

# Synthesis, Spectral, Thermal and Biological Studies of 4-Cyclohexyl-3-(4-nitrophenyl)methyl-1,2,4-triazolin-5-thione and Its Copper(II) Coordination Compound, [CuCl<sub>2</sub>(H<sub>2</sub>O)<sub>2</sub>L<sub>2</sub>]

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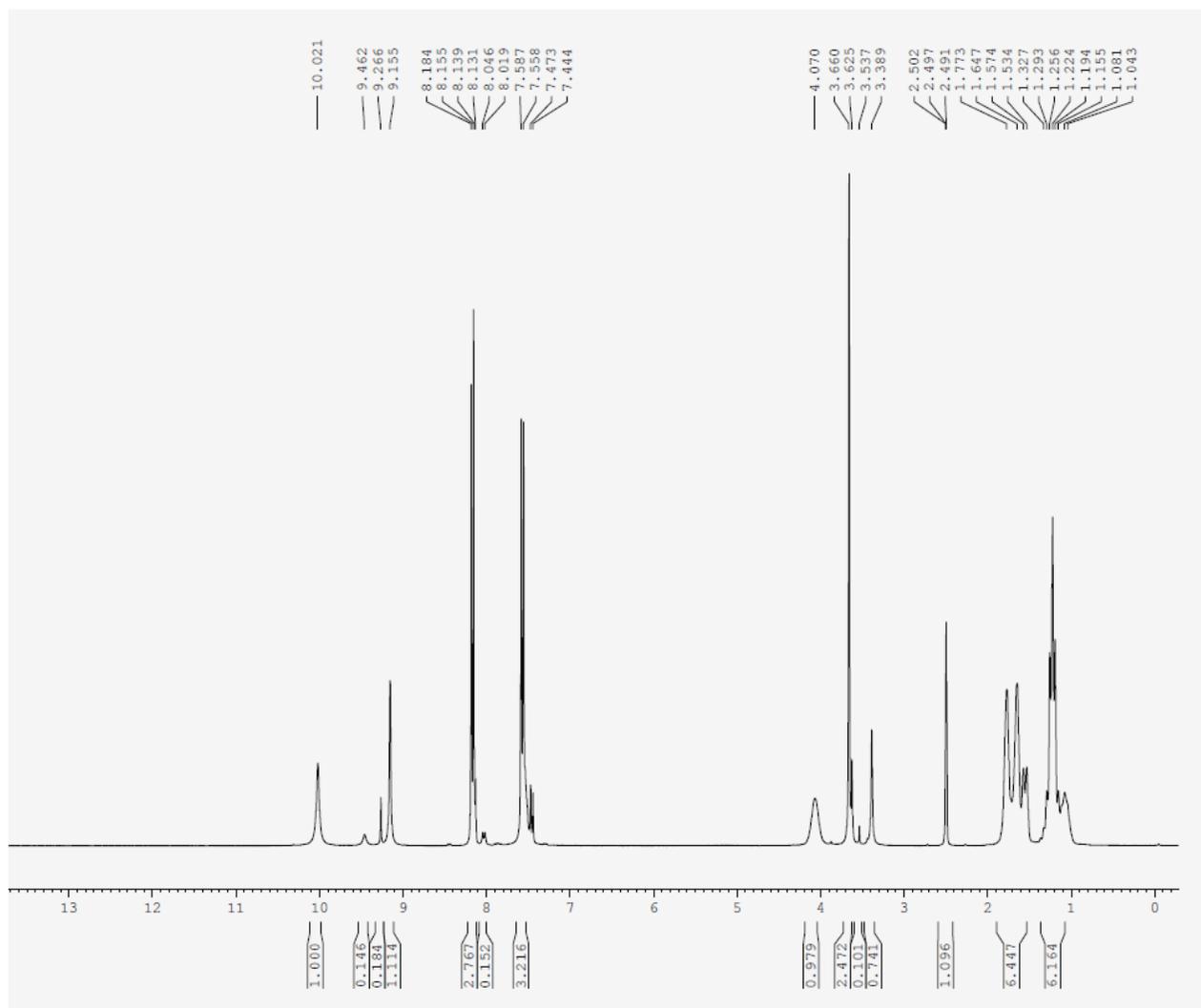


Figure S1. <sup>1</sup>H NMR spectrum for compound 2.

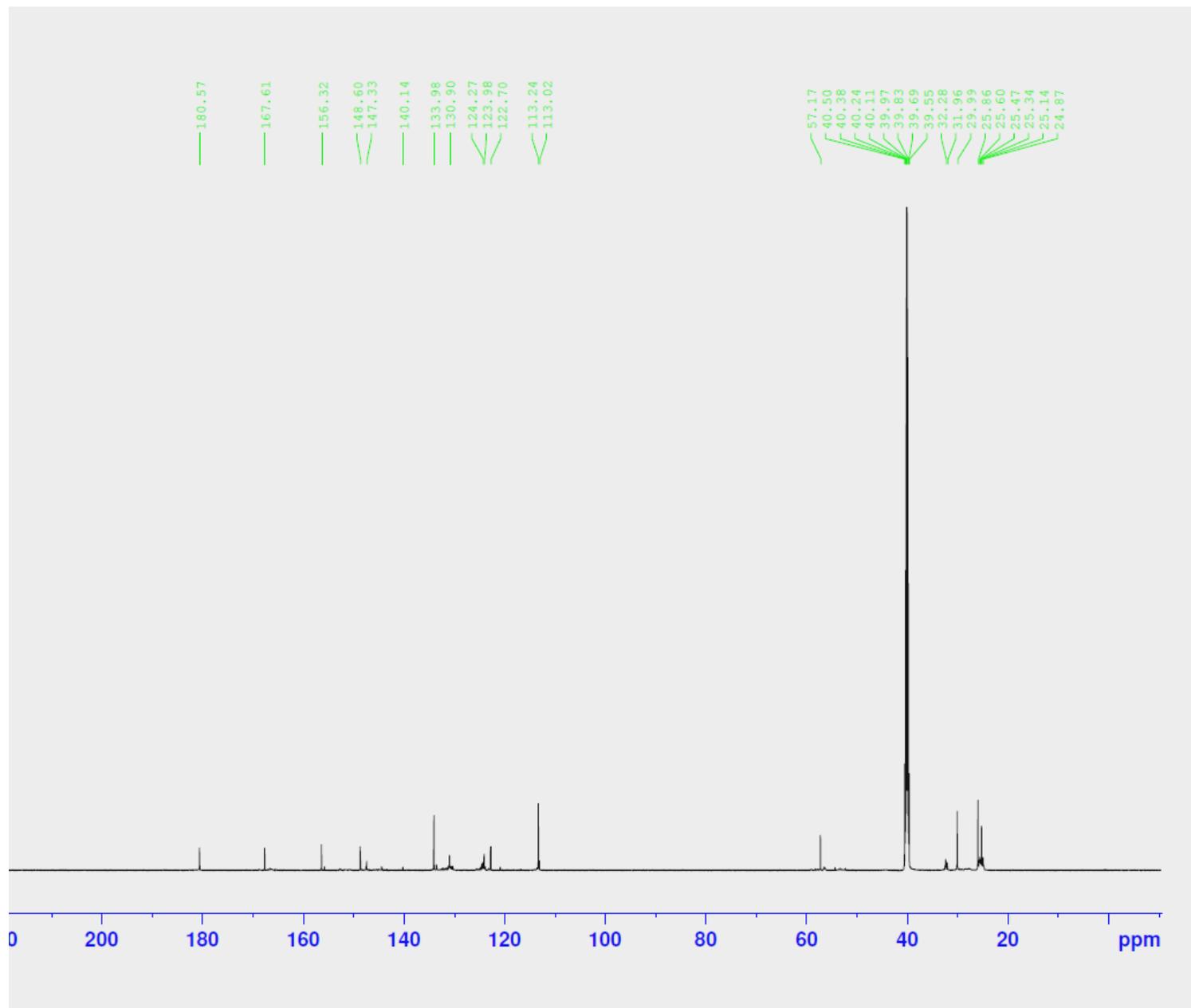


Figure S2.  $^{13}\text{C}$  NMR spectrum for compound 2.

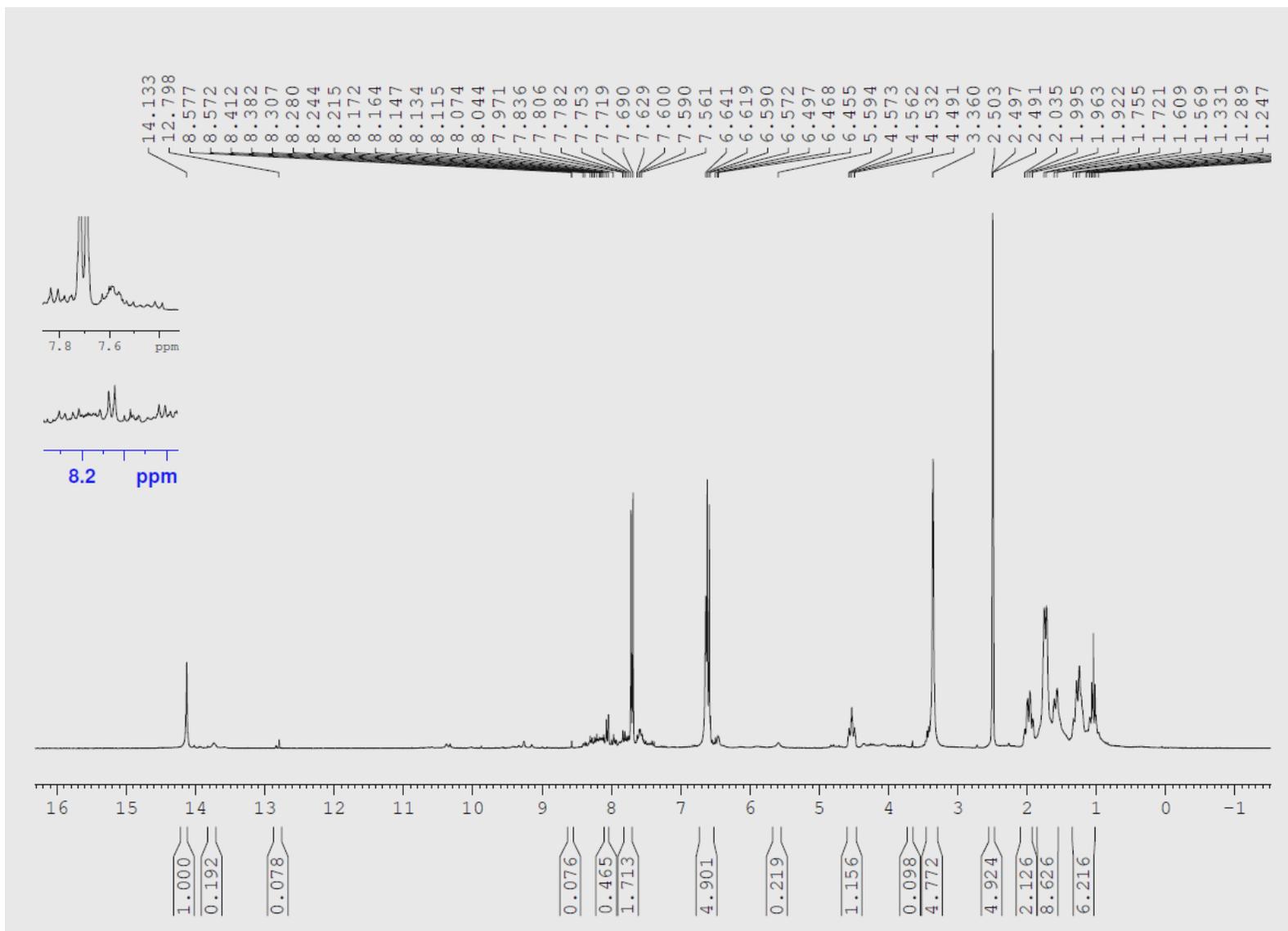


Figure S3:  $^1\text{H}$  NMR spectrum for compound 3.

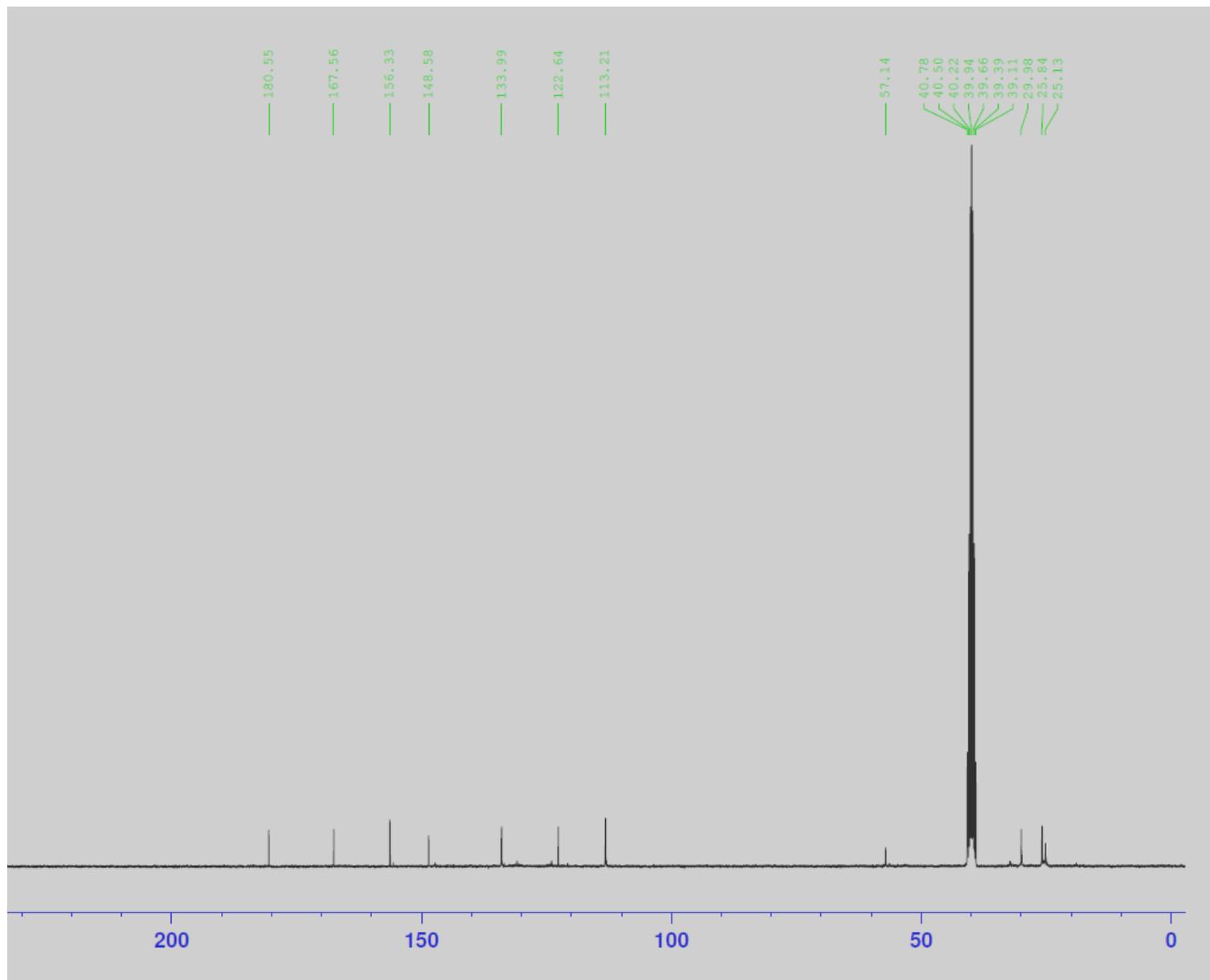
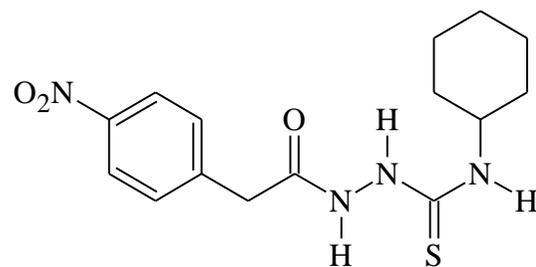


Figure S4:  $^{13}\text{C}$  NMR spectrum for compound 3.



$C_{15}H_{20}N_4O_3S$

Calculated monoisotopic mass: 336.1256

Measured monoisotopic mass: 336.1260

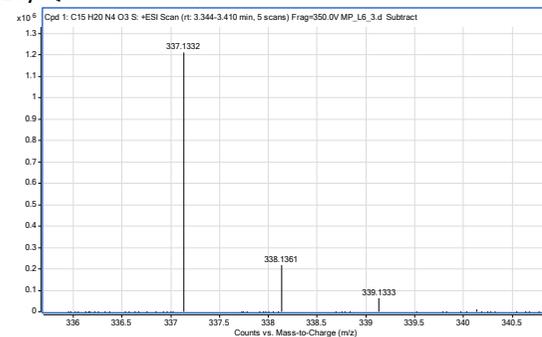
Mass error: 1.24 ppm

(a)

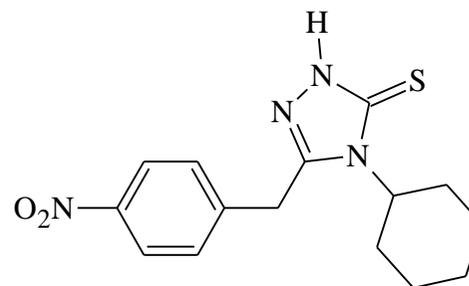
Theoretical monoisotopic mass of  $[M+H]^+$ :

337.1329

LC/QTOF MS scan



(c)



$C_{15}H_{18}N_4O_2S$

Calculated monoisotopic mass: 318.1150

Measured monoisotopic mass: 318.1155

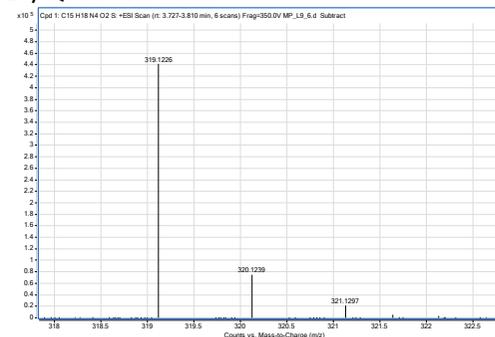
Mass error: 1.36 ppm

(b)

Theoretical monoisotopic mass of  $[M+H]^+$ :

319.1223

LC/QTOF MS scan



(d)

**Figure S5.** (a) The structure of compound 2; (b) The structure of compound 3; (c) MS spectrogram for compound 2; (d) MS spectrogram for compound 3.



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