

# Waters column

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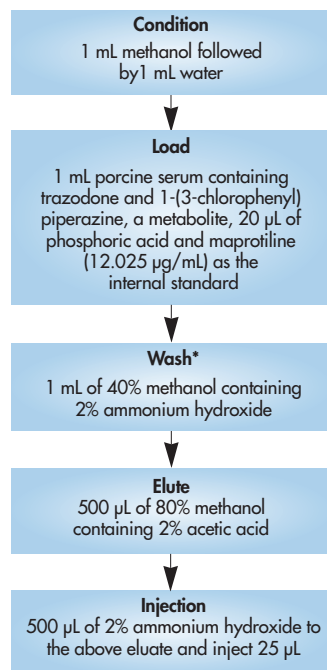
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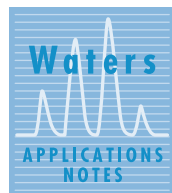
# Trazodone

## Solid-Phase Extraction Procedure Using Orthogonal Method

Oasis™ HLB 96-well extraction plate or  
1 cc Oasis™ HLB extraction cartridge

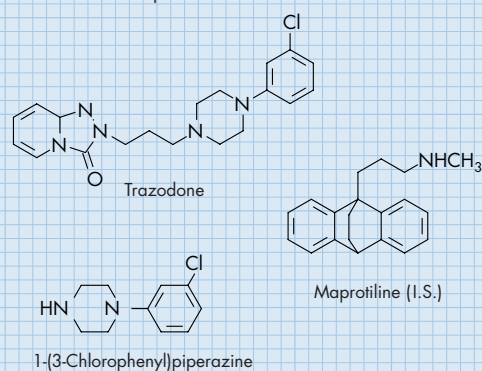


\* add wash with 5% methanol,  
2% acetic acid before eluting



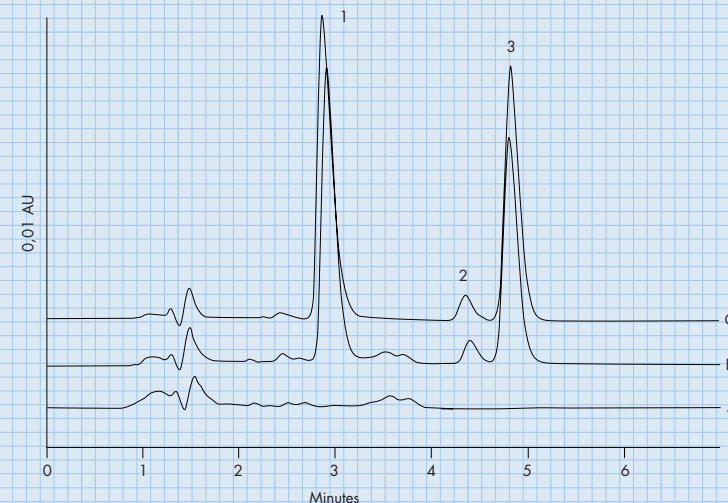
## Chromatogram of Serum Extracts: A) Blank B) Spiked Sample C) Standard

Column: SymmetryShield™ RP<sub>8</sub> 3.9 x 150 mm  
with Sentry™ guard column, 3.9 x 20 mm  
Column temperature: 30 °C  
Mobile phase: 50 mM potassium phosphate  
pH 7.05/methanol 36:64  
Flow rate: 1 mL/min  
Detection: 250 nm  
Injection: 25 µL



Peaks:

- 1-(3-chlorophenyl)piperazine
- Maprotiline (I.S.)
- Trazodone



### System:

A Waters 717plus Autosampler and a Waters 616 LC System. Detection was UV using a Waters 996 Photodiode Array Detector. Data acquisition was performed using a Waters Millennium® 2010 Chromatography Manager. A 20-position vacuum manifold or an extraction plate manifold with a vacuum pump was used to perform solid-phase extraction.

### SPE Spiked Serum Results

Drug	Concentration µg/mL	96-Well Extraction Plate		1cc Cartridges	
		%Recovery	%RSD(n=40)	%Recovery	%RSD(n=3)
Trazodone	7.2	87.8	4.2	96.8	1.8
	1.44	94.1	4.9	97.1	1.3
1-(3-Chlorophenyl)piperazine	7.8	101.7	4.9	97.9	2.3
	1.56	97.8	5.6	101.2	1.3

### **Waters 717plus Autosampler**

The Waters 717plus Autosampler combines reliability, versatility and low cost of ownership into a fully automated, all-electric, easy-to-use instrument that will meet and exceed your requirements. The 717plus Autosampler incorporates a highly reliable and extremely precise fluid path design that is versatile enough to use for all your methods and applications. Advanced automation capabilities make it easy to develop methods using automated derivatisation techniques or to automatically add reference standards or diluents. The optional Heating/Cooling module allows you to work with a wide range of samples, from heat labile biological samples to viscous polymer samples, with exceptional precision and reliability.

### **Waters 616 LC System**

Waters has incorporated the latest technological advances into the new Waters 616 LC system. The 616 is the culmination of leading innovative technology—fluidic, electronic, and software—designed to deliver superior performance in a premier pumping system. The 616 offers pulse-free flow, low delay volume, efficient gradient mixing, precision, accuracy, and reliability.

### **Waters 996 Photodiode Array Detector**

#### ***Complete Spectral Data-Complete Confidence in Peak Purity and Identity.***

With Waters 996 Photodiode Array Detector, you can be confident that if there is an impurity in your sample, you will find it; that your compound is really what you report it to be and not something else. Every spectral detail of your sample is rapidly, easily, and accurately detected. Every peak is analysed with mathematical precision so you can be sure to assess the purity of peaks and confirm their identity. And you will never have to trade off resolution against sensitivity.

- The 996 PDA Detector lets you look at your results in a variety of ways – even while a separation is under way.
- Absorbance measurement over the entire 190-800 nm wavelength range.
- The MaxPlot feature of the Millennium® PDA Software automatically detects UV/Vis absorbing compounds anywhere within the 190-800 nm range. It measures their absorbance maxima, and plots a peak for each compound at its absorbance maximum, creating a composite chromatogram of all of the compounds it has detected.

### **Millennium® 2010 Chromatography Manager**

#### ***Advanced computer technology simplifies accessing, interpreting, and reporting your results.***

The productivity of today's chromatography is centered around the ability to find, generate, summarise, and report results in a way that meets your needs and complies with any regulatory requirements. The Millennium® relational database lets you create your own view filters to customise the way you sort your information, such as "lotCode".

- Using the database, you can track a method history giving you audit trail capability that ensures total security of your raw data and results. In addition, you can specify "Access Type" which allows you to "lock" your methods for even greater security.
- The database keeps track of your instruments, triggering an alarm when scheduled maintenance is required. The Millennium® relational database lets you view the injection information on any calibration point at any particular point in time on a processing sequence. This gives you a detailed account of the processing method for that injection, ensuring an accurate audit trail for regulatory compliance.
- The Millennium® Chromatography Manager can provide acquisition and control for as many as four chromatographic systems, including three HP5890 GC systems.
- The Millennium® Report Publisher has the capability to give you exactly what you want.



The quality management system of Waters manufacturing facility, Milford, Massachusetts, complies with the International Standard ISO 9001 Quality Management and Quality Assurance Standards. Waters quality management system is periodically audited by the registering body to ensure compliance.