



# Supported Liquid Extraction (SLE) For Clinical Applications

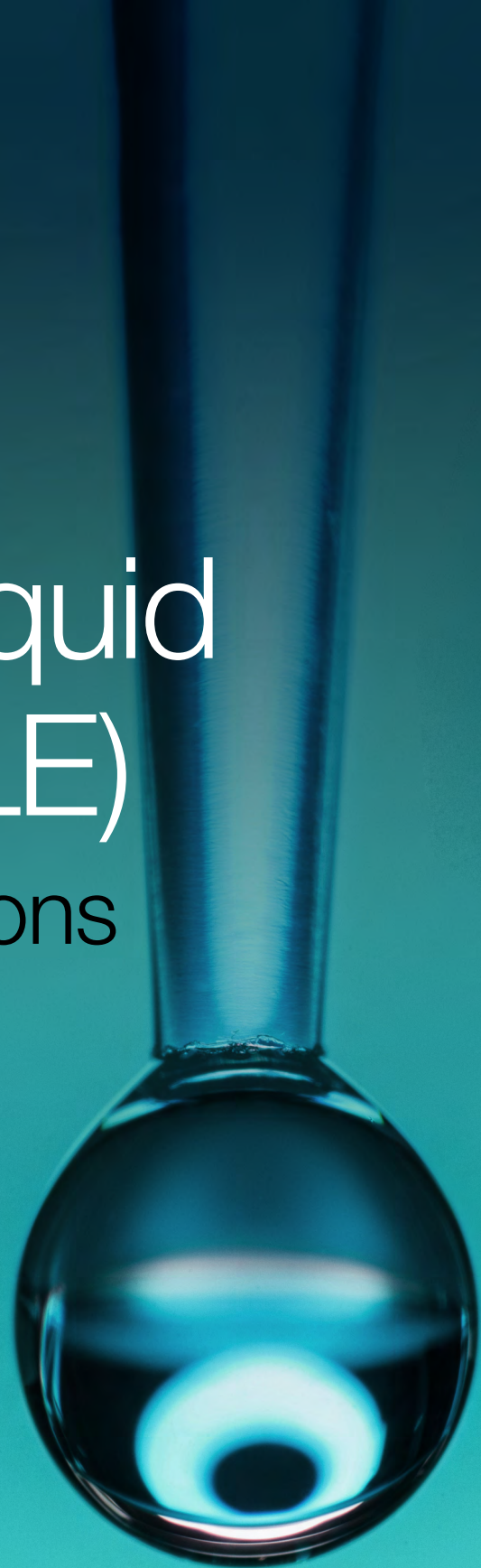
## **Novum Synthetic SLE**

A unique, synthetic sorbent that provides consistent, reliable results

## **NEW Novum PRO**

## **Strata DE Diatomaceous Earth SLE**

Cost-effective, guaranteed alternative to traditional diatomaceous earth SLE sorbents



# Choose the Best SLE Solution for Your Analysis

Phenomenex provides two options for your SLE analysis, a unique synthetic sorbent and a traditional diatomaceous earth sorbent, each of which provides its own benefits. Novum and Stata DE are two great options.



**Synthetic**

**Sorbent**

**Diatomaceous Earth**

**Lot-to-lot consistency and reproducibility**

**Advantages**

**Cost effective and large volume capabilities**

**Ethyl Acetate, Methyl Tert-Butyl Ether (MTBE)**

**Extraction Solvents**

**Dichloromethane (DCM), Hexane, MTBE, Ethyl Acetate**

**150µL MINI 96-Well Plates, 200µL MAX 96-Well Plates**

**Plate Formats**

**200 µL 96-Well Plates, 400 µL 96-Well Plates**

**1 cc, 3 cc, 6 cc, 12 cc**

**Tube Formats**

**12 cc and 60 cc**

**Need Help Selecting the Right SLE Option?**



**Live Chat**

[www.phenomenex.com/Chat](http://www.phenomenex.com/Chat)



**Call Us**

Please see the last page of the document.



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# Explore Your SLE Options and Applications



## Novum™ SLE

A Unique, Synthetic Sorbent.....p. 5

## Novum PRO SLE

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## Strata™ Diatomaceous Earth (DE) SLE

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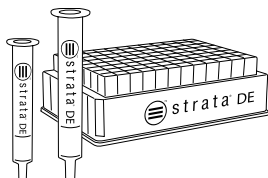
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GUARANTEE

Your happiness is our mission. Take 45 days to try our products. If you are not happy, we'll make it right.

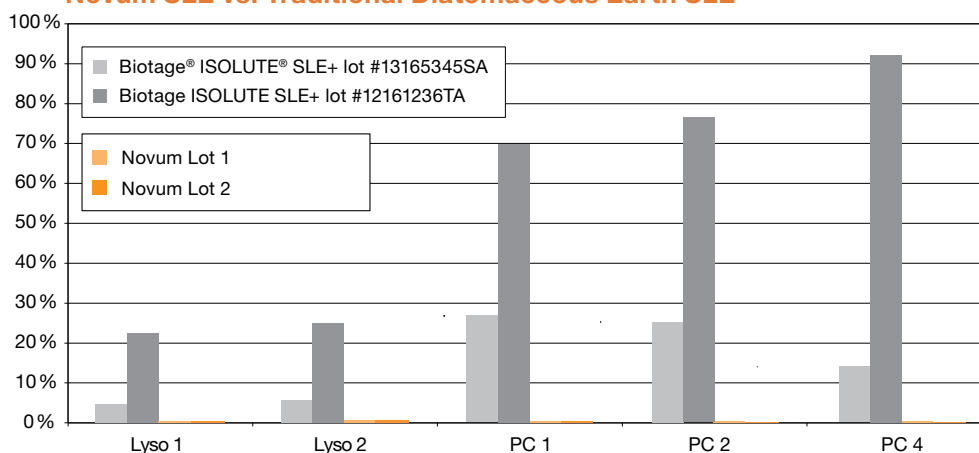
[www.phenomenex.com/behappy](http://www.phenomenex.com/behappy)

As a unique, synthetic SLE sorbent you can expect Novum to provide more reliable, consistent cleanup from lot-to-lot that excels under extraction conditions where traditional diatomaceous earth SLE falls short, such as ethyl acetate.

### Recommended Uses:

- Ethyl acetate extractions
- Small volume samples

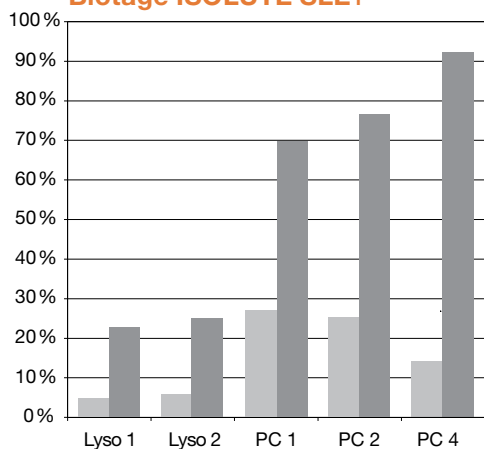
### Lot-to-Lot Phospholipid Breakthrough: Novum SLE vs. Traditional Diatomaceous Earth SLE



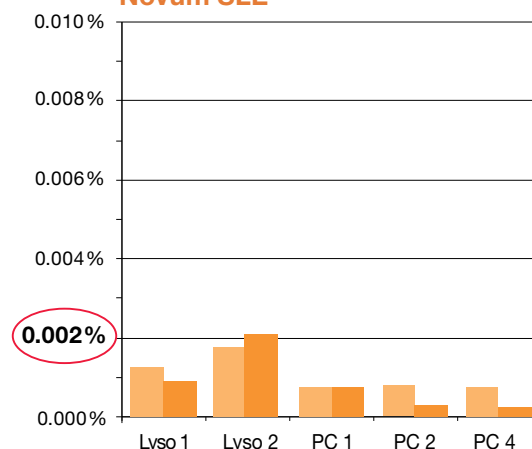
#### Extraction Method

1. Load diluted plasma (diluted 1:1 with water) onto a SLE 96-Well Plate, apply vacuum for 2-5 seconds.
2. Allow sample to soak into the SLE sorbent for 5 minutes.
3. Elute with ethyl acetate.

### Biotage ISOLUTE SLE+



### Novum SLE



**Consistently  
remove > 99.9 % of  
phospholipids**

- Lyso 1: 1-Palmitoyl-2-OH-sn-glycero-phosphocholine (m/z 496-184)
- Lyso 2: 1-Oleoyl-2-OH-sn-glycero-phosphocholine (m/z 522-184)
- PC 1: 1-Palmitoyl-2-Oleoyl-sn-glycero-phosphocholine (m/z 761-184)
- PC 2: 1-Stearoyl-2-Lindoleoyl-sn-glycero-phosphocholine (m/z 787-184)
- PC 4: 1-Oleoyl-2-Lindoleoyl-sn-glycero-phosphocholine (m/z 784-184)

# Novum and Novum PRO

## Fast, Simple, Reliable



Novum PRO SLE follows a simple 3-step procedure, allowing up to 96 samples to be processed in < 15 minutes. If further time savings are necessary, Novum SLE can be easily automated for rapid, hands-free sample cleanup.

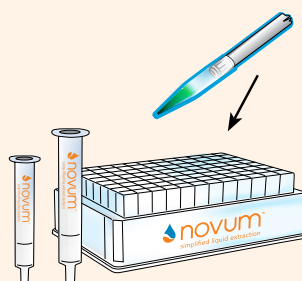
### Novum PRO Simplified Liquid Extraction (SLE)

Estimated Time Required = <15 minutes



#### 1. LOAD

Dilute sample 1:1 with buffer or water and load onto Novum SLE sorbent using 2–15 seconds of vacuum.



Optimized frit system provides a consistent flow of sample into the Novum SLE sorbent

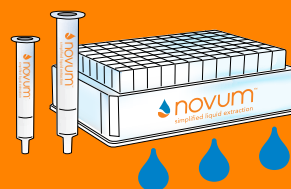
#### 2. WAIT

For 5 minutes.



#### 3. ELUTE

Apply elution solvent and allow to elute via gravity. Complete elution with 10 seconds of vacuum.



Applying vacuum can reduce the amount of time required for elution without sacrificing cleanliness

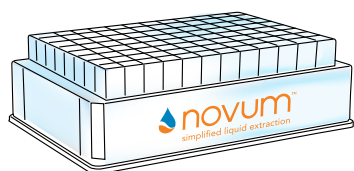
Visit [www.phenomenex.com/Novum](http://www.phenomenex.com/Novum) for buffer and elution solvent recommendations, technical notes, demonstration videos, and more!



# Get Down to Low Extraction Levels with Novum PRO SLE

Offers the same reliable synthetic sorbent as Novum with additional cleaning steps during manufacturing to ensure reproducible, low level results required for sensitive high-throughput MS applications.

- Specific manufacturing processes improve to improve matrix factor response and reduce noisy baselines for low level testing of biological samples
- API 6500+ fit for purpose testing to ensure clean baseline with each batch
- Available in both MINI and MAX 96-well plate formats for high-throughput applications



## Simple Method with Easy Transferability

- Load
- Wait
- Elute

## Easy Method Development

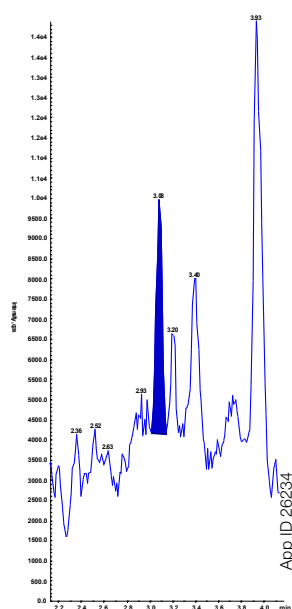
- Screen elution solvents in less time
- Easily determine the best extraction solvent for clean samples and optimum results

## Low Level Detection

- Low levels of detection can be achieved using Novum PRO SLE

## Equivalent reliability to traditional synthetic Novum SLE

5 pg/mL (LLOQ) Estriol (E3)



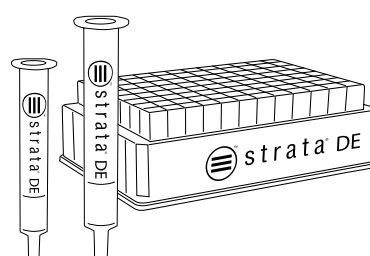
**View more applications and information  
about Novum PRO SLE at  
[www.phenomenex.com/NovumPRO](http://www.phenomenex.com/NovumPRO)**

# Diatomaceous Earth SLE

Packed with diatomaceous earth, Strata DE is a cost-effective alternative to traditional SLE products such as Biotage® ISOLUTE® SLE+, Thermo Fisher® Hypersep™ SLE, and Agilent® Chem Elut™ SLE that won't require you to sacrifice your results.

### Recommended Uses:

- Direct alternative to traditional diatomaceous earth SLE sorbents
- Non-oxygenated extraction solvents such as MTBE, DCM, and Hexane



### Recovery Values and % CVs: Strata DE SLE vs. Biotage ISOLUTE SLE+

	Strata DE		Biotage ISOLUTE SLE+	
	Recovery	%CV (n=8)	Recovery	%CV (n=8)
<b>6-MAM</b>	98	9	88	16
<b>Alprazolam</b>	104	10	98	11
<b>Benzoylcegonine</b>	88	6	98	11
<b>Buprenorphine</b>	93	7	102	15
<b>Codeine</b>	99	12	93	9
<b>Diazepam</b>	107	7	104	6
<b>Fentanyl</b>	85	5	94	8
<b>Hydrocodone</b>	104	11	93	11
<b>Hydromorphone</b>	95	9	93	11
<b>Lorazepam</b>	94	8	98	8
<b>Methamphetamine</b>	92	16	102	8
<b>Morphine</b>	98	12	94	12
<b>Norbuprenorphine</b>	101	11	92	11
<b>Nordiazepam</b>	100	9	92	8
<b>Norfentanyl</b>	113	7	110	11
<b>Oxycodone</b>	97	5	93	11
<b>PCP</b>	90	7	98	6

**Achieve the Same Recoveries as Biotage ISOLUTE SLE+, at a Lower Price!**

### SLE Protocol

<b>96-Well Plate:</b>	Strata DE SLE 400 µL 96-Well Plate Biotage ISOLUTE SLE+ 400 µL 96-Well Plate
<b>Part No.:</b>	<a href="#">8E-S325-5GB</a> (Strata DE)
<b>Load:</b>	300 µL pre-treated urine sample onto plate (apply vacuum or positive pressure to pull/push sample into sorbent if necessary)
<b>Wait:</b>	6 minutes
<b>Elute:</b>	3x 600 µL Dichloromethane/IPA (95:5)
<b>Apply:</b>	Vacuum or apply positive pressure at 5-10in Hg for 10 seconds
<b>Dry:</b>	Sample under slow stream of Nitrogen at 30°C
<b>Reconstitute:</b>	100 µL 0.1% Formic Acid/Methanol (4:1) with internal standard

# 25-OH Vitamin D2/D3 from Plasma

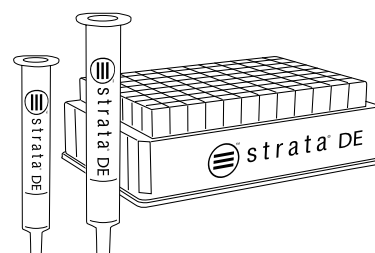


## Pre-treatment

Dilute 100 µL of spiked plasma (100 ng/mL) with 100 µL of IPA/Water (1:1).

## SLE Protocol

<b>96-Well Plate:</b>	Strata DE 200 µL 96-Well Plate
<b>Part No.:</b>	<a href="#">8E-S325-FGB</a>
<b>Load:</b>	200 µL pre-treated sample onto plate (apply vacuum or positive pressure to pull/push sample into sorbent)
<b>Wait:</b>	5 minutes
<b>Elute:</b>	2x 600 µL Heptane
<b>Apply:</b>	Vacuum or apply positive pressure at 5-10 in Hg for 10 seconds
<b>Dry:</b>	Sample under slow stream of Nitrogen at 30 °C
<b>Reconstitute:</b>	100 µL Methanol/Water (80:20) with internal standard

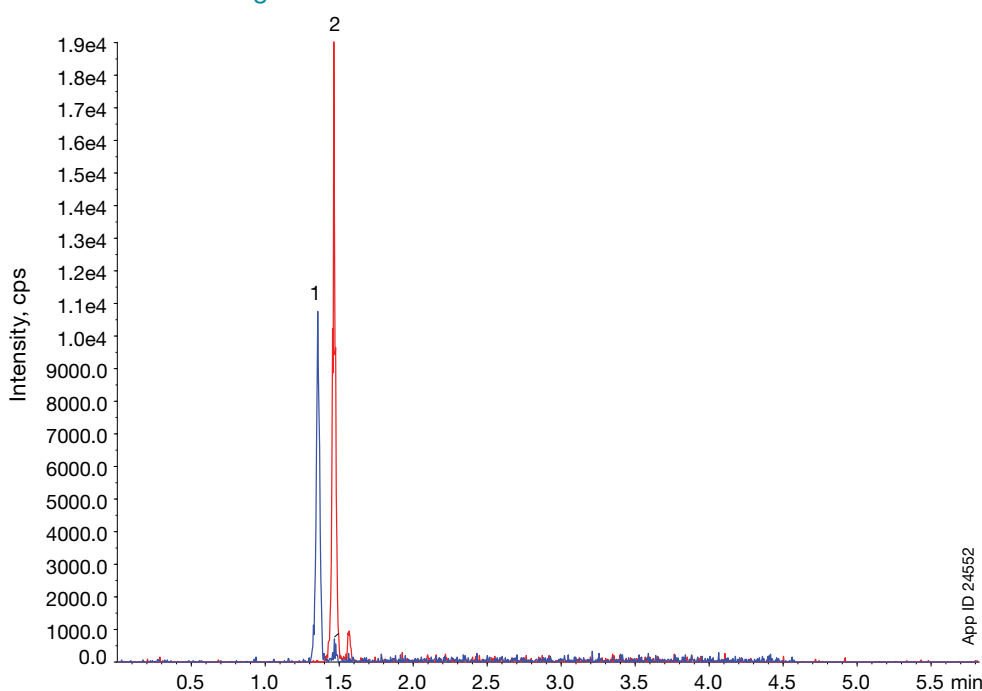


- High Recoveries
- Low RSDs
- Low Cost

## High Recoveries Using Strata DE SLE

	25-OH Vitamin D2	25-OH Vitamin D3
<b>Recovery</b>	96 %	84 %
<b>RSD (n=8)</b>	9 %	9 %

## Extracted Chromatogram for 25-OH-Vitamin D2/D3



## LC-MS/MS Conditions

**Column:** Kinetex™ 2.6 µm EVO C18  
**Dimensions:** 50 x 2.1 mm  
**Part No.:** [00B-4725-AN](#)  
**Guard:** SecurityGuard™ ULTRA EVO C18 Cartridge  
**Guard Part No.:** [AJ0-9298](#)  
**Mobile Phase:** A: 0.1 % Formic Acid in Water  
 B: 0.1 % Formic Acid in Acetonitrile  
**Gradient:**

Time (min)	% B
0	60
0.83	95
3.33	95
3.34	60
5.83	60

**Flow Rate:** 0.5 mL/min  
**Injection Volume:** 20 µL  
**Detection:** MS/MS (SCIEX® API 4000™), ESI+  
**Sample:** 1. 25-OH-Vitamin D3  
 2. 25-OH-Vitamin D2

App ID 24552



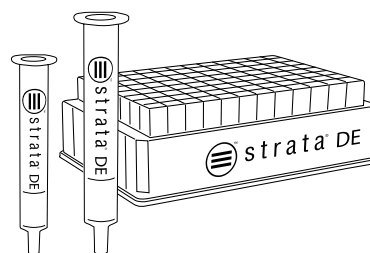
# NSAIDs from Urine

## Pre-treatment

Dilute 100 µL of spike urine (100 ng/mL) with 100 µL of 0.1 % formic acid.

## SLE Protocol

<b>96-Well Plate:</b>	Strata DE 200 µL
<b>Part No.:</b>	<a href="#">8E-S325-FGB</a>
<b>Load:</b>	200 µL pre-treated sample
<b>Wait:</b>	6 minutes
<b>Elute:</b>	2x 600 µL Ethyl acetate/Hexane (3:1)
<b>Dry:</b>	Sample under slow stream of Nitrogen at 30 °C
<b>Reconstitute:</b>	100 µL 0.1 % Formic acid in Methanol with 100 ng/mL concentration of Diclofenac D4, Acetaminophen D7, Naproxen D3

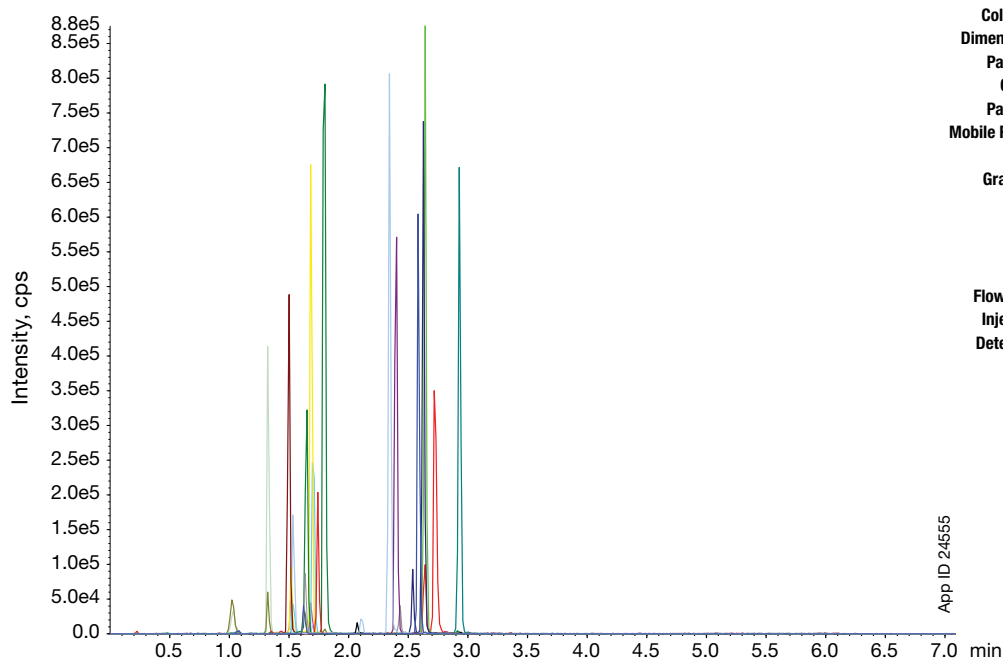


## Recovery Values

	Acetaminophen	Naproxen	Diclofenac
<b>Recovery</b>	96 %	84 %	109 %
<b>RSD (n=8)</b>	9 %	9 %	5 %

- Small Sample Volume
- High Recovery for NSAIDs
- Cost-Effective NSAIDs Extraction

## TIC for Extracted Sample



## LC-MS/MS Conditions

**Columns:** Kinetex™ 2.6 µm C18  
**Dimensions:** 50 x 2.1 mm  
**Part No.:** [00B-4462-AN](#)  
**Guard:** SecurityGuard™ ULTRA C18 Cartridge  
**Part No.:** [AJ0-8782](#)  
**Mobile Phase:** A: 0.1 % Formic Acid in Water  
 B: 0.1 % Formic Acid in Acetonitrile

Gradient: Time (min)	% B
0	10
2.5	100
3.5	100
3.51	10

**Flow Rate:** 0.5 mL/min  
**Injection:** 3 µL  
**Detection:** MS/MS (SCIEX® API 4000™)

App ID 24555

# NSAIDs from Urine

## Recovery Values and % CVs: Strata DE vs. Biotage ISOLUTE SLE+ LUTE SLE+

	Strata DE		Biotage ISOLUTE SLE+	
	Recovery	%CV (n=8)	Recovery	%CV n=8)
<b>6-MAM</b>	98	9	88	16
<b>Alprazolam</b>	104	10	98	11
<b>Benzoylcegonine</b>	88	6	98	11
<b>Buprenorphine</b>	93	7	102	15
<b>Codeine</b>	99	12	93	9
<b>Diazepam</b>	107	7	104	6
<b>Fentanyl</b>	85	5	94	8
<b>Hydrocodone</b>	104	11	93	11
<b>Hydromorphone</b>	95	9	93	11
<b>Lorazepam</b>	94	8	98	8
<b>Methamphetamine</b>	92	16	102	8
<b>Morphine</b>	98	12	94	12
<b>Norbuprenorphine</b>	101	11	92	11
<b>Nordiazepam</b>	100	9	92	8
<b>Norfentanyl</b>	113	7	110	11
<b>Oxycodone</b>	97	5	93	11
<b>PCP</b>	90	7	98	6

# Corticosteroids from Plasma

## Pre-treatment

Dilute 100 µL of spiked plasma (125 ng/mL) with 200 µL of water.

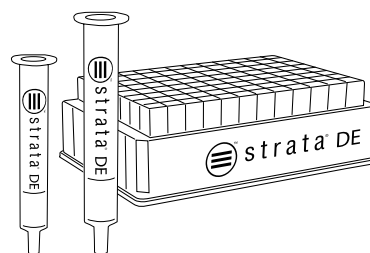
## SLE Protocol

<b>96-Well Plate:</b>	Strata™ DE 400 µL 96-Well Plate
<b>Part No.:</b>	<a href="#">8E-S325-5GB</a>
<b>Load:</b>	300 µL treated sample onto plate (apply vacuum or positive pressure to pull/push sample onto the sorbent) if necessary
<b>Wait:</b>	5 minutes
<b>Elute:</b>	3x 600 µL Dichloromethane (DCM) or 3x 600 µL Ethyl Acetate
<b>Apply:</b>	Vacuum or apply positive pressure at 5-10in Hg for 10 seconds
<b>Dry:</b>	Sample under slow stream of Nitrogen at 30 °C
<b>Reconstitute:</b>	200 µL Acetonitrile/Water (20:80)

## Achieve High Recoveries Across Multiple Elution Solvents

Elution Solvent:	Dichloromethane		Ethyl Acetate	
	%Recovery	% RSD (n=4)	%Recovery	% RSD (n=10)
<b>β-Methasone</b>	92	4	98	6
<b>Cortisone</b>	96	10	96	8
<b>Coritcosterone</b>	92	3	74	10
<b>Cortisone Acetate</b>	90	12	112	12
<b>Triamcinolone</b>	13	8	92	9
<b>Prednisone</b>	94	7	93	10
<b>Testosterone</b>	95	5		

\*Testosterone was not extracted using Ethyl Acetate



- Extraction of a wide range of corticosteroids
- Two extraction solvents for diverse options

## LC-MS/MS Conditions

**Column:** Kinetex™ 2.6 µm C18

**Dimensions:** 50 x 2.1mm

**Part No.:** [00B-4462-AN](#)

**Guard:** SecurityGuard™ ULTRA C18 Cartridge

**Guard Part No.:** [AJ0-8782](#)

**Mobile Phase:** A: 0.1 % Formic Acid in Water

B: 0.1 % Formic Acid in Acetonitrile

Gradient: Time (min)	B (%)
0	20
3	95
3.5	95
3.51	20
6	20

**Injection Volume:** 5 µL

**Flow Rate:** 0.5 mL/min

**Detection:** MS/MS (SCIEX® API 4000™), ESI+

# Nicotine and Metabolites

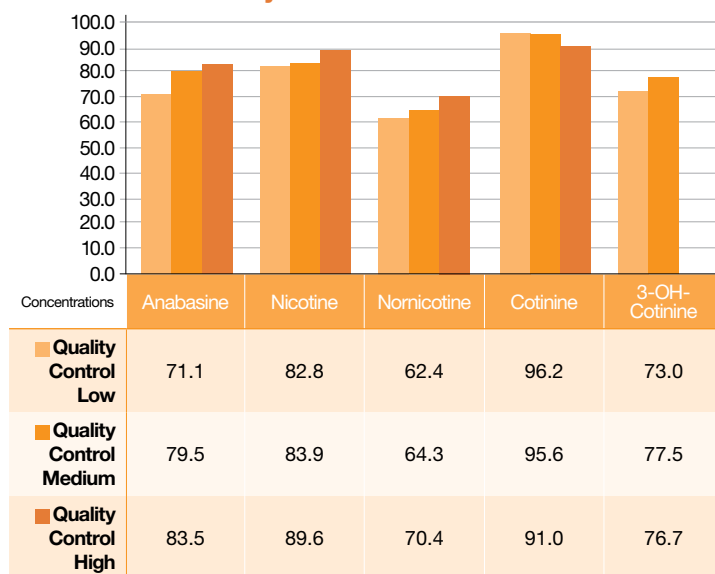
## Pre-treatment

To 100  $\mu$ L urine add 200  $\mu$ L of 2% Ammonium hydroxide in water and 50  $\mu$ L of mixed deuterated internal standards, mix.

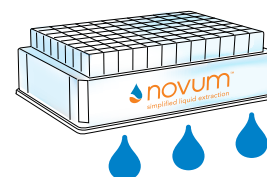
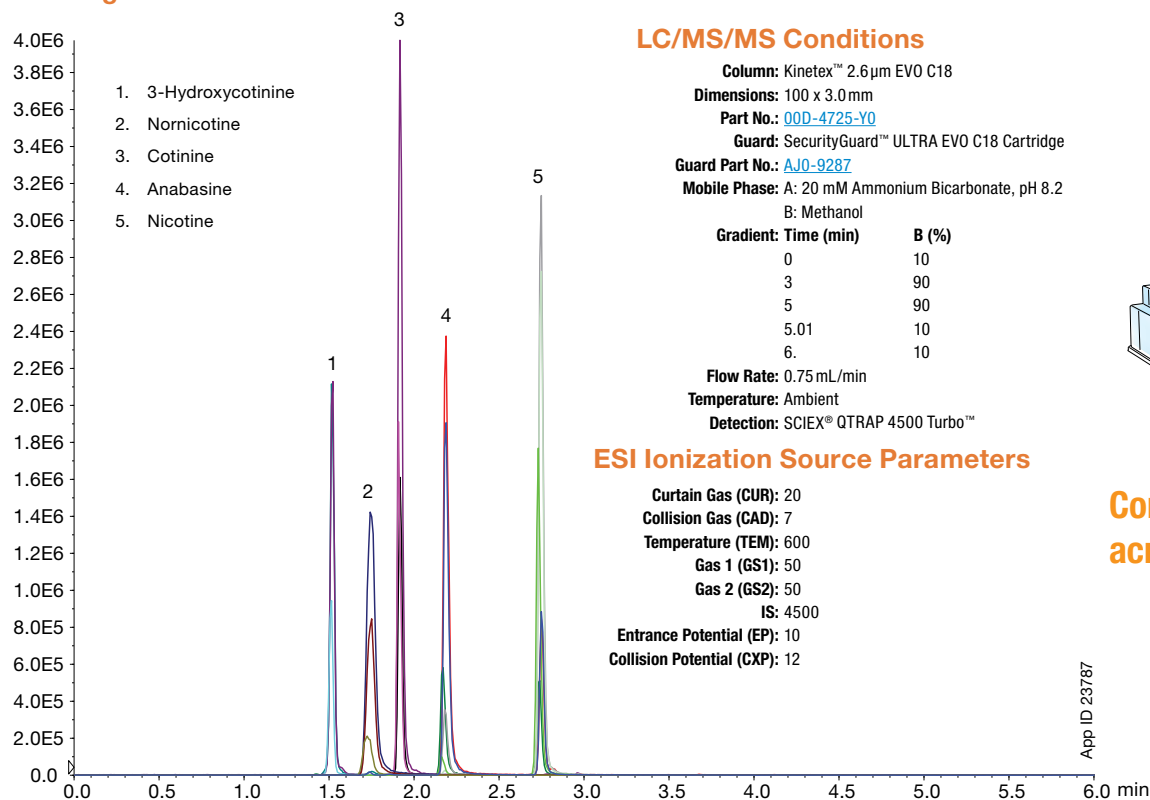
## SLE Protocol

<b>96-Well Plate:</b>	Novum™ SLE MAX
<b>Part No.:</b>	<a href="#">8E-S138-5GA</a>
<b>Load:</b>	Pre-treated sample and pulse vacuum (~5in Hg) for 5-10 seconds or until sample has completely entered the sorben
<b>Wait:</b>	5 minutes
<b>Elute:</b>	3x 600 $\mu$ L 1% Formic acid in DCM/IPA (95:5)
<b>Apply:</b>	Vacuum or apply positive pressure at 5in Hg for 15 seconds to complete elution
<b>Dry:</b>	Sample under slow stream of Nitrogen at 45 °C
<b>Reconstitute:</b>	In 300 $\mu$ L 20 mM Ammonium bicarbonate (pH 8.2)/Methanol (90:10), vortex

## Novum Recovery



## Representative Chromatograms of QCM at 200ng/mL in Human Urine



Consistent recovery across QC range

App ID 23787

# Low Level Hormones from Plasma



Sensitive methods require clean MS backgrounds with precise low-level quantitation. Novum PRO SLE makes this possible with LLOQs of 5-10 pg/mL for multiple estrogens and testosterone from plasma.

With some diatomaceous earth SLE sorbents, background interferences can make peaks undetectable but with Novum PRO, recoveries are high with low limits of detection on a sensitive MS.

## Pre-treatment

200  $\mu$ L spiked plasma and 200  $\mu$ L 50 mM Sodium phosphate buffer, pH unadjusted

## Novum PRO SLE Protocol

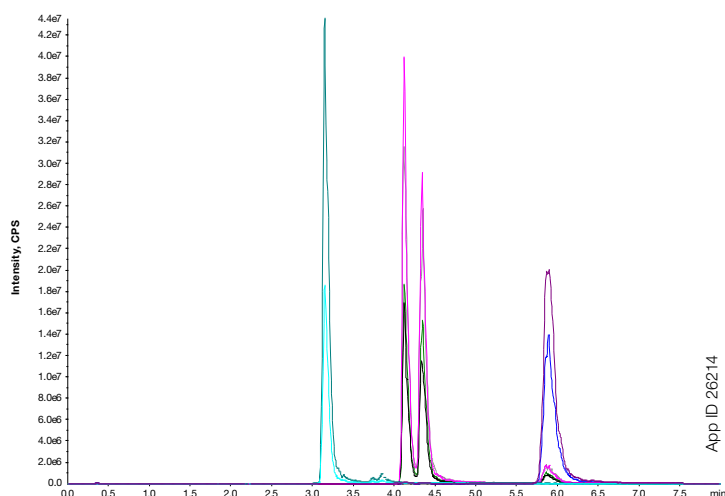
<b>96-Well Plate:</b>	Novum™ SLE MAX
<b>Part No.:</b>	<a href="#">8E-S539-5GA</a>
<b>Load:</b>	Pretreated sample onto Novum PRO MAX SLE
<b>Wait:</b>	5 minutes
<b>Elute:</b>	2x 900 $\mu$ L Hexane/Ethyl acetate (1:3)
<b>Apply:</b>	Vacuum or apply positive pressure at 5in Hg for 15 seconds to complete elution
<b>Dry:</b>	Down under Nitrogen
<b>Reconstitute:</b>	50 $\mu$ L Dansyl chloride/Sodium bicarbonate (1:1), incubate at 60 °C for 10 minutes

## Estrogen Panel Recovery on Novum PRO SLE

Analyte	%Recovery	%CV	LLOQ	Retention Time
Estrone (E1)	111	7	10 pg/mL	5.90
$\beta$ -Estradiol (E2)	92	7	10 pg/mL	4.35
Estril (E3)	99	1	5 pg/mL	3.15



## Representative Chromatogram of Estrogen Panel at 2 ng/mL



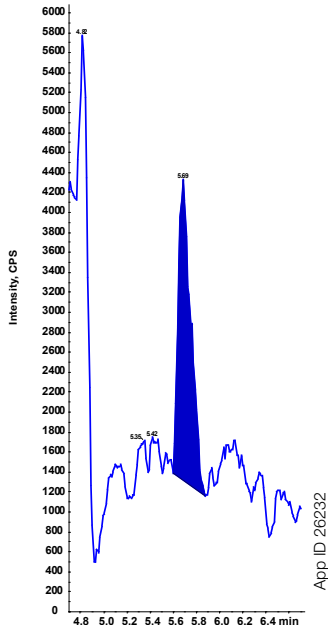
## Conditions for all Samples:

**Columns:** Kinetex™ 1.7  $\mu$ m Biphenyl  
**Dimensions:** 50 x 2.1 mm  
**Part No.:** [00B-4628-AN](#)  
**Mobile Phase:** A: 0.1% Formic Acid in Water  
 B: 0.1% Formic Acid in Methanol  
**Gradient:**

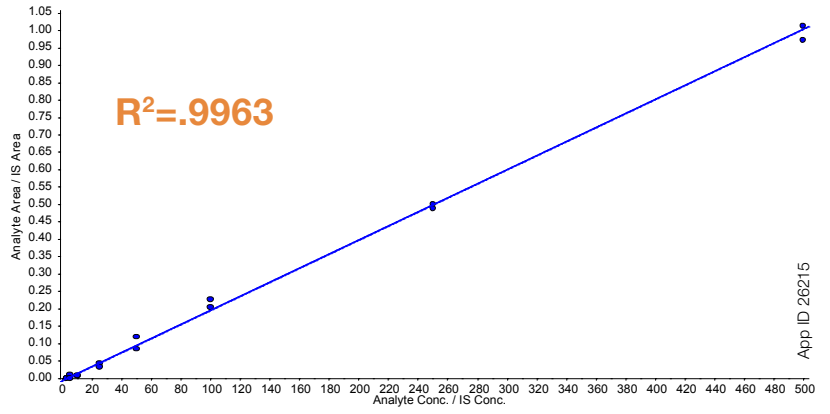
Time (min)	% B
0	80
1	80
2	90
3	95
6	95
6.1	80
8	80

**Flow Rate:** 0.4 mL/min  
**Temperature:** Ambient  
**Injection:** 10  $\mu$ L  
**Detection:** SCIEX® 6500 MS/MS

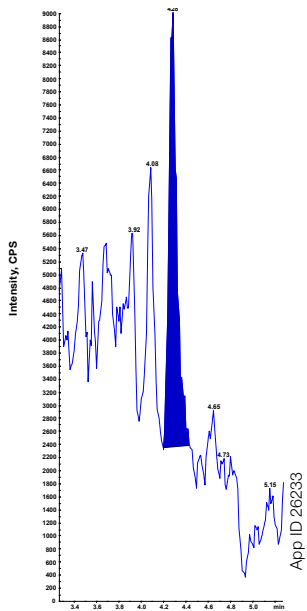
10 pg/mL (LLOQ) Estrone (E1)



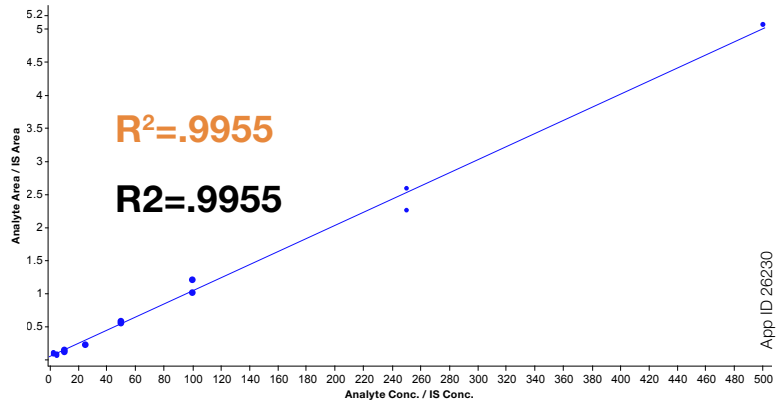
Calibration Curve of E1 from 5 to 500 pg/mL



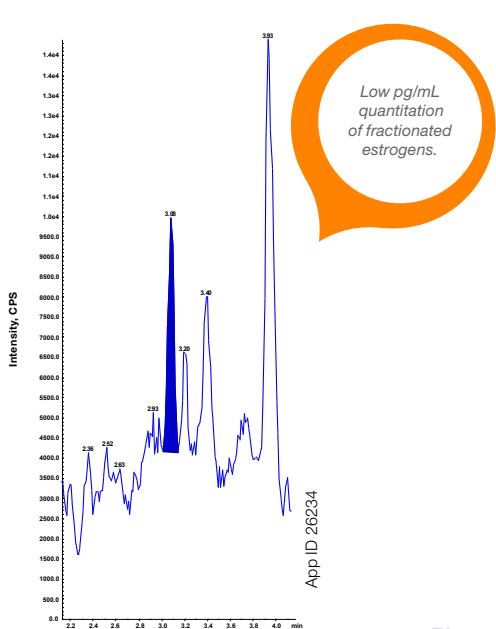
10 pg/mL (LLOQ)  $\beta$ -Estradiol (b-E2) R2=.9955



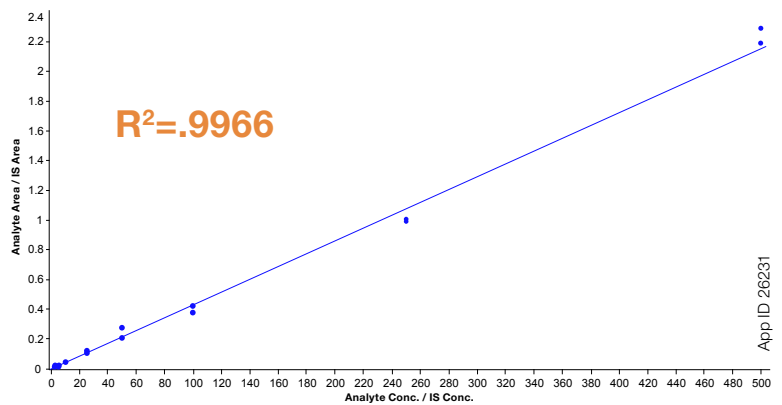
$\beta$ -E2 Calibration Curve from 2.5 to 500 pg/mL



5 pg/mL (LLOQ) Estriol (E3)

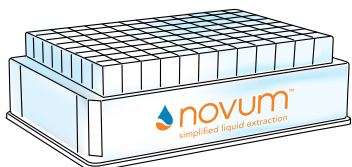


Calibration Curve of E3 from 2.5 to 500 pg/mL





# Testosterone Panel from Plasma



## Conditions for all Samples:

**Columns:** Kinetex™ 1.7 µm Biphenyl  
**Dimensions:** 50 x 2.1 mm  
**Part No.:** [00B-4628-AN](#)  
**Mobile Phase:** A: 0.1% Formic Acid in Water  
 B: 0.1% Formic Acid in Methanol  
**Gradient:**

Time (min)	% B
0	60
2	90
3	95
3.1	60
5	60

**Flow Rate:** 0.4 mL/min  
**Temperature:** Ambient  
**Injection:** 10 µL  
**Detection:** SCIEX® 6500+ QTRAP® MS/MS  
**Sample:** Testosterone

## Pre-treatment

200 µL spiked plasma and 200 µL 50 mM Sodium phosphate buffer, pH unadjusted.

## Novum PRO SLE Protocol

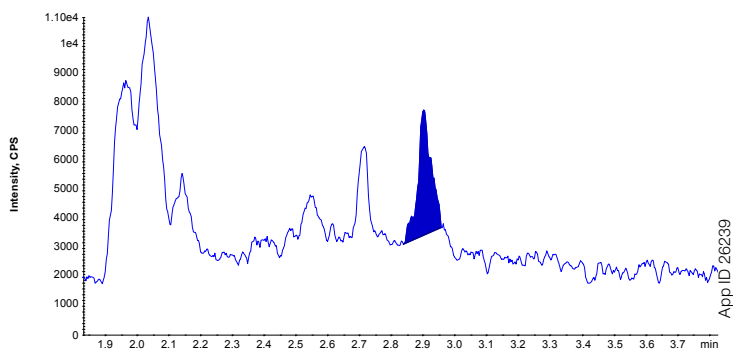
<b>96-Well Plate:</b>	Novum™ SLE MAX
<b>Part No.:</b>	<a href="#">8E-S539-5GA</a>
<b>Load:</b>	Pretreated sample onto Novum PRO MAX SLE
<b>Wait:</b>	5 minutes
<b>Elute:</b>	2x 900 µL Hexane/Ethyl Acetate (1:3)
<b>Apply:</b>	Vacuum or apply positive pressure at 5in Hg for 15 seconds to complete elution
<b>Dry:</b>	Down under Nitrogen
<b>Reconstitute:</b>	50 µL Water/Methanol (80:20)

## Signal-to-Noise Ratio at Diverse Concentrations

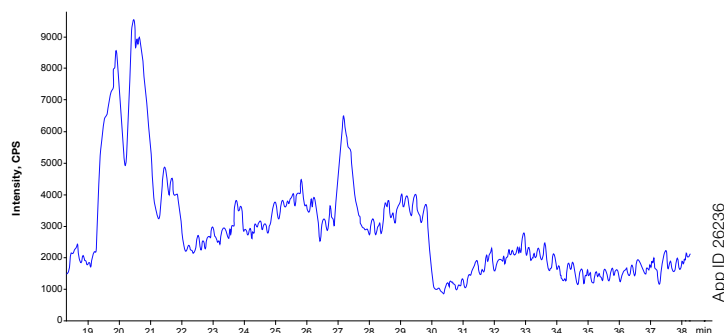
Conc.	S/N
10 pg/mL	9.42
25 pg/mL	25.93
50 pg/mL	33.17
100 pg/mL	77.59
250 pg/mL	202.07
500 pg/mL	138.62



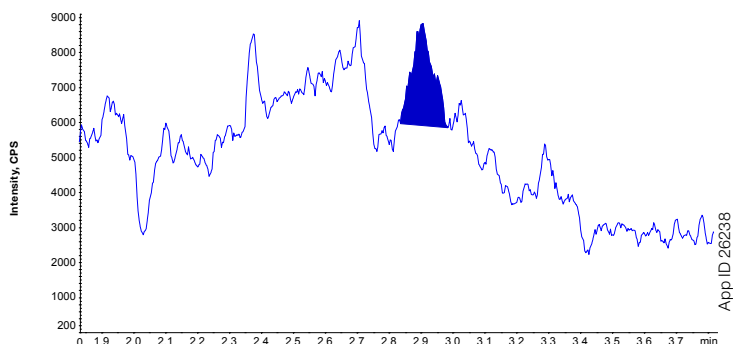
## 20 pg/mL of Testosterone



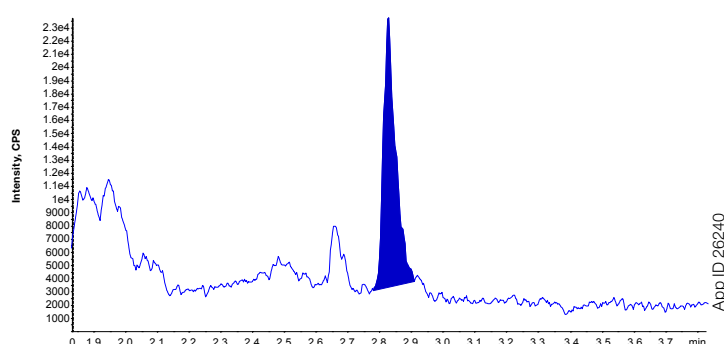
## Plasma Blank



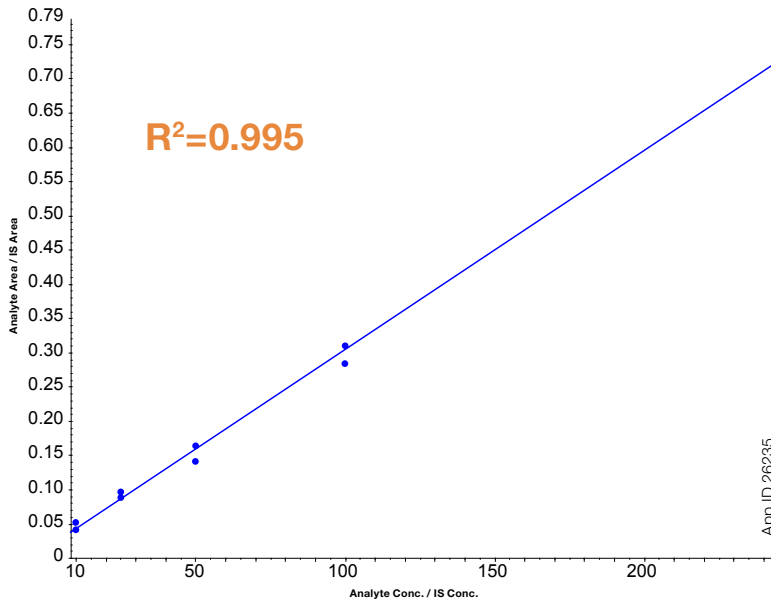
## 10 pg/mL (LLOQ) of Testosterone



## 80 pg/mL Testosterone

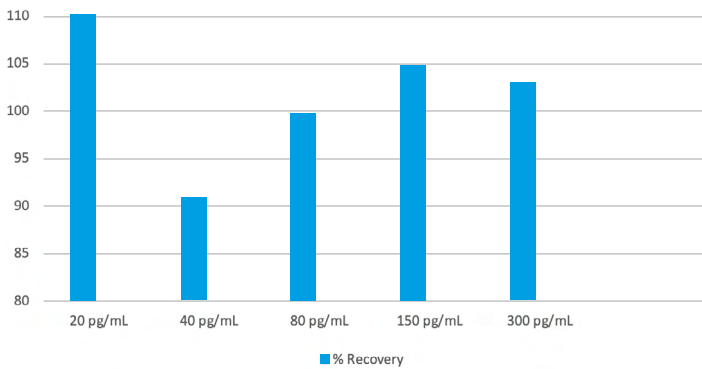


Calibration Curve for Testosterone from 10 to 300 pg/mL



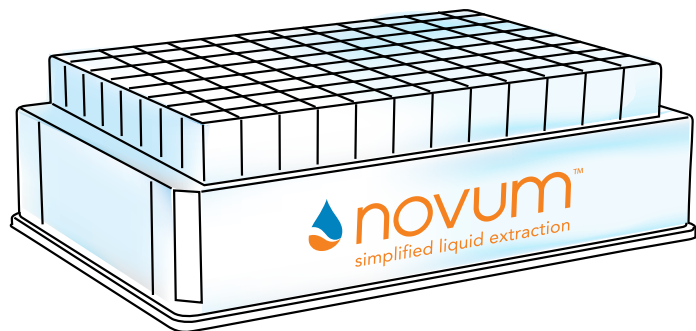
Good recoveries and low % CVs with clean-up using Novum PRO!

Testosterone Recovery and at from 20 to 300 pg/mL Co



Recovery Data

Testosterone	% Recovery	% CV
20 pg/mL	111	10
40 pg/mL	92	9
80 pg/mL	99	12
150 pg/mL	105	12
300 pg/mL	103	12



# THC-COOH and Barbiturates from Urine

## Pre-treatment

To 150  $\mu$ L urine add 25  $\mu$ L  $\beta$ -Glucuronidase with 73  $\mu$ L of 0.1M ammonium acetate buffer (pH 4.0). Combine with 200  $\mu$ L of 1% formic acid in water.

## SLE Protocol

<b>96-Well Plate:</b>	Novum <sup>TM</sup> SLE MAX
<b>Part No.:</b>	<a href="#">8E-S138-5GA</a>
<b>Load:</b>	Pretreated sample and pulse vacuum (~5in Hg) for 5-10 seconds or until sample has completely entered the sorbent
<b>Wait:</b>	5 minutes
<b>Elute:</b>	2 x 900 $\mu$ L Hexane/Ethyl Acetate (3:1)
<b>Apply:</b>	Vacuum or apply positive pressure at 5in Hg for 15 seconds to complete elution
<b>Dry:</b>	Sample under slow stream of Nitrogen at 30 $^{\circ}$ C
<b>Reconstitute:</b>	In 200 $\mu$ L of Methanol/Water (50:50) containing 1 % Ammonium hydroxide and 100 ng/mL of COOH-THC-D3 and 250 ng/mL of Pentobarbital-D5



- High and reproducible recoveries using 3:1 Hexane:Ethyl Acetate as extraction solvent
- Good sensitivity of THC-COOH

## Before and After Cleanup with Novum SLE

**BEFORE**  
Turbid  
and Dirty



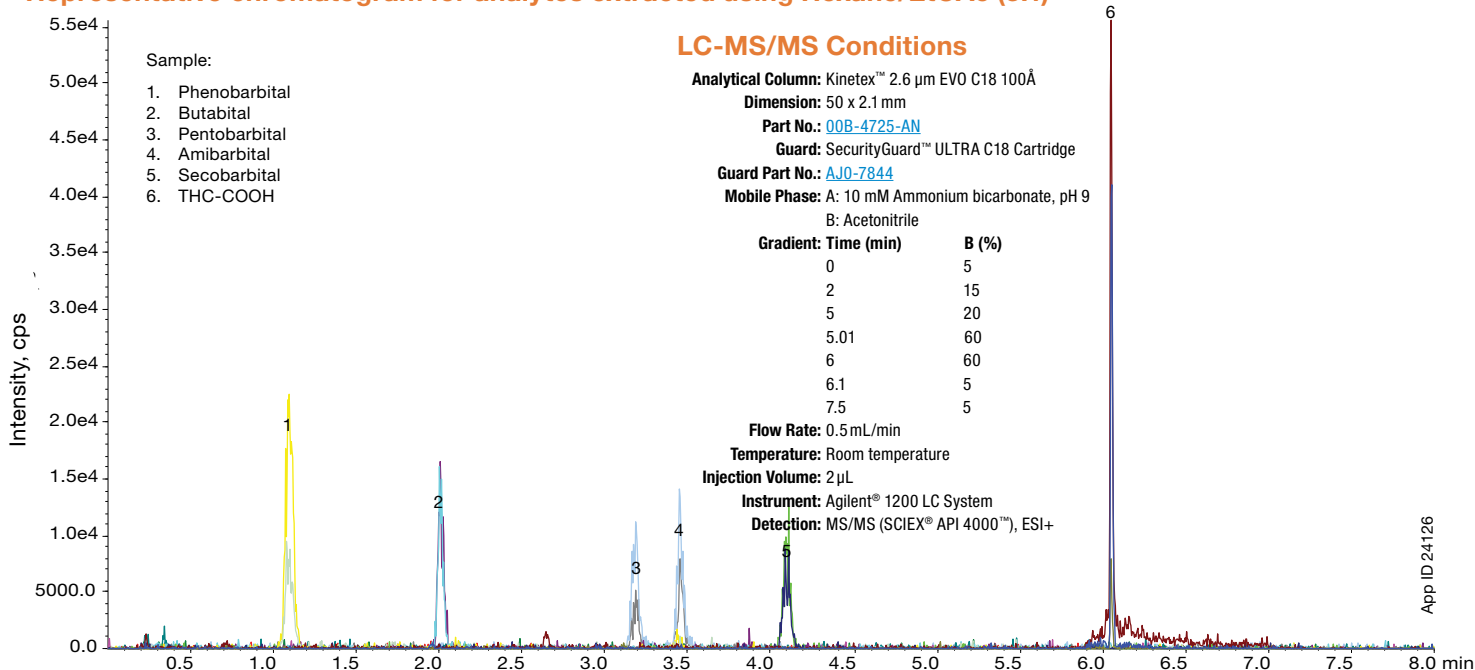
**AFTER**  
Concentrated  
and Clean



## Recovery of Barbiturates and THC-COOH for Hexane/EtOAc (3:1)

	Average Recovery	%CV (N=4)
<b>Amobarbital</b>	93 %	4
<b>Pentobarbital</b>	87 %	4
<b>Butabital</b>	93 %	7
<b>Phenobarbital</b>	85 %	8
<b>Secobarbital</b>	88 %	13
<b>THC-COOH</b>	81 %	12

## Representative chromatogram for analytes extracted using Hexane/EtOAc (3:1)



# Sorbents for Low Level Steroids from Urine



## Pre-treatment:

190 µL plasma with 10 µL spike standards solution and 200 µL of sodium phosphate buffer

## SLE Method

<b>96-Well Plate:</b>	Novum PRO MAX 96-Well Plate
<b>Part No.:</b>	<a href="#">8E-S539-5GA</a>
<b>Load:</b>	400 µL pre-treated plasma
<b>Elution:</b>	2x 900 µL Ethyl acetate

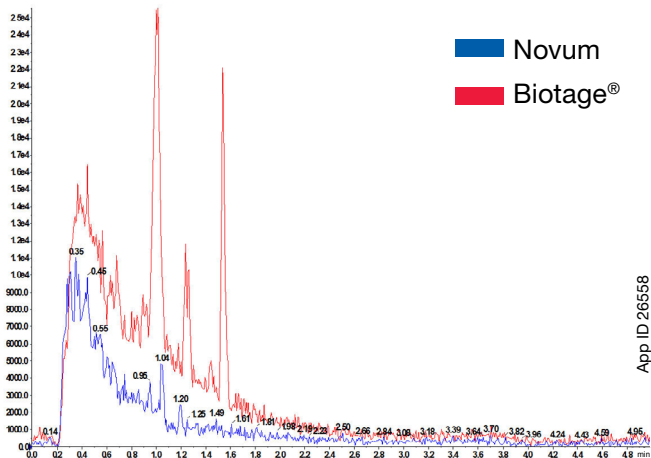
## LC Conditions

**Column:** Kinetex™ 5 µm Biphenyl  
**Dimensions:** 50 x 4.6 mm  
**Part No.:** [00B-4627-E0](#)  
**Mobile Phase:** A: Water  
 B: Methanol  
**Gradient:**

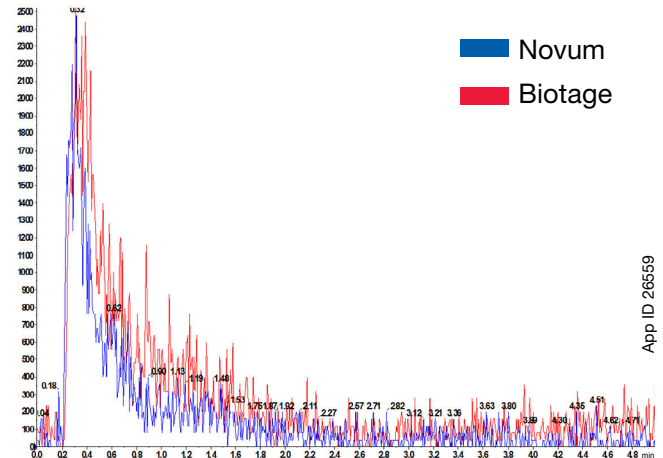
Time (min)	B (%)
0	80
1.5	95
3	95
3.1	80
5	80

**Flow Rate:** 1 mL/min  
**Temperature:** Ambient  
**Injection:** 1 µL  
**Detection:** 6500+ MS/MS (ESI+)  
**System:** Agilent® Technologies 1200 Series

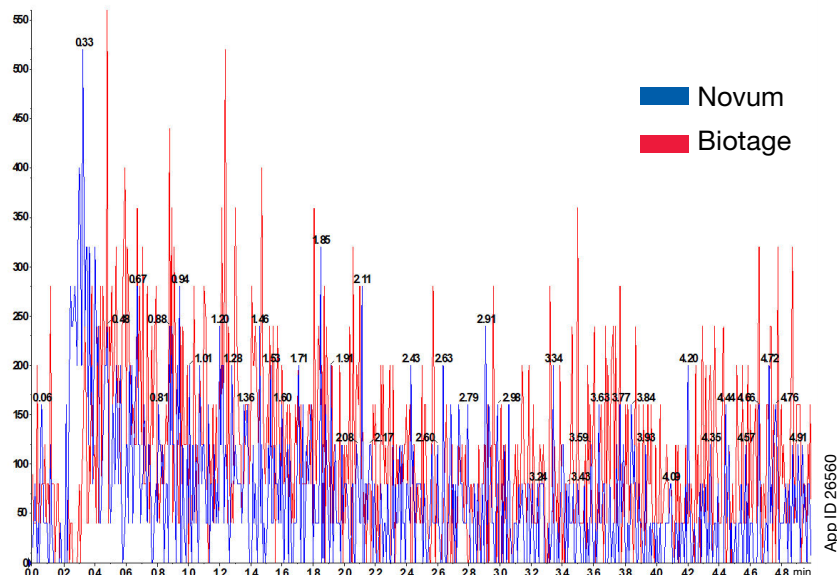
## Comparison of extraction for 11-deoxycorticosterone on two SLE Products



## Progesterone Extraction from Plasma using 25:75 Ethyl Acetate/Hexane Comparing SLE products



## Progesterone Extraction from Plasma using 90:10 DCM/Ethyl acetate Comparing SLE Products



# Ordering Information



## Synthetic SLE



### Novum SLE 96-Well Plates

#### Novum Simplified Liquid Extraction SLE Well Plates

Part No.	Description	Unit
<a href="#">8E-S138-FGA</a>	Novum SLE MINI 96-Well Plate	1/pk
<a href="#">8E-S138-5GA</a>	Novum SLE MAX 96-Well Plate	1/pk
<a href="#">8E-S539-FGA</a>	Novum PRO SLE MINI, 96-Well Plate	1/pk
<a href="#">8E-S539-5GA</a>	Novum PRO SLE MAX, 96-Well Plate	1/pk

### Novum SLE Tubes

#### Novum Simplified Liquid Extraction SLE Tubes

Part No.	Description	Unit
<a href="#">8B-S138-FAK</a>	Novum SLE 1 cc Tubes	100/pk
<a href="#">8B-S138-5BJ</a>	Novum SLE 3 cc Tubes	50/pk
<a href="#">8B-S138-JCH</a>	Novum SLE 6 cc Tubes	30/pk
<a href="#">8B-S138-KDG</a>	Novum SLE 12 cc Tubes	20/pk

## Diatomaceous Earth SLE



### Strata DE SLE Well Plates

#### Strata DE Diatomaceous Earth SLE Well Plates

Part No.	Description	Unit
<a href="#">8E-S325-FGB</a>	Strata DE SLE 200 µL 96-Well Plate	2/pk
<a href="#">8E-S325-5GB</a>	Strata DE SLE 400 µL 96-Well Plate	2/pk

### Strata DE SLE Tubes

#### Strata DE Diatomaceous Earth SLE Tubes

Part No.	Description	Unit
<a href="#">8B-S325-KDG</a>	Strata DE SLE 12 cc Tubes	20/pk
<a href="#">8B-S325-VFF</a>	Strata DE SLE 60 cc Tubes	16/pk

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presston™ 1000

### Presston 1000 Positive Pressure Manifold

#### Presston 1000 Positive Pressure Manifold

Part No.	Description	Unit
<a href="#">AH1-7033</a>	SPE Positive Pressure Manifold, 96-Well Plate, Complete Assembly	ea



### Ensure Reliability

Phenomenex warrants the Presston 1000 Positive Pressure Manifold against defects in materials and workmanship under normal installation, use, and maintenance for a period of 12 months following delivery. Please visit

[www.phenomenex.com/presstonwarranty](http://www.phenomenex.com/presstonwarranty) for complete warranty information.



### Vacuum Manifolds

#### Vacuum Manifolds

Part No.	Description	Unit
<a href="#">VM12</a>	12-Position Tube Vacuum Manifold Set	ea
<a href="#">VM24</a>	24-Position Tube Vacuum Manifold Set	ea
<a href="#">AH0-8950</a>	96-Well Plate Manifold, Universal with Vacuum Gauge	ea



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