# **HPLC Application**

ID No.: 19724



### Barbiturates in urine using Strata-X-Drug N and Kinetex C18 2.6µm 100x2.1mm

Kinetex® 2.6 µm C18 100 Å, LC Column 100 x 2.1 mm, Ea

**Dimensions:** 100 x 2.1 mm ID Order No: 00D-4462-AN **Elution Type:** Gradient

Eluent A: 5mM Ammonium acetate

**Eluent B:** Acetonitrile

Gradient	Step No.	Time (min)	Pct A	Pct B
Profile:	2	0	90	10
	3	10	55	45
	4	10.01	10	90
	5	12	10	90
	6	12.01	90	10
	7	16	90	10

Kinetex<sup>®</sup>

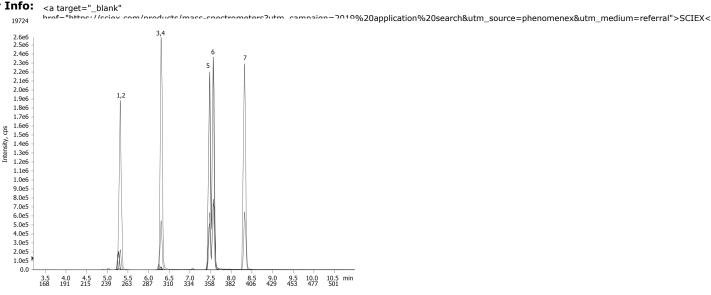
Products used in this application:



Flow Rate: 400 µL/min ambient Col. Temp.:

**Detection:** Mass Spectrometer (MS) @ amu (ambient)

**Detector Info:** 



### **ANALYTES:**

Phenobarbital-d5

Retention Time: 7.25 min

Phenobarbital

Retention Time: 7.25 min

Butalbital-d5

Retention Time: 9.25 min

Butalbital

Retention Time: 9.25 min

Pentobarbital

Retention Time: 11.75 min

Amobarbital

Retention Time: 12 min

Secobarbital

Retention Time: 13.65 min

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# **Sample Preparation Details**

for HPLC Application ID No.:19724



# Barbiturates in urine using Strata-X-Drug N and Kinetex C18 2.6µm 100x2.1mm

### **PRODUCT DESCRIPTION:**

Strata™-X-Drug N 100 µm Polymeric Reversed Phase, 100 mg / 6 mL, Tubes , 30/Pk

Order No.: 8B-S129-ECH

### **SOLID PHASE EXTRACTION (SPE) PRODCEDURE:**

**Note:** The solvent volumes shown below are for a 100 mg bed mass.

The solvent volumes will need to be adjusted for a smaller or larger bed mass.

Condition:	
Load:	-
Wash:	
Dry:	
10 min under full vacuum	
Elute:	
Final Prep and Analysis:  Evaporate eluant to dryness under stream of N2 (50°C). Reconstitute samples with	1ml_of 10%
acetonitrile	22 3. 2070

Inject: 0 µL on HPLC Mass Spectrometer (MS) @ amu (ambient)

ANAL	YTES:	Spiked Conc. (ng/mL)	Log P	pKa	% Rec	%RSC (n=0)
1	Phenobarbital-d5	300			100	
2	Phenobarbital	300			99.64	
3	Butalbital-d5	300			100	
4	Butalbital	300			95.71	
5	Pentobarbital	300			96.81	
6	Amobarbital	300			96.38	
7	Secobarbital	300			95.56	

This method is designed as a convenient starting point for further investigation and can be tailored to meet your extraction goals. Call your local Phenomenex Representative for assistance in method development and optimization techniques.

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