



**GABAPENTIN IN WHOLE BLOOD, SERUM /PLASMA
LC MSMS CONFIRMATIONS USING:
200 mg CSDAU EXTRACTION COLUMN**

1. PREPARE SAMPLE:

To 0.2-0.5 mL of sample add 1 mL of acetone (dropwise) whilst vortexing

Add internal standard*

Vortex mix and centrifuge as appropriate

Transfer organic phase to clean tube

Evaporate to dryness

Add 3 mL of 100 mM HCl

Vortex mix and centrifuge as appropriate

2. CONDITION COLUMN:

1 x 3 mL CH₃OH

1 x 3 mL D.I. H₂O

1 x 1 mL 100 mM HCl

Note: aspirate at < 3 inches Hg to prevent sorbent drying out.

3. APPLY SAMPLE:

Load sample at 1-2 mL / minute.

4. WASH COLUMN:

1 x 3 mL D.I. H₂O

1 x 3 mL ethyl acetate

1 x 3 mL hexane

Dry column (10 minutes at > 10 inches Hg).

5. ELUTE GABAPENTIN

1 x 3 mL CH₃OH containing 2% NH₄OH

Collect eluate at 1-2 mL /minute.

6. EVAPORATION:

Evaporate eluates under a gentle stream of nitrogen < 40°.
Dissolve residue in 100 µL CH₃OH.

INSTRUMENT CONDITIONS:

Column: 50 x 2.1 mm (3 µm) Selectra[®] Phenyl (UCT, LLC)

Mobile phase:	Time	Acetonitrile	0.1% Formic Acid
	0	10	90
	5	90	10
	5.5	10	90
	10	10	90

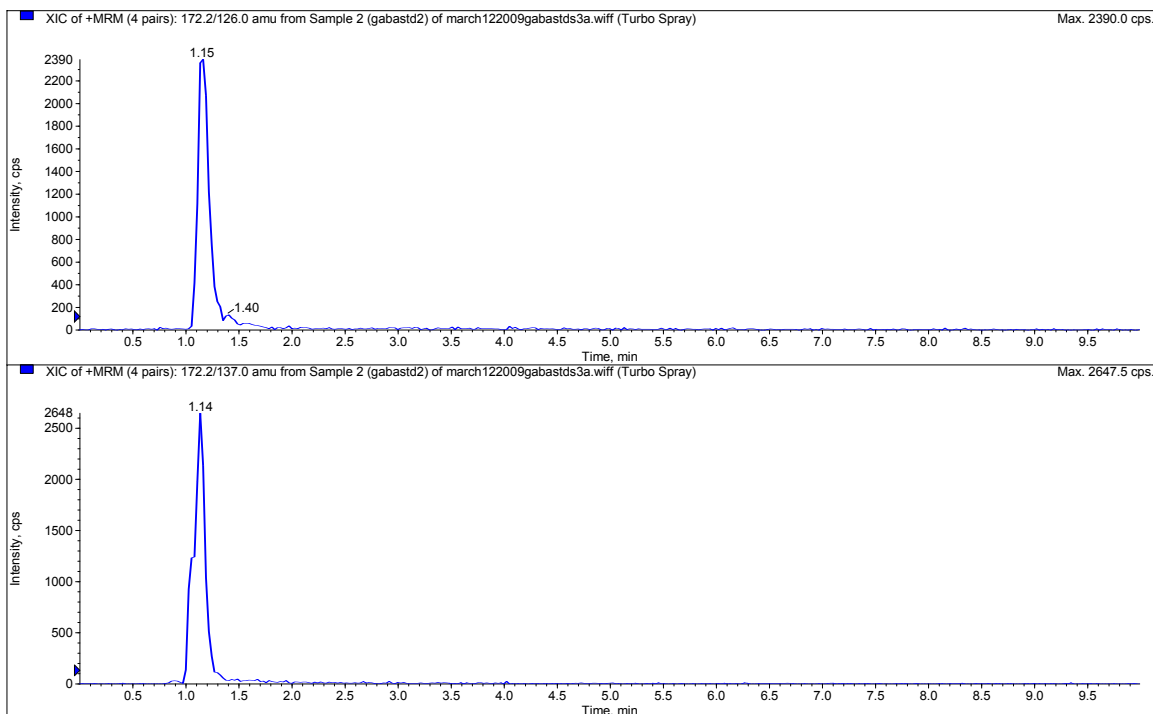
Flowrate: 0.2 mL/ minute

Injection Volume: 5 µL

Column Temperature: ambient

Detector: API 2000 MS/MS.

Chromatogram of Gabapentin (top) and Aminocyclohexanepropionic acid (lower)



Compound	MRM Transition
Gabapentin	172.2/ 137
*Gabapentin-D10	182.2/147
* Aminocyclohexane- propionic acid	172.2/ 126

Recovery (approx 70%)

LOD= 50 ng/ mL

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