



SPE Application Note for Beta Blockers from Biological Fluids

This method describes the extraction of various beta-blockers from biological fluids using a non-polar retention mechanism.

EXTRACTION PROCEDURE

ISOLUTE® SPE Column: C2 100 mg/3 mL Part # 320-0010-B

Pre-treatment: Add 1 mL of 20 mM potassium phosphate buffer, pH=5 to 1 mL of sample.

Solvation: Rinse column with 1 mL of acetonitrile at 2 to 4 mL/min.

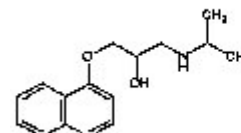
Equilibration: Rinse column with 2 mL of 20 mM potassium phosphate buffer, pH=5 at 4 to 6 mL/min.

Sample application: Load sample at 1 to 2 mL/min.

Interference elution: Rinse column with 1 mL of 20 mM potassium phosphate buffer, pH=5 at 2 to 4 mL/min. Dry column for 3 minutes with 20 psig nitrogen or -20 psig vacuum.

Analyte elution: Elute analyte with 1/2 mL of acetonitrile/20 mM phosphate buffer, pH=3 (3:1) at 1/2 mL/min.

Structure These compounds have significant hydrophobic character and an amine function. Propranolol is shown here.



Structural considerations Due to the hydrophobic nature of these compounds, extraction may be performed using a non-polar mechanism.

Matrix considerations The analyte is being extracted from an aqueous matrix of high ionic strength.

Analytical method HPLC

Reagents

1. Acetonitrile
2. Potassium phosphate buffer, 20 mM, pH=5
3. Acetonitrile / potassium phosphate buffer, 20 mM, pH=3

General comments

IST 1064 A

Last Revised: 18-Apr-06

Page 1 of 2



ISOLUTE column part numbers represent the product configuration of choice for use with a vacuum sample processing station. For 96-well and alternative column configurations compatible with any SPE automation system, please contact Biotage.

© 2006 Argonaut Technologies, now Biotage company. All rights reserved. ISOLUTE is a registered trademark of Argonaut Technologies, now a Biotage company.

United States and Canada

T: + 1 434 9792319
Toll-Free: +1 800 446 4752
ordermailbox@biotage.com

Sweden

Biotage
T: + 46 18 56 59 00
order@eu.biotage.com

United Kingdom, EIRE

Biotage
T: + 44 1443 811811
eurosales@eu.biotage.com

Japan

Biotage
T: + 81 422 281233
order@biotage.co.jp

