

## Automated Extraction of Tricyclic Antidepressants by Perkin Elmer Multiprobe II

**Column:** Kinetex® 2.6 µm C18 100 Å, LC Column 50 x 2.1 mm, Ea

**Dimensions:** 50 x 2.1 mm ID

**Order No:** 00B-4462-AN

**Elution Type:** Gradient

**Eluent A:** 0.1% formic acid/water

**Eluent B:** 0.1% Formic acid/methanol

Gradient Profile:	Step No.	Time (min)	Pct A	Pct B
	1	0	60	40
	2	3.5	20	80
	3	4	20	80
	4	4.01	60	40
	5	5	60	40

**Flow Rate:** 0.4 mL/min

**Col. Temp.:** ambient

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

**Detector Info:** <a target="\_blank"

**Analyst Note:** href="https://sciex.com/products/mass-spectrometers?utm\_campaign=2019%20application%20search&utm\_source=phenomenex&utm\_medium=referral">SCIEX< MS/MS Parameters

Compound	Q1	Q3	Dwell time	DP	EP	CE	CXP
Protrip	264.2	191.1	35	60	10	35	10
Notrip	264.3	191.2	35	60	10	35	10
DM-Dox	266.2	107.1	25	60	10	35	10
Desip	267.2	208.2	35	60	10	35	10
Protrip-D3	267.2	191.1	35	60	10	35	10
Notrip-D3	267.3	191.2	35	60	10	35	10
Desip-D3	270.2	208.2	35	60	10	35	10
Amitrip	278.2	191.2	35	60	10	35	10
Dox	280.3	107.1	25	60	10	35	10
Imip	281.3	208.2	35	60	10	35	10
Imip-D3	284.2	208.1	35	60	10	35	10
DM-Clomip	301.2	242.2	35	60	10	35	10
Clomip	315.2	242.2	35	60	10	35	10
Clomip-D3	318.2	242.2	35	60	10	35	10

### Ionization Parameters

#### ESI in positive polarity

Gas 1	50
Gas 2	50
CAD	8
Cur	20
IS	5500
Temp	600

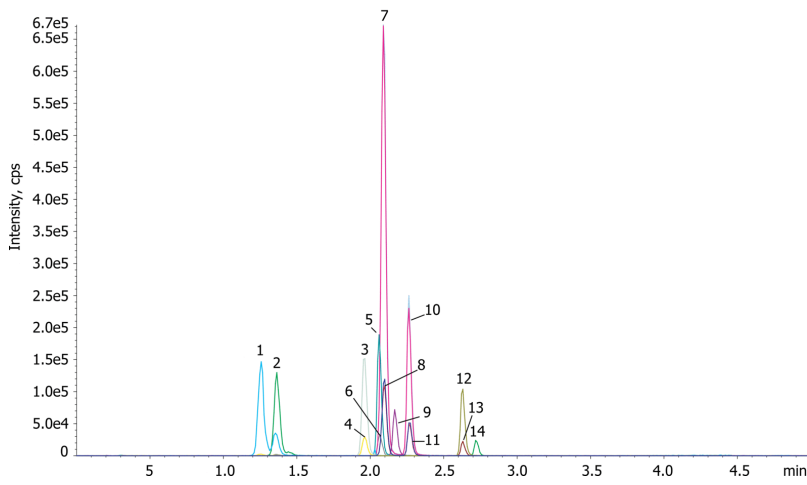


Products used in this application:



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20937



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### ANALYTES:

- 1 Doxepin
- 2 DM-Doxepin
- 3 Imipramine-d3
- 4 Imipramine
- 5 Desipramine-d3
- 6 Desipramine
- 7 Nortriptyline-d3
- 8 Nortriptyline
- 9 Amitriptyline
- 10 Protriptyline-d3
- 11 Protriptyline
- 12 Clomipramine-d3
- 13 Clomipramine
- 14 DM-Clomipramine



# Sample Preparation Details

for HPLC Application ID No.: 20937

## Automated Extraction of Tricyclic Antidepressants by Perkin Elmer Multiprobe II

### PRODUCT DESCRIPTION:

Strata™-X-Drug B 33 µm Polymeric Strong Cation, 30 mg / well, 96-Well Plates , 2/Pk

Order No.: 8E-S128-TGB

### SOLID PHASE EXTRACTION (SPE) PROCEDURE:

**Note:** The solvent volumes shown below are for a 30 mg bed mass.

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

#### Condition:

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#### Load:

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500 µL Plasma (Human) diluted with 1 mL 100mM sodium acetate buffer (pH5.0) spiked with TCAs (25ng/m)

#### Wash:

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#### Dry:

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8-10 mins at 10" of Hg under N2 at 45 degC

#### Elute:

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### Final Prep and Analysis:

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To do % absolute recovery, the IS was spiked in the initial mobile phase in the reconstitution step

Inject: 10 µL on HPLC Mass Spectrometer (MS) @ amu (ambient)

ANALYTES:	Spiked Conc. (ng/mL)	Log P	pKa	% Rec	%RSC (n=0)
1 Doxepin	25			93	
2 DM-Doxepin	25			96	
3 Imipramine-d3	200				
4 Imipramine	25			90	
5 Desipramine-d3	200				
6 Desipramine	25			85	
7 Nortriptyline-d3	200				
8 Nortriptyline	25			75	
9 Amitriptyline	25			82	
10 Protriptyline-d3	200				
11 Protriptyline	25			94	
12 Clomipramine-d3	200				
13 Clomipramine	25			92	
14 DM-Clomipramine	20			89	

**Note:** 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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For more information contact your Phenomenex Representative at support@phenomenex.com



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