scaled to accommodate smaller or larger sample sizes and sorbent masses.

2. Specialized QC Tests (see page 6)

3. Consistent, Reproducible Results for 13 Drugs of Abuse (see page 7)

Strata™-X-Drug B: Basic Drugs of Abuse

Specialized QC Tests Designed for Basic Drugs of Abuse

Certificate of Analysis

Strata™-X-Drug B 33µm, Cation Mixed-Mode Polymeric Sorbent
Sorbent Lot Number: S326-XX

Recovery Tests		
Compound		
1 Codeine		
2 Morphine		
Result		
Pass		

We test recovery by extracting codeine and morphine from urine to ensure that each batch provides you with the best results possible!

Ion Exchange Capacity		
meq/g	Specification	Result
	0.9-1.2	1.0

Particle Characterization		
Parameter	Specification	Result
Surface Area (m ² /g)	705-825	764
Pore Size (Å)	75-91	89
Pore Volume (ml/g)	1.87-1.87	1.70
Mean Particle Size (µm)	28 - 34	29
Fine Content (-10µm %)	< 0.2 %	0.0

Particle Size Distribution Plot

Purity Tests		
Parameter	Specification	Result
Sorbent Purity (GC-FID)	Proprietary	Pass
Turbidity (NTU)	Proprietary	Pass

GC-FID

Plot 1

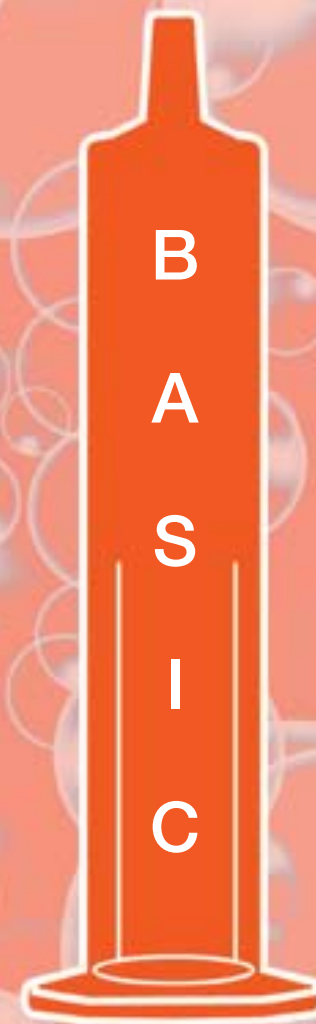
Plot 2

Production Lot Tests	
Parameter	Result
Sorbent Weight	Pass
Flow Rate	Pass
Sorbent Identity	Pass

Material Approved: *K. Keith*
Quality Assurance

Date: November 5, 2010

Strong cation-exchange sorbents can sometimes promote conversion of norcodeine and normorphine to parent compounds. Strata-X-Drug B is guaranteed not to promote this interconversion.



Strata™-X-Drug B: Basic Drugs of Abuse

Reliable Results for 22 Basic Drugs of Abuse



* Deuterated analogs were used alongside all probes except for those denoted with an asterisk.
Probes denoted with an asterisk were run alongside the closest alternative deuterated standard available.

Strata™-X-Drug N: Neutral Drugs of Abuse



Specialized QC Tests Designed for Neutral Drugs of Abuse

Certificate of Analysis

Certificate of Analysis

Strata™-X-Drug N 100µm, Polymer Reversed Phase
Sorbent Lot Number: S328-xxx

Recovery Tests

Compound
1 Lorazepam
2 Temazepam

We test recovery by extracting lorazepam and temazepam from urine to ensure that each batch provides you with the best results possible!

Purity Tests

Parameter	Specification	Result
Sorbent Purity (GC FID)	Proprietary	Pass
Turbidity (NTU)	Proprietary	Pass

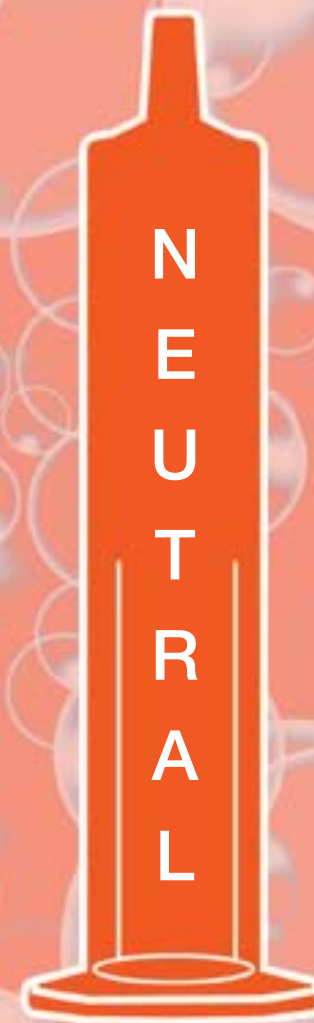
GC-FID

Production Lot Tests

Parameter	Result
Sorbent Weight	Pass
Flow Rate	Pass
Sorbent Identity	Pass

Material Approved: *K. Keith*
Quality Assurance

Date: August 1, 2011



Strata™-X-Drug N: Neutral Drugs of Abuse



Consistent, Reproducible Results for the Following Drug Classes:

- Barbiturates
- Benzodiazepines



* Deuterated analogs were used alongside all probes except for those denoted with an asterisk. Probes denoted with an asterisk were run alongside the closest alternative deuterated standard available.

Confirm Your Recoveries and Cleanliness

Once your extractions are completed, achieve excellent separation of target analytes with Kinetex® Core-Shell HPLC/UHPLC columns or Zebron™ GC columns.

Kinetex Core-Shell HPLC/UHPLC Columns

Leverage the power of Kinetex to achieve ultra-high performance on any LC system.

- **Increase** resolution, throughput, and sensitivity
- **Decrease** solvent consumption
- **Save** time and money
- **Transfer** methods anywhere

Visit www.phenomenex.com/kinetex for more information



Zebron High Performance ZB-Drug-1 GC Column

Achieve highly reproducible and effective separation of drugs of abuse while capitalizing on speed and efficiency.

- **Decrease** run times
- **Improve** resolution and sensitivity
- **Increase** lab productivity and profitability

Visit www.phenomenex.com/zebron for more information



Our Experts are Here to Help You

We have various ways to assist, advance and develop your methods.

- A. **Technical Notes:** Phenomenex has developed several technical notes that provide complete solutions.

For specific
applications, visit
www.phenomenex.com/strata-X



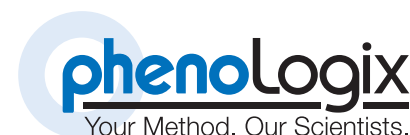
OR



- B. **Method Development:** The online SPE Method Development Tool can create customized methods in under 1 minute.
www.phenomenex.com/info/MDTOOL



- C. **Put Our Team to Work:** PhenoLogix is an analytical support laboratory within Phenomenex that provides full service method support and training for your lab.
www.phenomenex.com/PhenoLogix



Questions? Contact a Sample Preparation Specialist: info@phenomenex.com

Strata™-X-Drug SPE Ordering Information



Strata-X-Drug B

Format	Sorbent Mass	Part Number	Unit	Price
Tube				
	10 mg	8B-S128-AAK	1 mL (100/box)	
	10 mg	8L-S128-AAK†	1 mL (100/box)	
	30 mg	8B-S128-TAK	1 mL (100/box)	
	30 mg	8L-S128-TAK†	1 mL (100/box)	
	30 mg	8B-S128-TBJ	3 mL (50/box)	
	60 mg	8B-S128-UBJ	3 mL (50/box)	
	60 mg	8B-S128-UCH	6 mL (30/box)	
	60 mg	8B-S128-UCL	6 mL (200/bag)	
Giga™ Tube				
	100 mg	8B-S128-EDG	12 mL (20/box)	
96-Well Plate				
	10 mg	8E-S128-AGB	2 Plates/box	
	30 mg	8E-S128-TGB	2 Plates/box	
	60 mg	8E-S128-UGB	2 Plates/box	

Accessories for SPE Tubes

Manifolds			
Part No.		Unit	Price
AH0-6023	SPE 12-Position Vacuum Manifold Set complete assembly	ea	
AH0-6024	SPE 24-Position Vacuum Manifold Set complete assembly	ea	
AH0-7502	SPE 10-Position Tall-Boy Vacuum Manifold, complete assembly	ea	
Adapter Caps			
Part No.		Unit	Price
AH0-7191	Adapter Caps for 1, 3, and 6 mL SPE tubes, polyethylene, with Luer tip	15/pk	
AH0-7379	Adapter Caps for 12, 20, and 60 mL SPE tubes, polyethylene, with Luer tip	6/pk	

† Tab-less tube

Strata-X-Drug N

Format	Sorbent Mass	Part Number	Unit	Price
Tube				
	10 mg	8B-S129-AAK	1 mL (100/box)	
	10 mg	8L-S129-AAK†	1 mL (100/box)	
	30 mg	8B-S129-TAK	1 mL (100/box)	
	30 mg	8L-S129-TAK†	1 mL (100/box)	
	30 mg	8B-S129-TBJ	3 mL (50/box)	
	60 mg	8B-S129-UBJ	3 mL (50/box)	
	60 mg	8B-S129-UCH	6 mL (30/box)	
	60 mg	8B-S129-UCL	6 mL (200/bag)	
	100 mg	8B-S129-ECH	6 mL (30/box)	
Giga Tube				
	100 mg	8B-S129-EDG	12 mL (20/box)	
96-Well Plate				
	10 mg	8E-S129-AGB	2 Plates/box	
	30 mg	8E-S129-TGB	2 Plates/box	
	60 mg	8E-S129-UGB	2 Plates/box	

Accessories for 96-Well Plates

Manifolds			
Part No.		Unit	Price
AH0-7284	96-Well Plate Manifold, Acrylic	ea	
Collection Plates (deep well, polypropylene)			
Part No.		Unit	Price
AH0-7192	Strata 96-Well Collection Plate, 350 µL/Conical	50/pk	
AH0-7193	Strata 96-Well Collection Plate, 1 mL/Conical	50/pk	
AH0-7279	Strata 96-Well Collection Plate, 1 mL Round, 7 mm	50/pk	
AH0-7194	Strata 96-Well Collection Plate, 2 mL/Conical	50/pk	
AH0-8635	Strata 96-Well Collection Plate, 2 mL Square/Round-Conical	50/pk	
AH0-8636	Strata 96-Well Collection Plate, 2 mL Round/Round, 8 mm	50/pk	
Sealing Mats			
Part No.		Unit	Price
AH0-8597	Sealing Mats, Pierceable, 96-Square Well, Silicone	50/pk	
AH0-8598	Sealing Mats, Pre-Slit, 96-Square Well, Silicone	50/pk	
AH0-8631	Sealing Mats, Pierceable, 96-Round Well 7 mm, Silicone	50/pk	
AH0-8632	Sealing Mats, Pre-Slit, 96-Round Well 7 mm, Silicone	50/pk	
AH0-8633	Sealing Mats, Pierceable, 96-Round Well 8 mm, Silicone	50/pk	
AH0-8634	Sealing Mats, Pre-Slit, 96-Round Well 8 mm, Silicone	50/pk	
AH0-7362	Sealing Tape Pad	10/pk	

Analytical Solutions Ordering Information

Kinetex® 2.6 µm Analytical HPLC Columns (mm)

	30 x 4.6	50 x 4.6	75 x 4.6	100 x 4.6	150 x 4.6
XB-C18	—	00B-4496-E0	00C-4496-E0	00D-4496-E0	00F-4496-E0
C18	00A-4462-E0	00B-4462-E0	00C-4462-E0	00D-4462-E0	00F-4462-E0
C8	—	00B-4497-E0	00C-4497-E0	00D-4497-E0	00F-4497-E0
PFP	00A-4477-E0	00B-4477-E0	00C-4477-E0	00D-4477-E0	00F-4477-E0

Kinetex 2.6 µm MidBore™ HPLC Columns (mm)

	30 x 3.0	50 x 3.0	75 x 3.0	100 x 3.0	150 x 3.0
XB-C18	00A-4496-Y0	00B-4496-Y0	00C-4496-Y0	00D-4496-Y0	00F-4496-Y0
C18	00A-4462-Y0	00B-4462-Y0	00C-4462-Y0	00D-4462-Y0	00F-4462-Y0
C8	00A-4497-Y0	00B-4497-Y0	00C-4497-Y0	00D-4497-Y0	00F-4497-Y0
PFP	00A-4477-Y0	00B-4477-Y0	00C-4477-Y0	00D-4477-Y0	00F-4477-Y0

Kinetex 2.6 µm Minibore HPLC Columns (mm)

	30 x 2.1	50 x 2.1	100 x 2.1	150 x 2.1
XB-C18	00A-4496-AN	00B-4496-AN	00D-4496-AN	00F-4496-AN
C18	00A-4462-AN	00B-4462-AN	00D-4462-AN	00F-4462-AN
C8	00A-4497-AN	00B-4497-AN	00D-4497-AN	00F-4497-AN
PFP	00A-4477-AN	00B-4477-AN	00D-4477-AN	00F-4477-AN

Kinetex 1.7 µm Minibore UHPLC Columns (mm)

	50 x 2.1	100 x 2.1	150 x 2.1
XB-C18	00B-4498-AN	00D-4498-AN	00F-4498-AN
C18	00B-4475-AN	00D-4475-AN	00F-4475-AN
C8	00B-4499-AN	00D-4499-AN	00F-4499-AN
PFP	00B-4476-AN	00D-4476-AN	00F-4476-AN

Zebron™ ZB-Drug-1 GC Columns

ID (mm)	id (µm)	Temp. Limits °C	Part No.	Price
10-Meter				
0.18	0.18	40 to 320/340 °C	7CD-G023-08	
15-Meter				
0.25	0.25	40 to 320/340 °C	7EG-G023-11	
30-Meter				
0.25	0.25	40 to 320/340 °C	7HG-G023-11	



If Phenomenex products in this brochure do not provide at least an equivalent separation as compared to other products of the same phase and comparable dimensions, send in your comparative data within 45 days and keep the product for FREE.

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Strata-X is patented by Phenomenex, Inc. U.S. Patent No. 7,119,145

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Australia t: 02-9428-6444 f: 02-9428-6445 auinfo@phenomenex.com	France 01 30 09 21 10 01 30 09 21 11 franceinfo@phenomenex.com	Mexico (55) 5018 3791 (310) 328-7768 tecnicomx@phenomenex.com
Austria t: 01-319-1301 f: 01-319-1300 anfrage@phenomenex.com	Germany 06021-58830-0 06021-58830-11 anfrage@phenomenex.com	The Netherlands 030-2418700 030-2383749 nlinfo@phenomenex.com
Belgium t: +31 (0)30-2418700 f: +31 (0)30-2383749 beinfo@phenomenex.com	India 040-3012-2400 040-3012-2411 indiaiinfo@phenomenex.com	New Zealand 09-4780951 09-4780952 nzinfo@phenomenex.com
Canada t: (800) 543-3681 f: (310) 328-7768 info@phenomenex.com	Ireland 01 247 5405 +44 1625-501796 eireinfo@phenomenex.com	Norway 810 02 005 +45 4810 6265 nordicinfo@phenomenex.com
Denmark t: 4824 8048 f: 4810 6265 nordicinfo@phenomenex.com	Italy 051 6327511 051 6327555 italiaiinfo@phenomenex.com	Puerto Rico (800) 541-HPLC (310) 328-7768 info@phenomenex.com
Finland t: (09)4789 0063 f: +45 4810 6265 nordicinfo@phenomenex.com	Luxembourg +31 (0)30-2418700 +31 (0)30-2383749 nlinfo@phenomenex.com	United Kingdom 01625-501367 01625-501796 ukinfo@phenomenex.com



All other countries:
Corporate Office USA 
(310) 212-0555
(310) 328-7768
info@phenomenex.com

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Phenomenex products are available worldwide. For the distributor in your country,
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