

## Supporting information

# Ultrasonic Synthesis and Preliminary Evaluation of Anticoronaviral Activity of 6,7-Dimethoxy-4-(4-(4-methoxyphenyl)piperazin-1-yl)-1-methylquinolin-1-ium iodide

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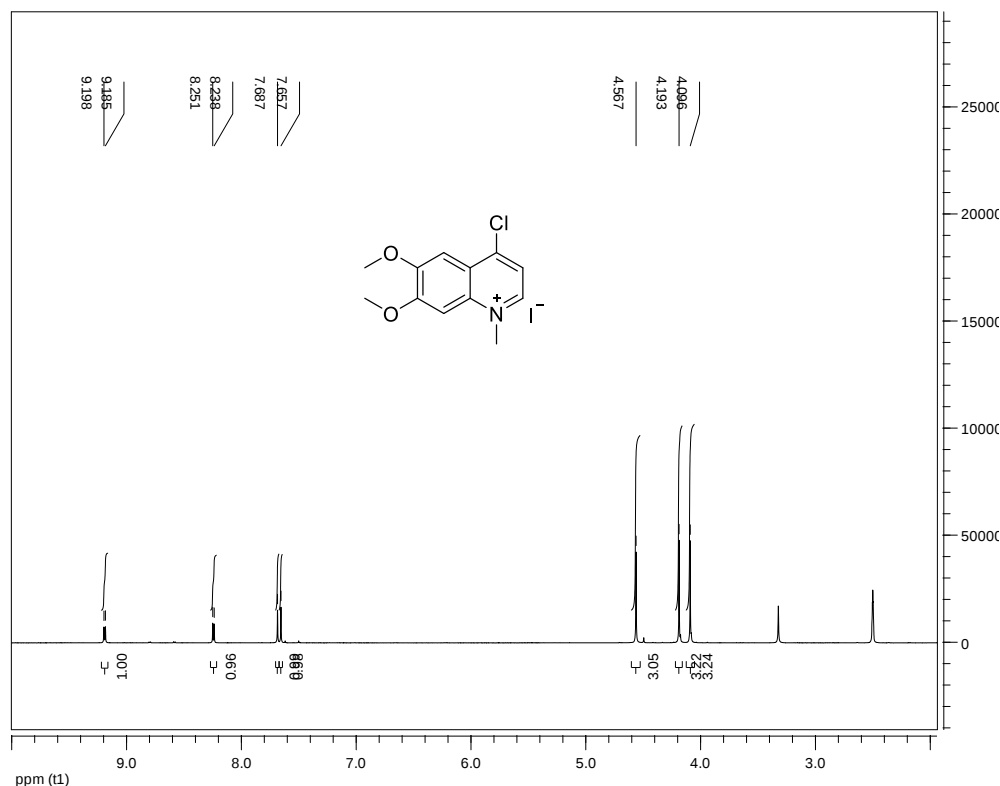
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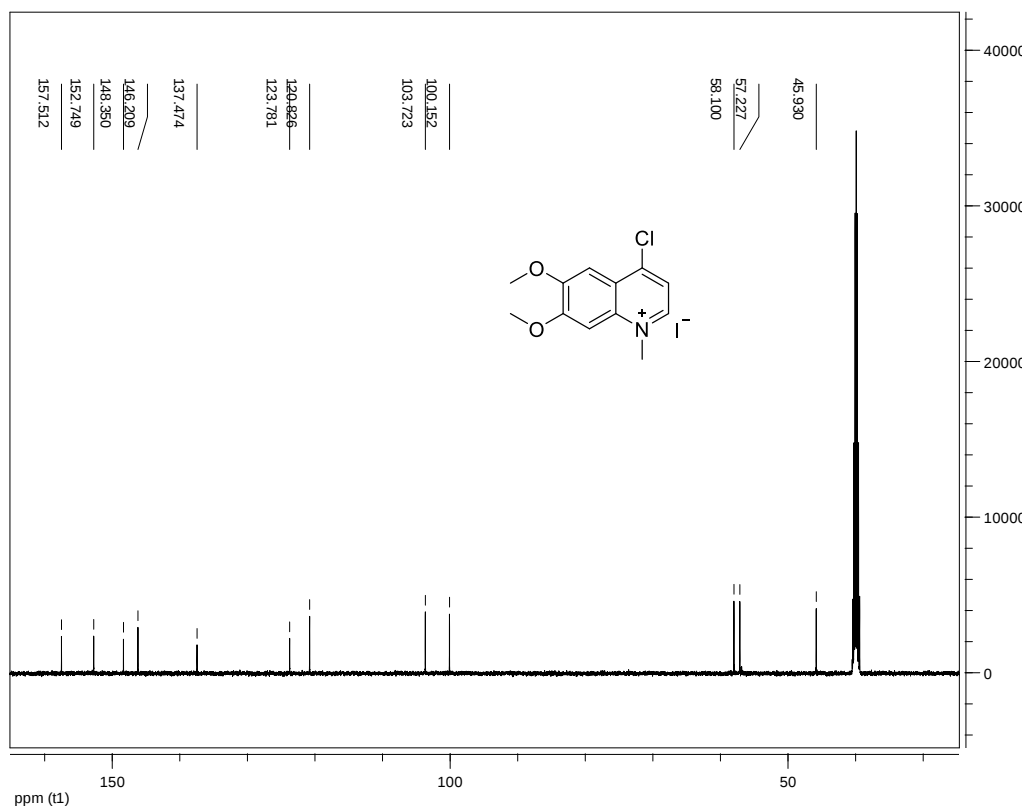
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## Content

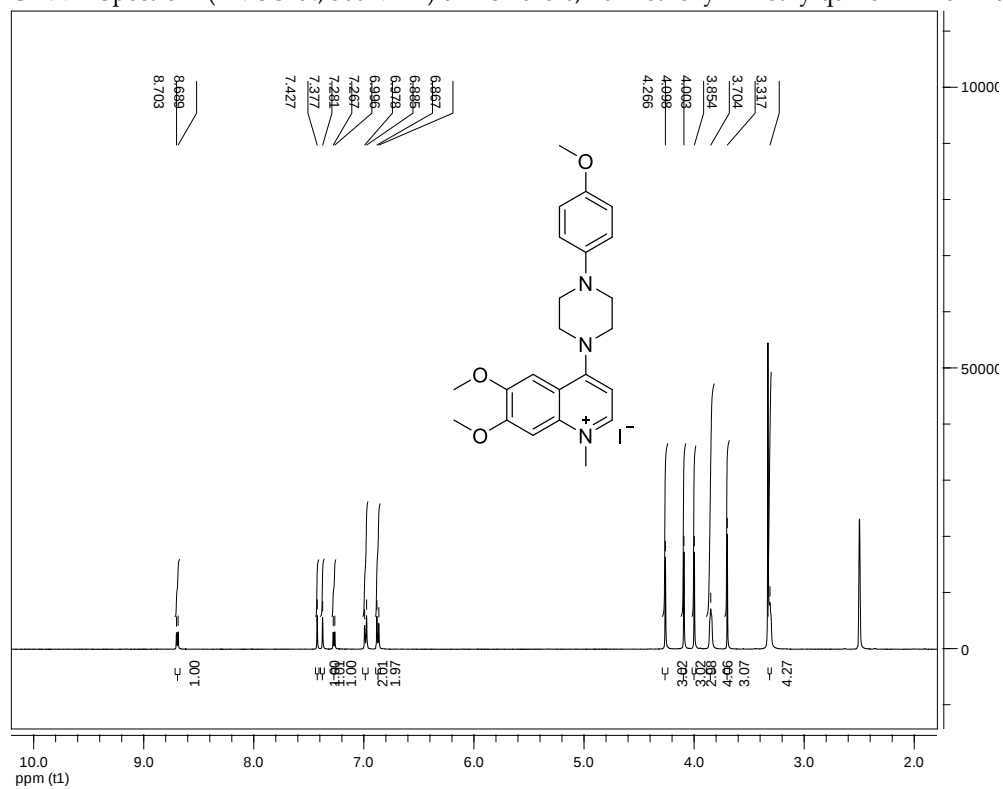
1. NMR Spectra of **2a** (Figures S1, S2) and **3** (Figures S3-S5)
2. LC-MS Spectrum of **3** (Figure S6).
3. IR Spectra of **2a** (Figure S7) and **3** (Figure S8).



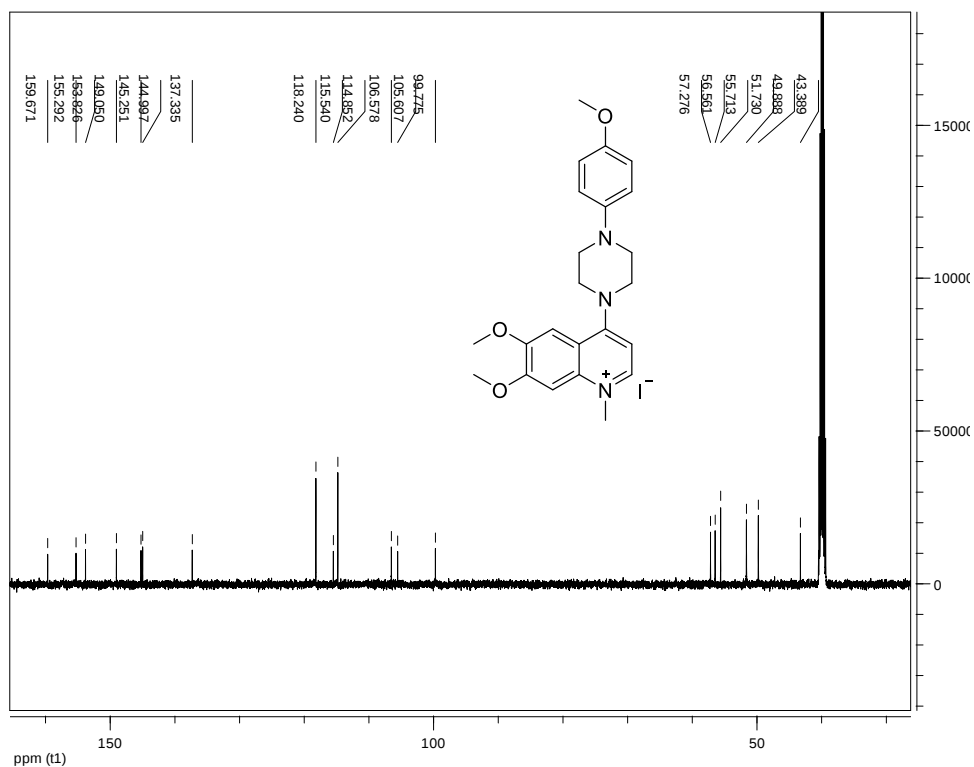
**Figure S1.** <sup>1</sup>H-NMR Spectrum (DMSO-d<sub>6</sub>, 500 MHz) of 4-chloro-6,7-dimethoxy-1-methylquinolin-1-ium iodide (**2a**).



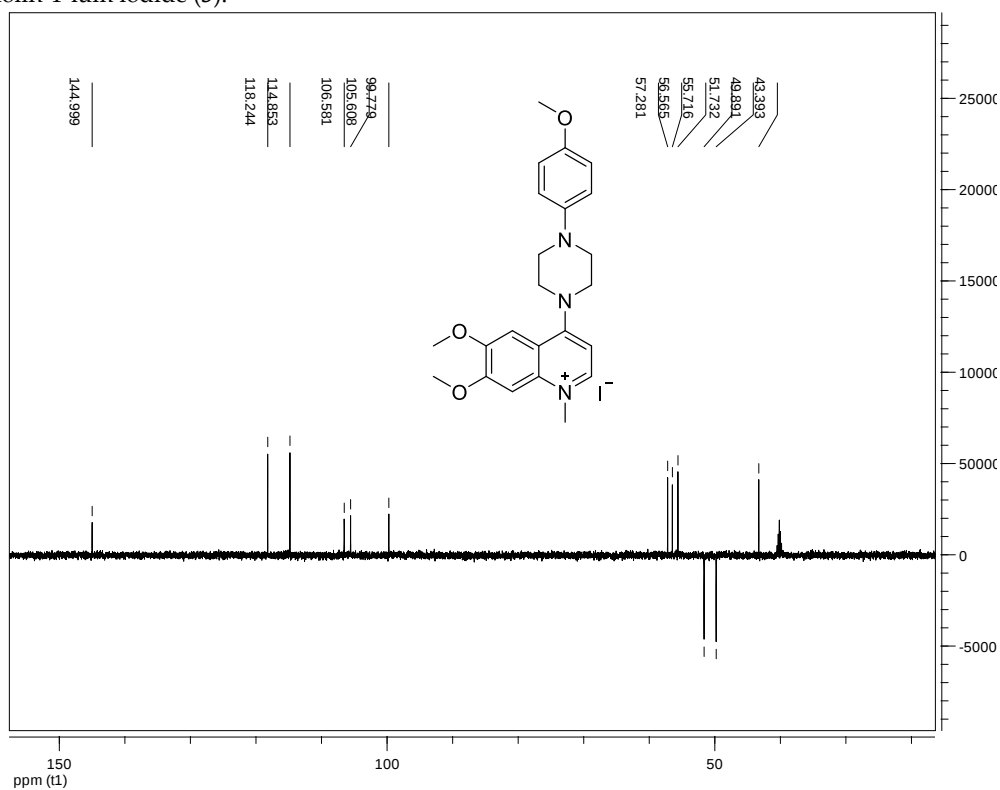
**Figure S2.** <sup>13</sup>C-NMR Spectrum (DMSO-d<sub>6</sub>, 500 MHz) of 4-chloro-6,7-dimethoxy-1-methylquinolin-1-ium iodide (**2a**).



**Figure S3.** <sup>1</sup>H-NMR Spectrum (DMSO-d<sub>6</sub>, 500 MHz) of 6,7-dimethoxy-4-(4-(4-methoxyphenyl)piperazin-1-yl)-1-methylquinolin-1-ium iodide (**3**).



**Figure S4.**  $^{13}\text{C}$ -NMR Spectrum (DMSO- $d_6$ , 500 MHz) of 6,7-dimethoxy-4-(4-(4-methoxyphenyl)piperazin-1-yl)-1-methylquinolin-1-ium iodide (3).



**Figure S5.**  $^{13}\text{C}$ -NMR (DEPT-135) Spectrum (DMSO- $d_6$ , 500 MHz) of 6,7-dimethoxy-4-(4-(4-methoxyphenyl)piperazin-1-yl)-1-methylquinolin-1-ium iodide (3).

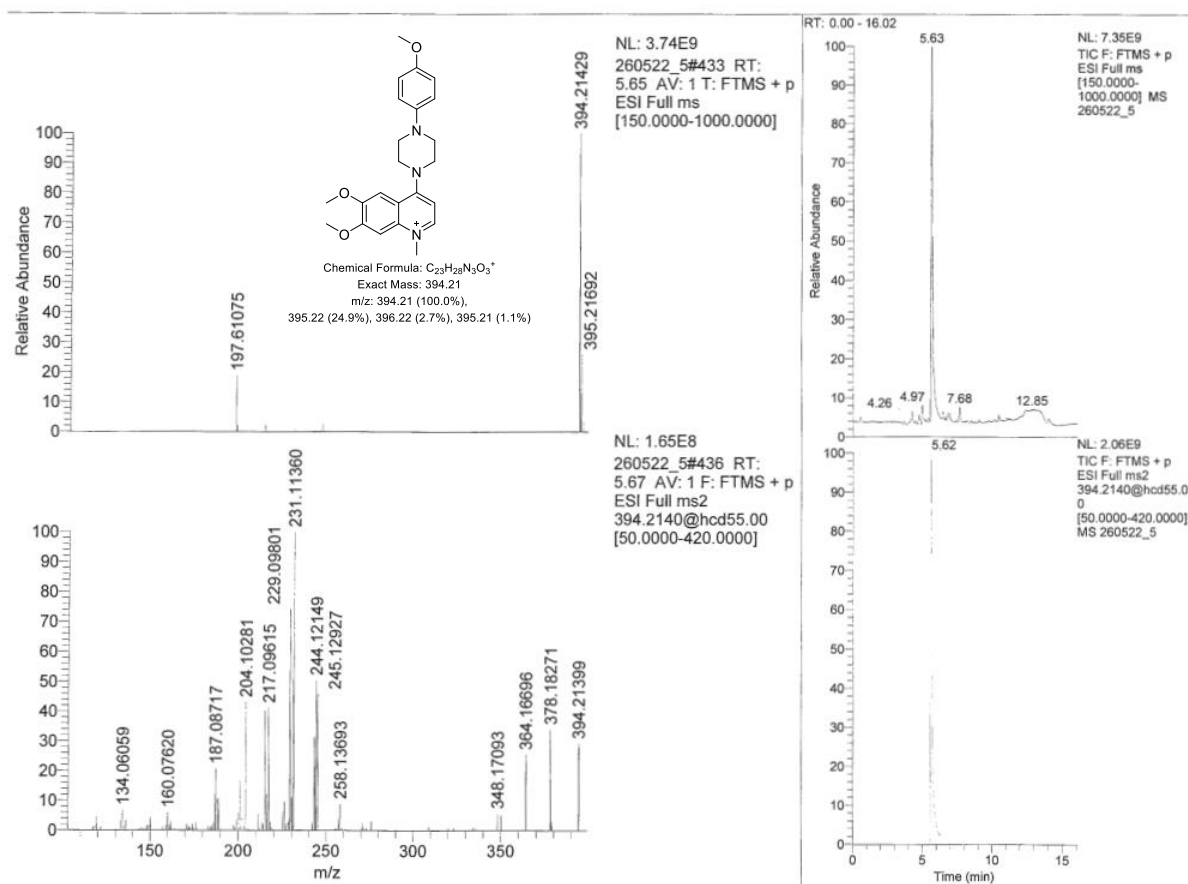


Figure S6. LC-MS of 6,7-dimethoxy-4-(4-(4-methoxyphenyl)piperazin-1-yl)-1-methylquinolin-1-ium iodide (3).

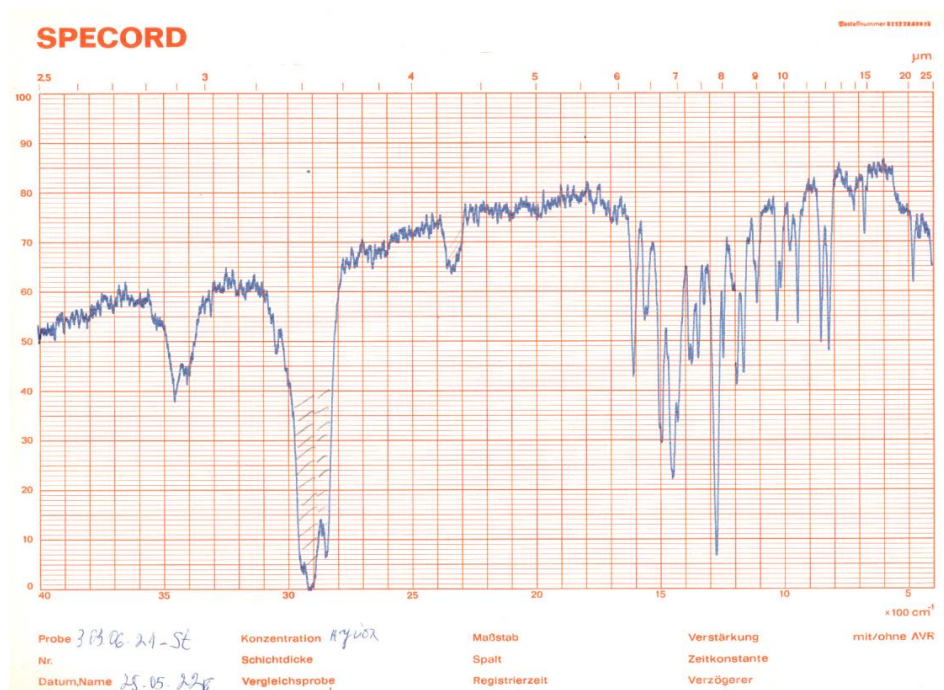
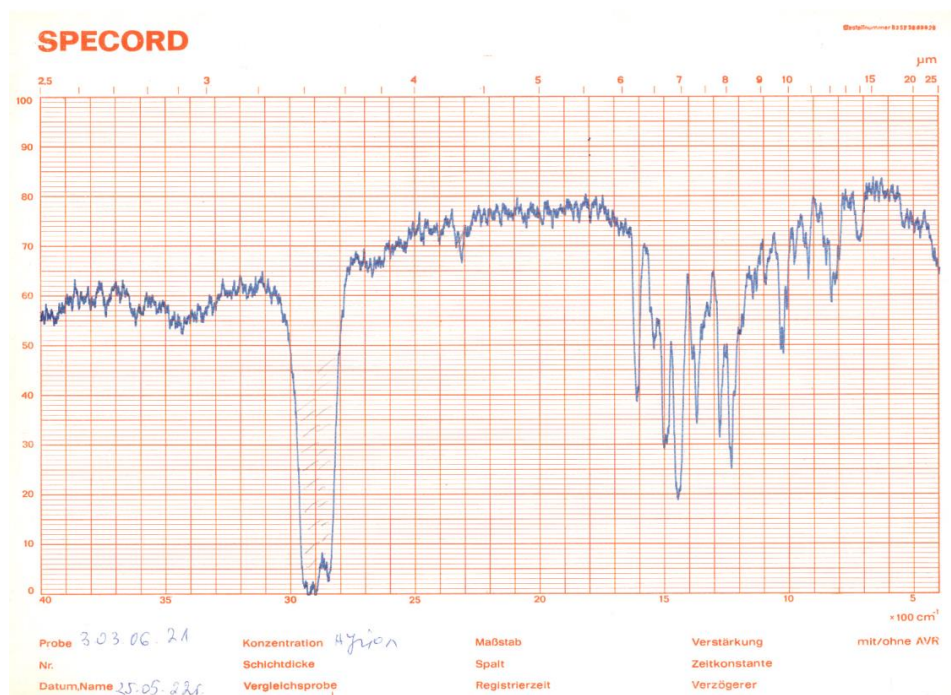


Figure S7. IR spectrum (nujol) of 4-chloro-6,7-dimethoxy-1-methylquinolin-1-ium iodide (2a).



**Figure S8.** IR spectrum (nujol) of 6,7-dimethoxy-4-(4-(4-methoxyphenyl)piperazin-1-yl)-1-methylquinolin-1-ium iodide (**3**).