

## Supplementary Material

# Ibogaine Acute Administration in Rats Promotes Wakefulness, Long-Lasting REM Sleep Suppression, and a Distinctive Motor Profile

Joaquín Gonzalez<sup>1</sup>, José Pedro Prieto<sup>2</sup>, Paola Rodríguez<sup>3</sup>, Matías Cavelli<sup>1</sup>, Luciana Benedetto<sup>1</sup>, Alejandra Mondino<sup>1</sup>, Mariana Pazos<sup>3</sup>, Gustavo Seoane<sup>3</sup>, Ignacio Carrera<sup>3\*</sup>, Cecilia Scorza<sup>2\*</sup>, Pablo Torterolo<sup>1</sup>

\* **Correspondence:** Cecilia Scorza (scorzacecilia@gmail.com), Ignacio Carrera (icarrera@fq.edu.uy)

## 1 Supplementary Data

### 1.1 Ibogaine-HCl

Nuclear Magnetic Resonance spectra were obtained in CD<sub>3</sub>OD on a Bruker Avance DPX-400 instrument.

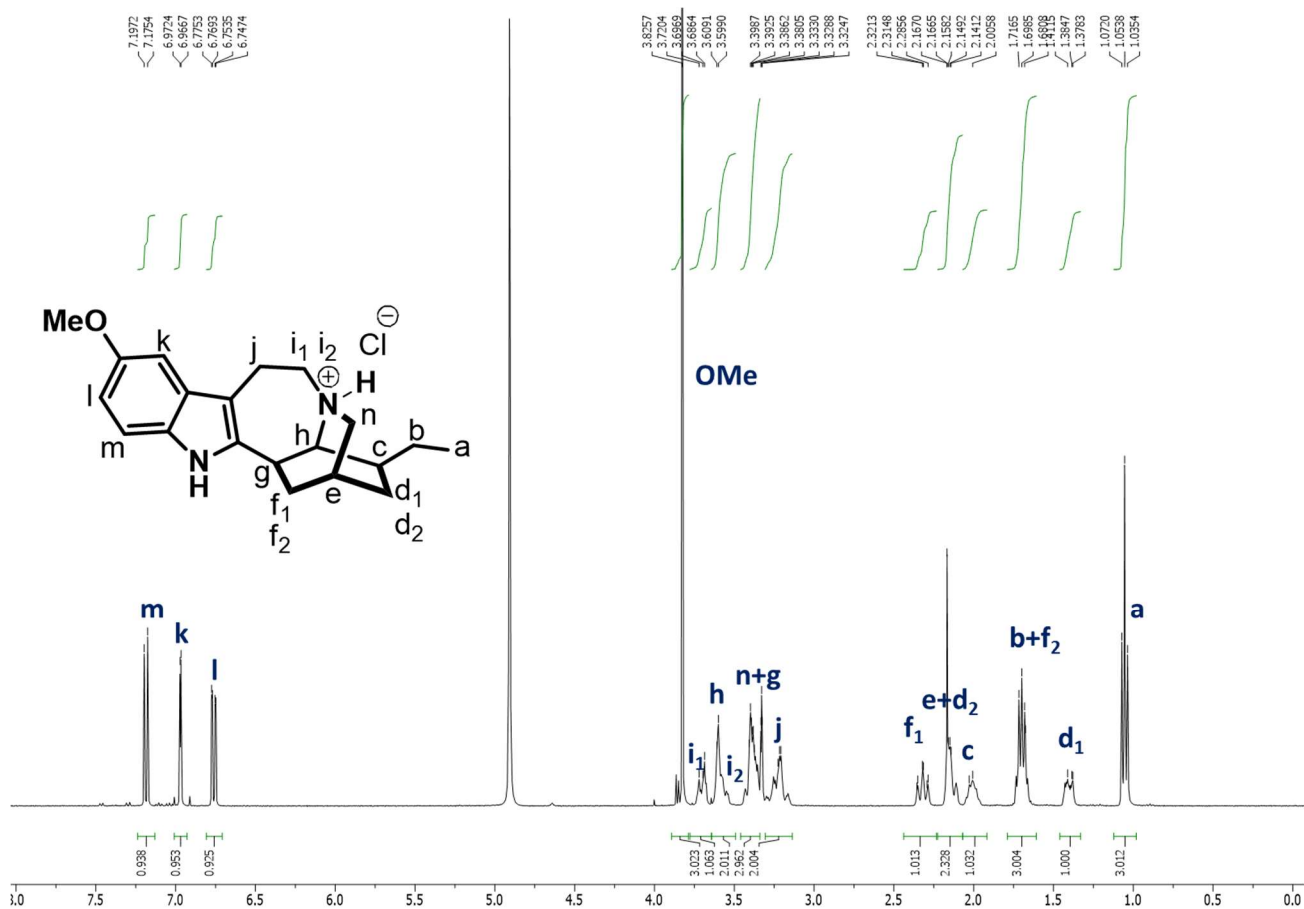
<sup>1</sup>H NMR (400 MHz, CD<sub>3</sub>OD) δ (ppm) = 7.19 (d, *J* = 8.9 Hz, 1H), 6.97 (d, *J* = 2.4 Hz, 1H), 6.76 (dd, *J* = 8.8, 2.5 Hz, 1H), 3.87 (s, 3H), 3.70 (dt, *J* = 13.4, 4.2 Hz, 1H), 3.63 – 3.53 (m, 2H), 3.45 – 3.34 (m, 3H), 3.31 – 3.14 (m, 2H), 2.32 (ddt, 13.5, 12.1, 2.7 Hz, 1H), 2.19 – 2.09 (m, 2H), 2.06 (hept, *J* = 7.5 Hz, 1H), 1.74 – 1.65 (m, 3H), 1.46 – 1.34 (m, 1H), 1.03 (t, *J* = 7.3 Hz, 3H) <sup>13</sup>C NMR (100 MHz, CD<sub>3</sub>OD) δ(ppm) = 153.0, 139.1, 130.4, 128.5, 111.2, 111.1, 106.0, 99.5, 60.1, 56.0, 54.9, 50.5, 39.0, 35.1, 31.2, 28.8, 26.0, 23.9, 18.0, 10.5

Gas Chromatography analysis was carried out in a GC-MS Shimadzu QP 1100 EX instrument using the electron impact mode, 70 eV. Column HP-5MS (30m x 0.25mm x 0.25um) Temperature Program 200 °C (Hold time, 2 minutes) to 300 °C (Hold time, 5 minutes) with a rate of 10 °C/min. Ibogaine purity was determined as 96.4%, and ibogamine and ibogaline were detected as trace impurities.

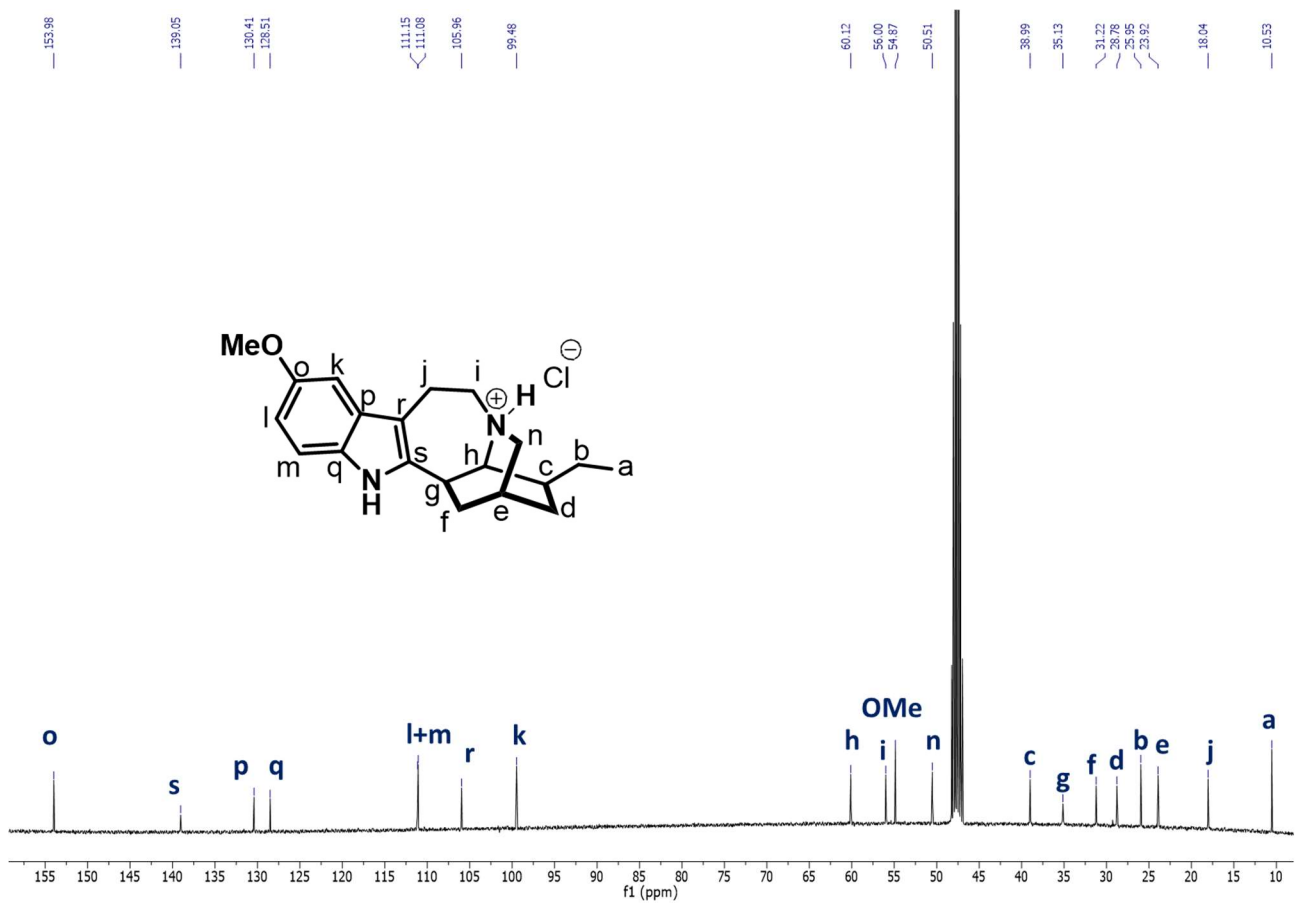
Retention Time (minutes)	% Area	Structure
10.521	2.05	Ibogamine
12.640	96.38	Ibogaine
13.383	0.34	Unkown
14.441	1.23	Ibogaline

## 2 Supplementary Figures and Tables

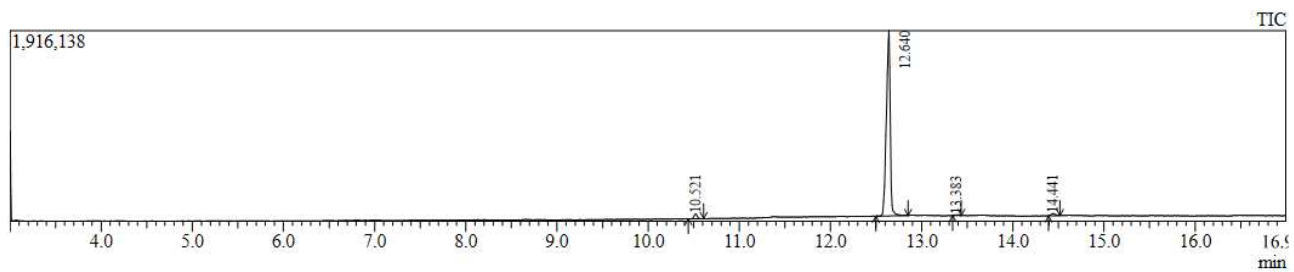
## 2.1 Supplementary Figures



**Supplementary Figure 1.** Ibogaine-HCl <sup>1</sup>H NMR. Diastereotopic protons are labeled as x<sub>1</sub>/x<sub>2</sub>. Solvent residual peak for MeOH is found at 3.33 ppm, and H<sub>2</sub>O at 4.90.



Supplementary Figure 2. Ibogaine-HCl <sup>13</sup>C NMR.



Supplementary Figure 3. Ibogaine-HCl GC-MS chromatogram