Supplementary Information

New acyl derivatives of 3-aminofurazanes and their antiplasmodial activities

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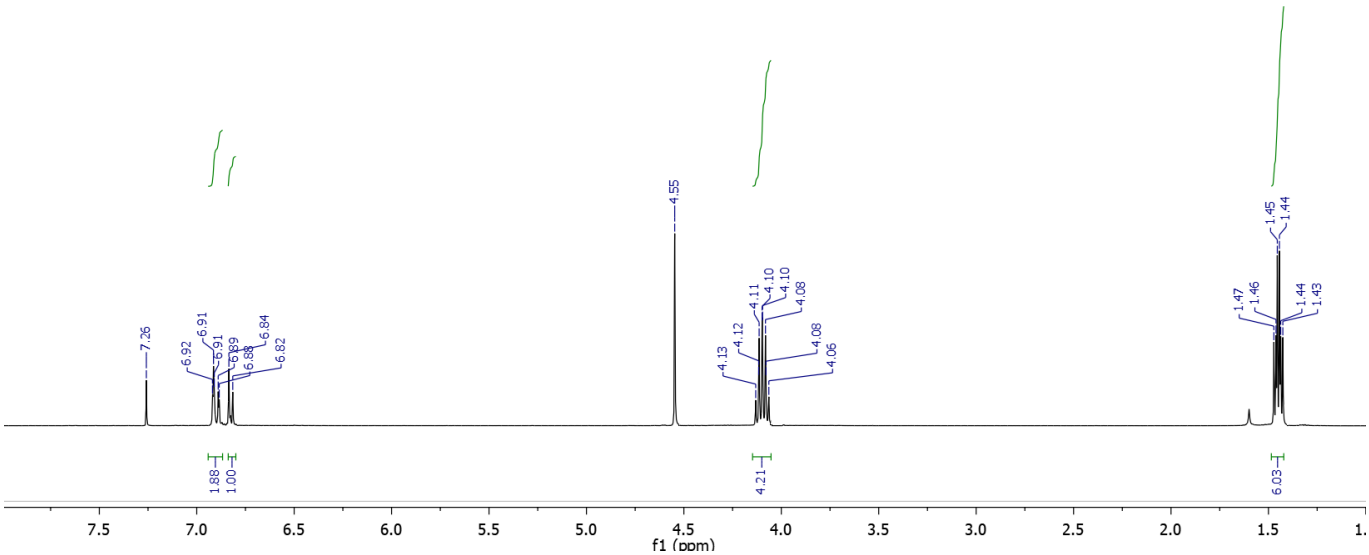
NMR spectra data of compounds 6, 2, 8, 9, 20, 1, 10-17, 26-29, 31, 32, 34, 35 and 39

Figure S1. 1H NMR at 400 MHz and 13C NMR at 100 MHz spectra for compound **6**



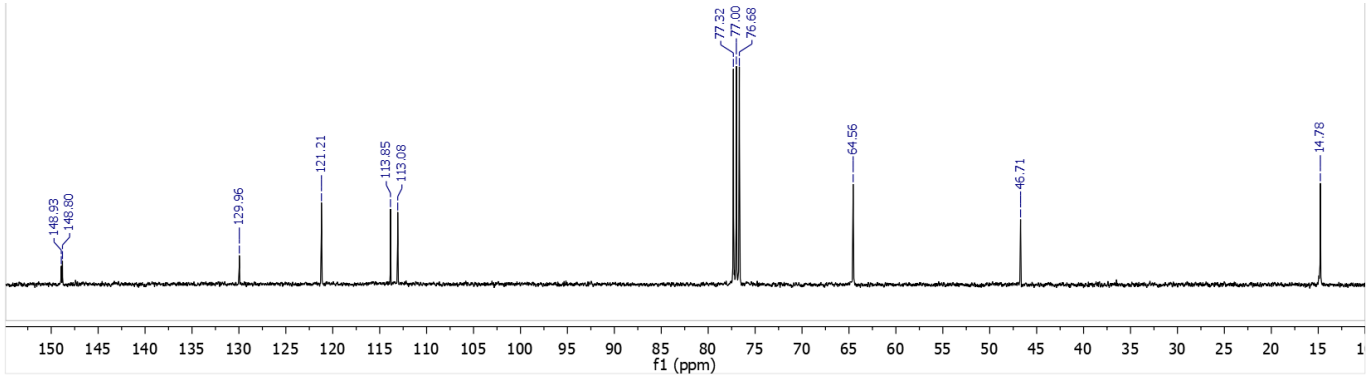
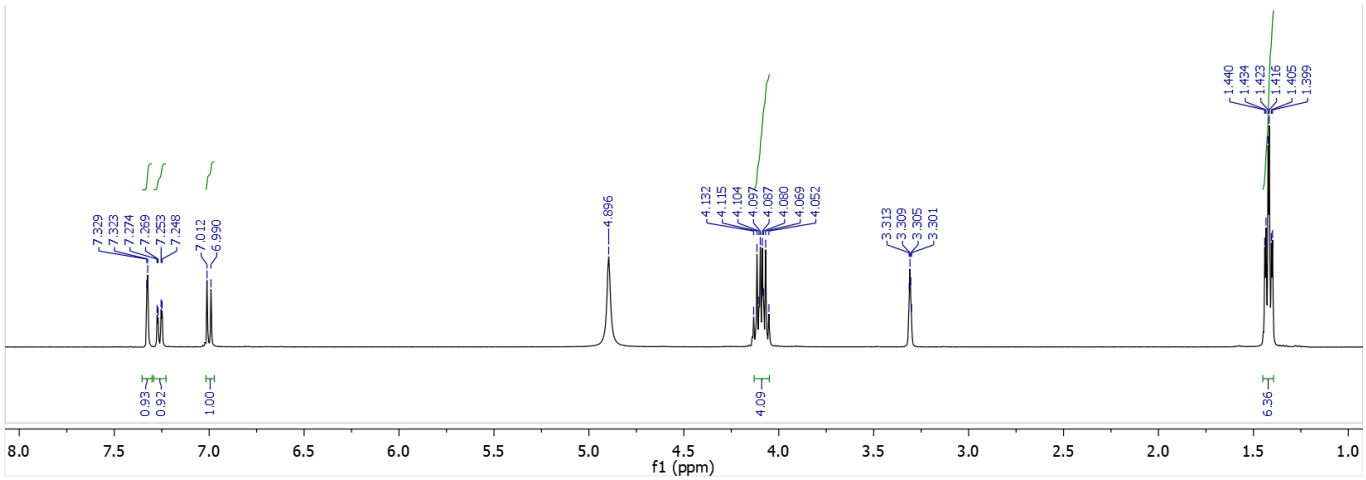


Figure S2. 1H NMR at 400 MHz and 13C NMR at 100 MHz spectra for compound **2**



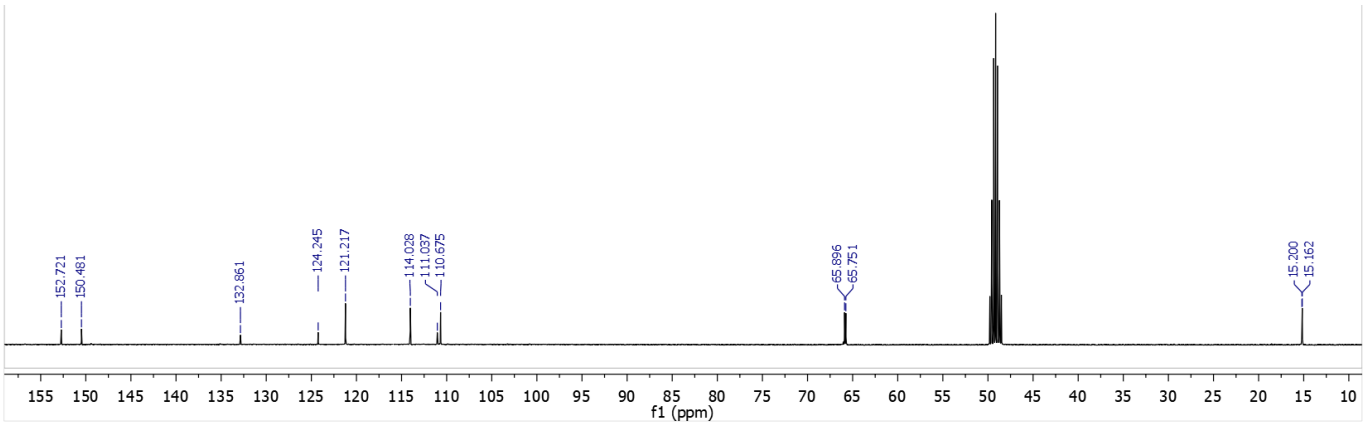
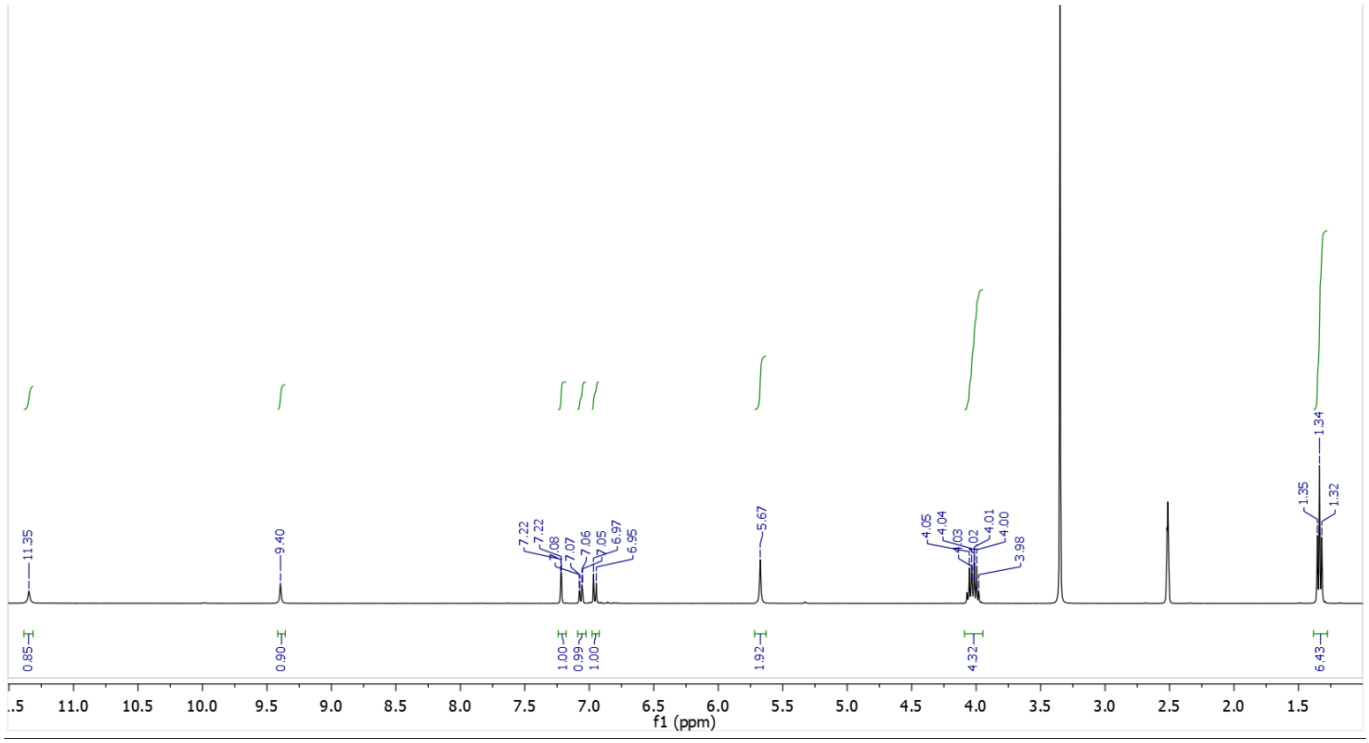


Figure S3. 1H NMR at 400 MHz and 13C NMR at 100 MHz spectra for compound **8**



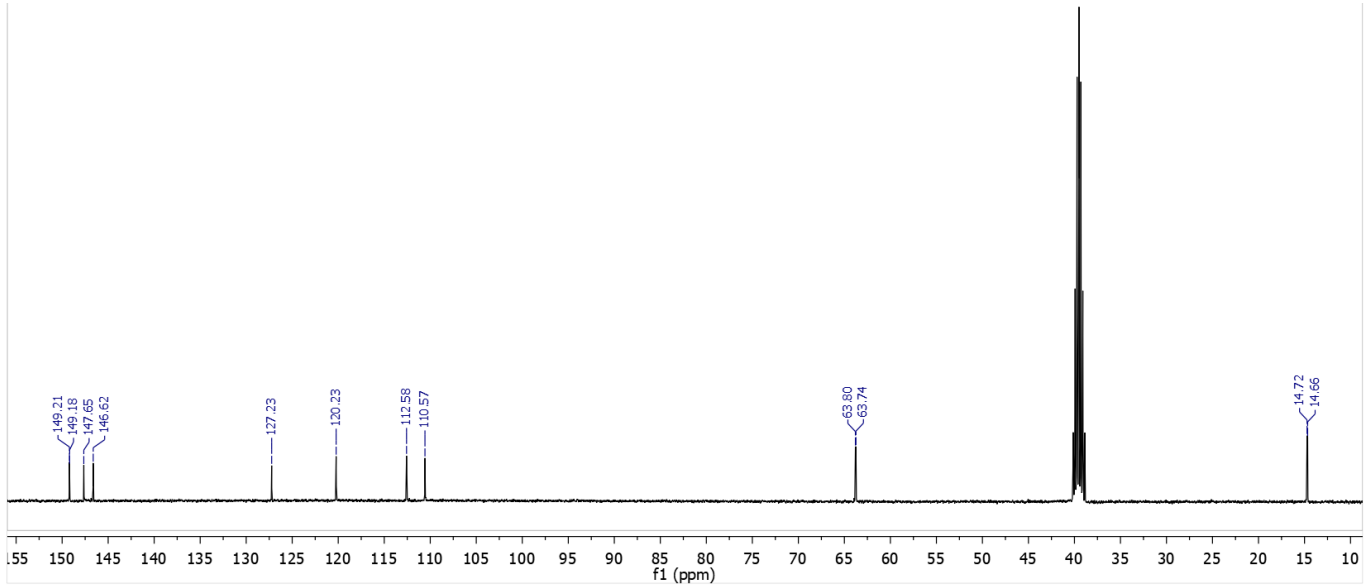
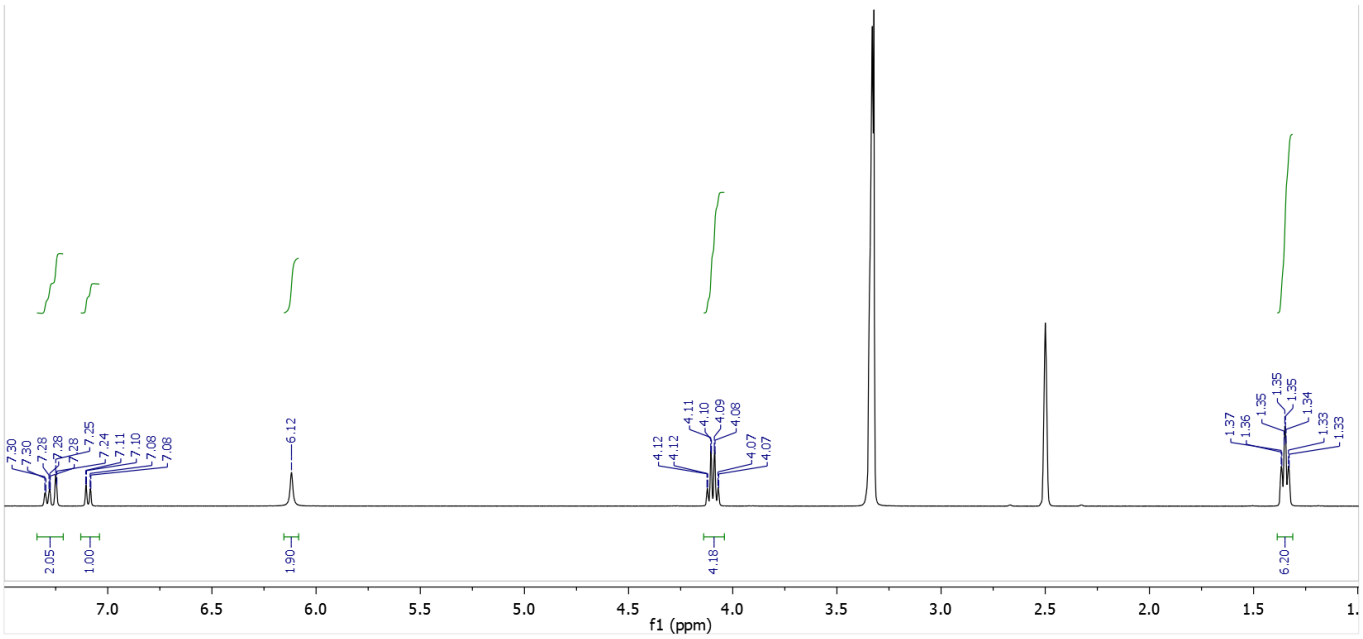


Figure S4. 1H NMR at 400 MHz and 13C NMR at 100 MHz spectra for compound **9**



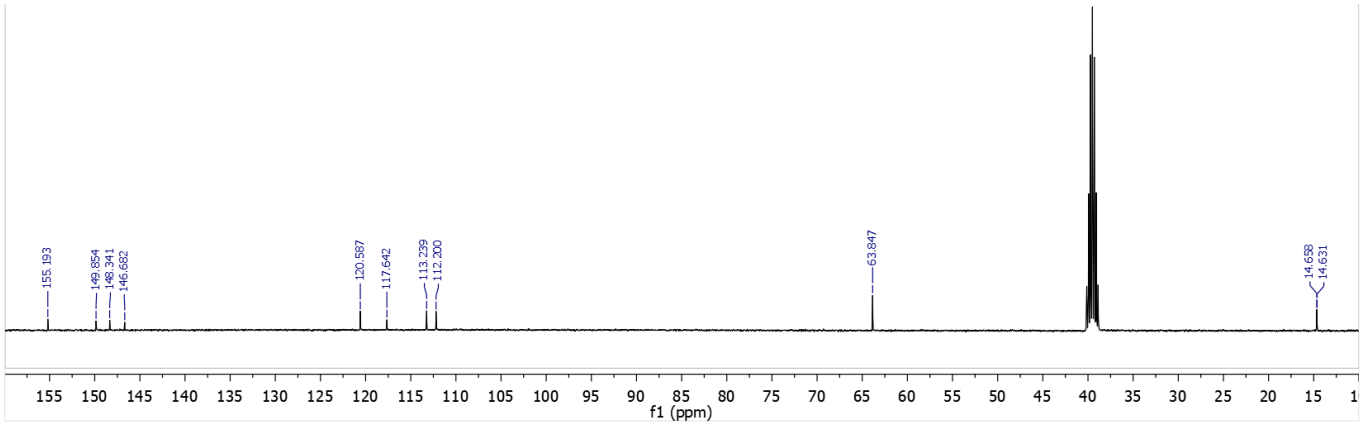
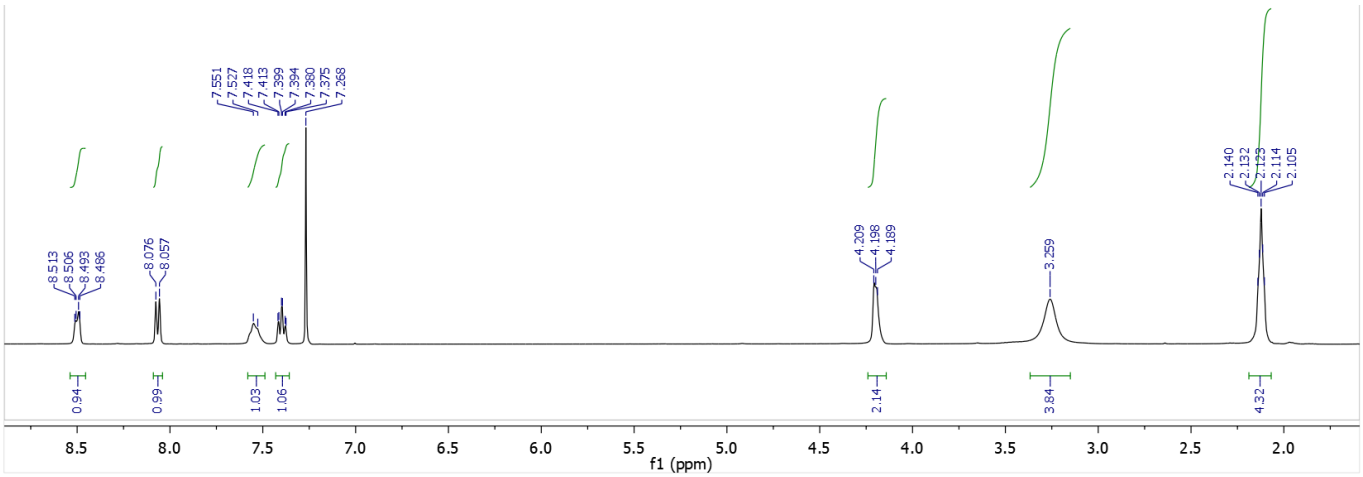


Figure S5. 1H NMR at 400 MHz and 13C NMR at 100 MHz spectra for compound **20**



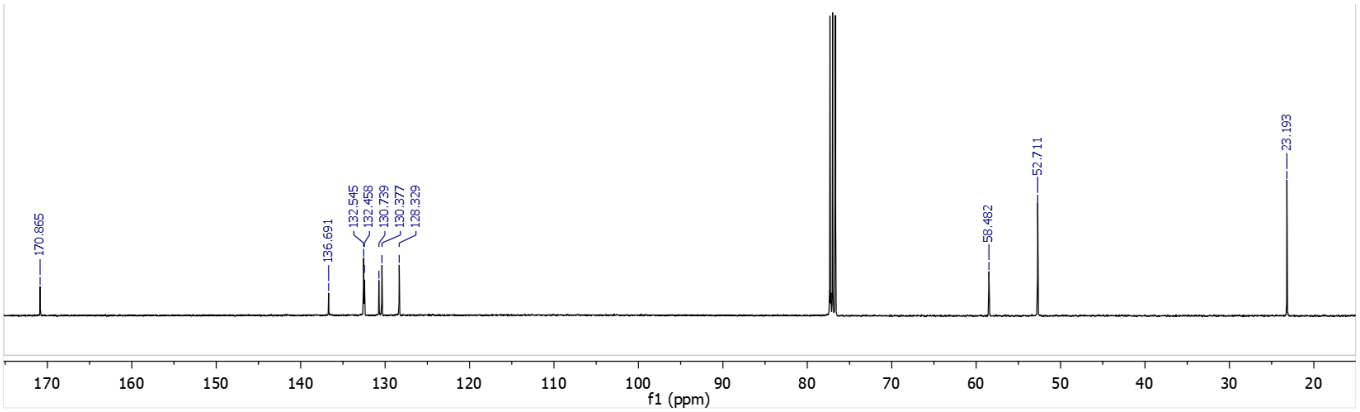
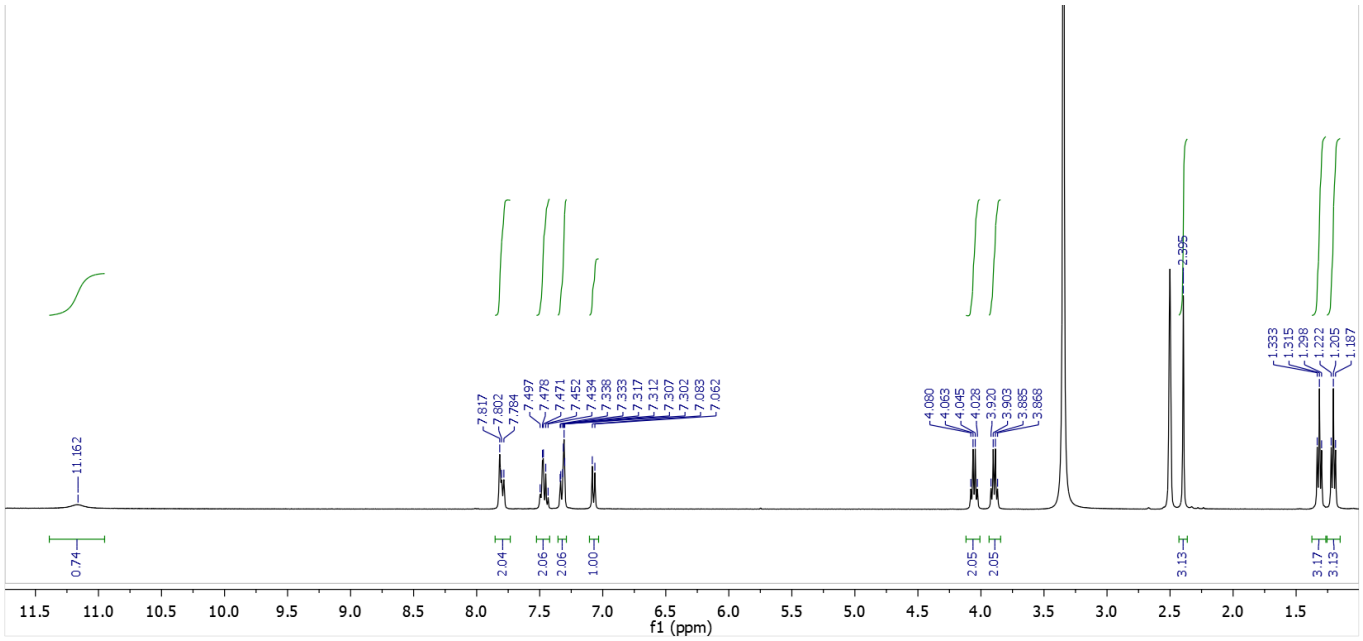


Figure S6. 1H NMR at 400 MHz and 13C NMR at 100 MHz spectra for compound **1**



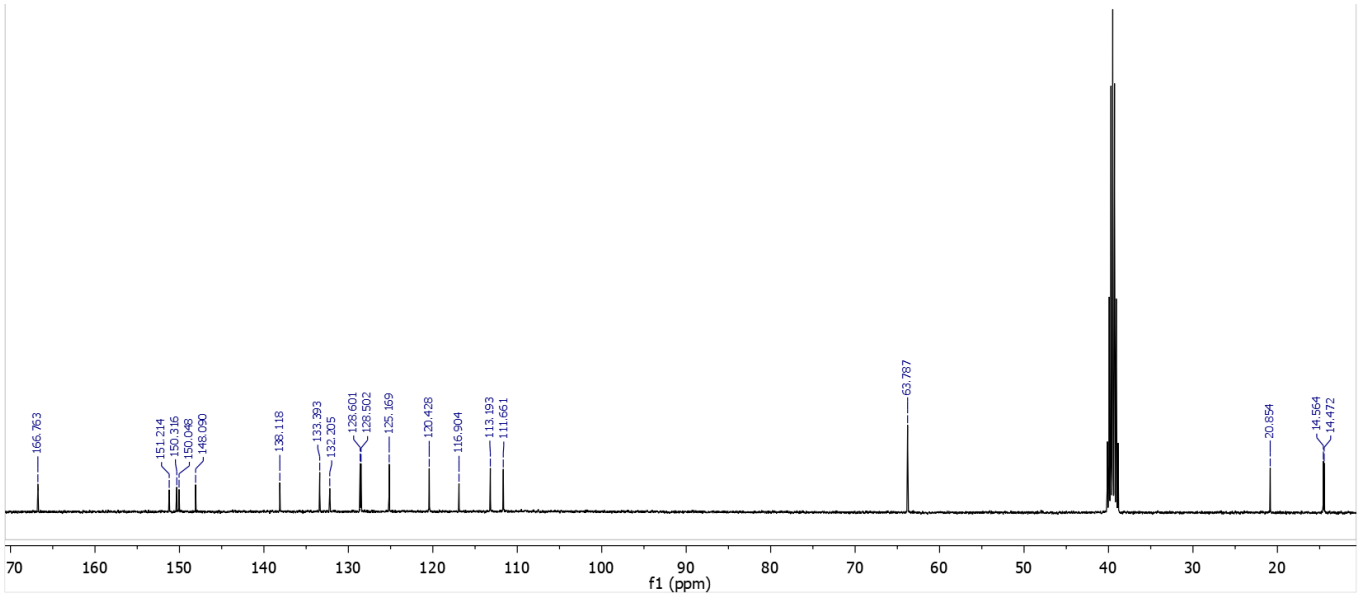
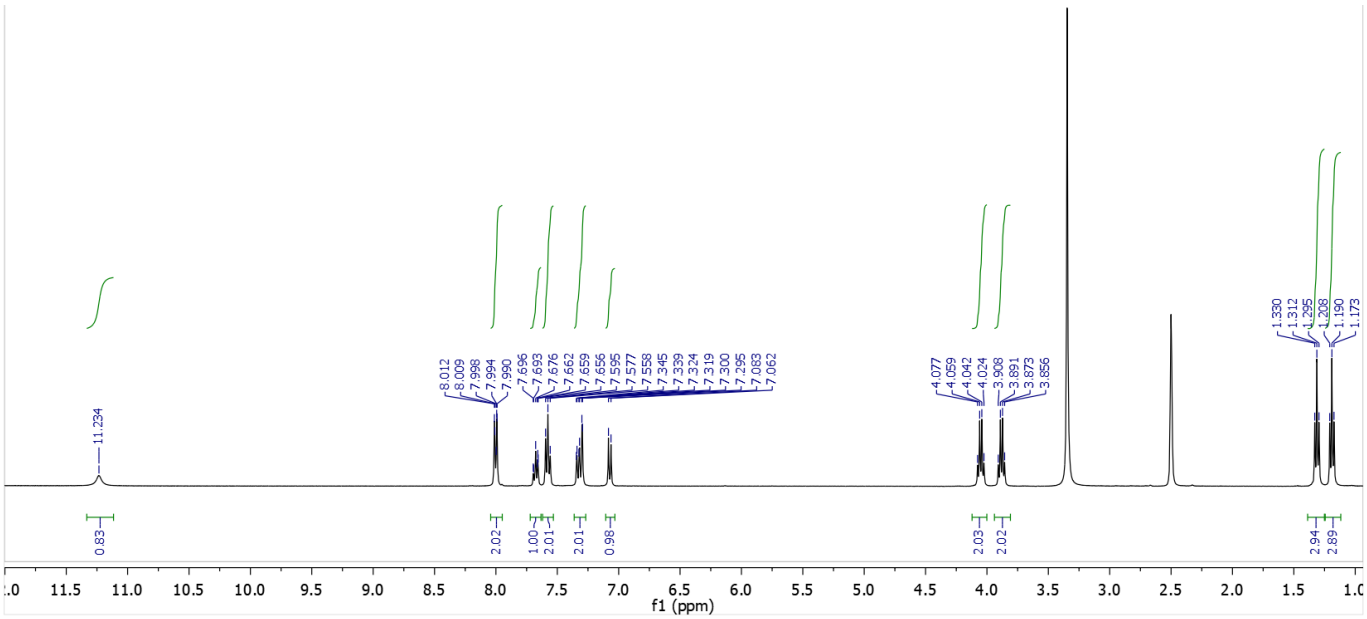


Figure S7. 1H NMR at 400 MHz and 13C NMR at 100 MHz spectra for compound **10**



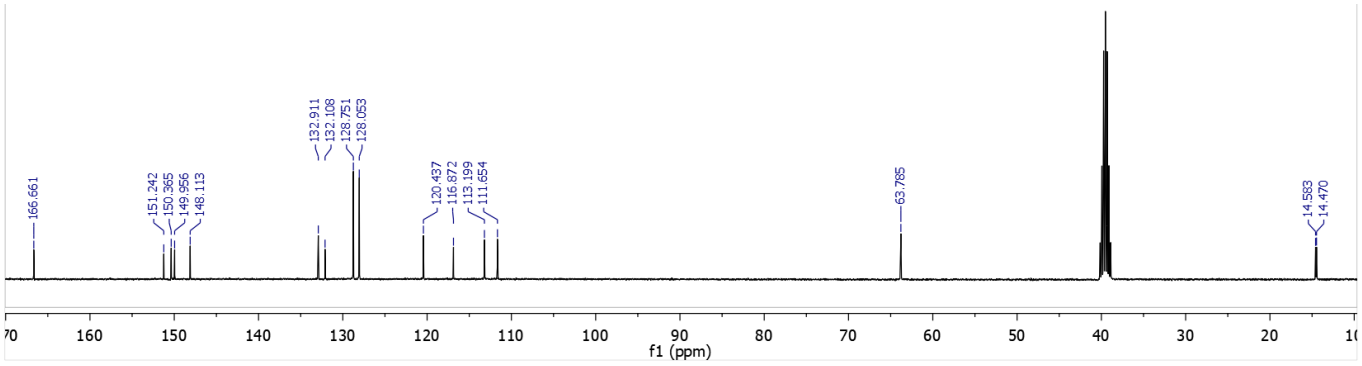
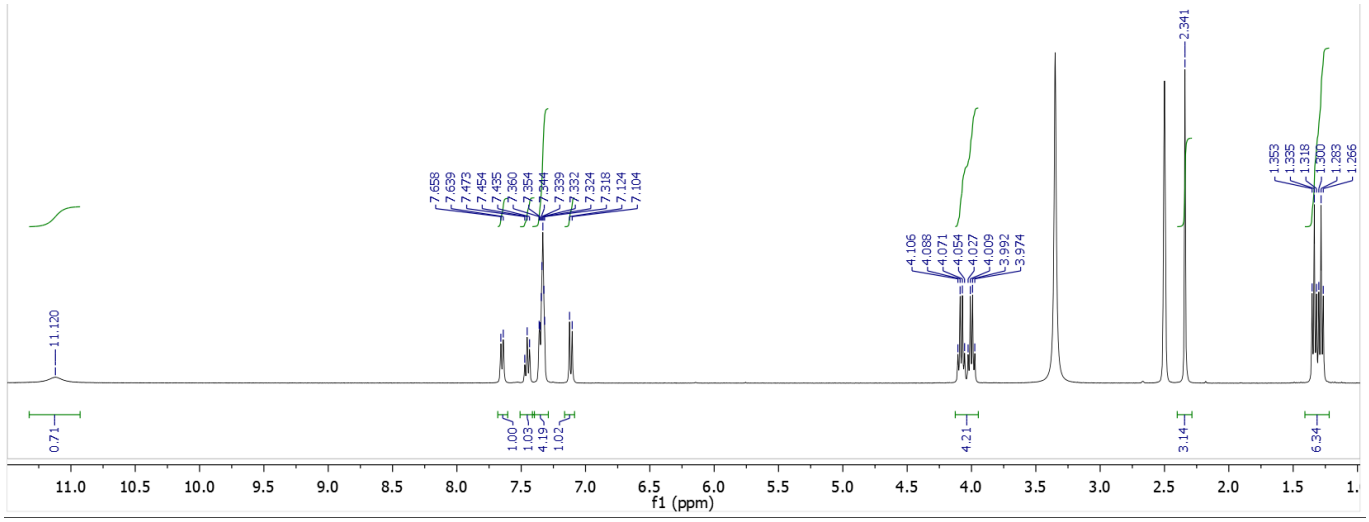


Figure S8. 1H NMR at 400 MHz and 13C NMR at 100 MHz spectra for compound **11**



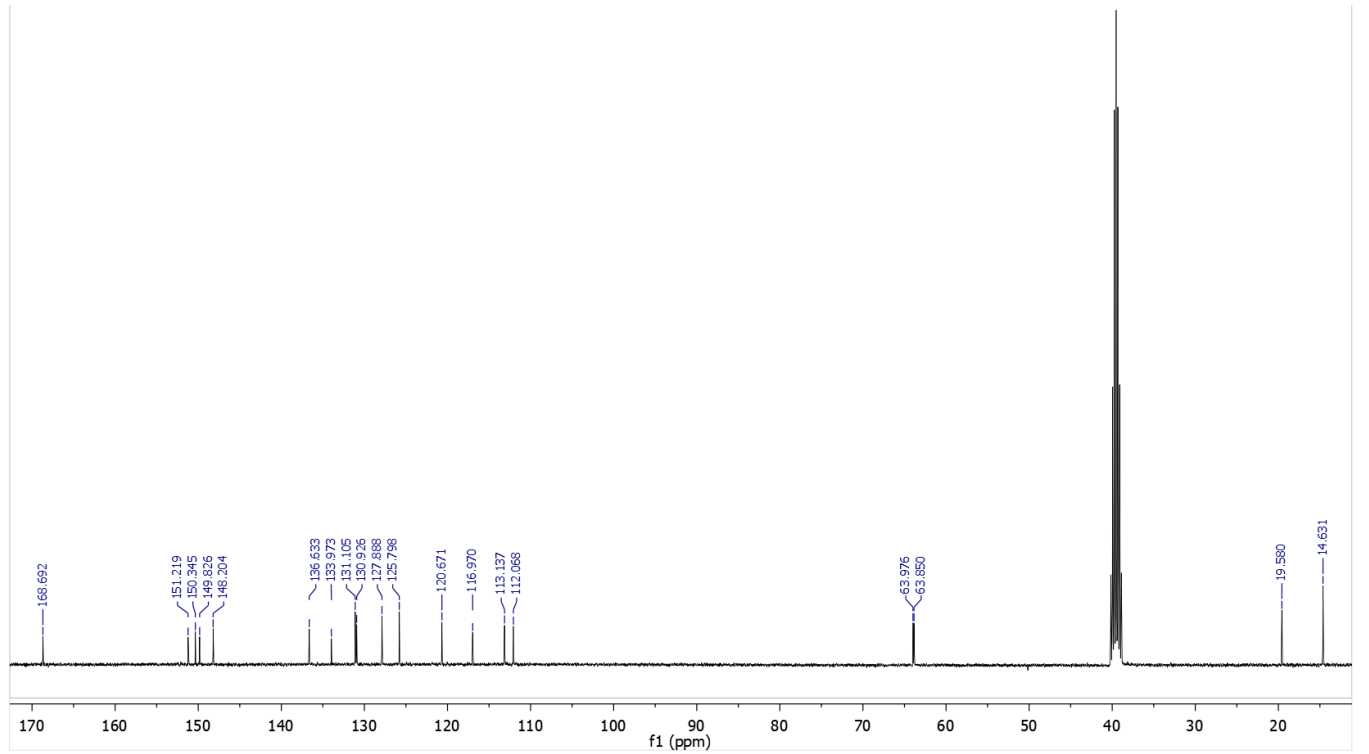
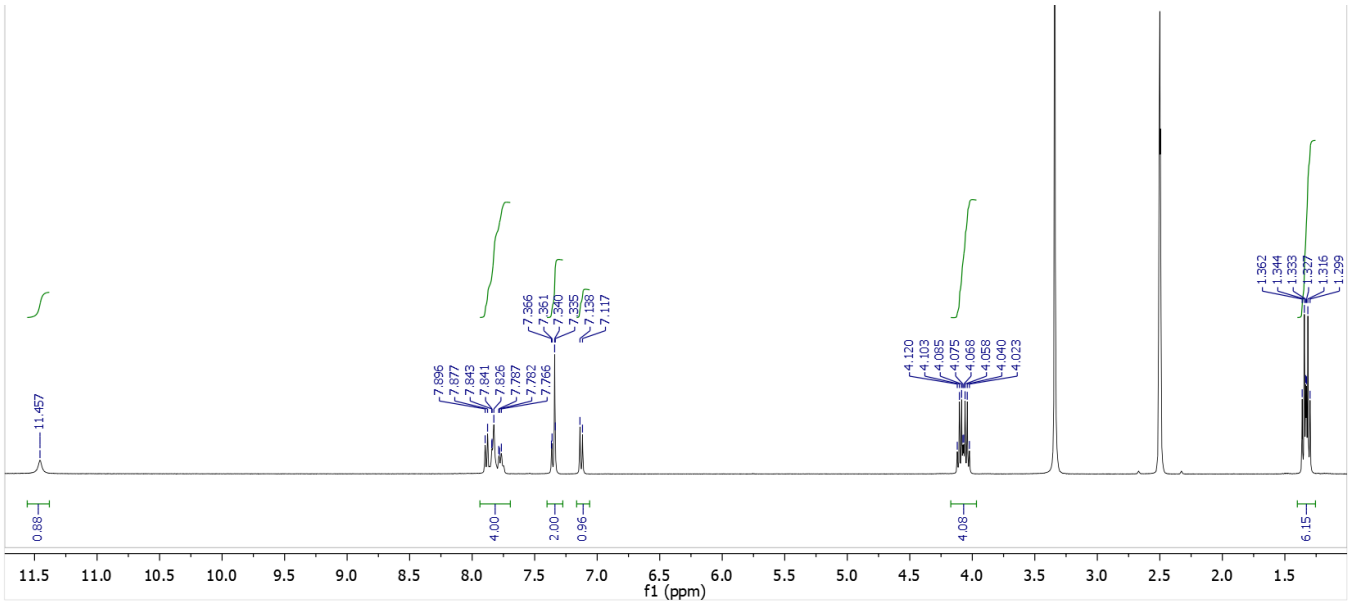


Figure S9. 1H NMR at 400 MHz and 13C NMR at 100 MHz spectra for compound **12**



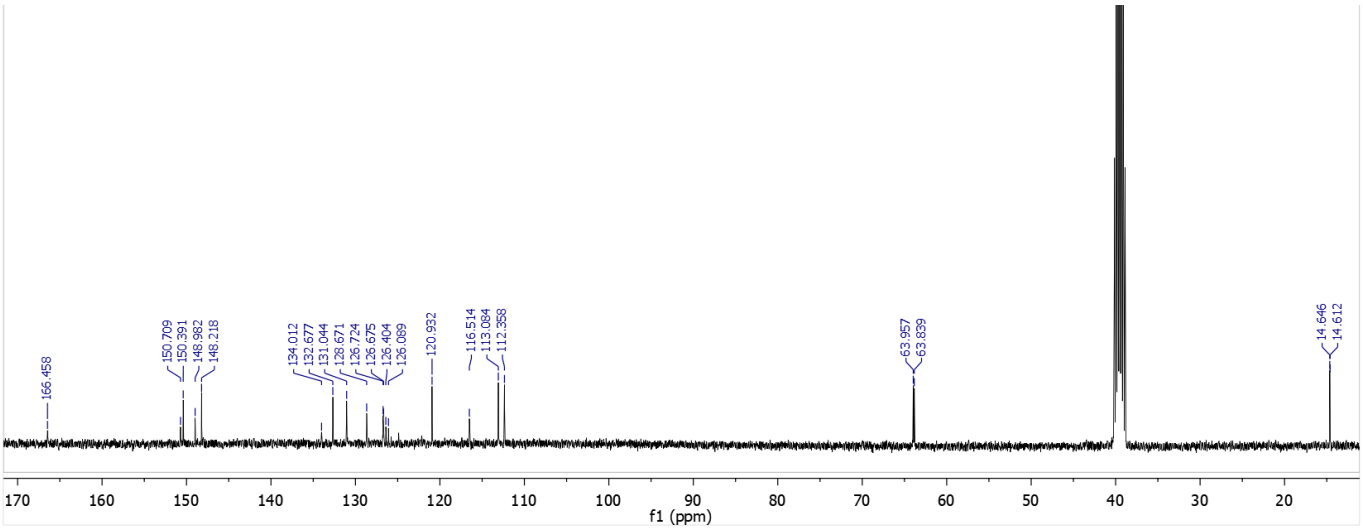
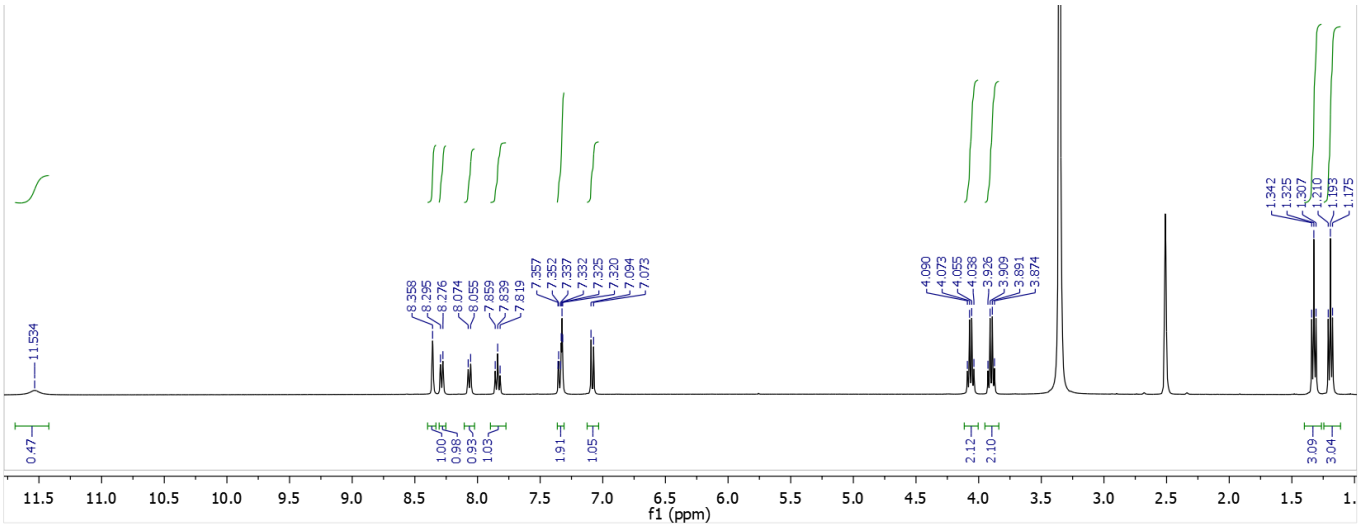


Figure S10. 1H NMR at 400 MHz and 13C NMR at 100 MHz spectra for compound **13**



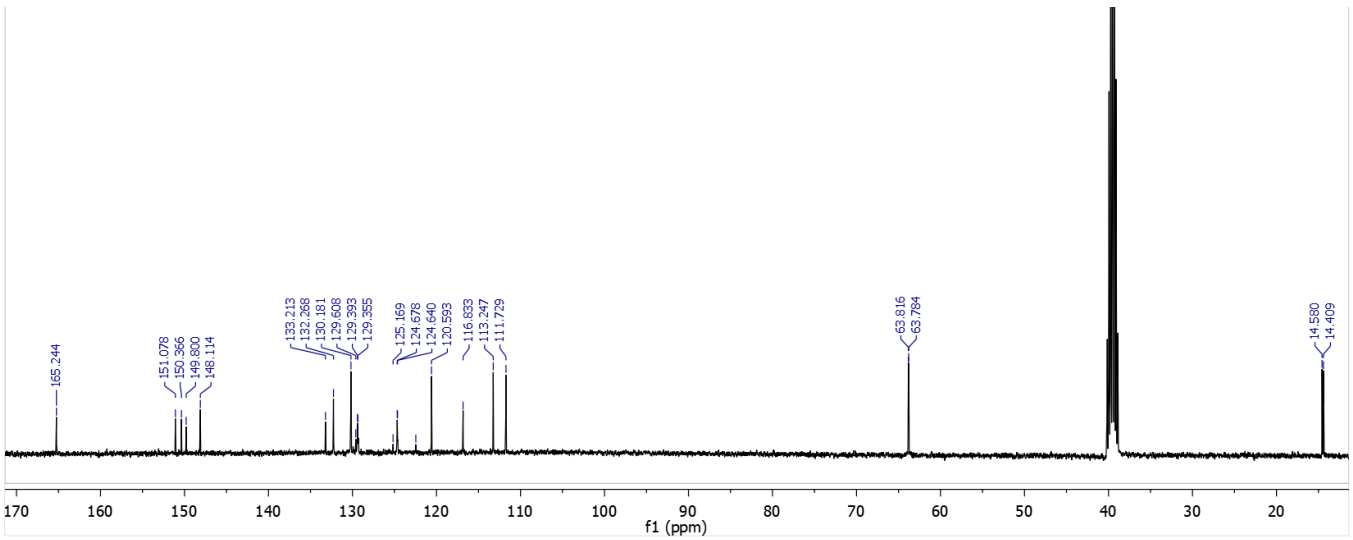
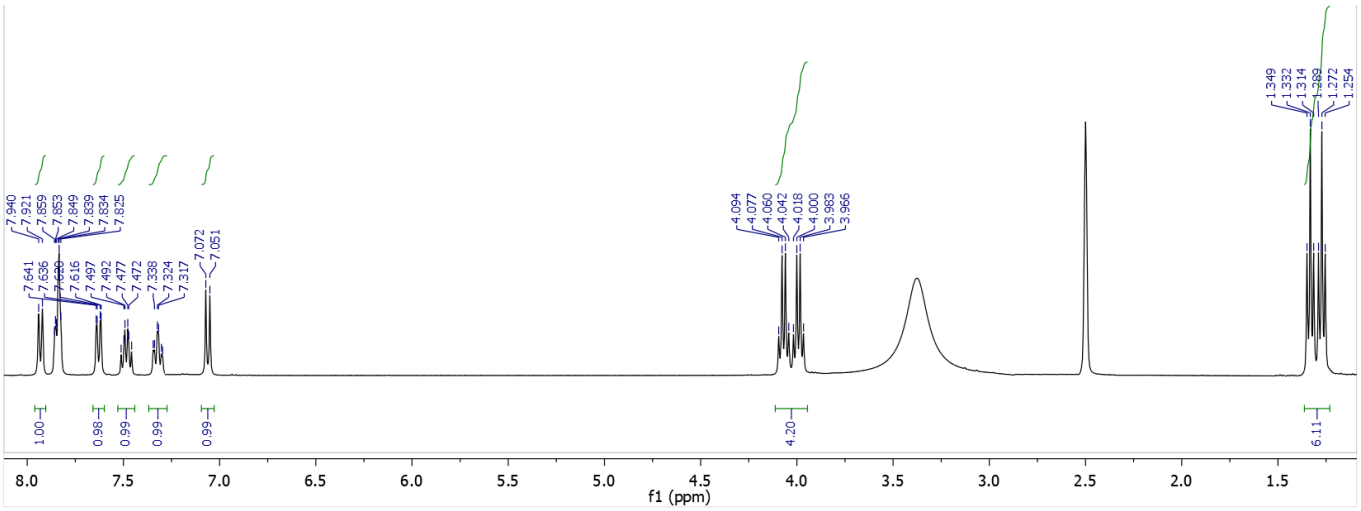


Figure S11. 1H NMR at 400 MHz and 13C NMR at 100 MHz spectra for compound **14**



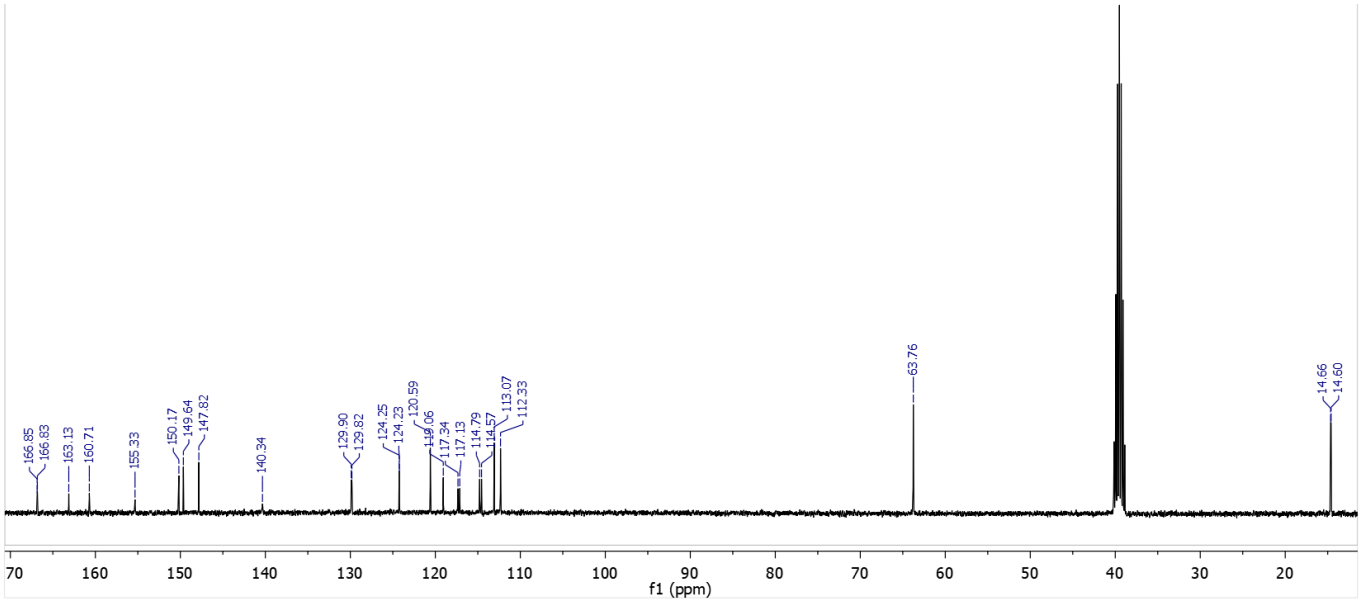
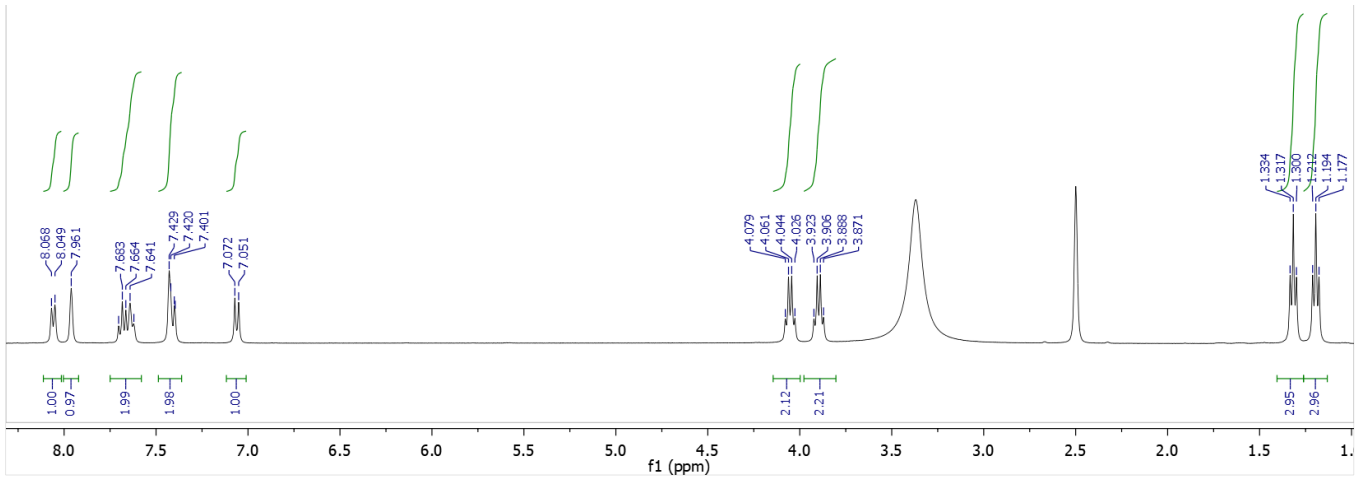


Figure S12. 1H NMR at 400 MHz and 13C NMR at 100 MHz spectra for compound **15**



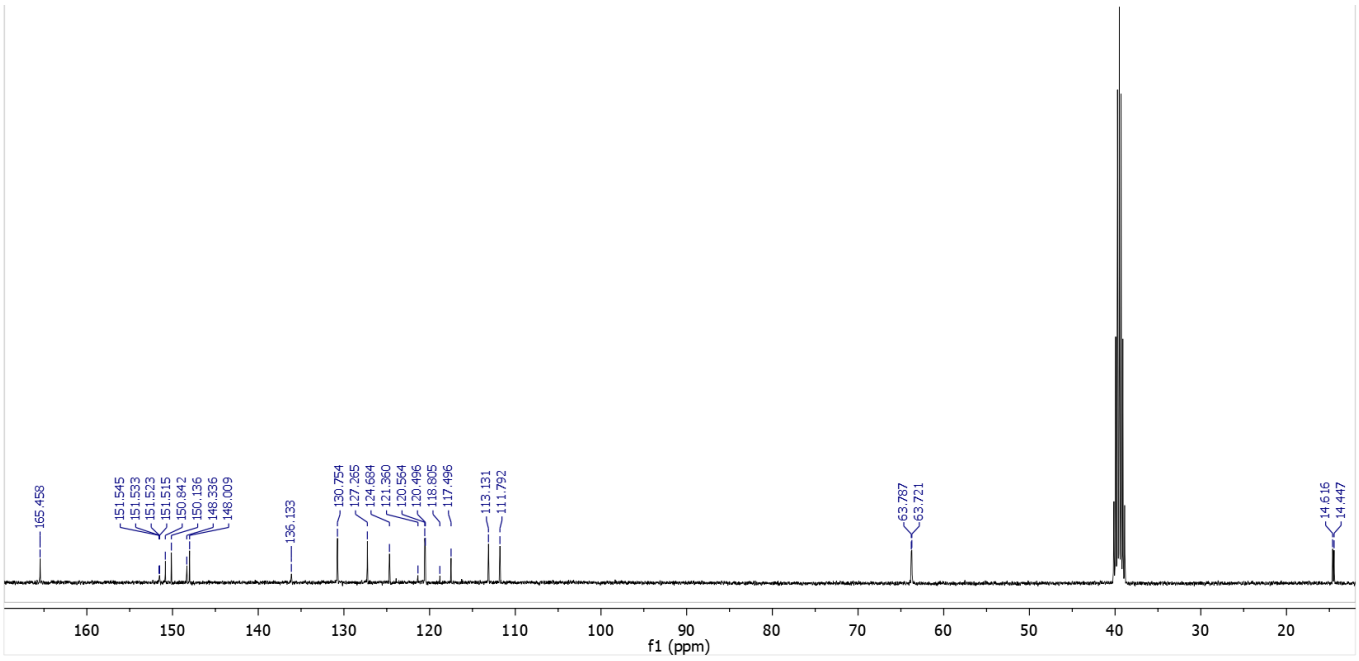
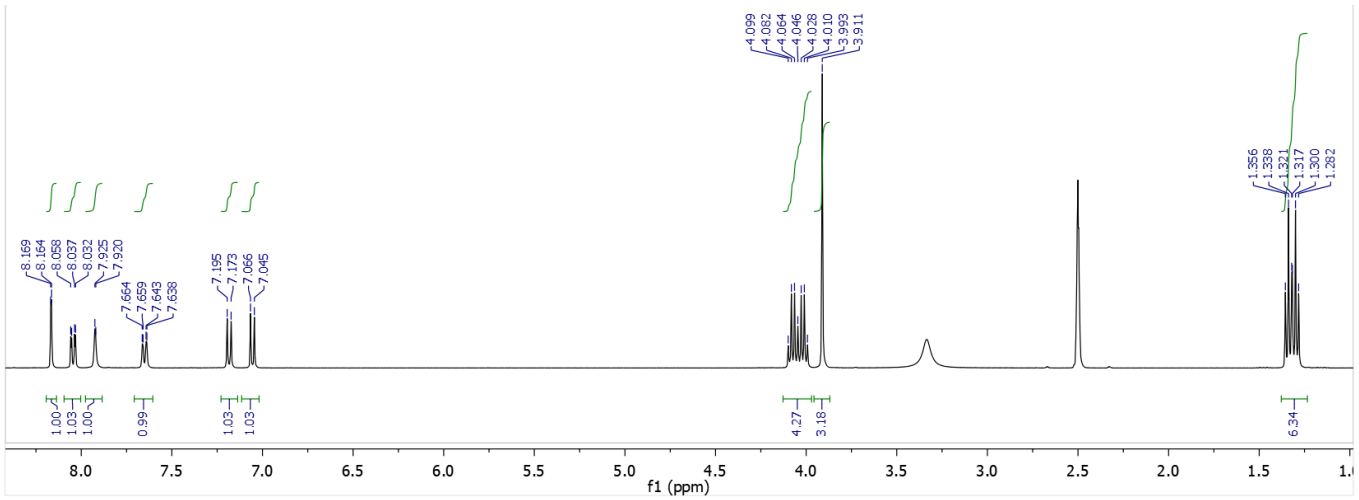


Figure S13. 1H NMR at 400 MHz and 13C NMR at 100 MHz spectra for compound **16**



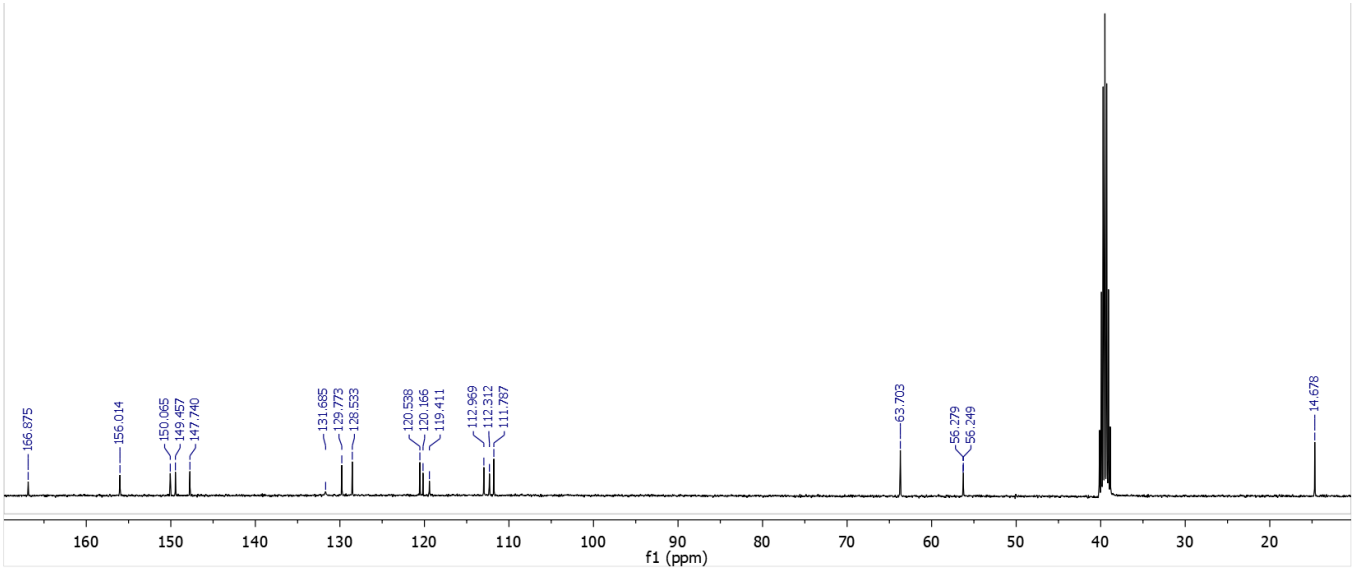
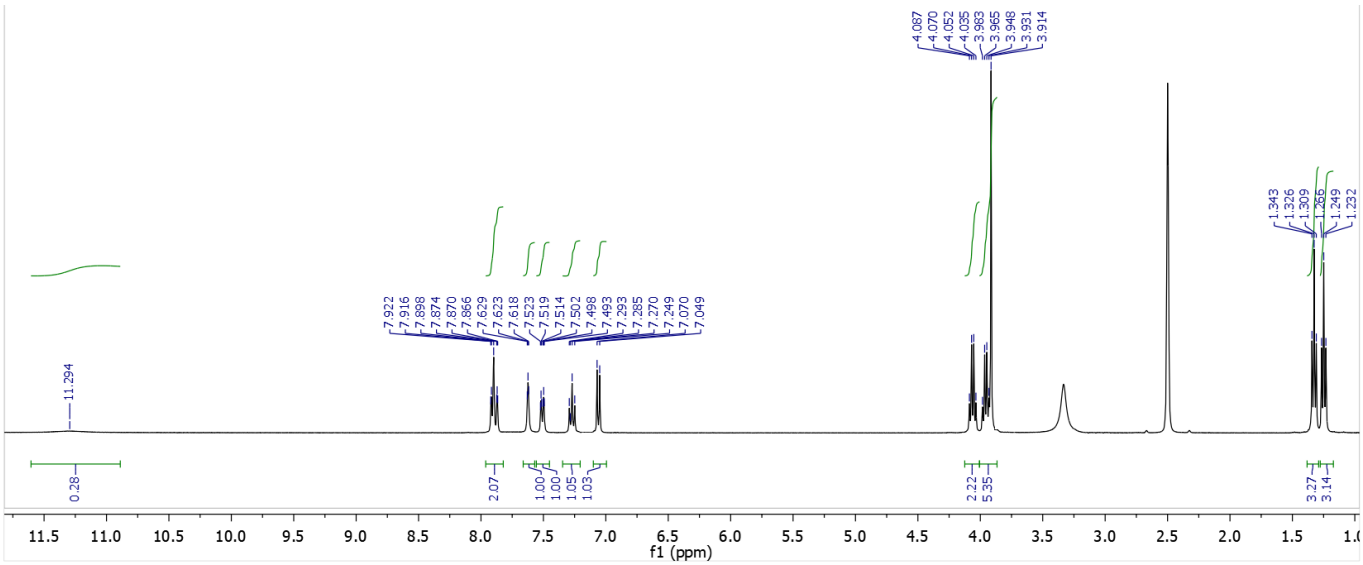


Figure S14. 1H NMR at 400 MHz and 13C NMR at 100 MHz spectra for compound **17**



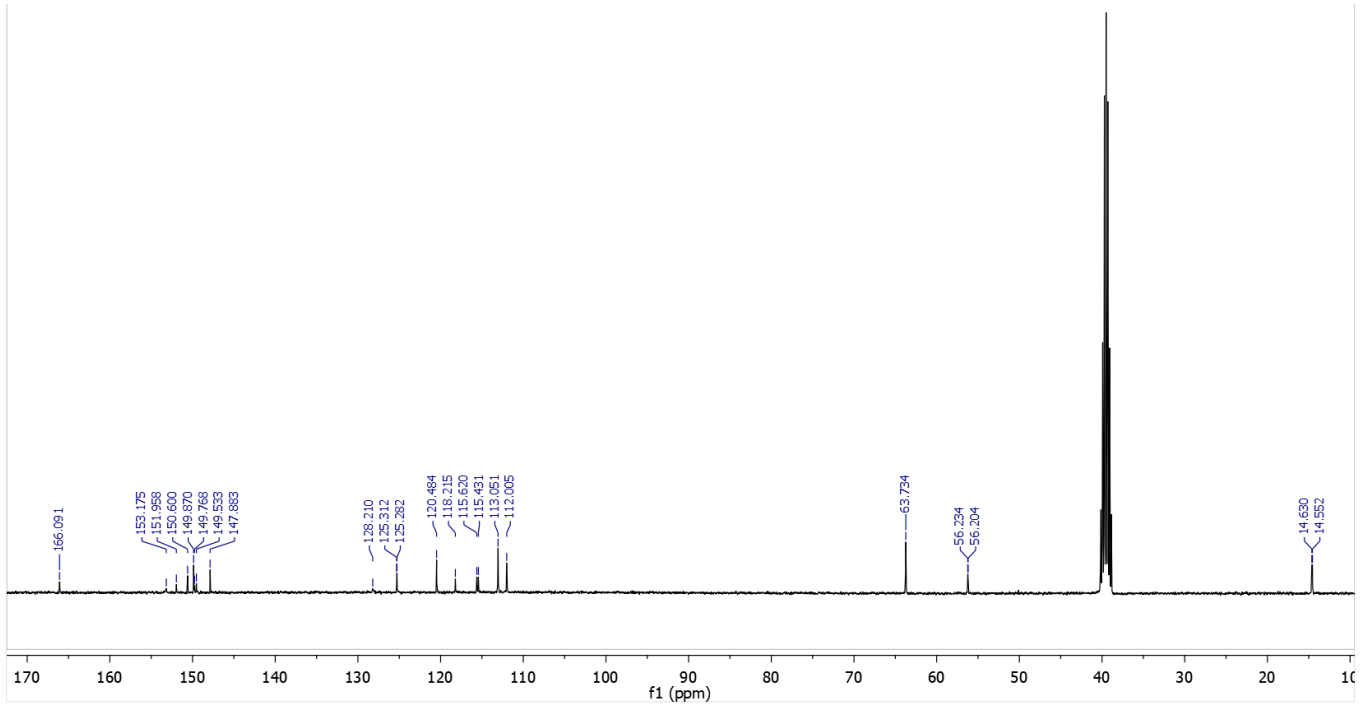
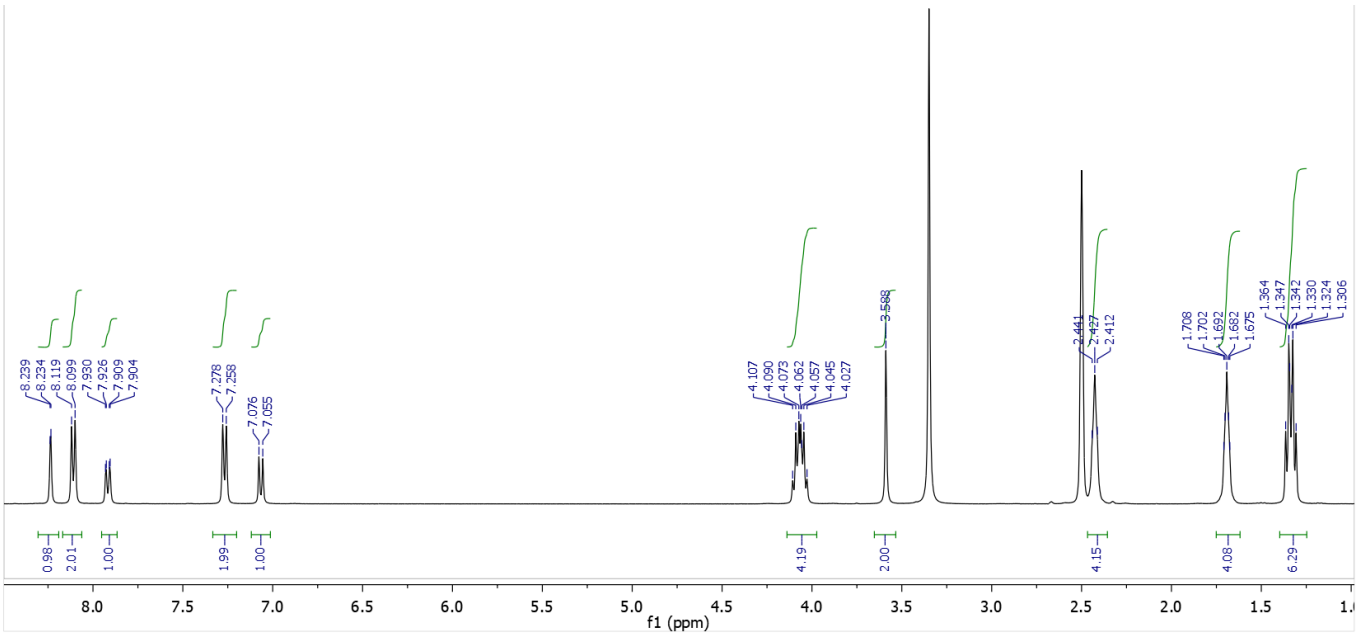


Figure S15. 1H NMR at 400 MHz and 13C NMR at 100 MHz spectra for compound **26**



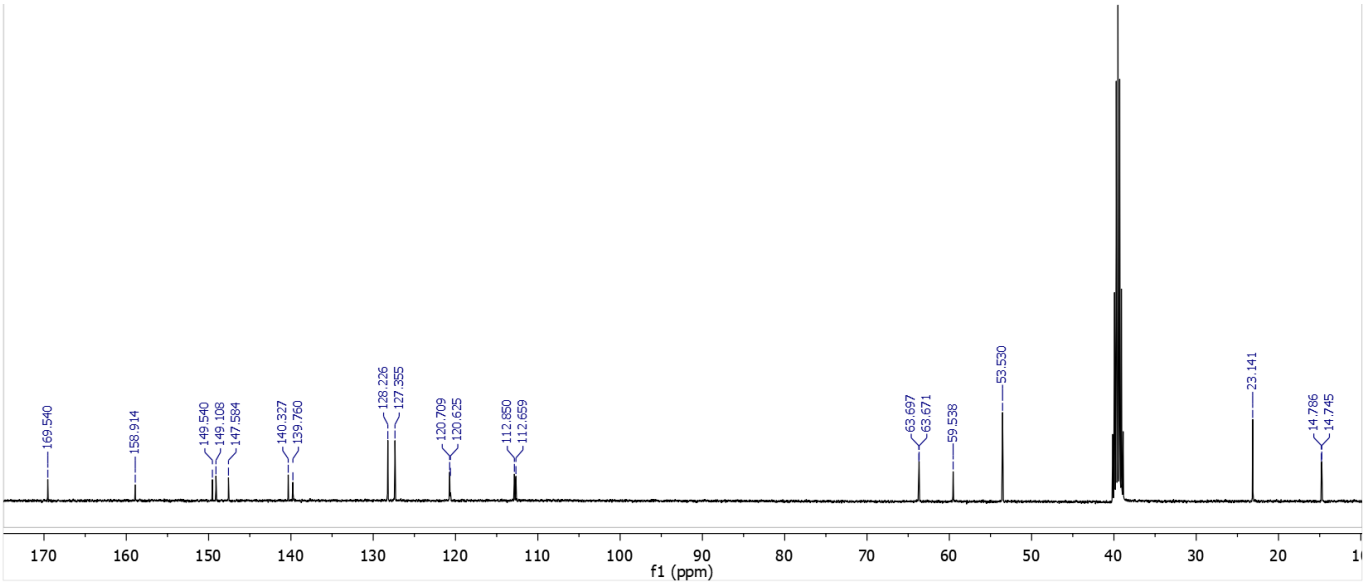
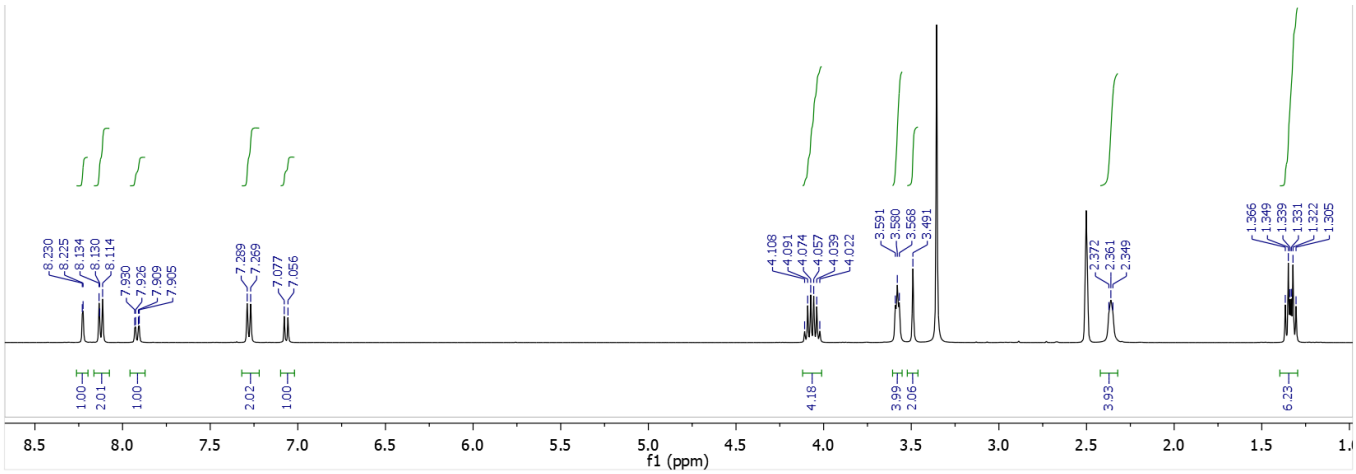


Figure S16. 1H NMR at 400 MHz and 13C NMR at 100 MHz spectra for compound **27**



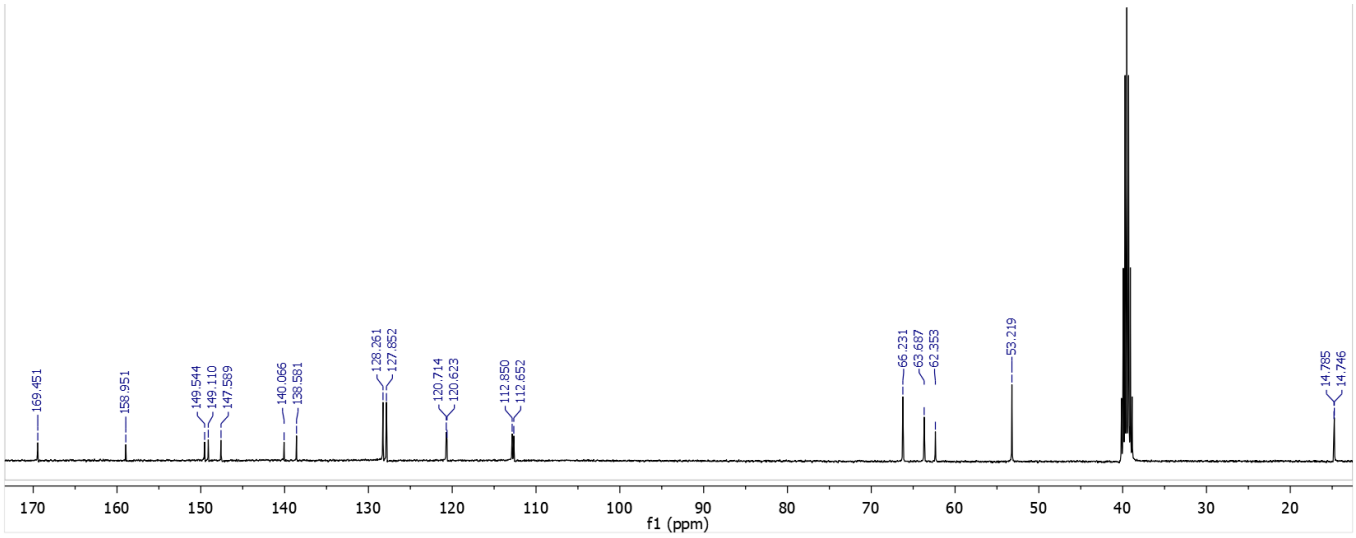
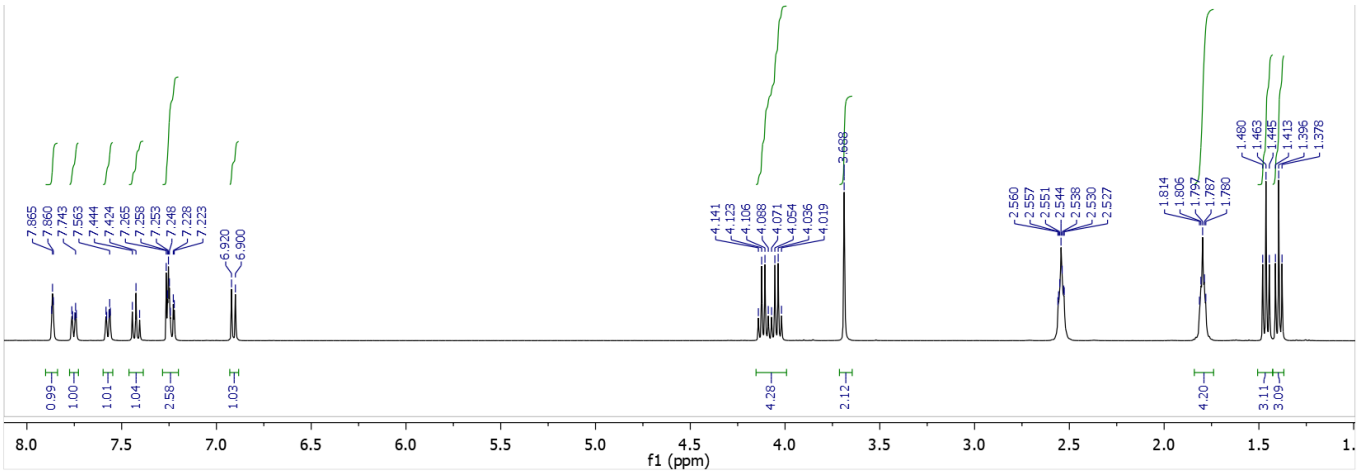


Figure S17. 1H NMR at 400 MHz and 13C NMR at 100 MHz spectra for compound **28**



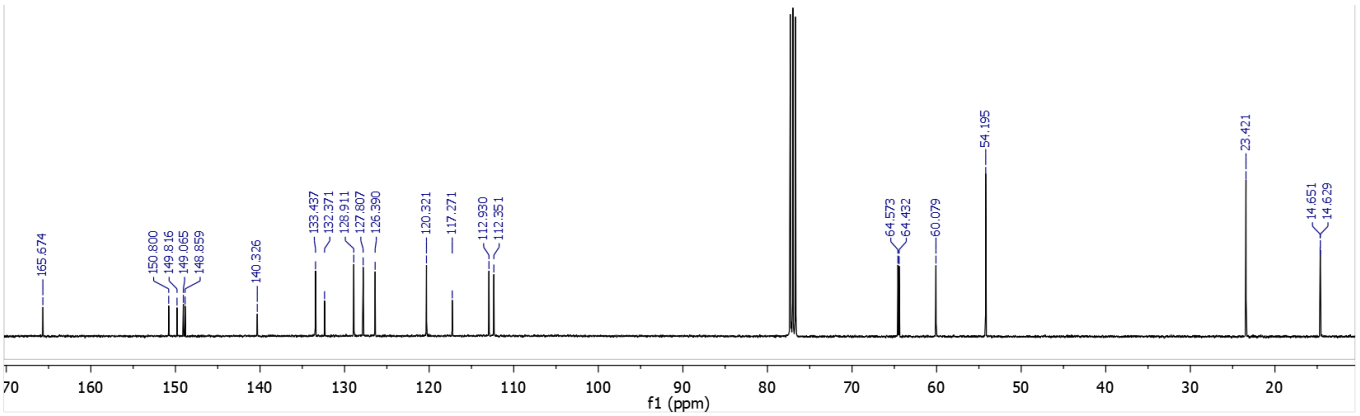
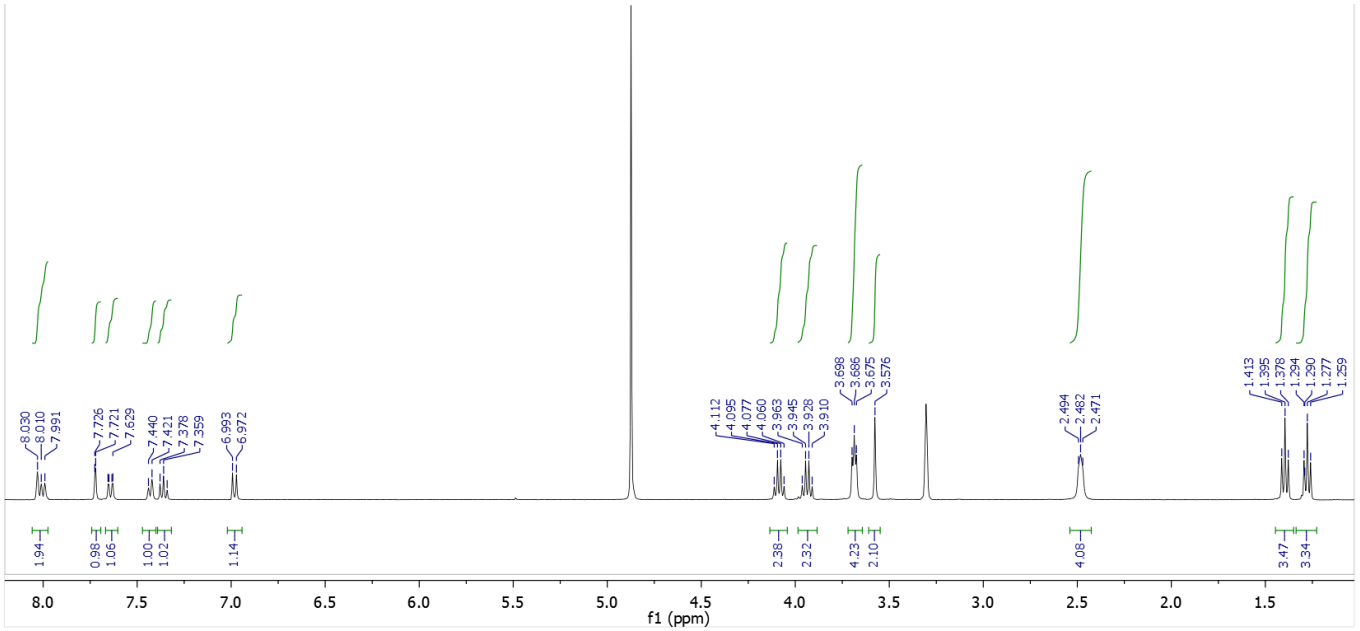


Figure S18. 1H NMR at 400 MHz and 13C NMR at 100 MHz spectra for compound **29**



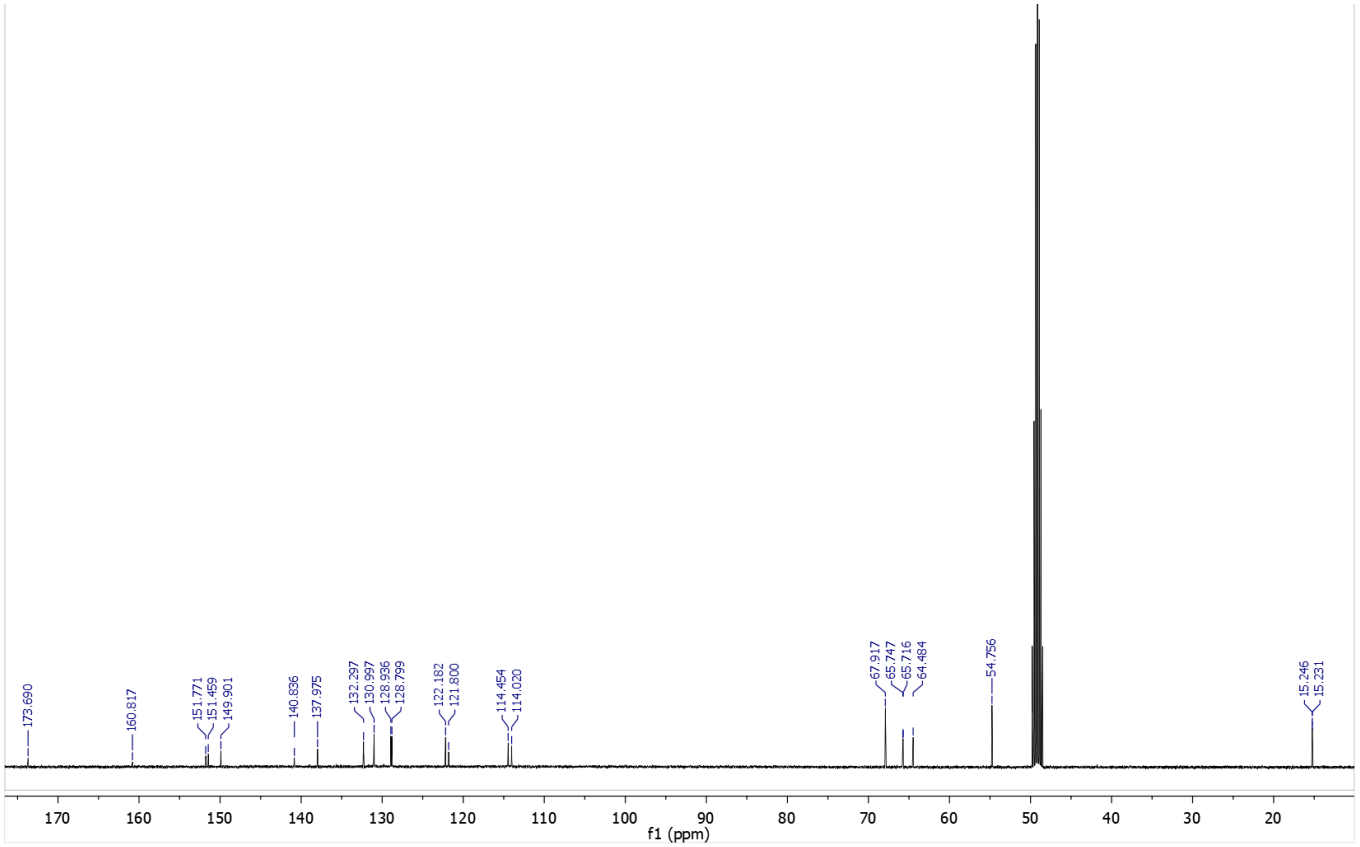
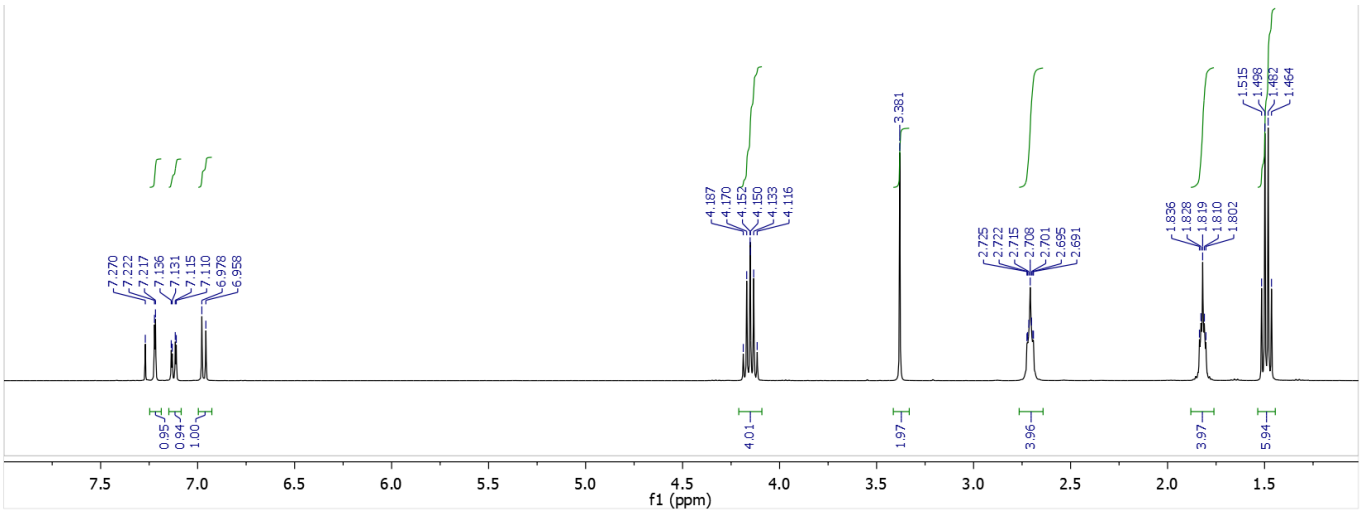


Figure S19. 1H NMR at 400 MHz and 13C NMR at 100 MHz spectra for compound **31**



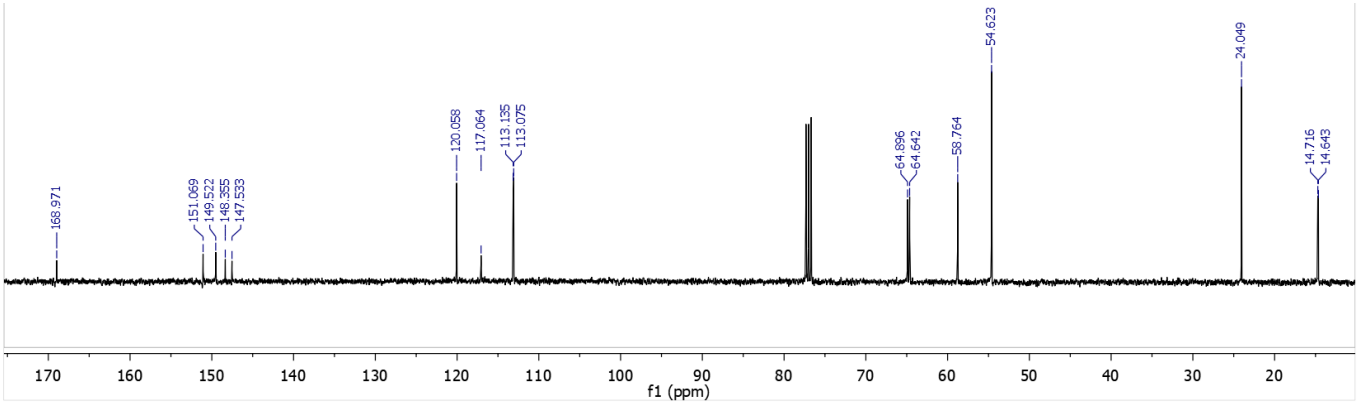
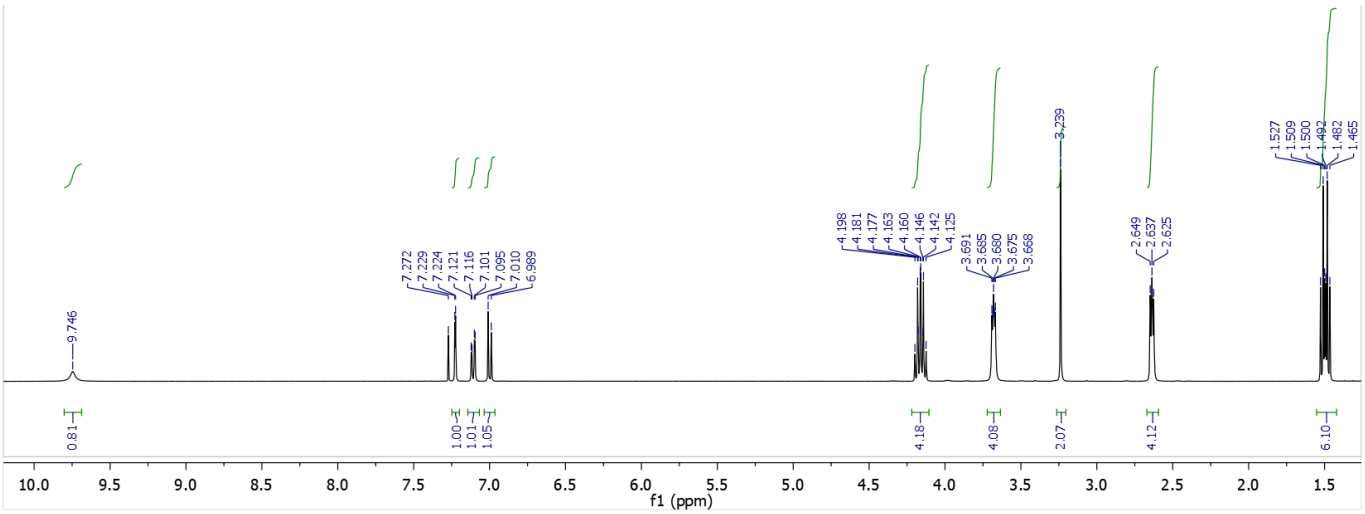


Figure S20. 1H NMR at 400 MHz and 13C NMR at 100 MHz spectra for compound **32**



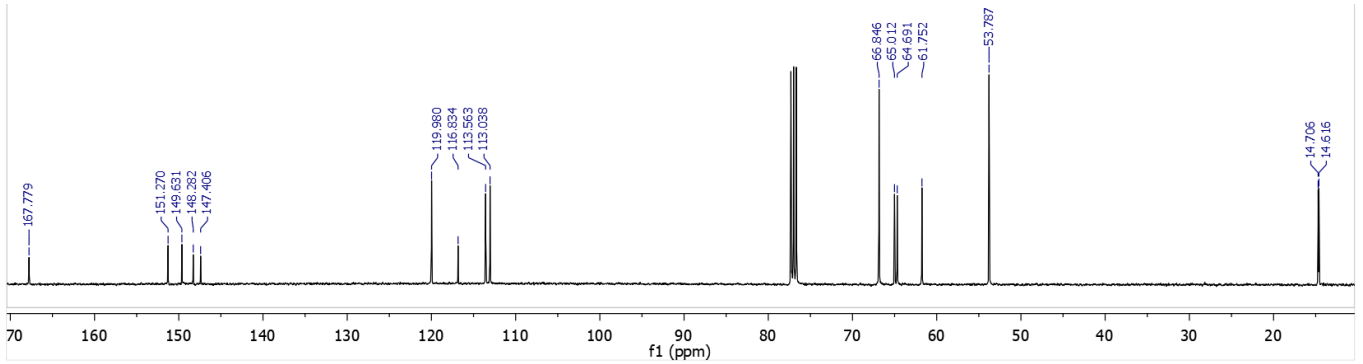
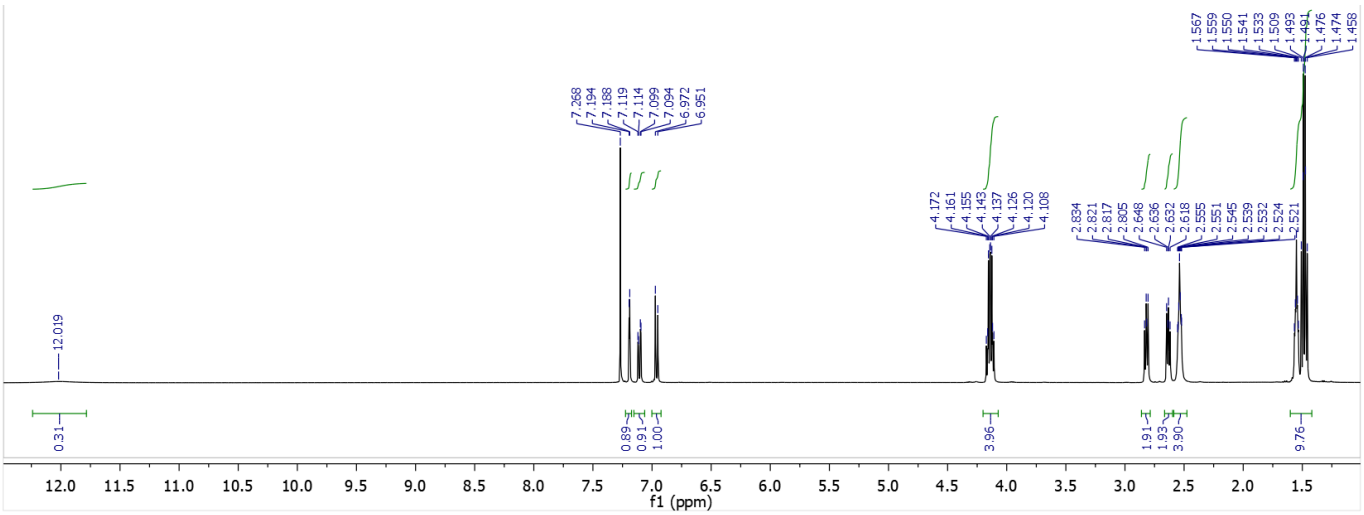


Figure S21. 1H NMR at 400 MHz and 13C NMR at 100 MHz spectra for compound **34**



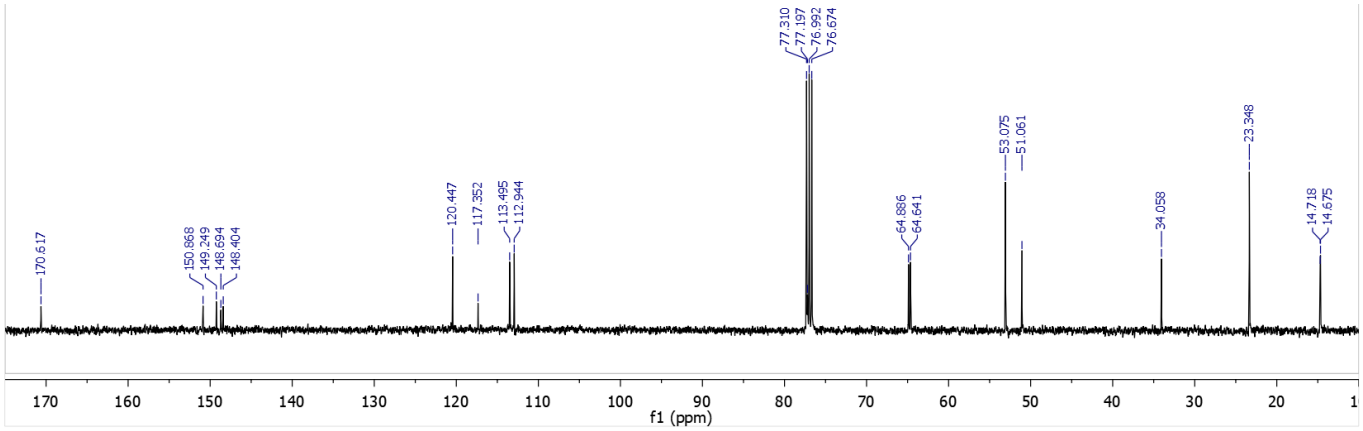
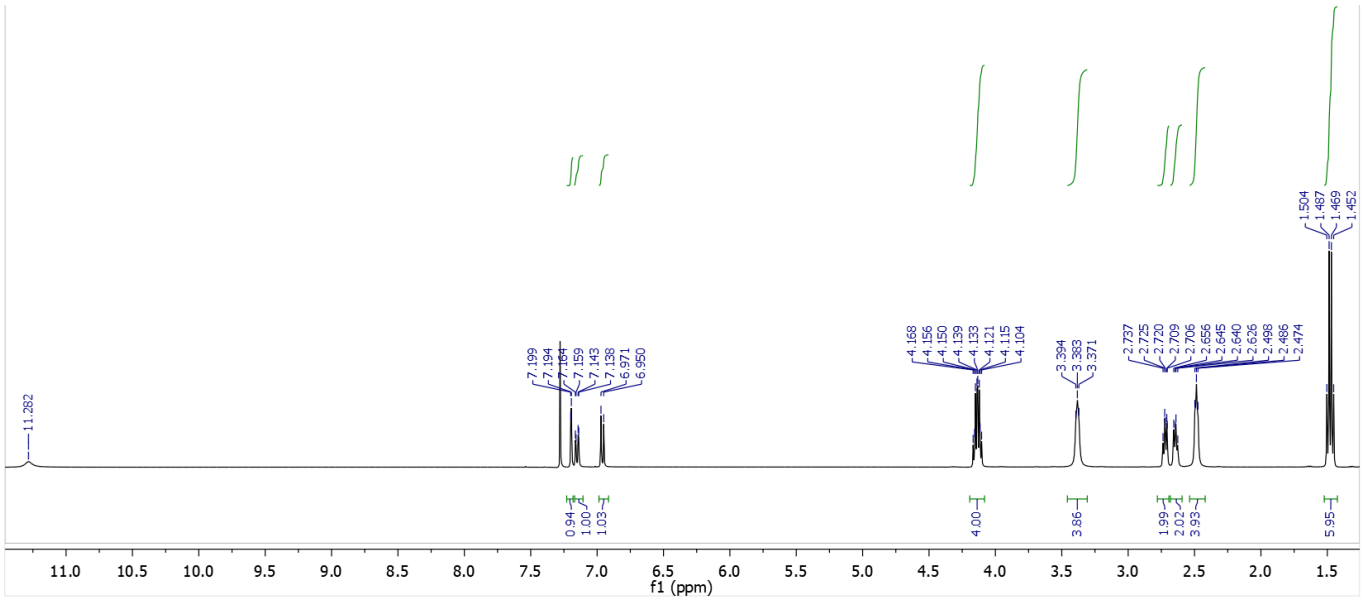


Figure S22. 1H NMR at 400 MHz and 13C NMR at 100 MHz spectra for compound **35**



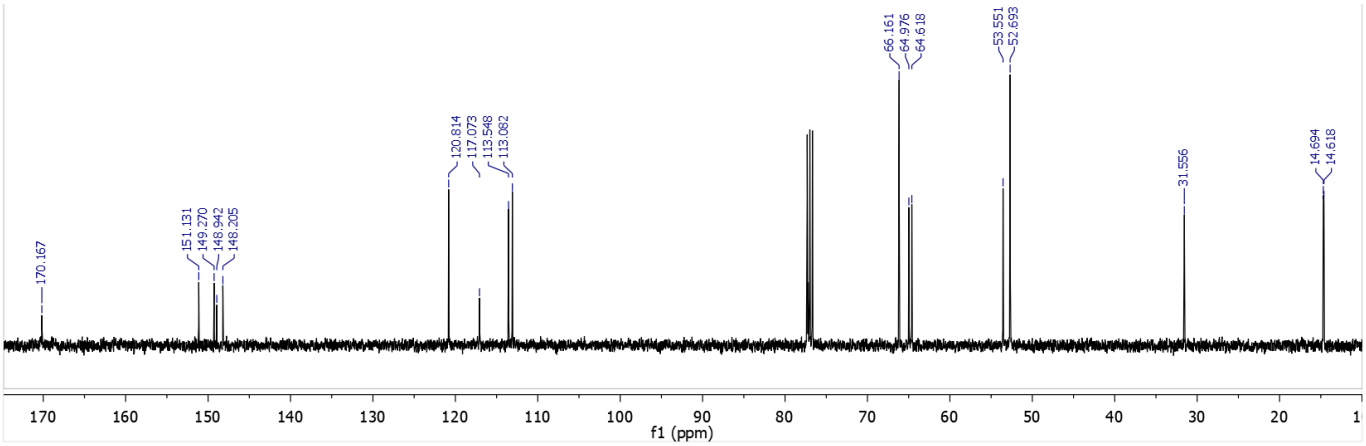
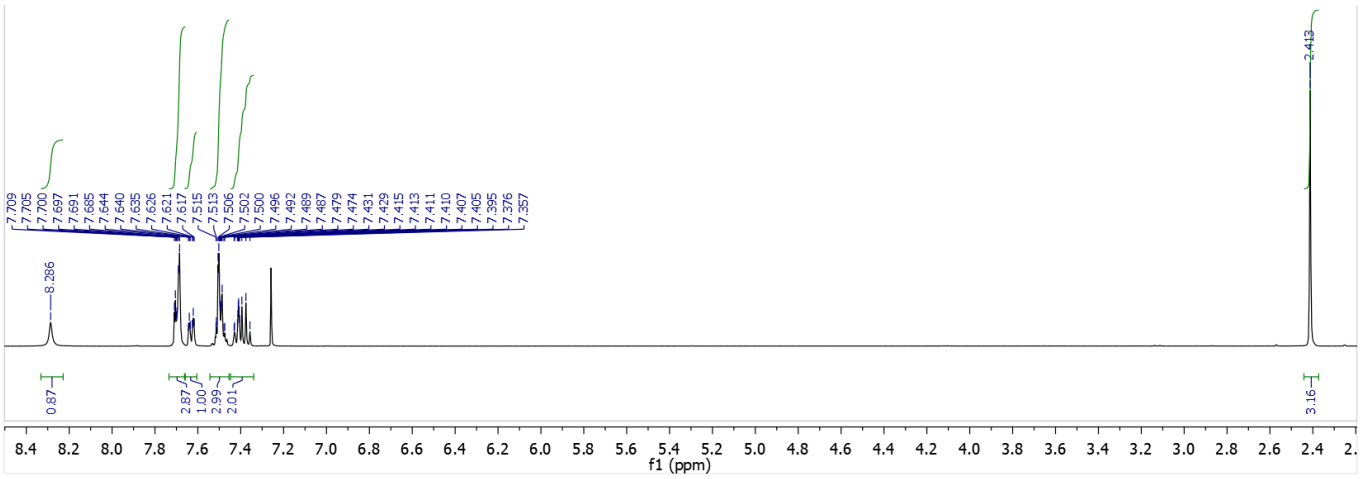


Figure S23. 1H NMR at 400 MHz and 13C NMR at 100 MHz spectra for compound **39**



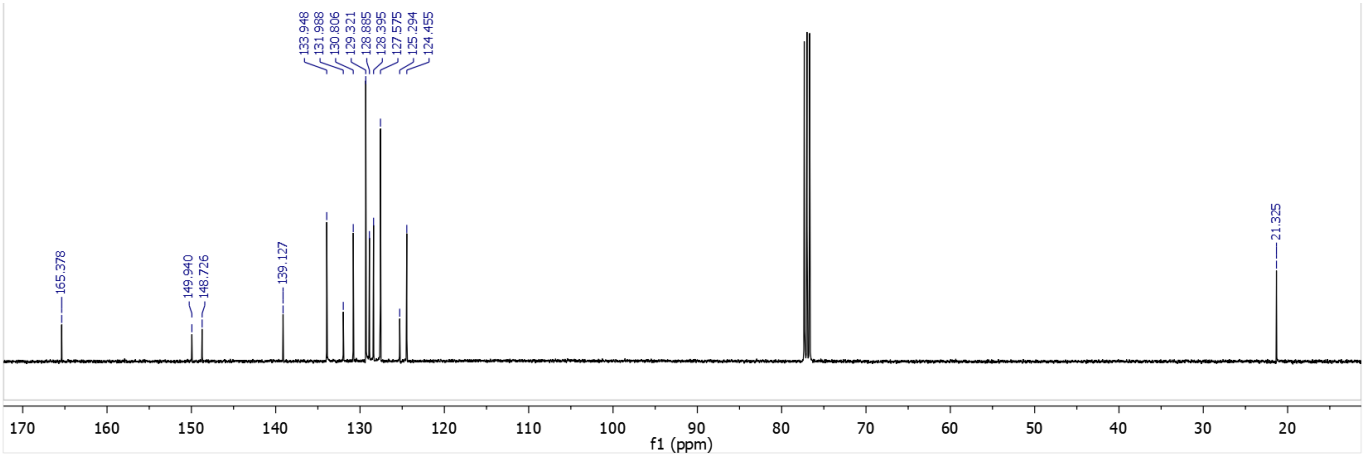


Figure S24. Dose-response curves of compound **1** against *P.f.* NF54, *P.f.* K1 and L-6 cells.

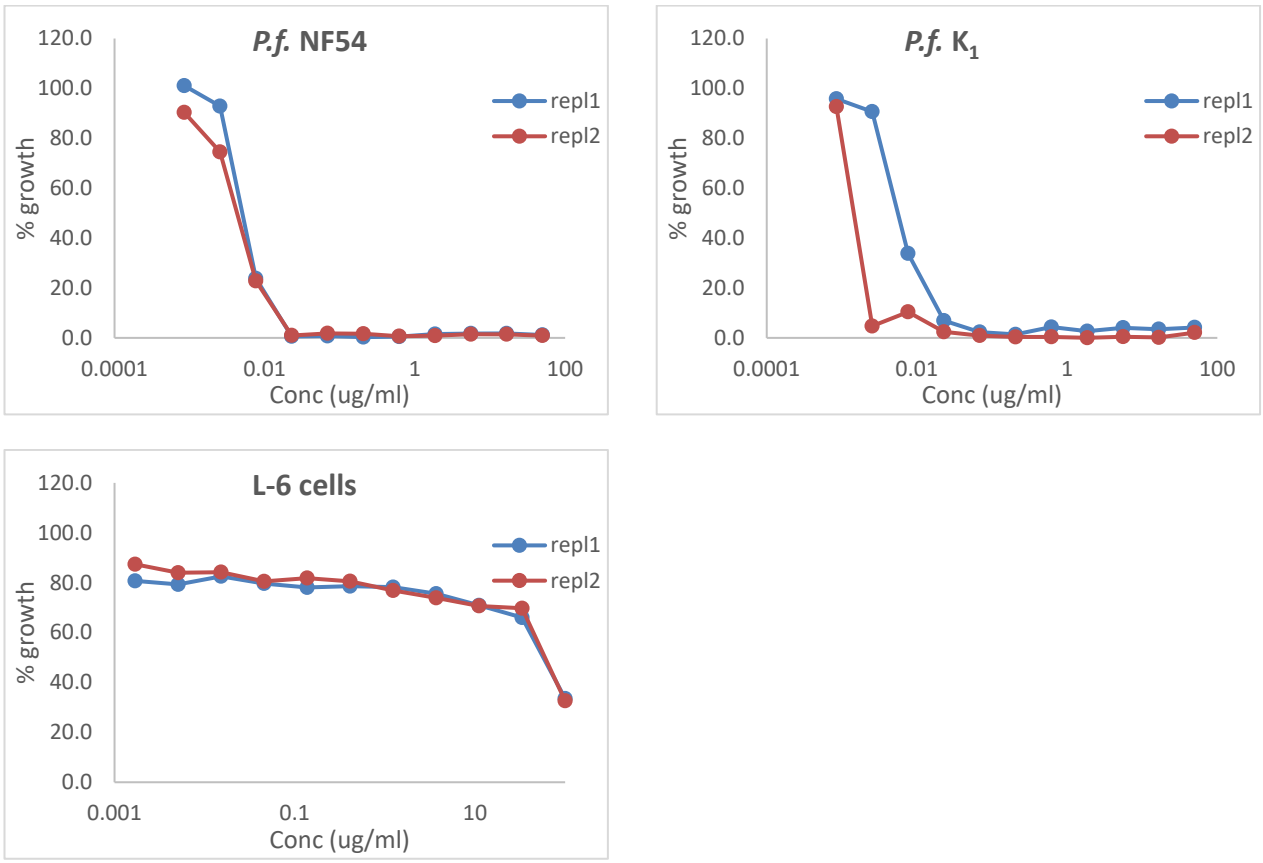


Figure S25. Dose-response curves of compound **10** against *P.f.* NF54, *P.f.* K1 and L-6 cells.

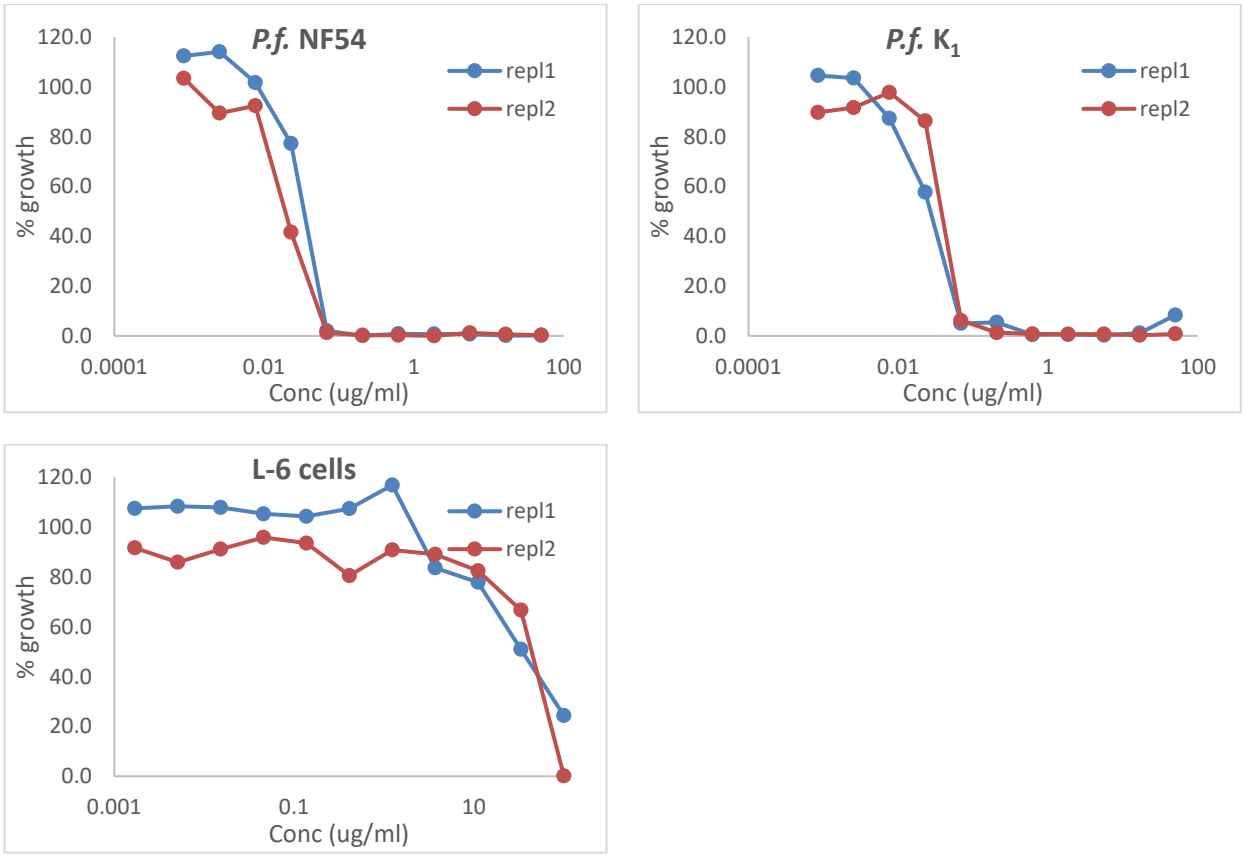


Figure S26. Dose-response curves of compound **11** against *P.f.* NF54 and L-6 cells.

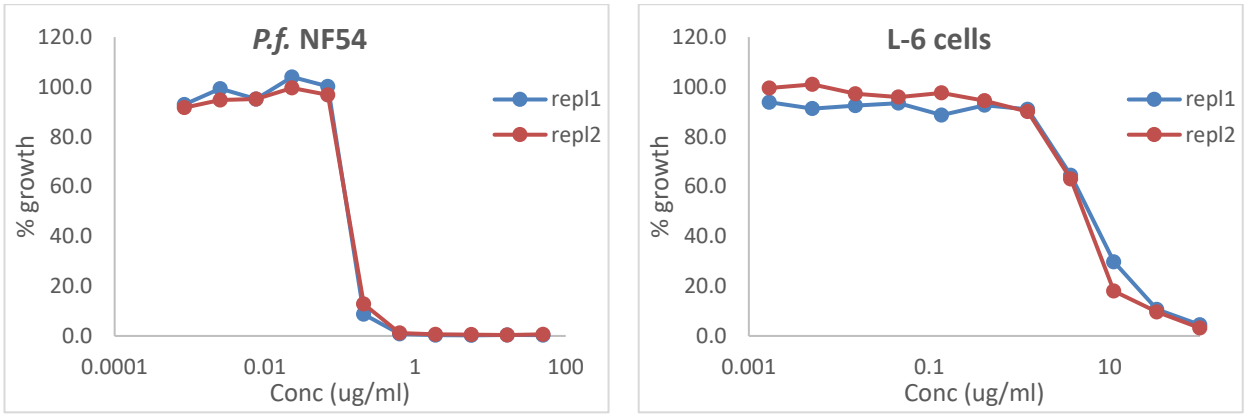


Figure S27. Dose-response curves of compound **12** against *P.f.* NF54 and L-6 cells.

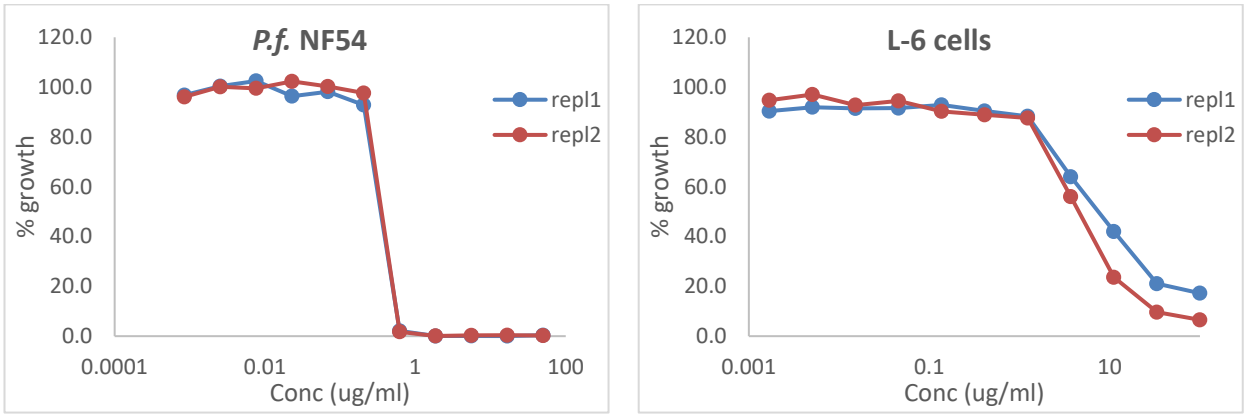
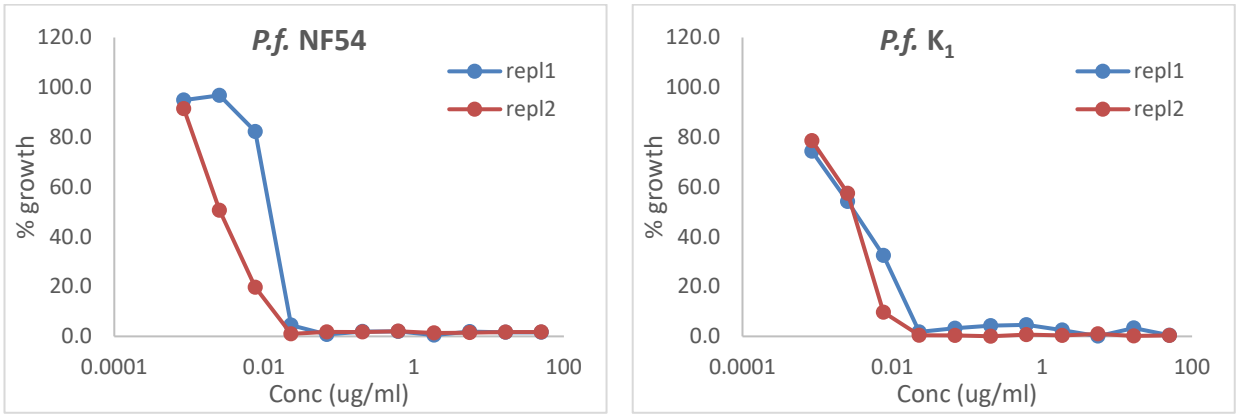


Figure S28. Dose-response curves of compound **13** against *P.f.* NF54, *P.f.* K_1 and L-6 cells.



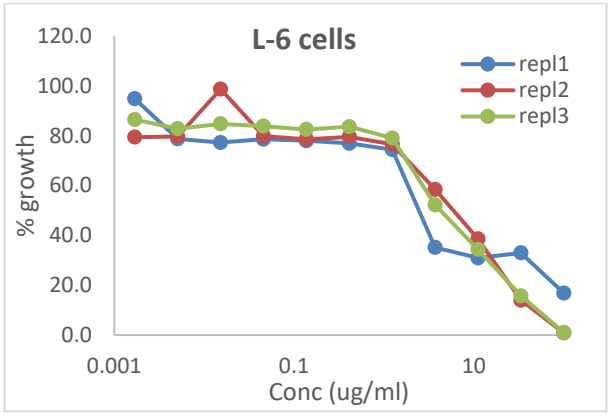
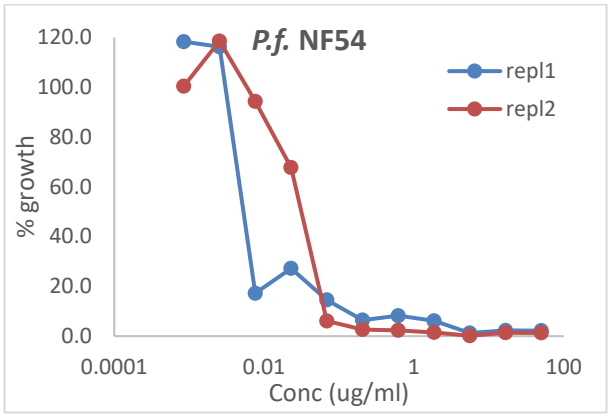
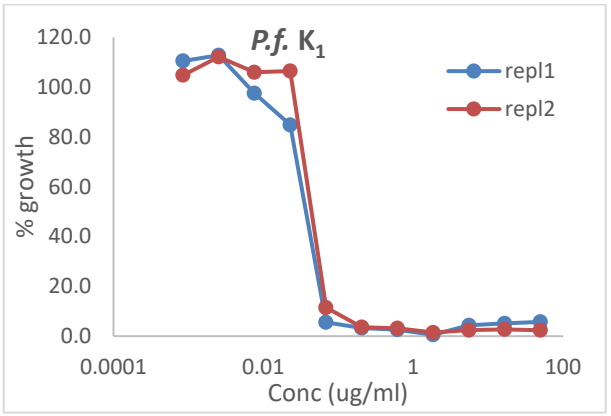


Figure S29. Dose-response curves of compound **14** against *P.f.* NF54, *P.f.* K1 and L-6 cells.





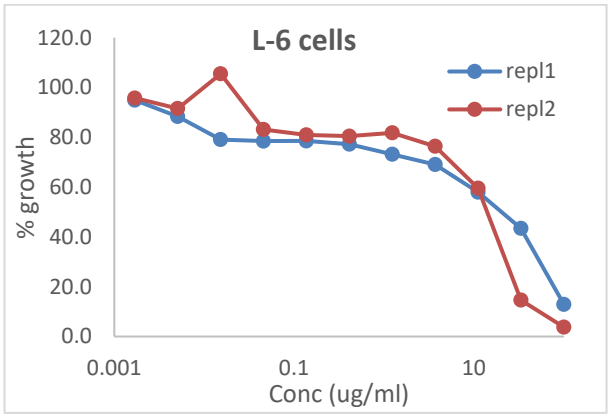


Figure S30. Dose-response curves of compound **15** against *P.f.* NF54 and L-6 cells.

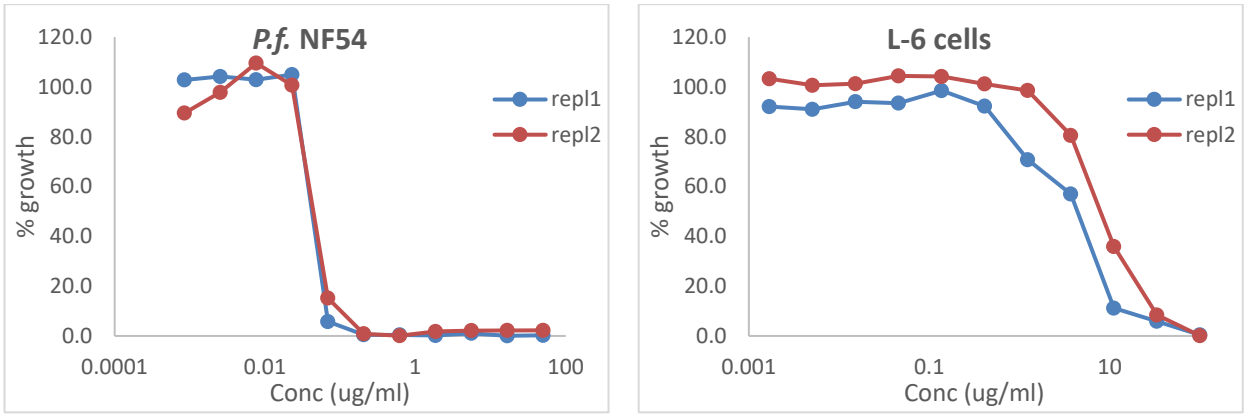


Figure S31. Dose-response curves of compound **16** against *P.f.* NF54, *P.f.* K1 and L-6 cells.

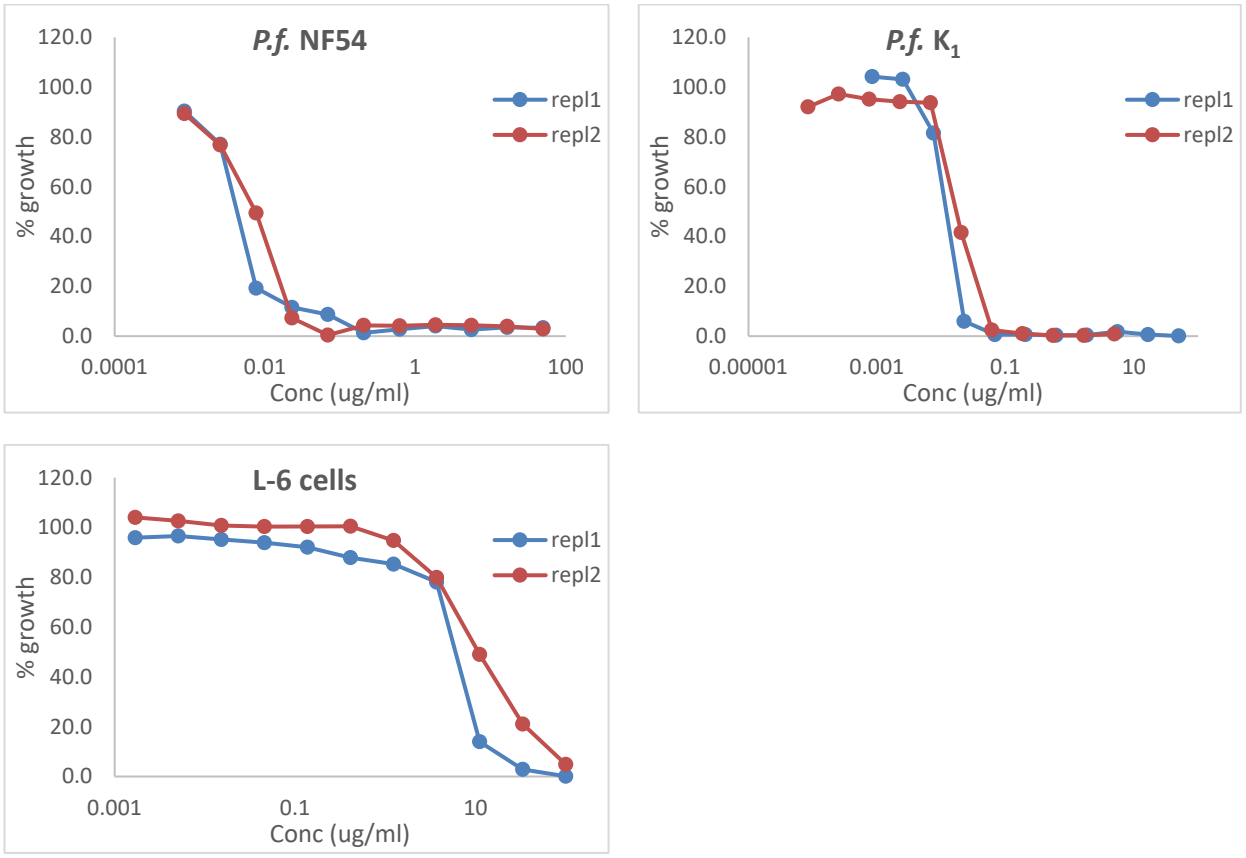


Figure S32. Dose-response curves of compound **17** against *P.f.* NF54, *P.f.* K1 and L-6 cells.

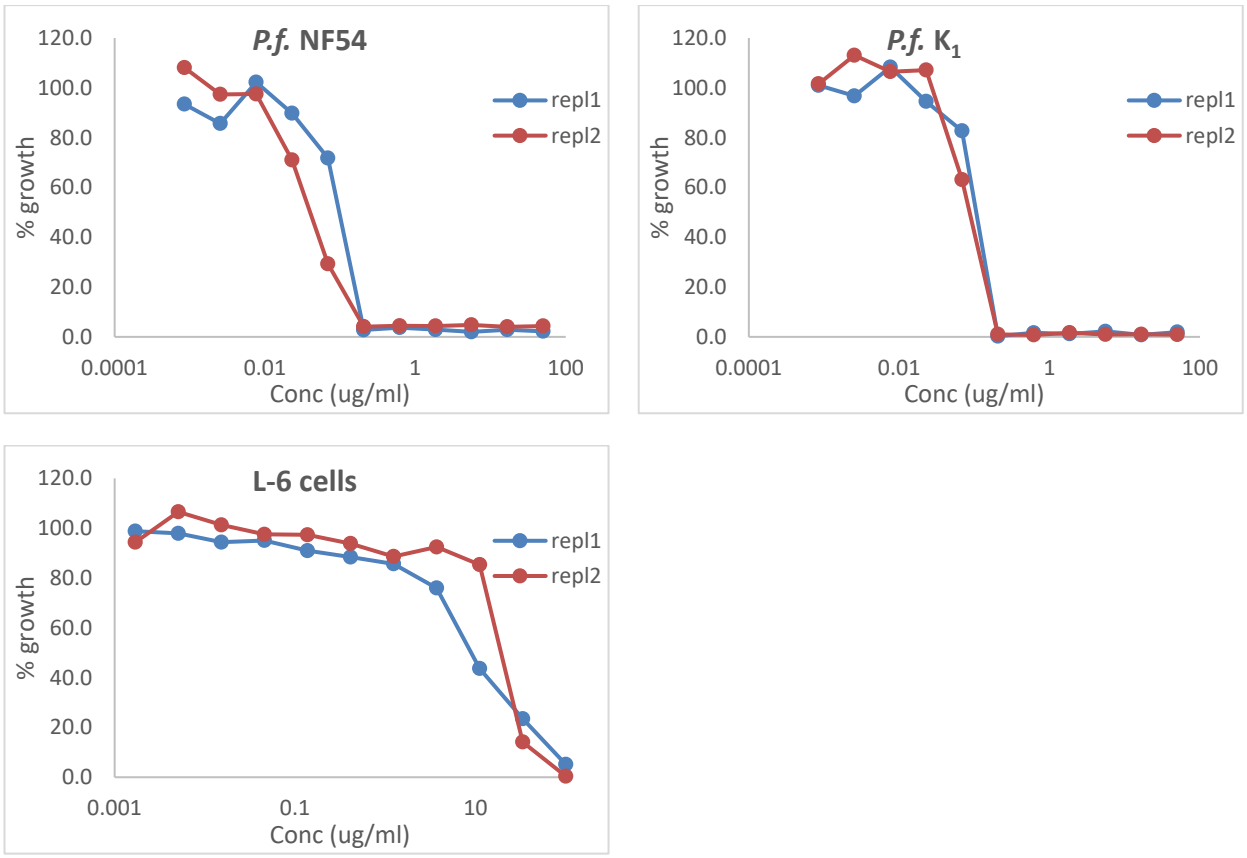
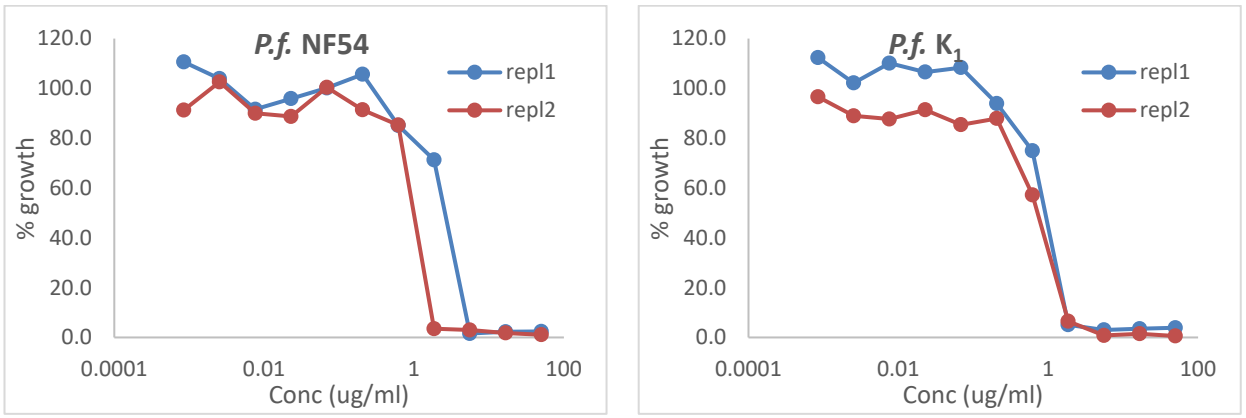


Figure S33. Dose-response curves of compound **26** against *P.f.* NF54, *P.f.* K1 and L-6 cells.



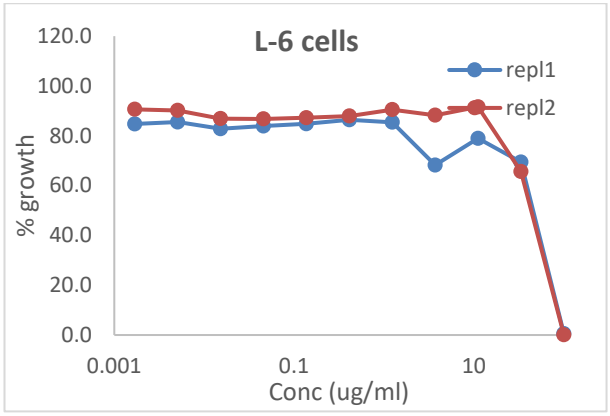
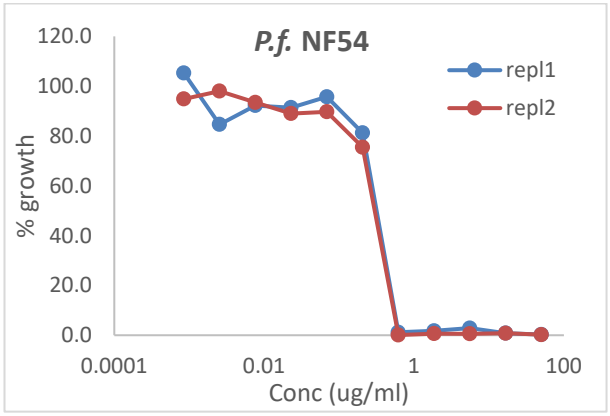
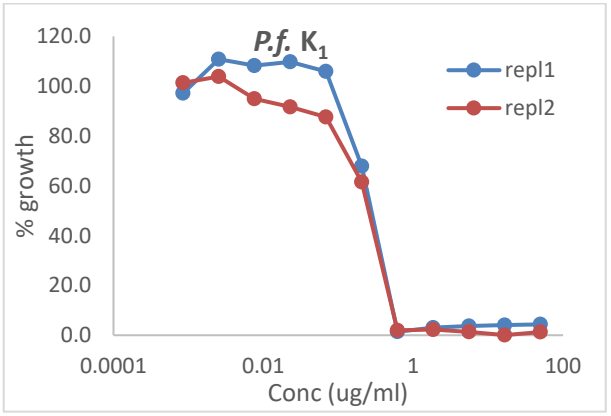


Figure S34. Dose-response curves of compound **27** against *P.f.* NF54, *P.f.* K1 and L-6 cells.





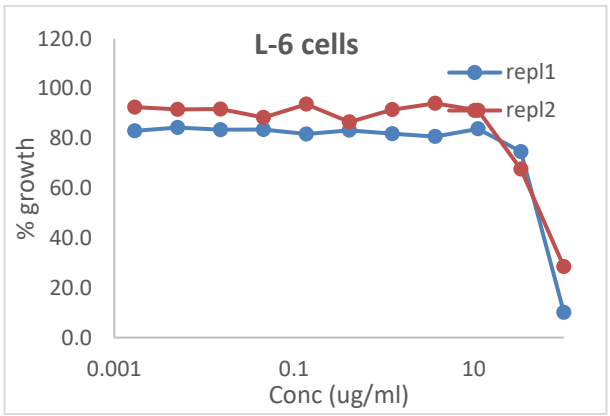


Figure S35. Dose-response curves of compound **28** against *P.f.* NF54 and L-6 cells.

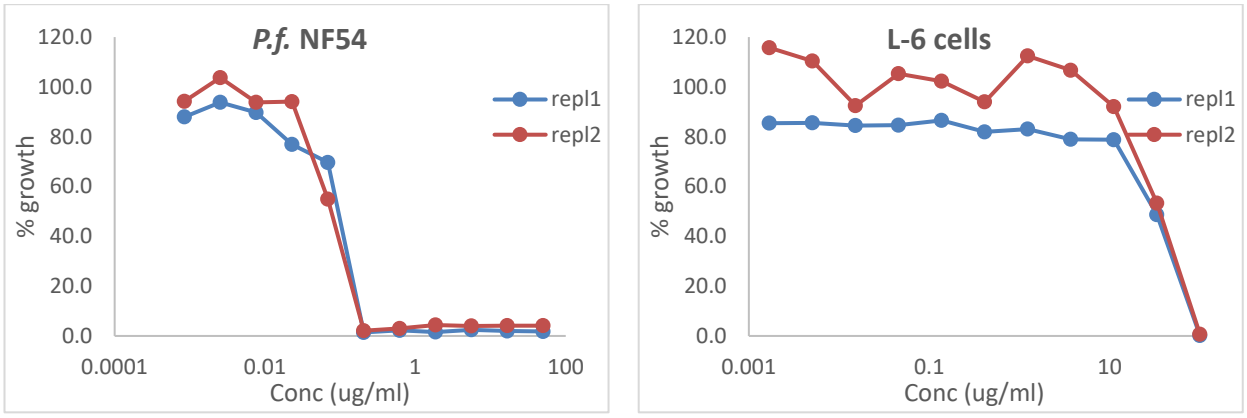


Figure S36. Dose-response curves of compound **29** against *P.f.* NF54 and L-6 cells.

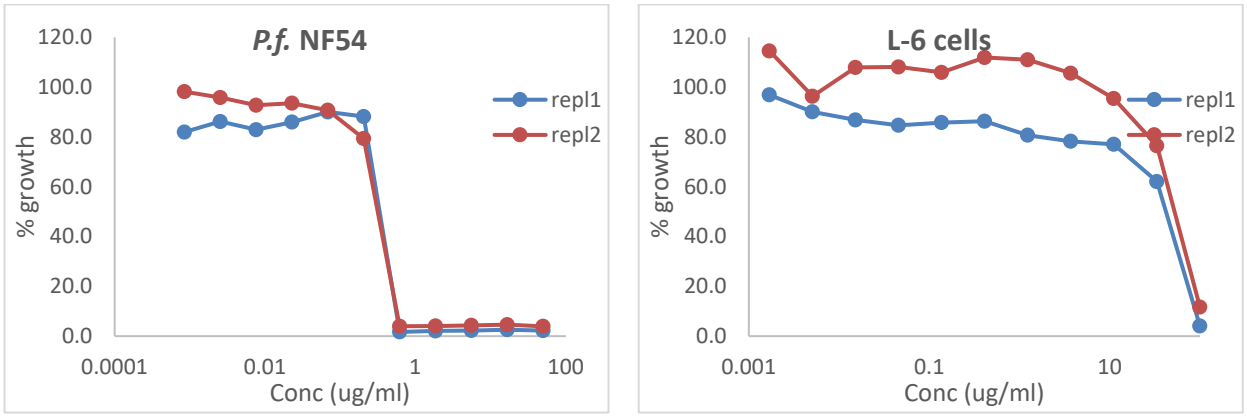
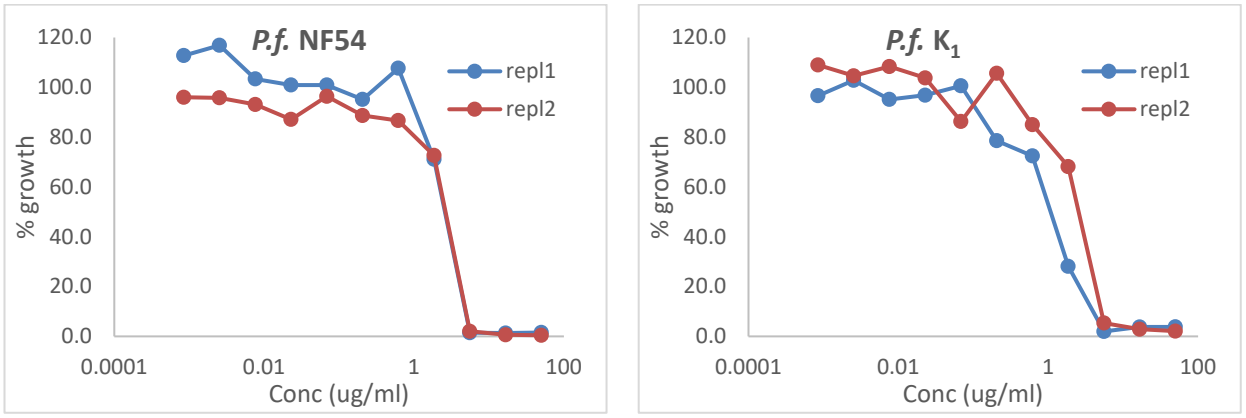


Figure S37. Dose-response curves of compound **31** against *P.f.* NF54, *P.f.* K_1 and L-6 cells.



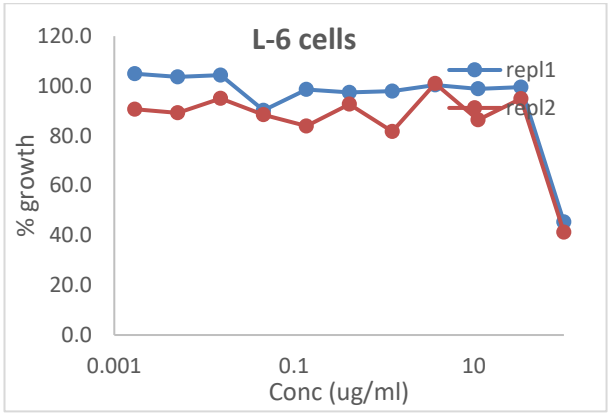
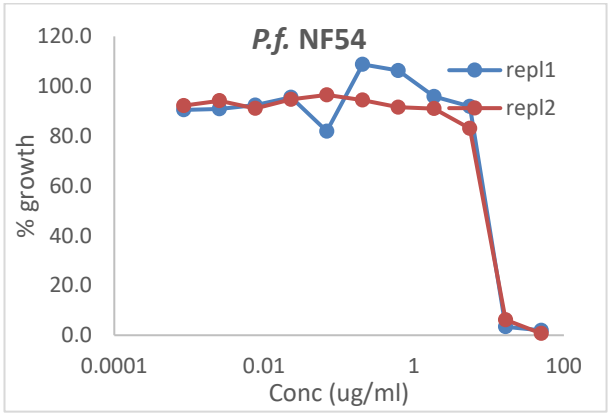
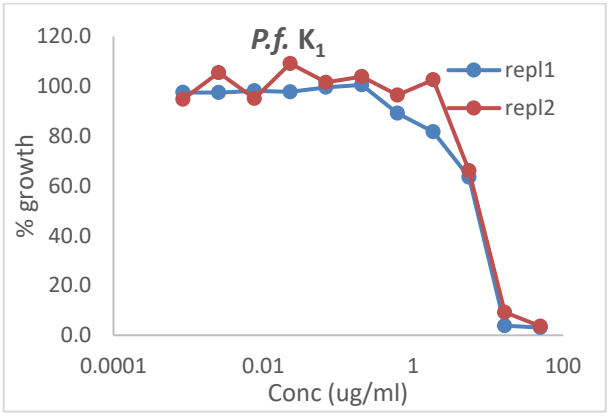


Figure S38. Dose-response curves of compound **32** against *P.f.* NF54, *P.f.* K1 and L-6 cells.





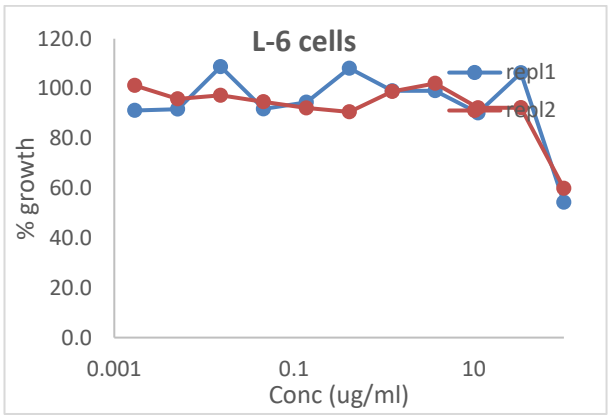


Figure S39. Dose-response curves of compound **34** against *P.f.* NF54, *P.f.* K1 and L-6 cells.

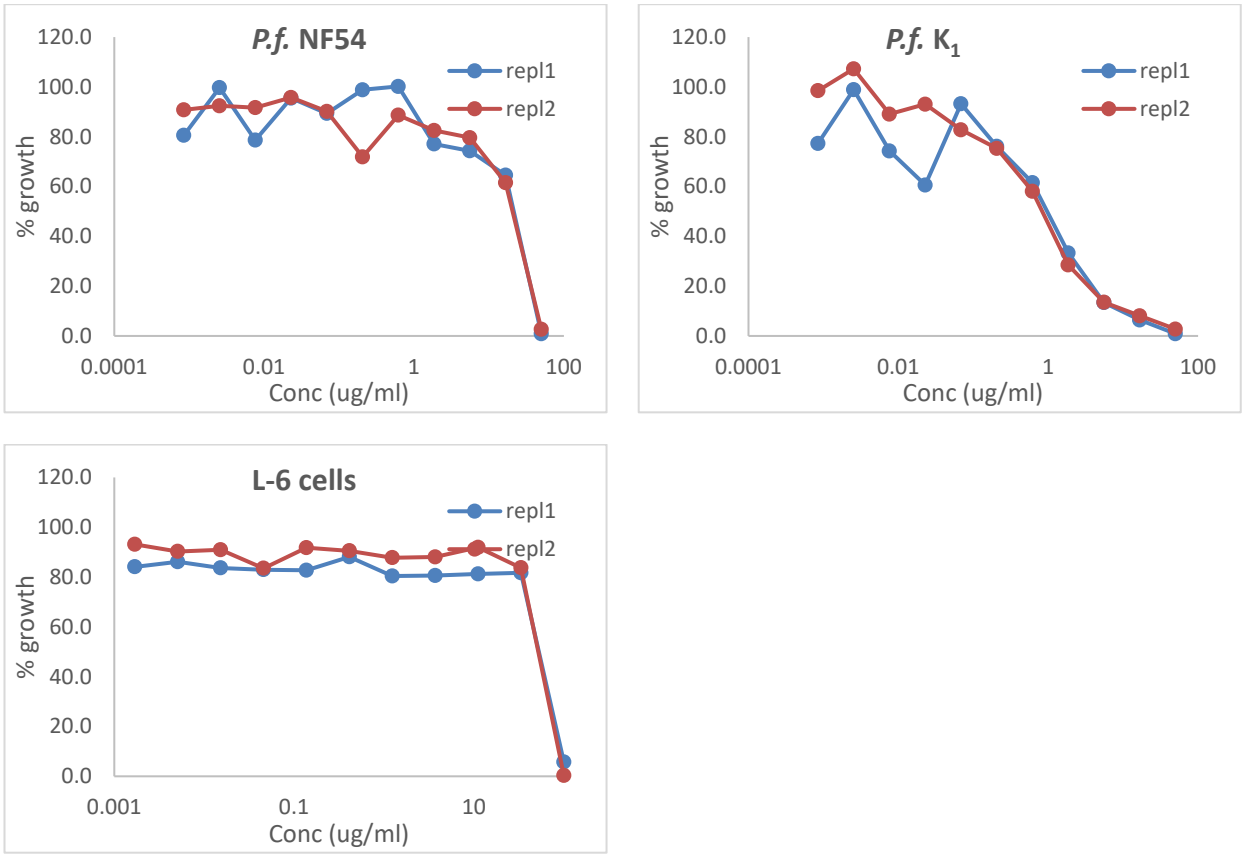


Figure S40. Dose-response curves of compound **35** against *P.f.* NF54, *P.f.* K1 and L-6 cells.

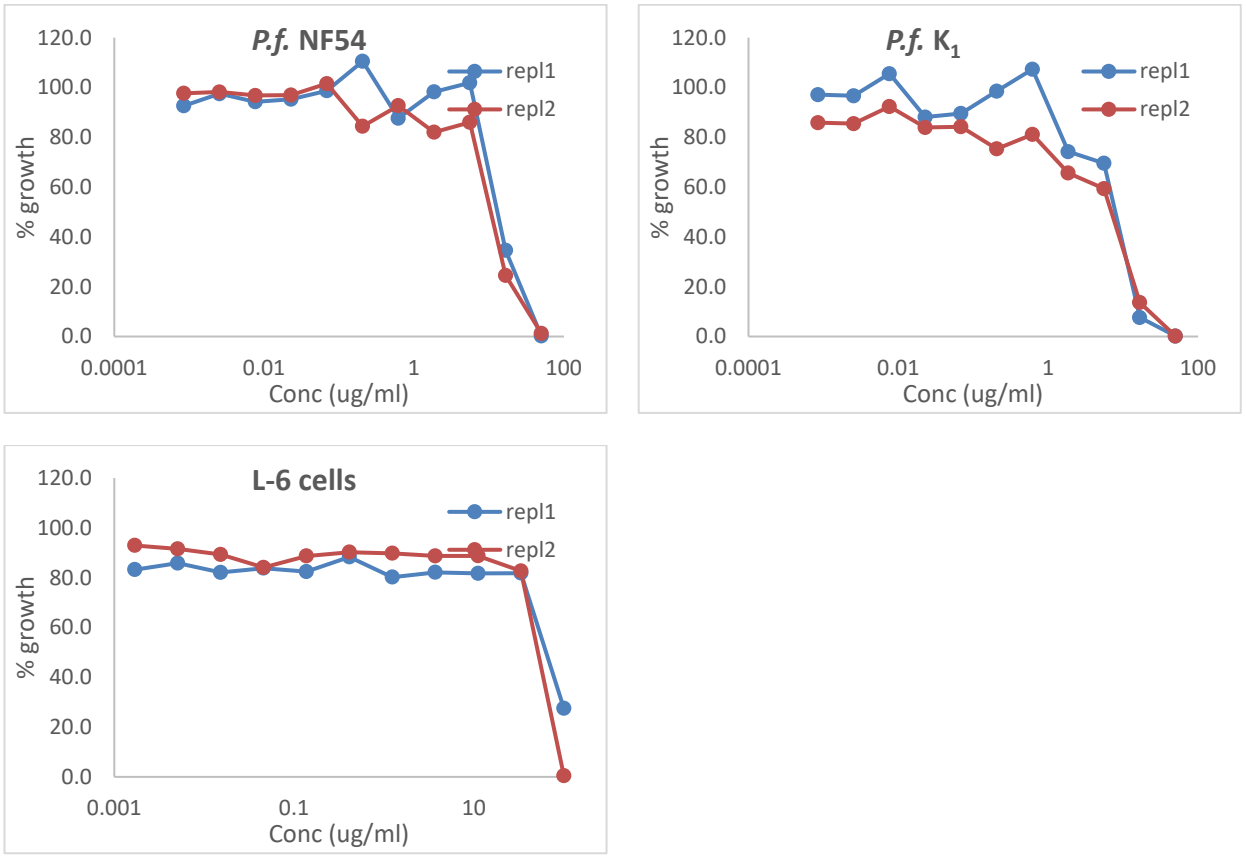


Figure S41. Dose-response curves of compound **39** against *P.f.* NF54, *P.f.* K1 and L-6 cells.

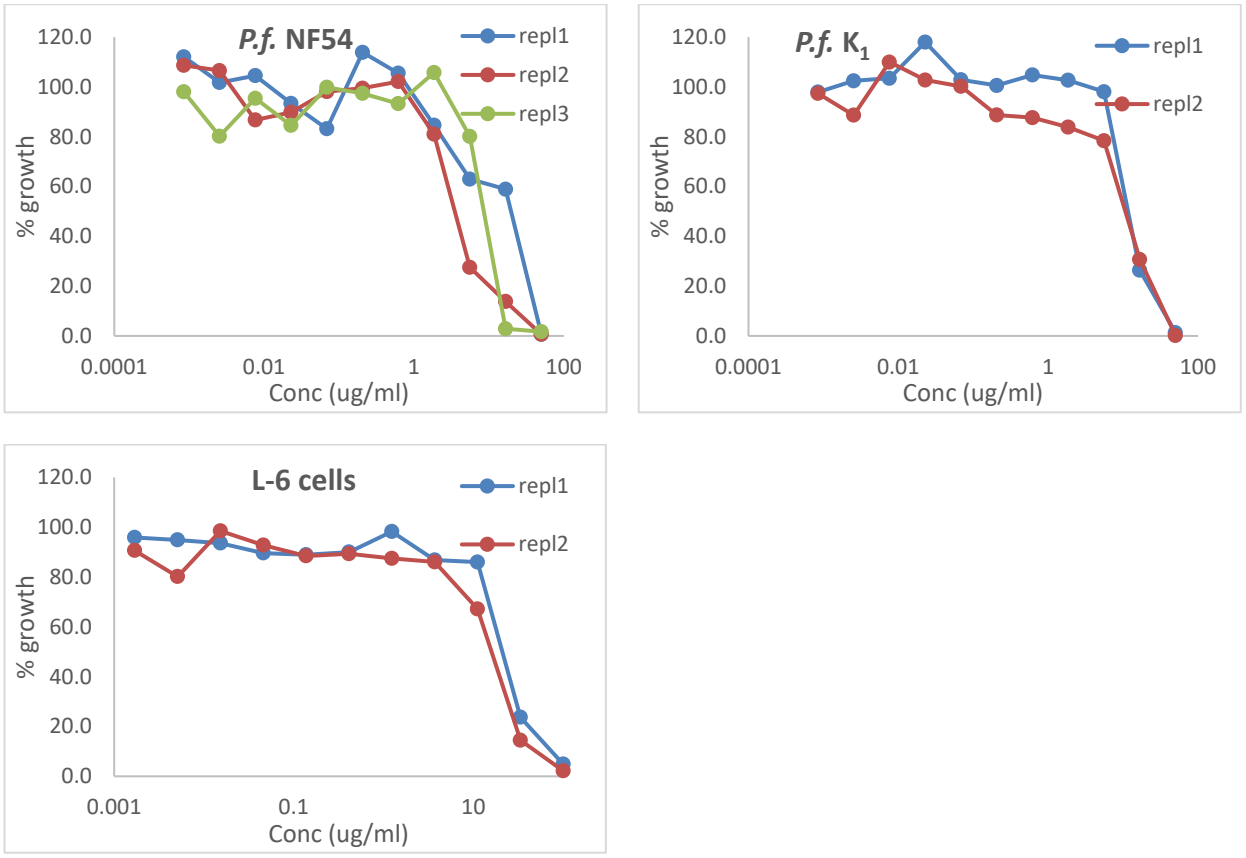


Table S1. Activities with standard deviation values of compounds **1, 10-17, 26-29, 31, 32, 34, 35** and **39** against *P.falciparum* NF54, *P.falciparum* K_1 and L-6 cells, expressed as IC_{50} (μM).[a]

Compound	*P.f.* NF54[b]	*P.f.* K_1[c]	Cytotoxicity L-6 cells
1	0.011 ± 0.001	0.011 ± 0.0068	159.3 ± 3.36
10	0.076 ± 0.021	0.091 ± 0.015	111.2 ± 12.9
11	0.343 ± 0.001		14.92 ± 1.05
12	0.831 ± 0.011		14.24 ± 3.45
13	0.019 ± 0.010	0.007 ± 0.00	9.97 ± 3.36
14	0.049 ± 0.035	0.108 ± 0.025	41.09 ± 9.96
15	0.098 ± 0.002		13.99 ± 3.97
16	0.014 ± 0.003		20.03 ± 5.67
17	0.167 ± 0.068		35.03 ± 12.7
26	4.055 ± 1.78	1.87 ± 0.210	101.7 ± 2.41
27	0.674 ± 0.015	0.586 ± 0.020	116.4 ± 4.35
28	0.192 ± 0.020		77.23 ± 4.46
29	0.712 ± 0.013		104.0 ± 11.4
31	7.24 ± 0.068	5.02 ± 2.03	242.3 ± 10.3
32	24.25 ± 0.575	19.53 ± 0.610	265.7 ± 0.00
34	56.01 ± 0.821	2.41 ± 0.179	139.8 ± 0.995
35	30.15 ± 3.05	18.99 ± 1.15	147.3 ± 15.1
39	21.52 ± 8.99	39.92 ± 1.64	65.95 ± 9.06
ART		0.0064	450.5
CQ		0.15	188.5
POD			0.012

ART = artemisinin; CQ = chloroquine; POD = podophyllotoxin

[a] Values represent the average of four determinations (two determinations of two independent experiments)

[b] Sensitive to chloroquine

[c] Resistant to chloroquine and pyrimethamine.