



# Sample Preparation Products

## Application Note: H-CX704

### Extraction of Drugs of Abuse from Urine

#### Introduction

This Application Note describes a sample preparation method for Drugs of Abuse from Urine. This method uses TELOS™ H-CX 130mg/3ml SPE Columns.

#### Sample Considerations

##### Analytes

Morphine, Ephedrine, Codeine, Amphetamine, MDA, MDMA, Benzoyllecgonine, MDEA, Atropine.

##### Matrix

Urine.

#### Sample Preparation

##### Columns

TELOS H-CX 130mg/3ml SPE Columns, part number 500-130M-003T.

##### Sample Pre-Treatment

Pre-treat urine (1003l) with citrate buffer pH 3.0 (3ml).

##### Column Conditioning

Condition the column with 3% v/v ammonia in acetonitrile (1ml) at a suitable flow rate (5-10ml/min).

##### Column Equilibration

Equilibrate the column with citrate buffer pH 3.0 (1ml) at a suitable flow rate (5-10ml/min).

##### Sample Application

Apply the sample at a flow rate of 1-2ml/min.

##### Interference Elution

Rinse the column with water (3ml).

##### Analyte Elution

Elute acidic and neutral analytes with acetonitrile (3ml) at a suitable flow rate of 1-5ml/min), including a 1 minute soak step after each aliquot.

In a separate vial, elute basic analytes with 3% v/v ammonia in acetonitrile (3ml) at a suitable flow rate of 1-5ml/min), including a 1 minute soak step after each aliquot.

##### Evaporation and Reconstitution

Evaporate in a water bath (40°C) to 1003l and inject into system.



## Extraction of Drugs of Abuse from Urine

### Final Analysis

HPLC-DAD.

### Reagents

1. 3% (v/v) ammonia in acetonitrile
2. Citrate buffer pH 3.0
3. Acetonitrile

### Additional Comments

Recoveries >90% can be expected using this method.

#### UNITED KINGDOM

Kinesis Ltd

Tel: +44 (0)1480 212122

Fax: +44 (0)1480 212111

E-mail: [sales@kinesis.co.uk](mailto:sales@kinesis.co.uk)

Web: [kinesis.co.uk](http://kinesis.co.uk)

#### GERMANY, SWITZERLAND & AUSTRIA

Kinesis GmbH (formerly Abimed)

Tel: +49 (0)2173 89 05-0

Fax: +49 (0)2173 89 05-77

Email: [sales@kinesisgmbh.de](mailto:sales@kinesisgmbh.de)

Web: [kinesisgmbh.de](http://kinesisgmbh.de)

#### USA & CANADA

Kinesis Inc

Tel (toll free): (866) 934-6353

Tel: (518) 289-5817

Fax: (518) 289-5818

Email: [sales@kinesis-usa.com](mailto:sales@kinesis-usa.com)

Web: [kinesis-usa.com](http://kinesis-usa.com)

#### AUSTRALIA & NEW ZEALAND

Kinesis Australia Pty Ltd

Tel: +61 (0)7 3829 3996

Fax: +61 (0)7 3829 3997

Email: [sales@kinesis-australia.com.au](mailto:sales@kinesis-australia.com.au)

Web: [kinesis-australia.com.au](http://kinesis-australia.com.au)

