N-[7-Chloro-4-[4-(phenoxymethyl)-1*H*-1,2,3-triazol-1-yl] quinoline]-acetamide

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Supplementary Material

NMR spectrometry

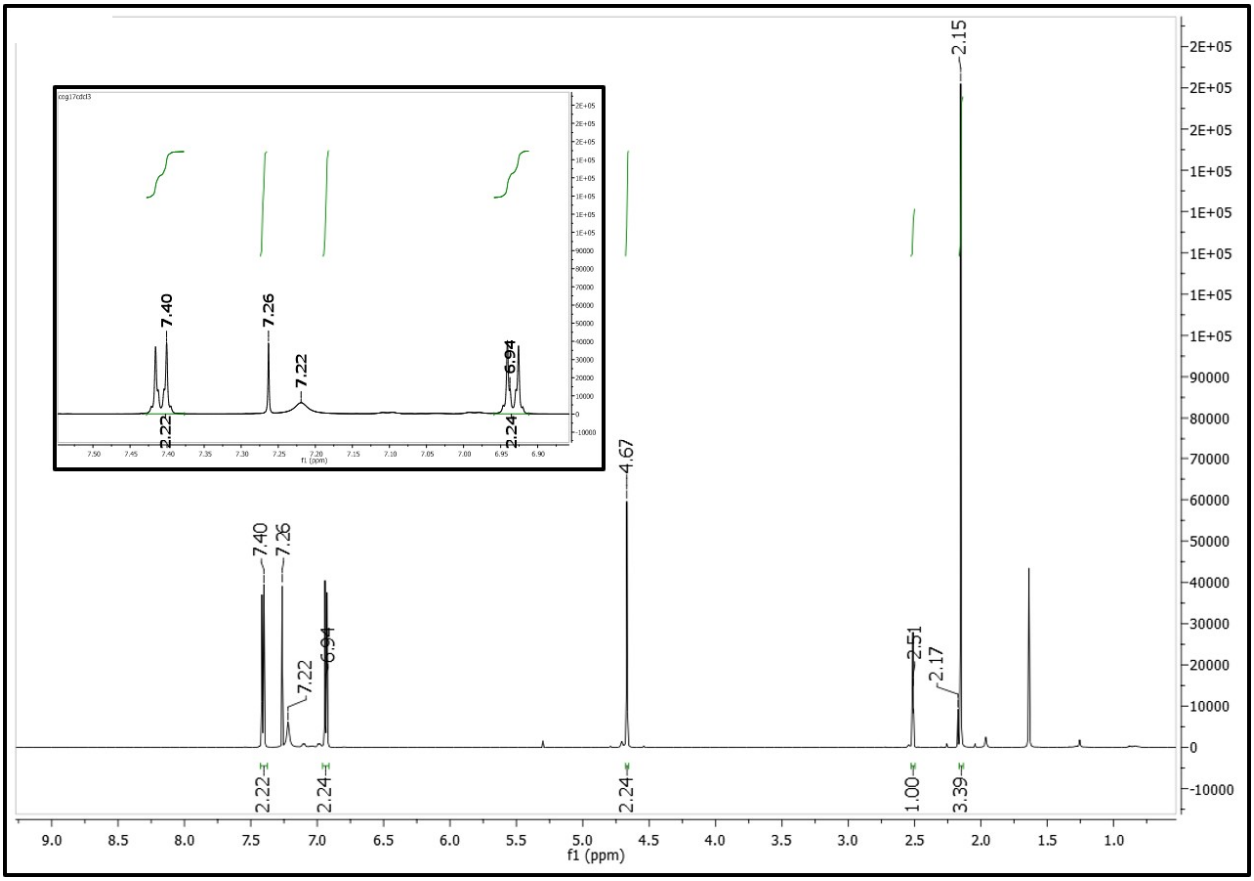


Figure S1. ^{1}H NMR spectrum ($CDCl_3$, 600 MHz) of compound **4**.

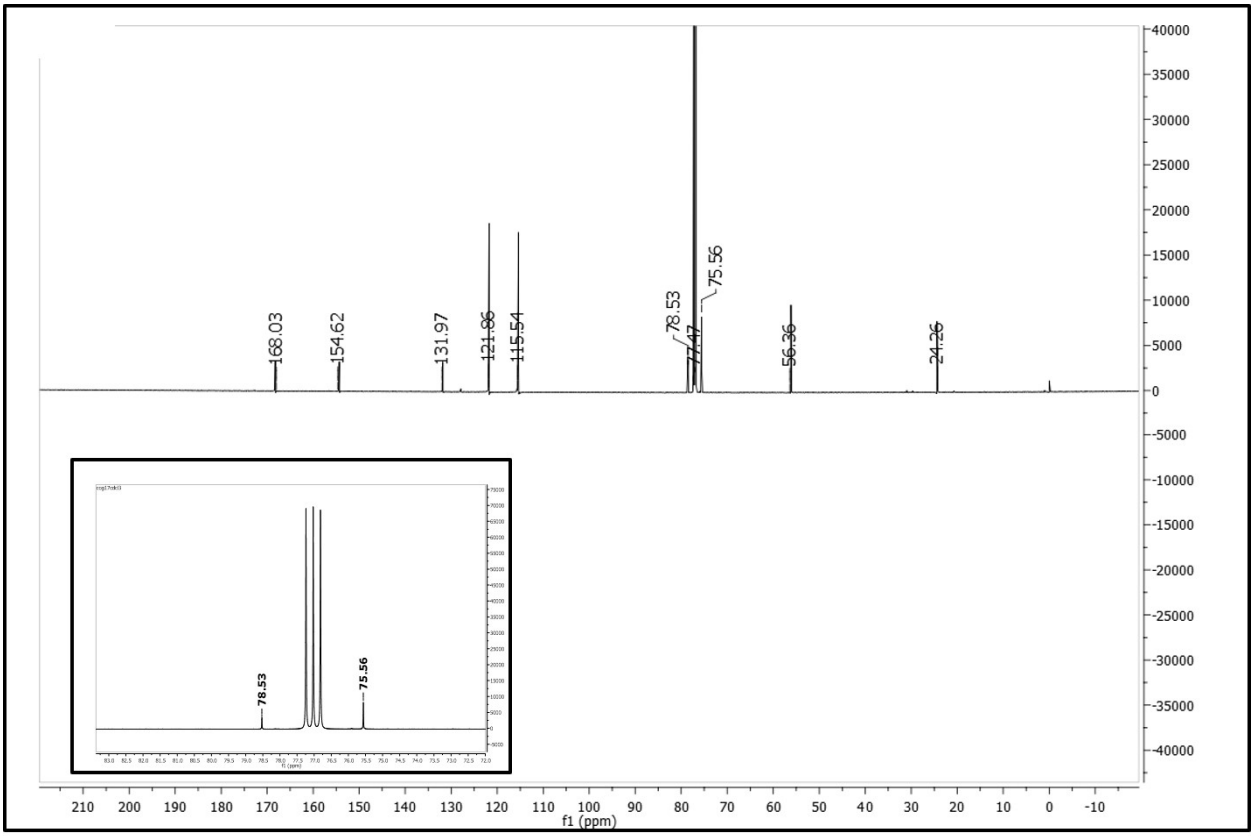


Figure S2. ^{13}C NMR spectrum ($CDCl_3$, 150 MHz) of compound **4**.

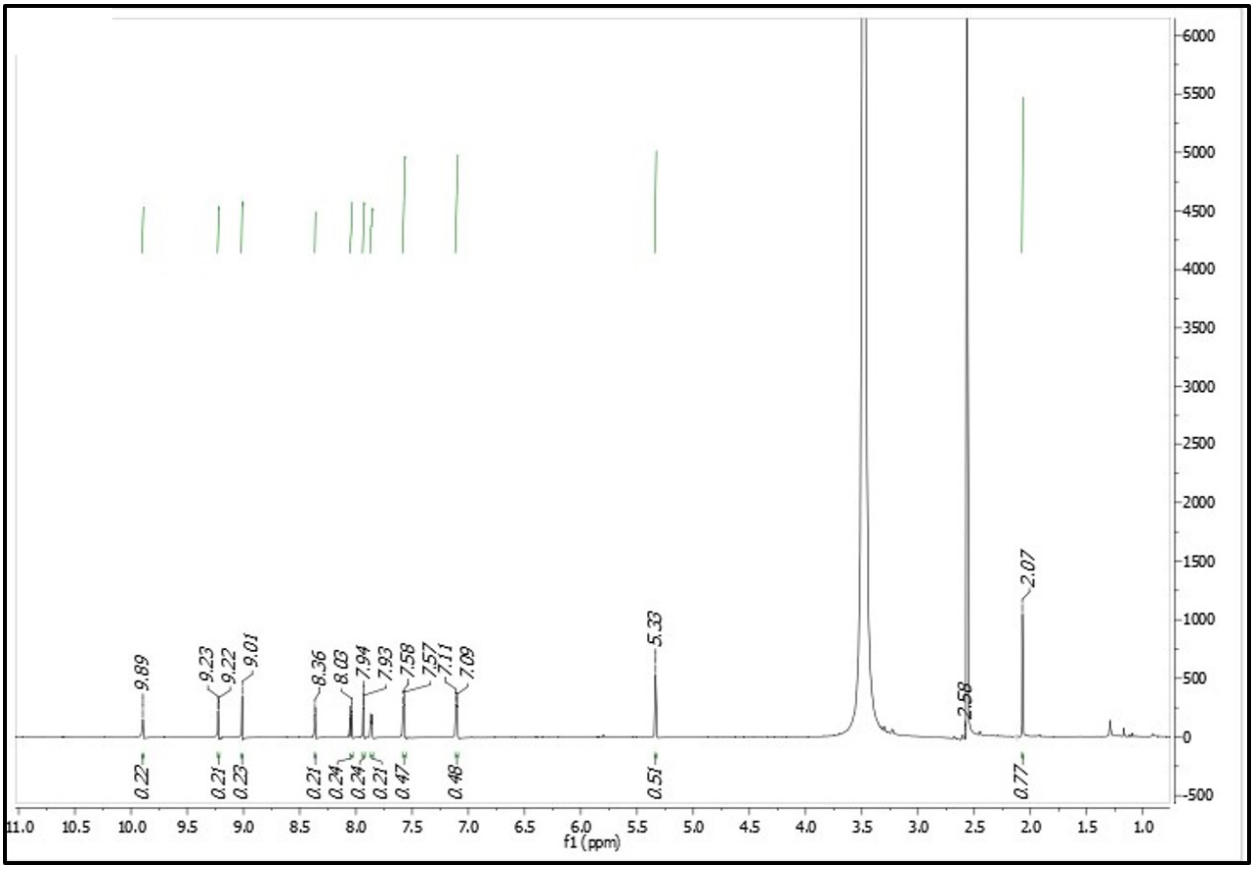


Figure S3. ^{1}H NMR spectrum (DMSO-d6, 600 MHz) of compound **5**.

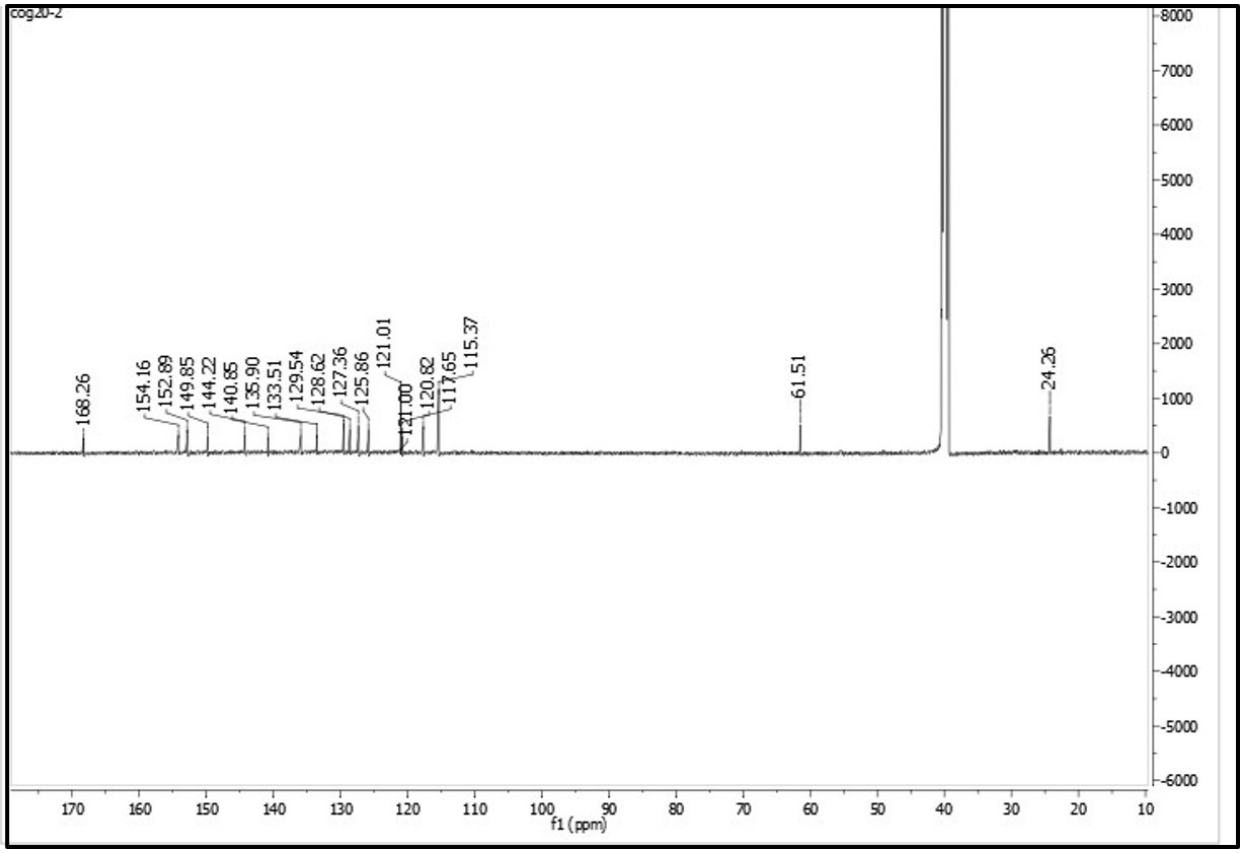


Figure S4a. ^{13}C NMR spectrum (DMSO-d6, 150 MHz) of compound **5**.

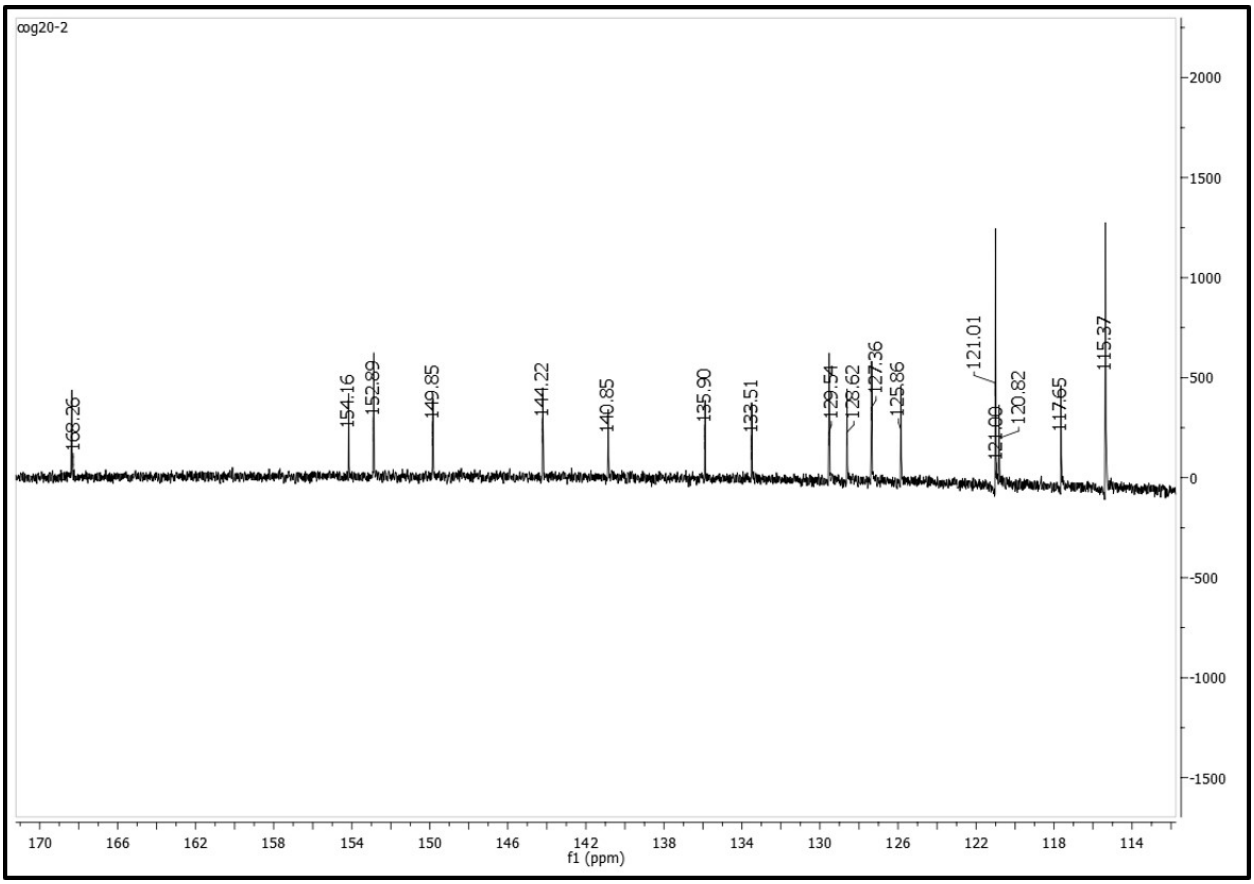


Figure S4b. An expanded view of ^{13}C NMR spectrum (DMSO-d6, 150 MHz) of compound **5**.

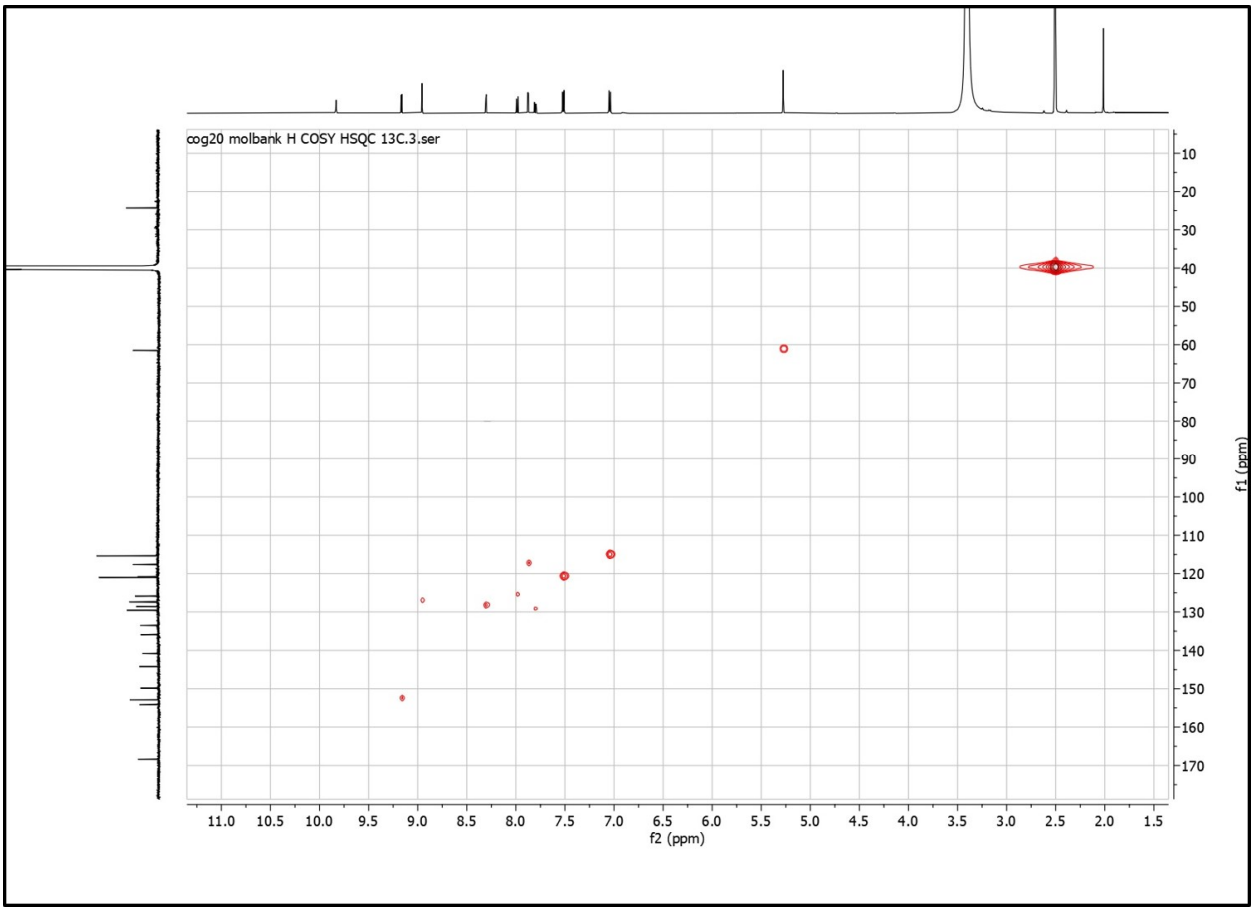


Figure S5. HSQC spectrum (DMSO-d6, 600 MHz) of compound **5**.

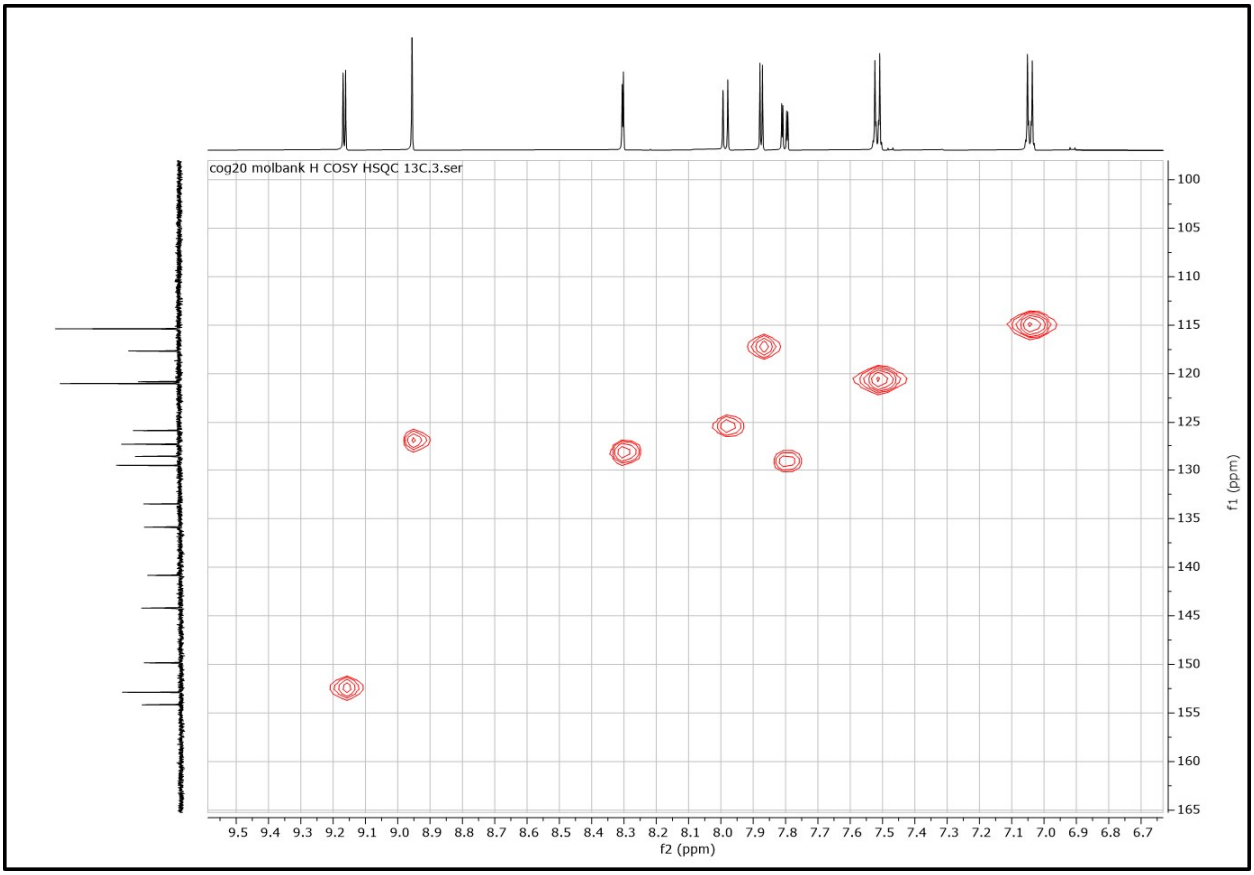
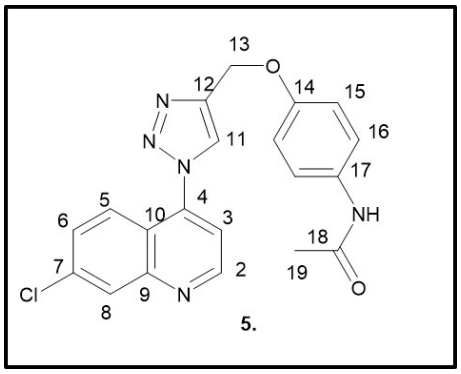


Figure S6. An expanded view of HSQC spectrum ($CDCl_3$, 600 MHz) of compound **5**.

Table S1. ^{1}H and ^{13}C-nuclear magnetic spectroscopy (NMR) chemical shifts and the structure of **5**[1].



5.

^{1}H Chemical Shift	^{13}C Chemical Shift	**Assignment**
2.07	24.2	19
5.33	61.5	13
7.09	115.3	15
7.93	117.6	3
7.57	120.8	16
-	121	10
8.03	125.8	5
9.01	127.3	11
8.36	128.6	8
7.86	129.5	6
-	133.5	17
-	135.9	4
-	140.8	7
-	144.2	12
-	149.8	9
9.22	152.8	2
-	154.1	14
-	168.2	18

IR spectrometry

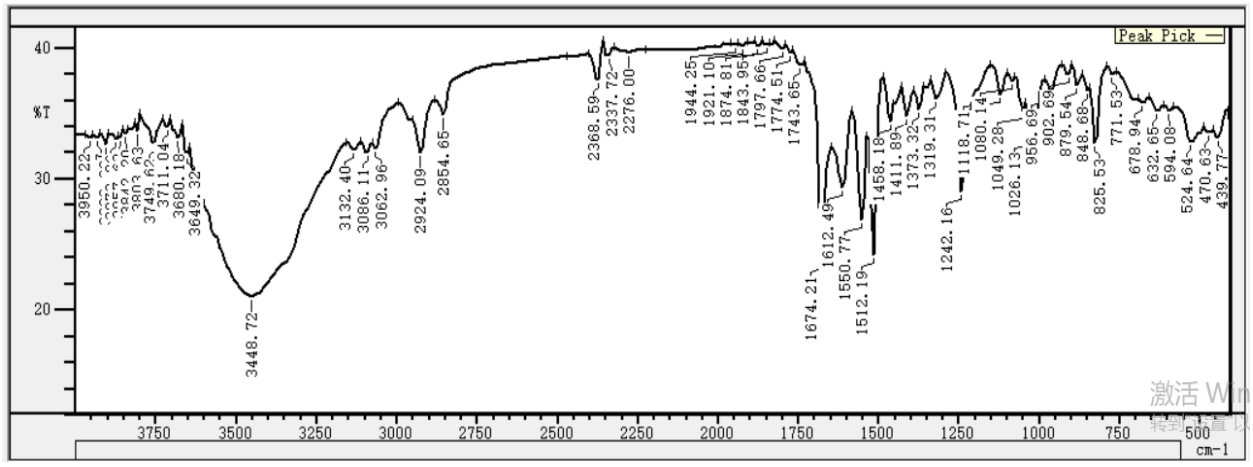


Figure S7. IR spectrum (KBr) of compound **5**.

Mass spectrometry

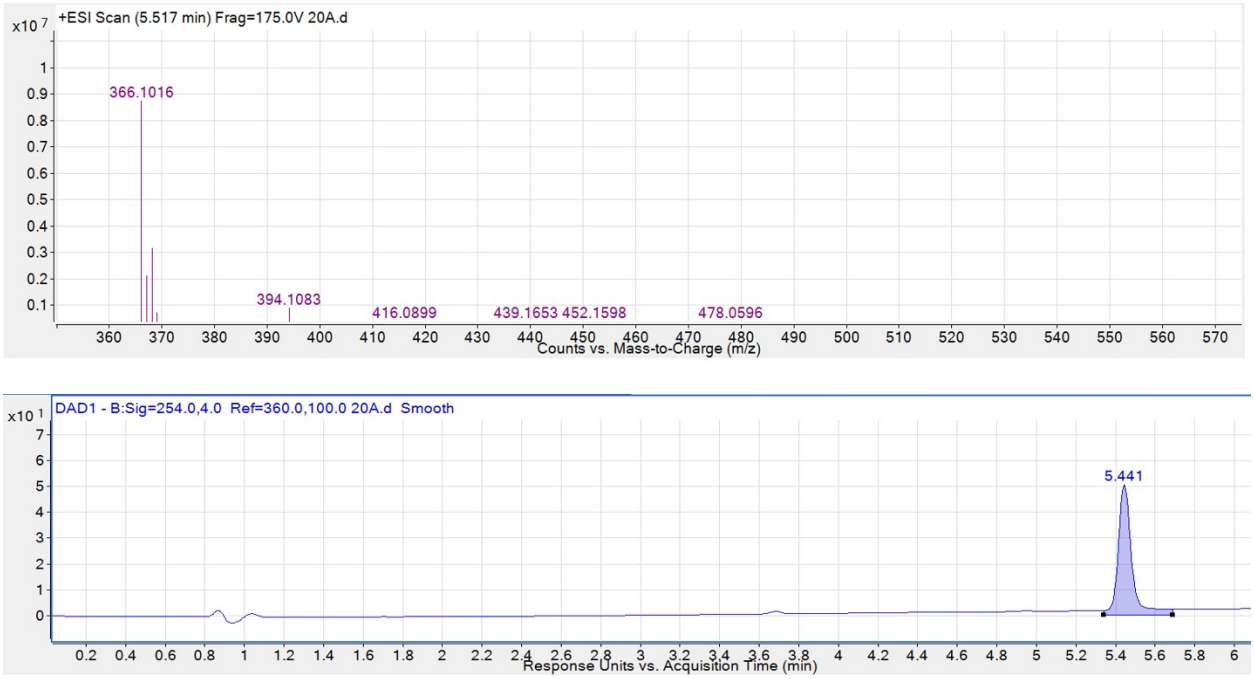
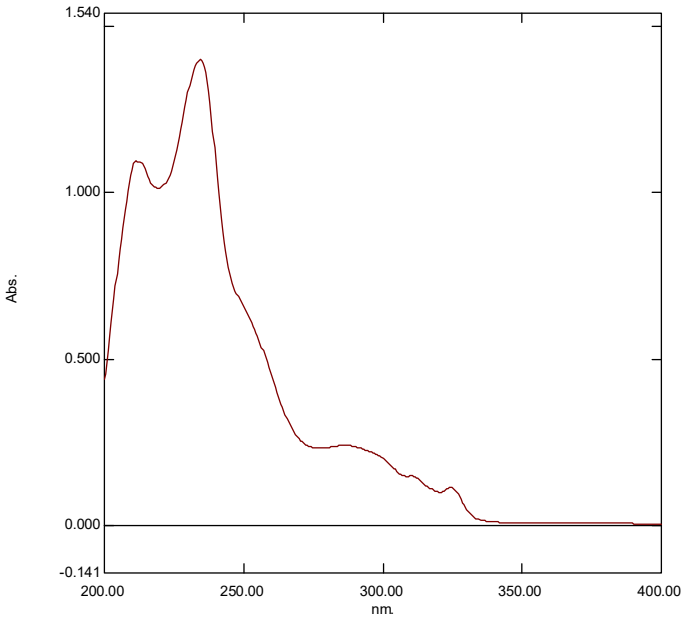


Figure S8. Mass spectrum and UPLC-UV chromatogram (254 nm) of compound **5**. The spectrum was recorded in positive ionization mode (ESI). Analysis was performed using a solvent mixture containing acetonitrile/water at a flow rate of 0.5 mL/min. The mobile phase was isocratic (water + 0.01% TFA; CH_3CN).

UV-VIS spectrometry



Peak Pick

No.	P/V	Wavelength nm.	Abs.	Description
1	↑	373.00	0.011	
2	↑	324.50	0.116	
3	↑	287.00	0.243	
4	↑	234.50	1.399	
5	↑	211.50	1.097	
6	↓	350.50	0.010	
7	↓	320.50	0.101	
8	↓	277.00	0.233	
9	↓	219.50	1.015	

Figure S9. UV spectrum of compound **3** (range 200-400nm in CH_2Cl_2)

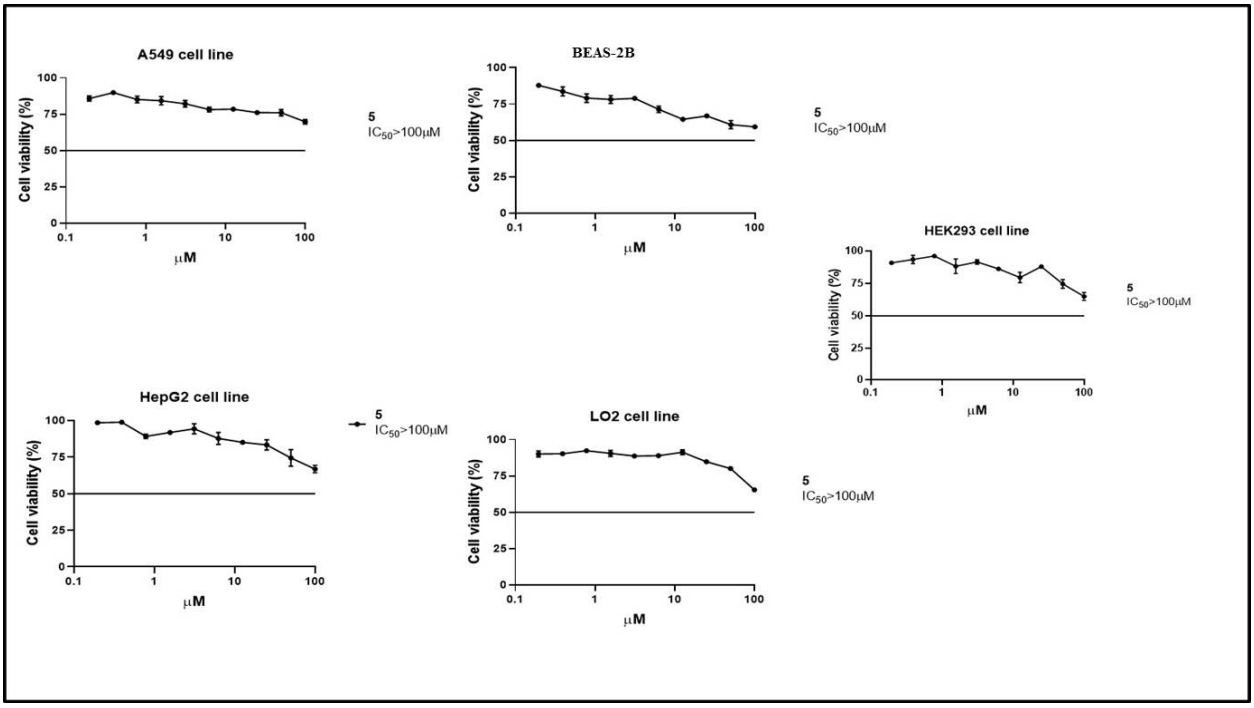


Figure S10. Cytotoxicity studies of compound **5** determined by MTT assays.

Table S2. Physicochemical properties of compound **5** calculated by SwissADME[2]

Compound	MW	HBA	HBD	tPSA	nRtB
5	393.10	5	1	95,92A	6

MW: Molecular weight. nRtB: Number of rotatable bond. HBA: Number of hydrogen-bond acceptor. HBD: Number of hydrogen-bond donor. tPSA: Topological surface area[3]

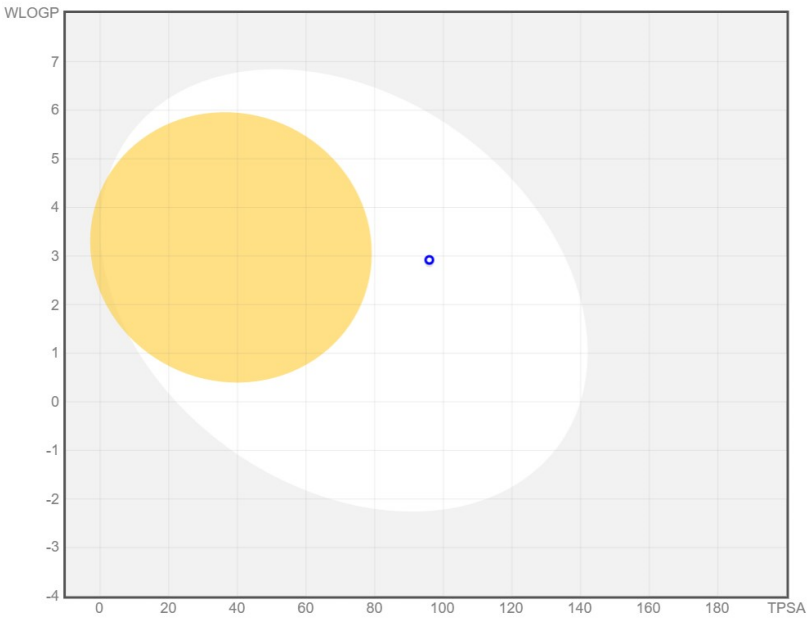


Figure S11. BOILED-Egg graph resuming the predicted properties for the compound **5**.

The overall predicted pharmacokinetic properties were resumed in the BOILED-Egg graph[4] as reported in Figure S11. The white area indicated the molecules with high probability to be absorbed by the GI tract, while the yellow area indicated the molecules with high probability to passively permeate through the blood-brain barrier. The blue dot represented the molecule which was predicted to be effluated from the CNS by P-glycoprotein.

References

1. Melis DR, Barnett CB, Wiesner L, Nordlander E, Smith GS. Quinoline-triazole half-sandwich iridium(III) complexes: synthesis, antiplasmodial activity and preliminary transfer hydrogenation studies. *Dalton Trans*. **2020** 25, 49(33), 11543-11555.
2. Daina A, Michielin O, Zoete V. SwissADME: a free web tool to evaluate pharmacokinetics, drug-likeness and medicinal chemistry friendliness of small molecules. *Sci Rep.* **2017**, 3, 7, 42717.
3. Ertl P, Rohde B, Selzer P. Fast calculation of molecular polar surface area as a sum of fragment-based contributions and its application tothe prediction of drug transport properties. *J. Med. Chem*. **2000**, 43(20), 3714–3717.
4. Daina A, Zoete V. A boiled-egg to predict gastrointestinal absorption and brain penetration of small molecules. *Chem. Med. Chem*. **2016**, 11(11), 1117–1121.