



Sample Preparation Products

Application Note: H-CX703

Extraction of Drugs of Abuse from Equine Urine

Introduction

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

Sample Considerations

Analytes

Clenbuterol, Timolol, Salbutamol, Lidocaine, Propranolol, Morphine, Procaine, Benzoylcegonine, Trimethoprim, etc.

Matrix

Equine urine.

Sample Preparation

Columns

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

Sample Pre-Treatment

Pre-treat urine as required with beta-glucuronidase and protease. Check the pH and adjust to pH 6.0 if necessary.

Column Conditioning

Condition the column with methanol (2 x 3ml) at a suitable flow rate (5-10ml/min).

Column Equilibration

Equilibrate the column with water (2 x 3ml) at a suitable flow rate (5-10ml/min), followed by 0.1M phosphate buffer pH 6.0 (2 x 3ml) at the same flow rate.

Sample Application

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

Interference Elution

Rinse the column with acetic acid (8ml). Dry the column prior to elution for 3 minutes.

Analyte Elution

Elute analytes with 80:18:2 v/v/v dichloromethane/isopropanol/ammonium hydroxide (2 x 3ml) at a flow rate of 1-2ml/min, including a 1 minute soak step after each aliquot.

Evaporation and Reconstitution

Evaporate under nitrogen.



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Final Analysis

GC-MS with derivatisation.

Reagents

1. Water
2. Methanol
3. 0.1M phosphate buffer pH 6.0
4. Glacial acetic acid
5. Dichloromethane
6. Isopropanol
7. Ammonium hydroxide

UNITED KINGDOM

Kinesis Ltd

Tel: +44 (0)1480 212122
Fax: +44 (0)1480 212111
E-mail: sales@kinesis.co.uk
Web: 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
Web: 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
Web: 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
Web: kinesis-australia.com.au

