



**PHENCYCLIDINE IN BLOOD, PLASMA/SERUM, URINE, TISSUE BY
LC-MS/MS OR GC-MS STYRE SCREEN[®] DBX
EXTRACTION COLUMN**

Part #

SSDBX033 – STYRE SCREEN[®] DBX 30 mg 3 mL Tube

SLDA50ID21-5UM – SELECTRA[®] HPLC Column 50 x 2.1 mm, 5 μ m

1. PREPARE SAMPLE:

To 1 mL of 100 mM phosphate buffer (pH 6.0) add internal standards

Add 1 -2 mL of blood, plasma/ serum, urine, or 1 g (1:4) tissue homogenate

Mix/vortex and let stand for 5 minutes

Add 2 mL of 100 mM phosphate buffer (pH 6.0). Mix/vortex

Sample pH should be 6.0 \pm 0.5.

Adjust pH accordingly with 100 mM monobasic or dibasic sodium phosphate.

Centrifuge for 10 minutes at 2000 rpm and discard pellet

2. APPLY SAMPLE:

Load at 1 to 2 mL/minute

3. WASH COLUMN:

1 x 1 mL D.I. H₂O

1 x 1 mL 100 mM acetic acid

1 x 1 mL CH₃OH

Dry column (5 minutes at full vacuum or pressure)

4. ELUTE PHENCYCLIDINE:

2 x 0.5 mL CH₂Cl₂/ IPA/ NH₄OH (78:20:2)

Collect eluate at 1 to 2 mL/minute

NOTE: Prepare elution solvent daily

Add IPA/ NH₄OH, mix, then add CH₂Cl₂ (pH 11-12)

5. DRY ELUATE:

Add 1 drop 1% HCl in Methanol to eluate before evaporating.

Evaporate to dryness at < 40 °C

6. RECONSTITUTE / DERIVATIZE:

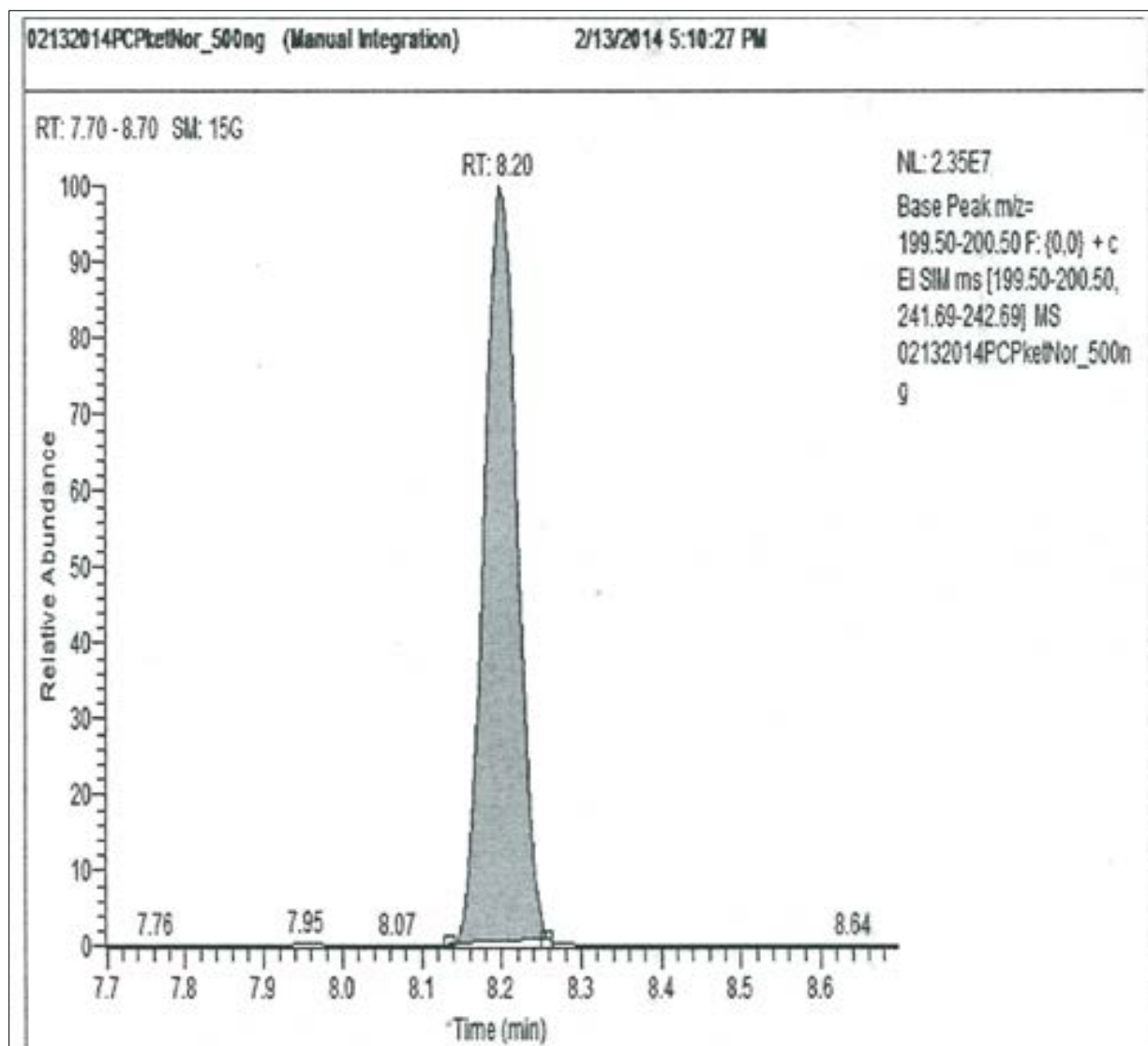
- **LC-MS/MS:** Reconstitute sample in 100 μ L of mobile phase
Inject 20 μ L.
- **GC-MS:** Dissolve residue in 100 μ L of Ethyl Acetate

LC-MS PCP TRANSITIONS

Analyte	MRM Transitions	
	Q1	Q3
Phencyclidine	244.2	86.1
Phencyclidine-D ₅	249.2	164.2

INSTRUMENT CONDITIONS (GC-MS):

CHROMATOGRAM



Analyte	Quantify Ion	Qualifier Ion 1	Qualifier Ion 2	Retention Time (min)
1. Phencyclidine	200	91	242	8.20
2. Phencyclidine-D ₅	205	96	247	8.18

PARAMETERS

GC/MS: Thermo ISQ Trace 1300

GC capillary column: 30m x 0.25mm (0.25µm) TG-1MS

Injector: 1µL Splitless, 250°C

Oven temperature program: 50 °C (0.5) to 320 °C (30 °C/minute): hold (5 minutes)

Carrier gas: Carrier Gas: Helium (1.2mL/minute)

MSD condition: Aux temperature: 280 °C, MS Source: 350 °C, MS Quad: 150 °C