

**(E)-1-cyclopropyl-6-fluoro-7-(4-(5-(3-(furan-2-yl) acryloyl)-2 hydroxybenzyl) piperazin-1-yl) -4-oxo-1,4-dihydroquinoline-3-carboxylic acid.**

Greyish white powder; m.p:276-278 °C; Yield =58%; <sup>1</sup>H-NMR (400 MHz, DMSO-*d*<sub>6</sub>) δ (ppm):

15.19 (1H, s, COOH), 8.64 (1H, s, H-2), 7.87-7.98(4H, m, ArH), 7.59-7.52 (3H, m, ArH), 7.55(1H, d, *J* = 4 Hz, ArH), 6.92(1H, d, ArH), 6.68(1H, s, ArH), 3.84-3.75(3H, m, N-CH<sub>2</sub> Mannich base and, -N-CH cyclopropyl), 3.39-3.36 (4H, m, piperazine 4H), 2.73-2.70 (4H, m, piperazine 4H), 1.33-1.28 (2H, m, cyclopropyl CH<sub>2</sub>), 1.18-1.16 (2H, m, cyclopropyl CH<sub>2</sub>). <sup>13</sup>C-NMR (100MHz, DMSO-*d*<sub>6</sub>) δ (ppm): 187.54, 177.60, 165.70, 161.90, 154.26, 150.04, 148.91, 145.48, 138.98, 128.91, 127.40, 123.43, 122.94, 119.72, 117.70, 115.95, 113.06, 107.21, 57.21, 52.37, 49.85, 48.10, 37.34, 7.15. Anal. Calcd. For C<sub>31</sub>H<sub>28</sub>FN<sub>3</sub>O<sub>6</sub> (557.58) C, 66.78; H, 5.06; F, 3.41; N, 7.54; O, 17.22. Found C, 66.58; H, 5.17; N, 7.32.

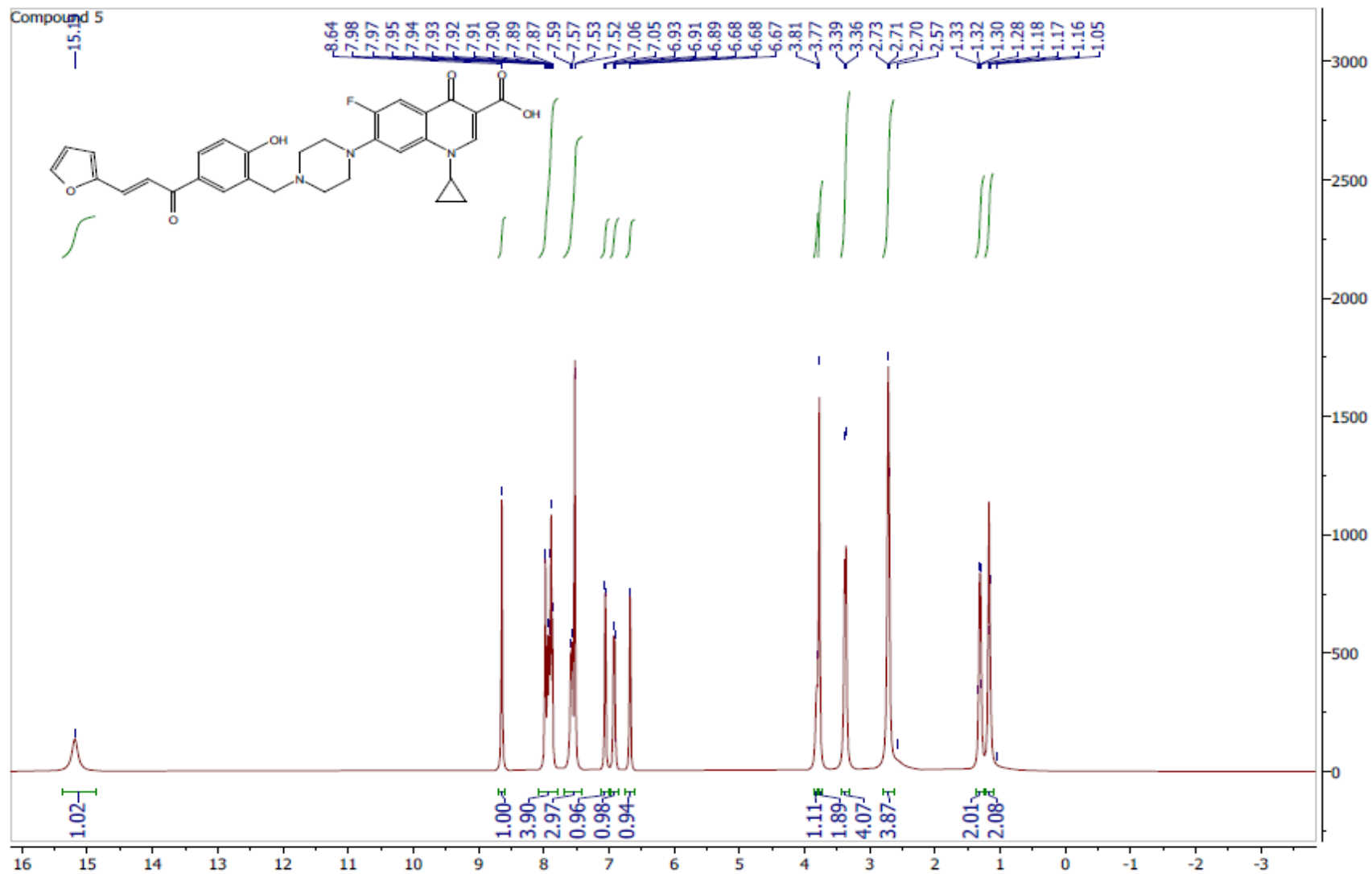


Figure S1: <sup>1</sup>H-NMR spectrum of compound 5 (400 MHz, DMSO-*d*<sub>6</sub>)

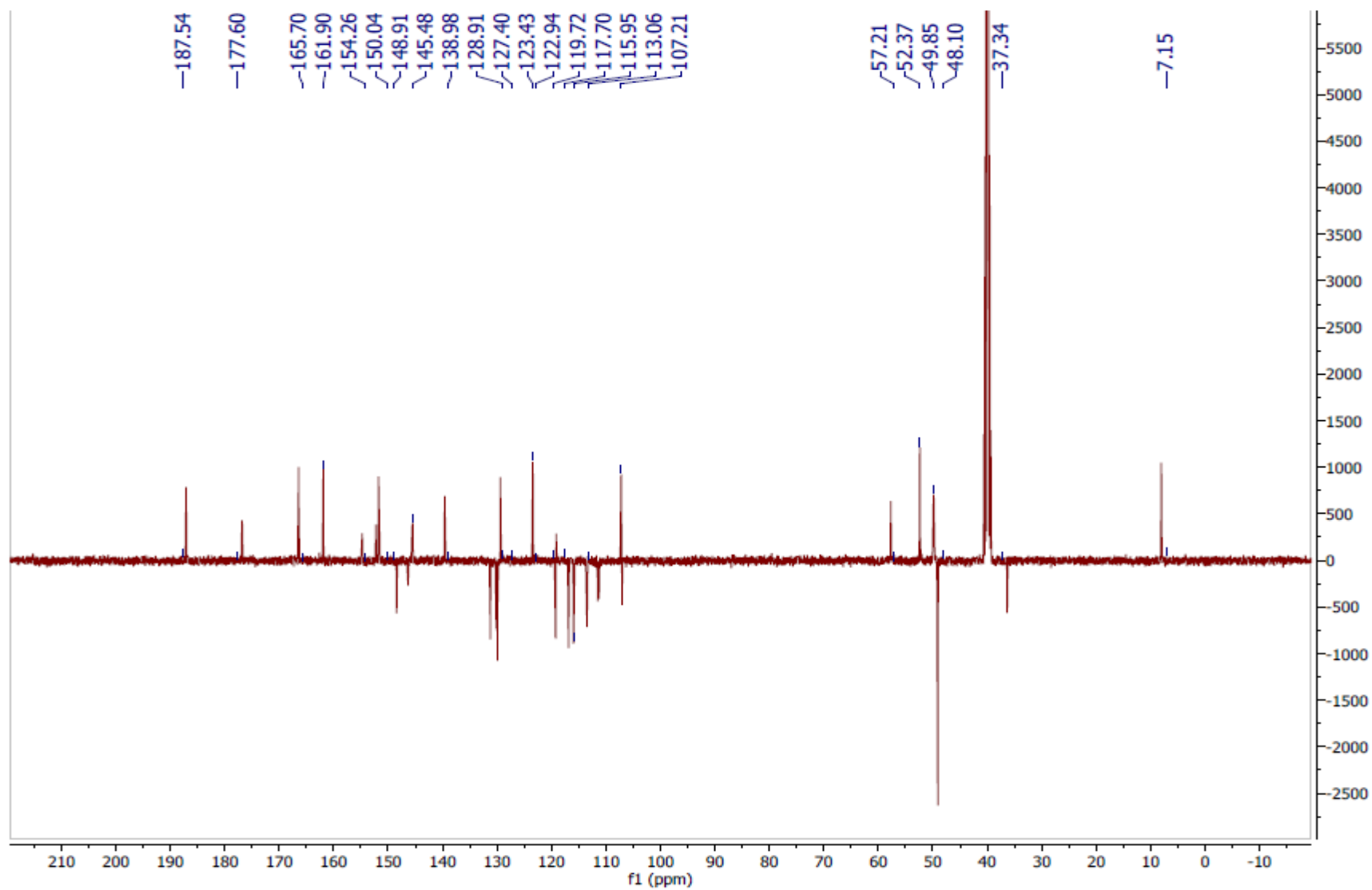


Figure S2:  $^{13}\text{C}$ -NMR spectrum of compound 5 (400 MHz,  $\text{DMSO}-d_6$ )