Study on the Anti-*Mycobacterium marinum* Activity of a Series of Marine-Derived 14-Membered Resorcylic Acid Lactone Derivatives

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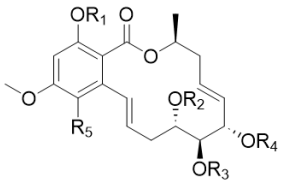
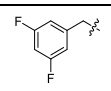
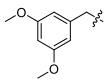
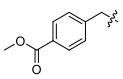
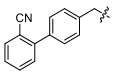
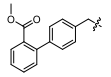
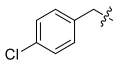
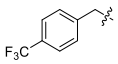
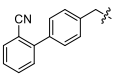
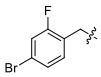
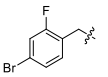
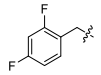
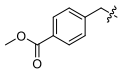
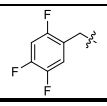
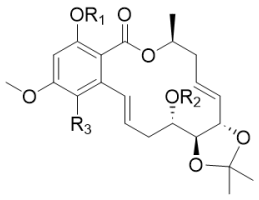
Content of Supporting Information

Table S1. The derivatives **39 – 97** of zeaenol (**1**)



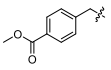
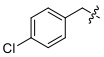
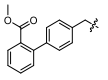
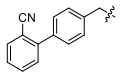
39–57

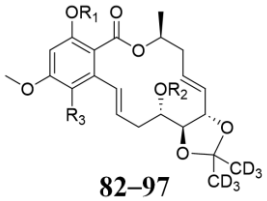
No.	R_1	R_2	R_3	R_4	R_5	No.	R_1	R_2	R_3	R_4	R_5
39		H	H	H	H	**49**		H	H	H	H
40		H	H	H	H	**50**		H	H	H	H
41		H	H	H	H	**51**		H	H	H	H
42		H	H	H	H	**52**		H	H	H	H
43		H	H	H	H	**53**		H	H	H	H
44		H	H	H	H	**54**		H	H	H	H
45		H	H	H	H	**55**		H	H	H	Cl
46		H	H	H	H	**56**		H	H	H	Cl
47		H	H	H	H	**57**		H	H	H	Cl
48		H	H	H	H						



58–81

No.	R_1	R_2	R_3	No.	R_1	R_2	R_3	No.	R_1	R_2	R_3
58		H	H	**66**		H	H	**74**		H	H
59			H	**67**		H	H	**75**		H	H

60		H	H	**68**		H	H	**76**		H	H
61			H	**69**		H	H	**77**		H	H
62		H	H	**70**		H	H	**78**		H	H
63		H	H	**71**		H	H	**79**		H	H
64	H		H	**72**		H	H	**80**		H	H
65		H	H	**73**		H	H	**81**		H	H



82–97

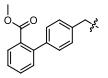
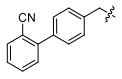
No.	R_1	R_2	R_3	No.	R_1	R_2	R_3	No.	R_1	R_2	R_3
82	H	H	H	**88**		H	H	**93**		H	H
83			H	**89**		H	H	**94**		H	H
84		H	Cl	**90**		H	H	**95**		H	H
85			H	**91**		H	H	**96**		H	H
86	H	H	Cl	**92**		H	H	**97**		H	H
87		H	H								

Table S2. Anhydride, acyl chloride reagents or carboxylic acid reagents used to generate compounds **24–38**[a].

No.	reagents	Yield	No.	reagents	Yield	No.	reagents	Yield
24	2-Methoxybenzoic acid	83.2%	**29**	Benzoyl chloride	77.8%	**34**	Nicotinic acid	85.6%
25	2-Furoic acid	70.3%	**30**	2-Fluorobenzoic acid	83.5%	**35**	Nicotinic acid	72.4%
26	2-Furoic acid	60.6%	**31**	2-Fluorobenzoic acid	87.2%	**36**	Acetic anhydride	63.7%
27	2-Furoic acid	73.4%	**32**	2-Fluorobenzoic acid	73.9%	**37**	Thiophene-2-carboxylic acid	85.2%
28	Benzoyl chloride	63.7%	**33**	Nicotinic acid	67.7%	**38**	Thiophene-2-carboxylic acid	87.7%

[a] All reagents used in this study are commercial reagents.

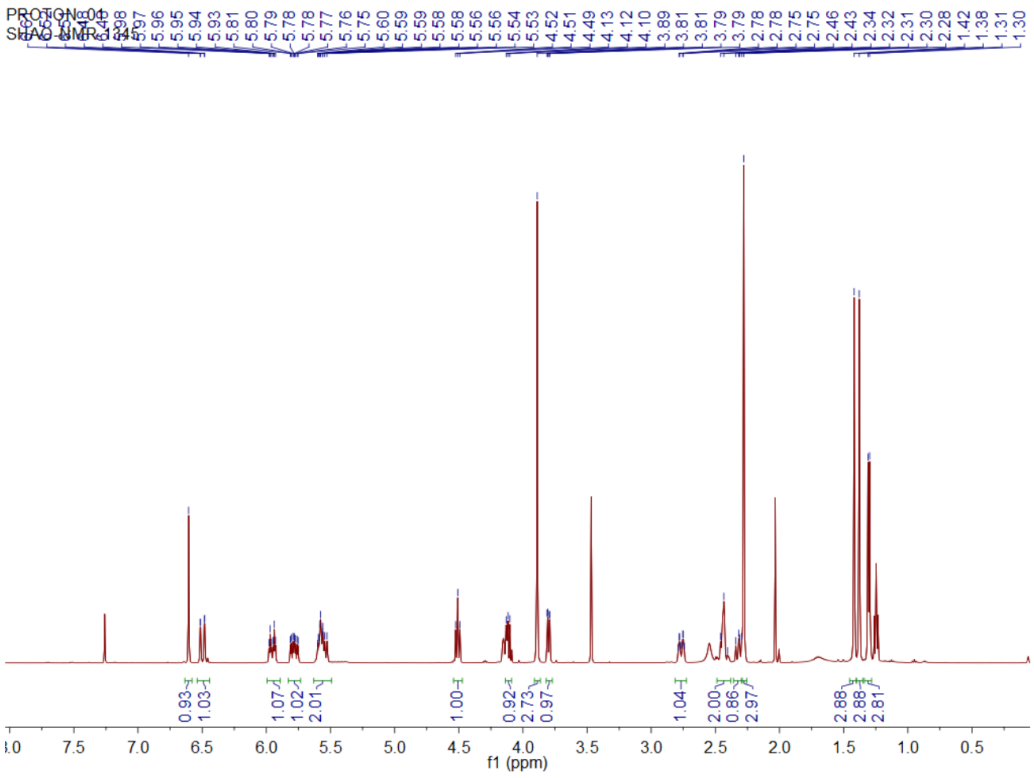


Figure S1. ^{1}H NMR (400 MHz, Chloroform-*d*) spectrum of compound **19**.

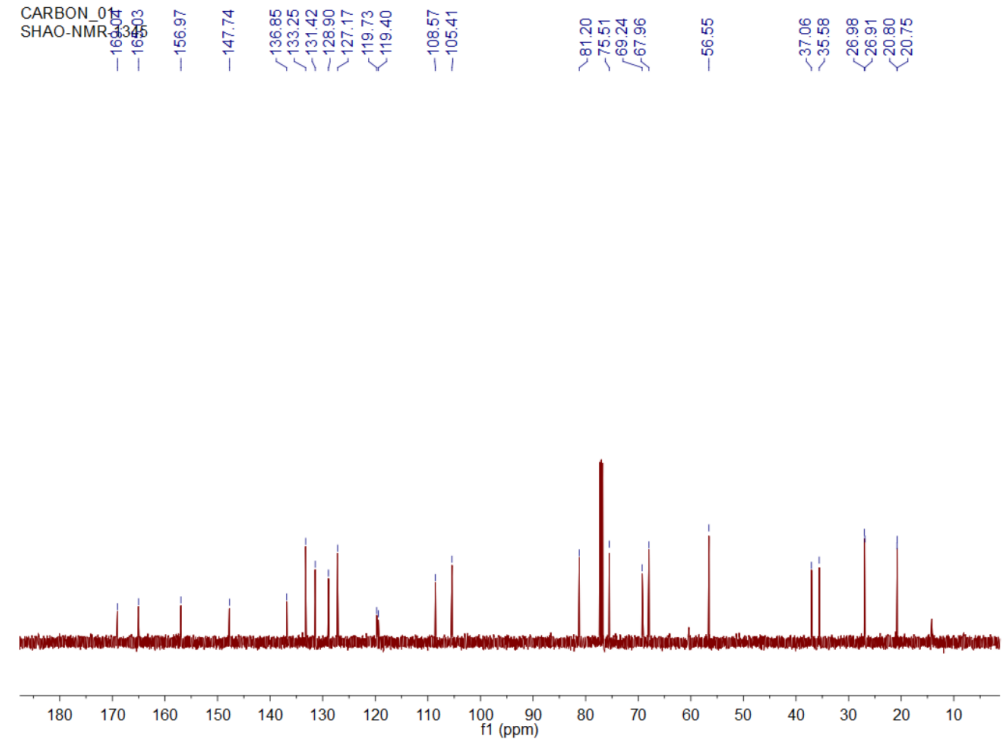


Figure S2. ^{13}C NMR (100 MHz, Chloroform-*d*) spectrum of compound **19**.

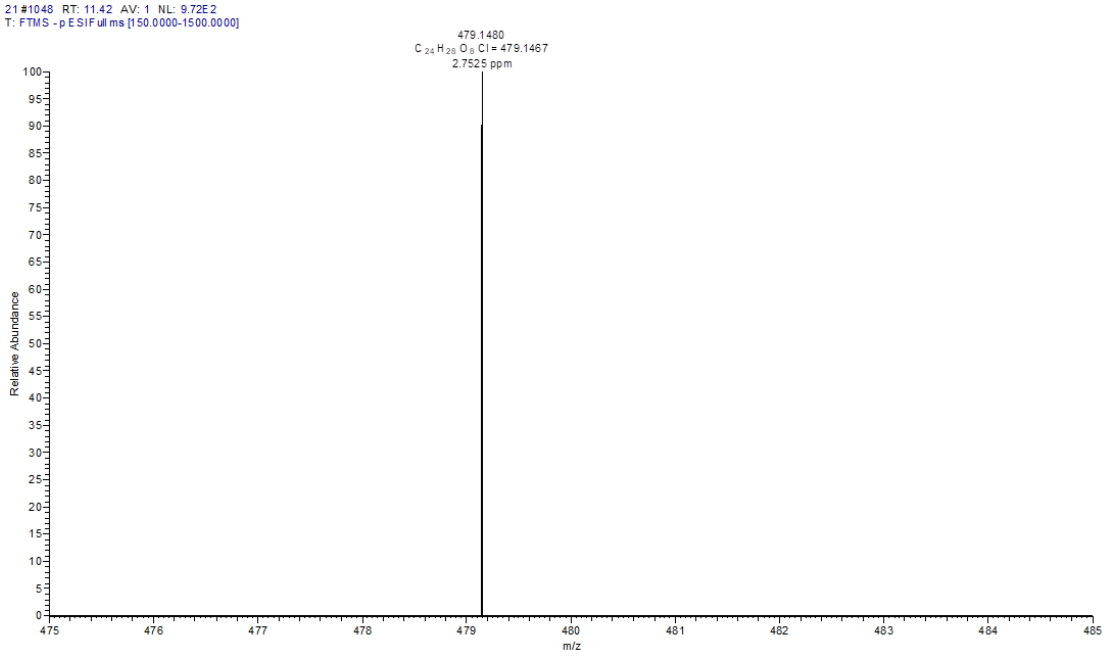


Figure S3. HR-ESI-MS spectrum of compound **19**.

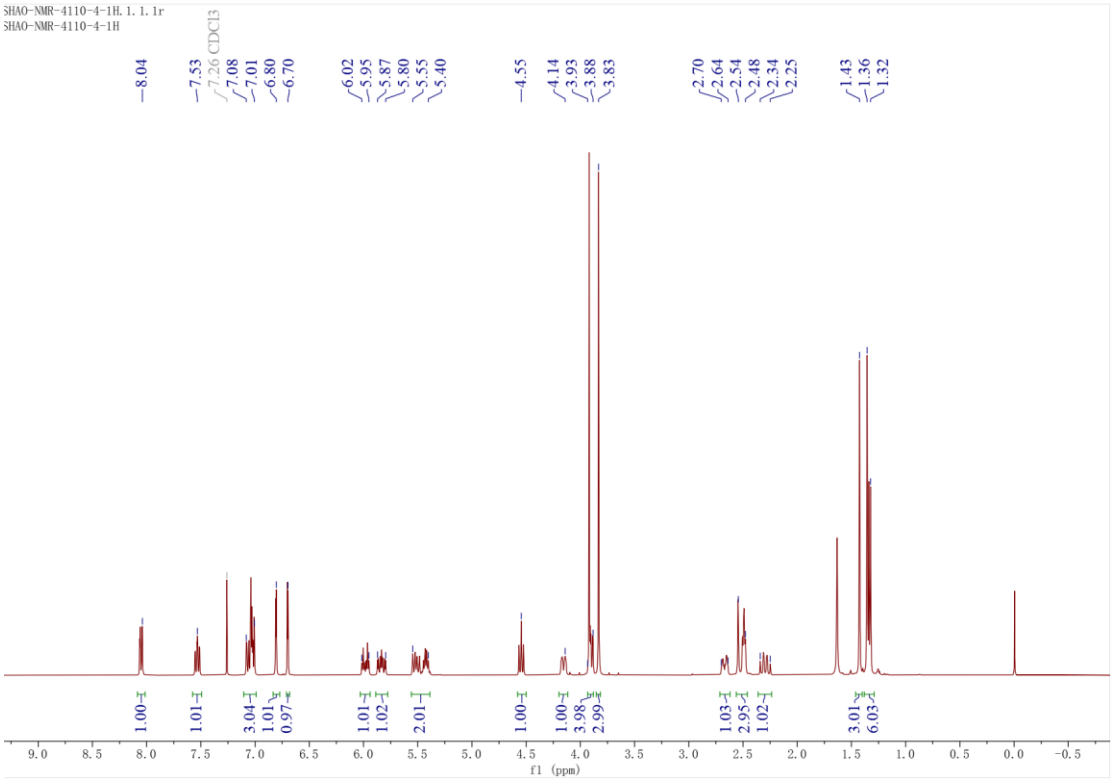


Figure S4. ^{1}H NMR (400 MHz, Chloroform-*d*) spectrum of compound **24**.

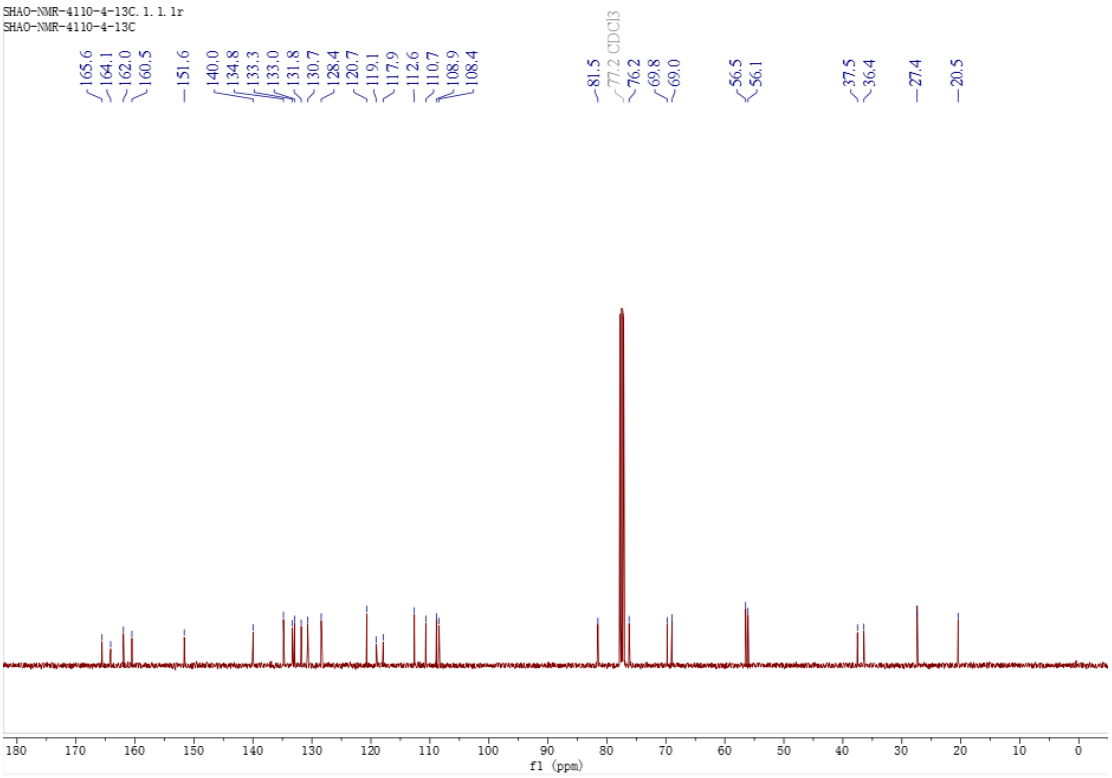


Figure S5. ^{13}C NMR (100 MHz, Chloroform-*d*) spectrum of compound **24**.

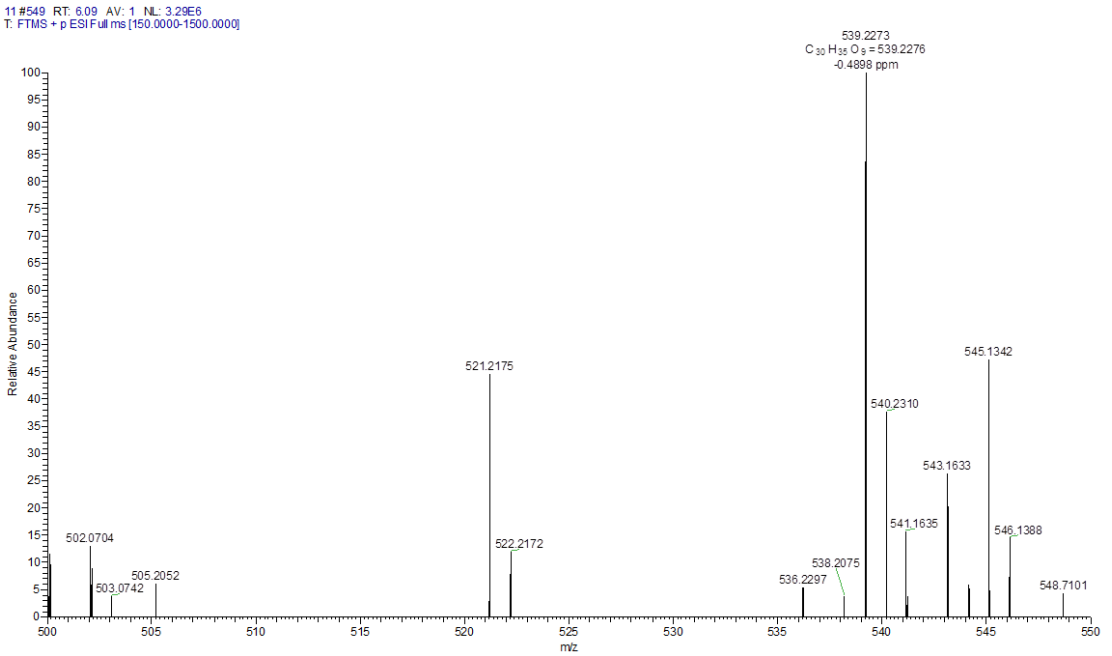


Figure S6. HR-ESI-MS spectrum of compound **24**.

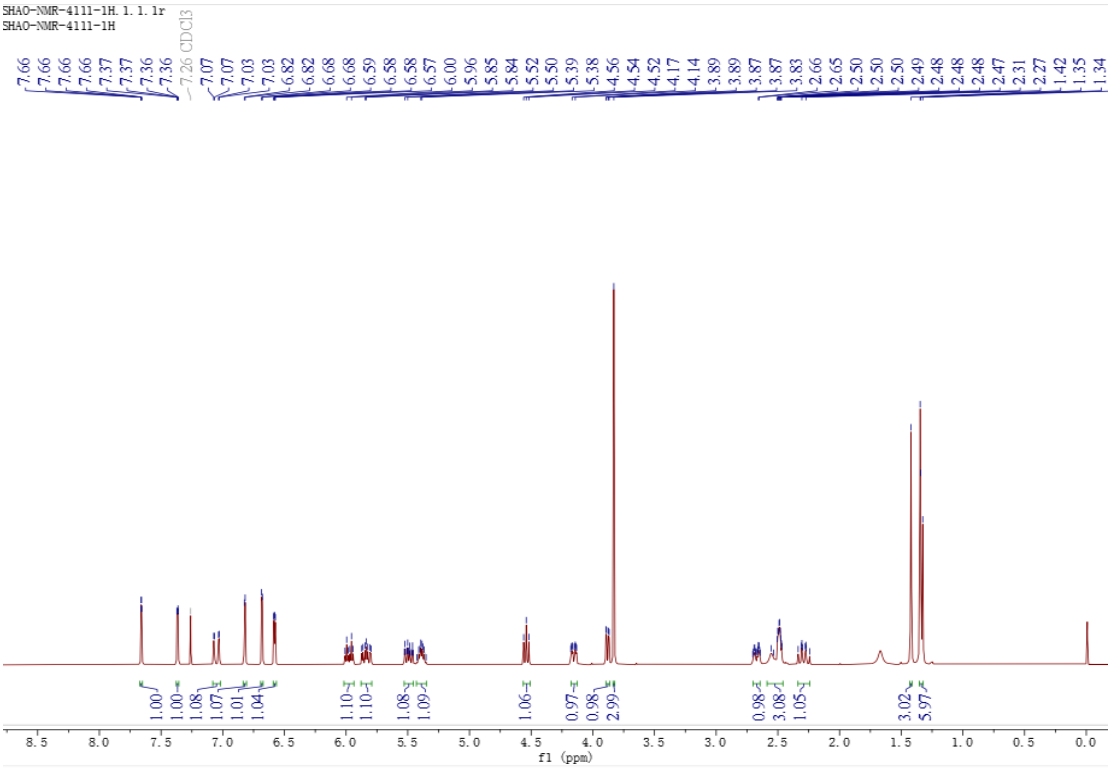


Figure S7. ^{1}H NMR (400 MHz, Chloroform-*d*) spectrum of compound **25**.

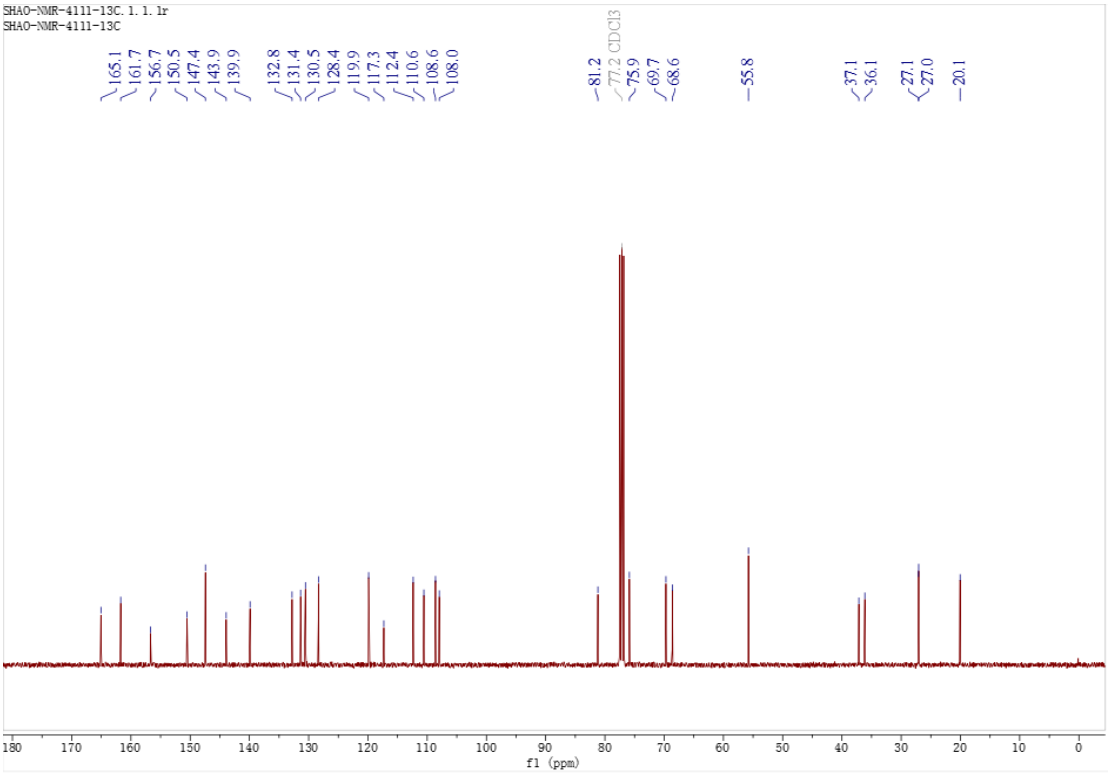


Figure S8. ^{13}C NMR (100 MHz, Chloroform-*d*) spectrum of compound **25**.

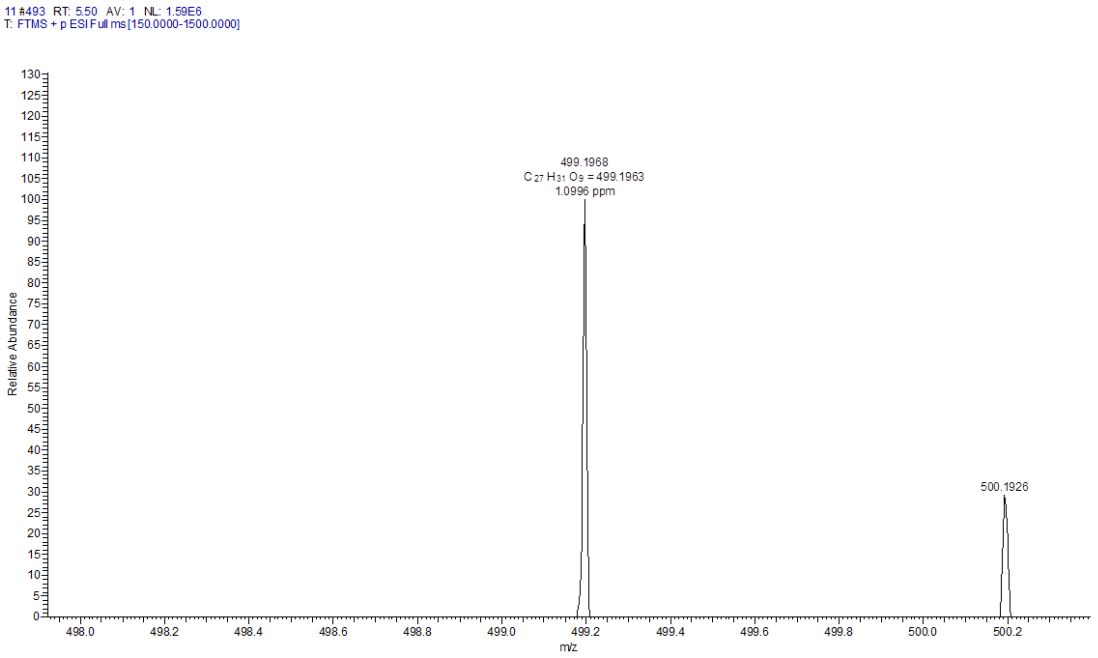


Figure S9. HR-ESI-MS spectrum of compound **25**.

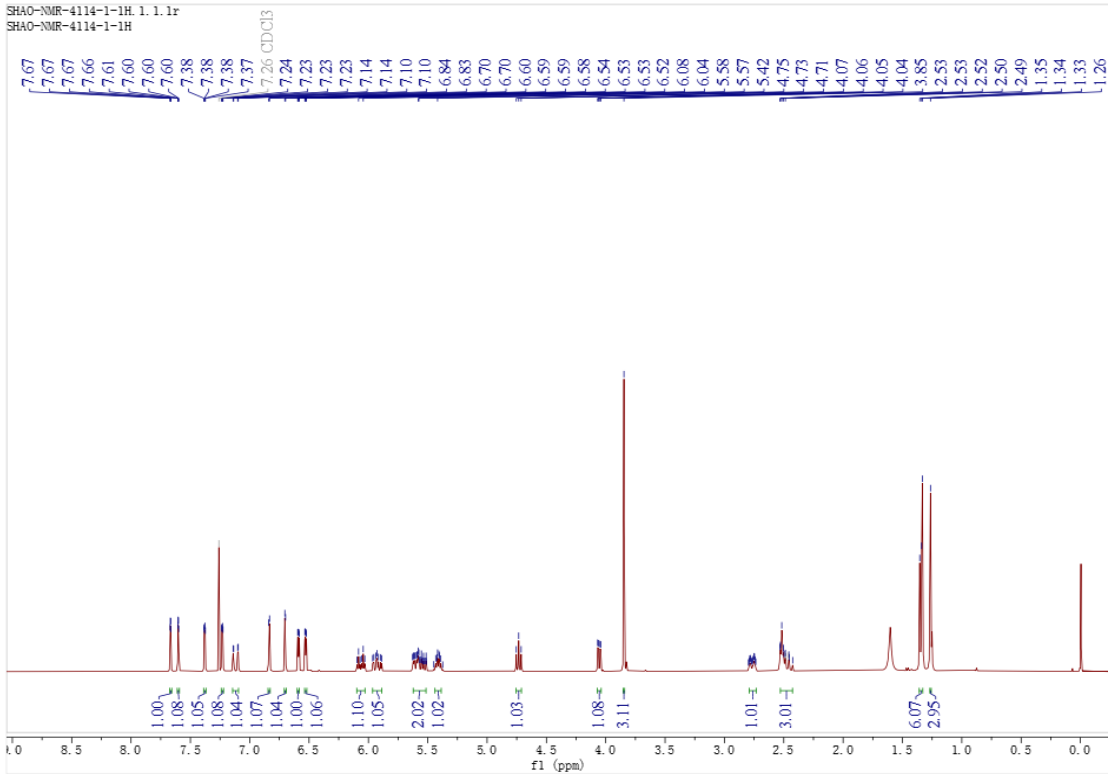


Figure S10. ^{1}H NMR (400 MHz, Chloroform-*d*) spectrum of compound **26**.

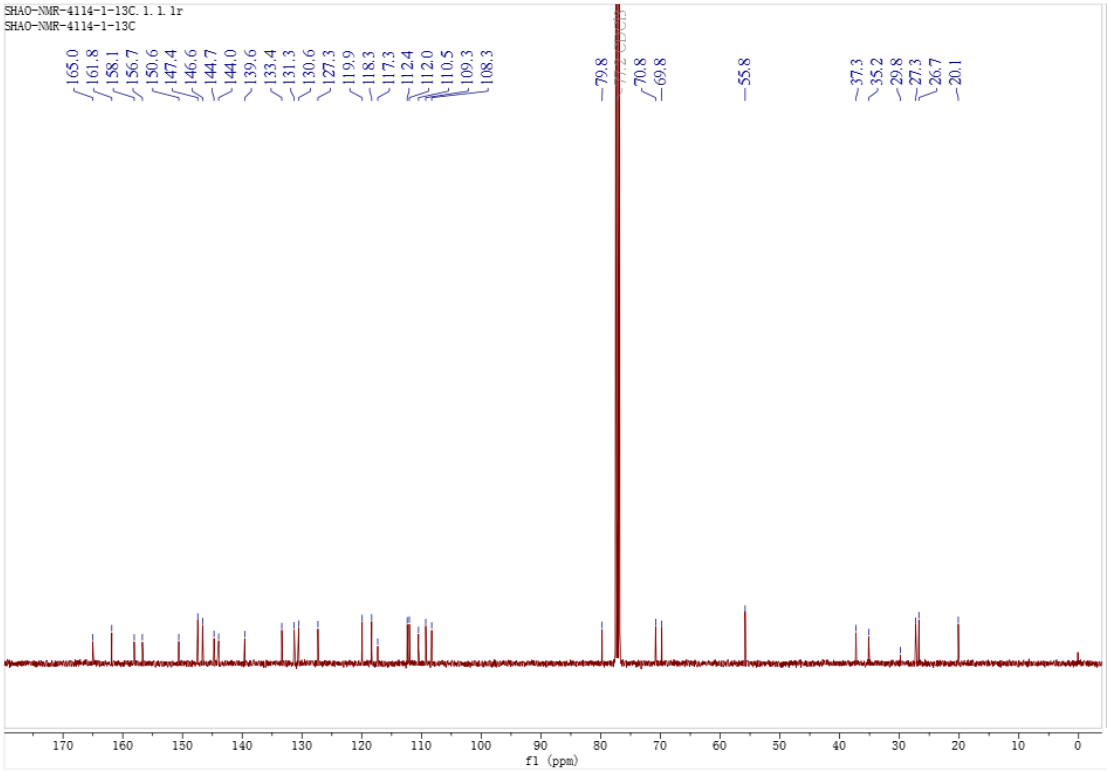


Figure S11. ^{13}C NMR (100 MHz, Chloroform-*d*) spectrum of compound **26**.

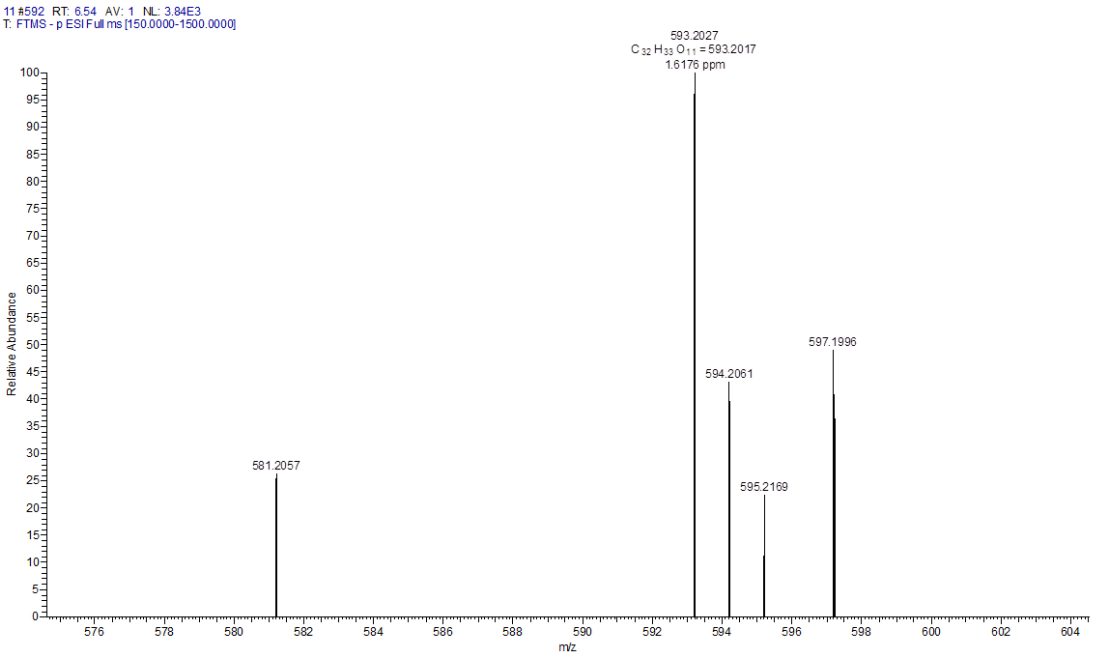


Figure S12. HR-ESI-MS spectrum of compound **26**.

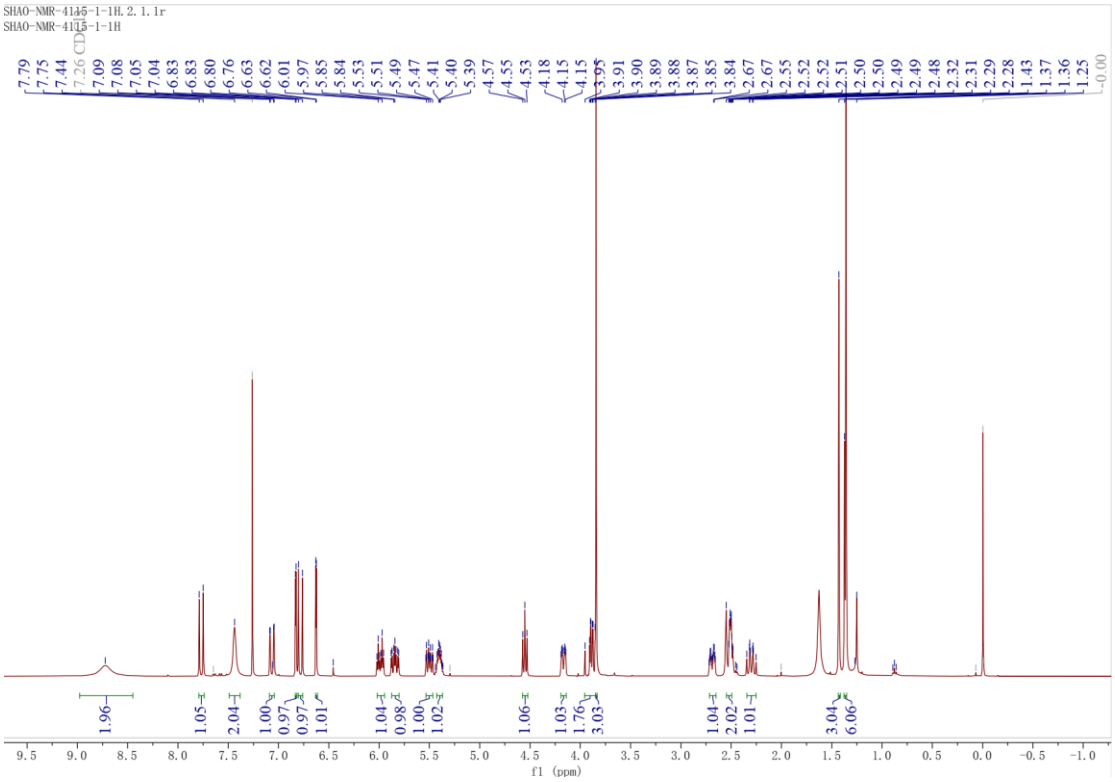


Figure S13. ^{1}H NMR (400 MHz, Chloroform-*d*) spectrum of compound **27**.

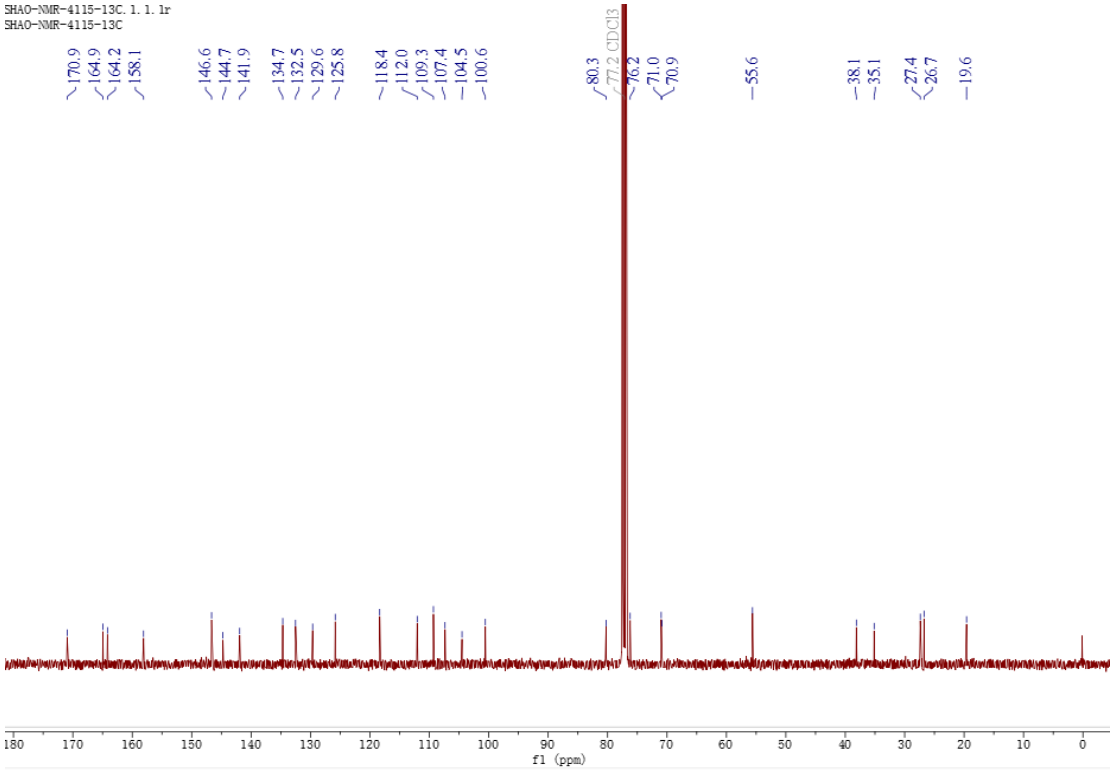


Figure S14. ^{13}C NMR (100 MHz, Chloroform-*d*) spectrum of compound **27**.

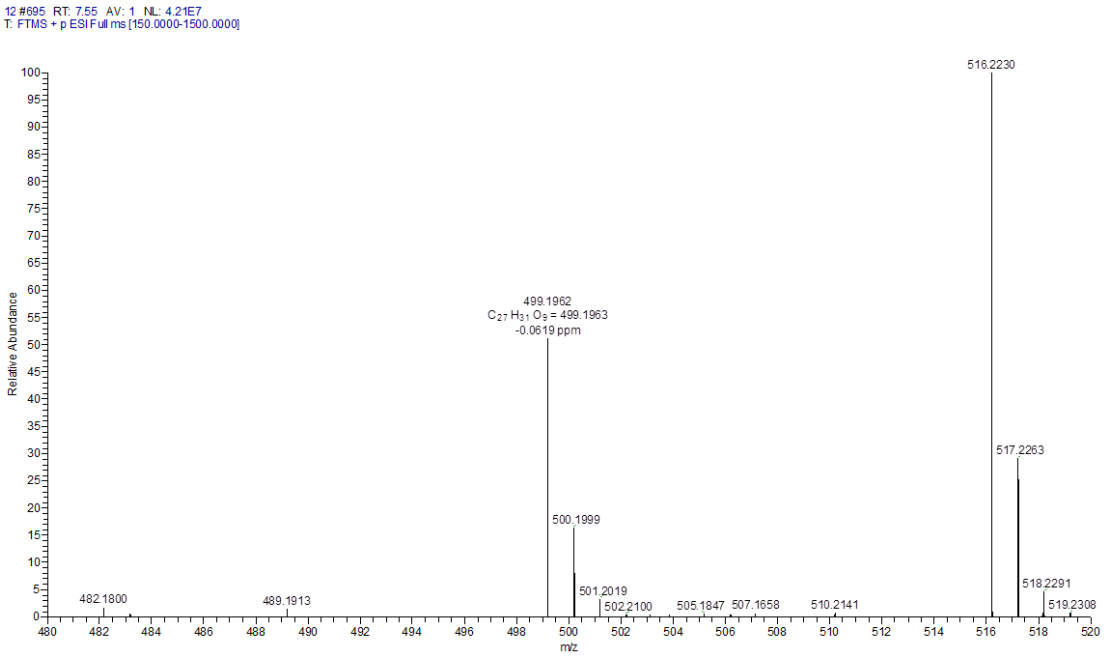


Figure S15. HR-ESI-MS spectrum of compound **27**.

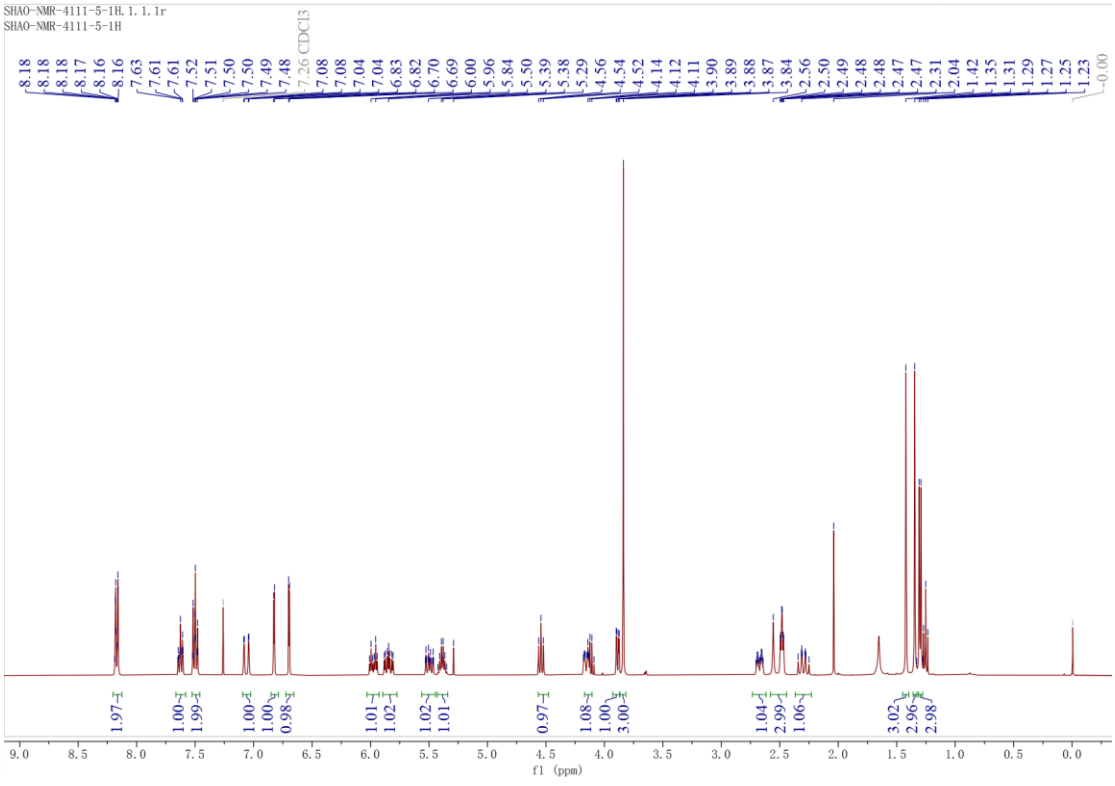


Figure S16. ^{1}H NMR (400 MHz, Chloroform-*d*) spectrum of compound **28**.

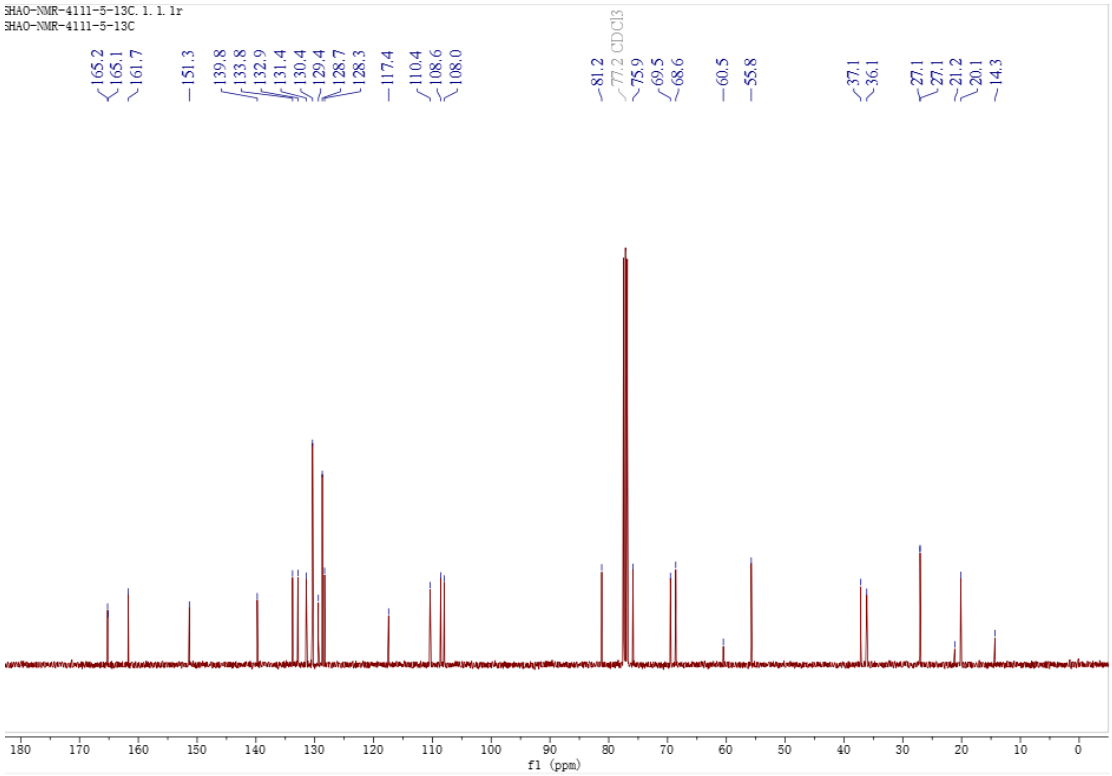


Figure S17. ^{13}C NMR (100 MHz, Chloroform-*d*) spectrum of compound **28**.

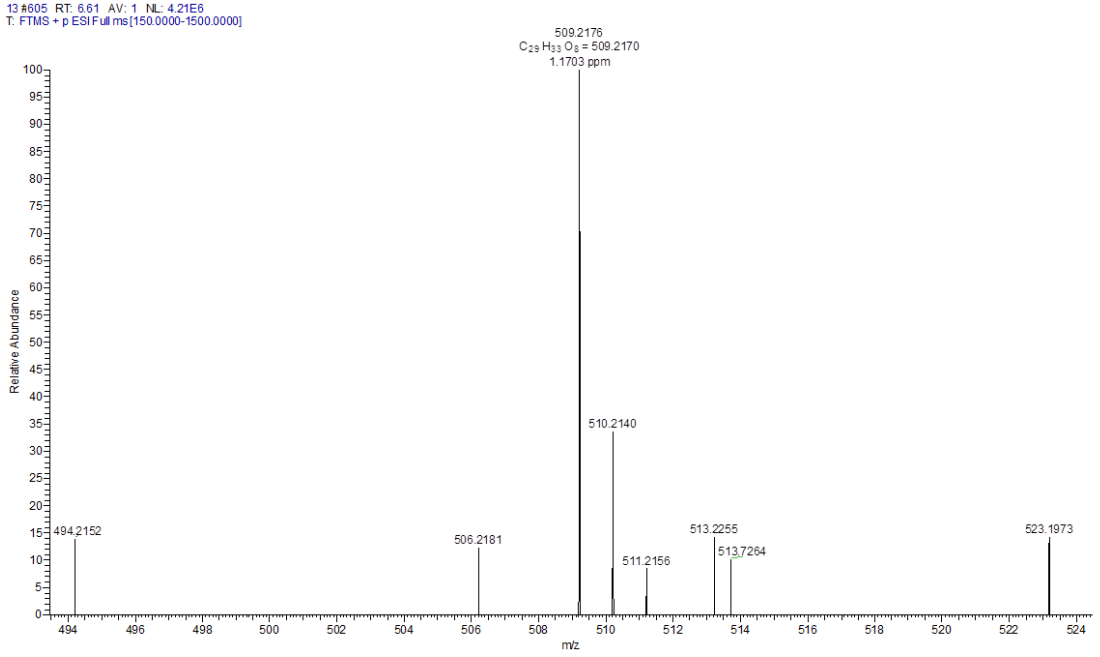


Figure S18. HR-ESI-MS spectrum of compound **28**.

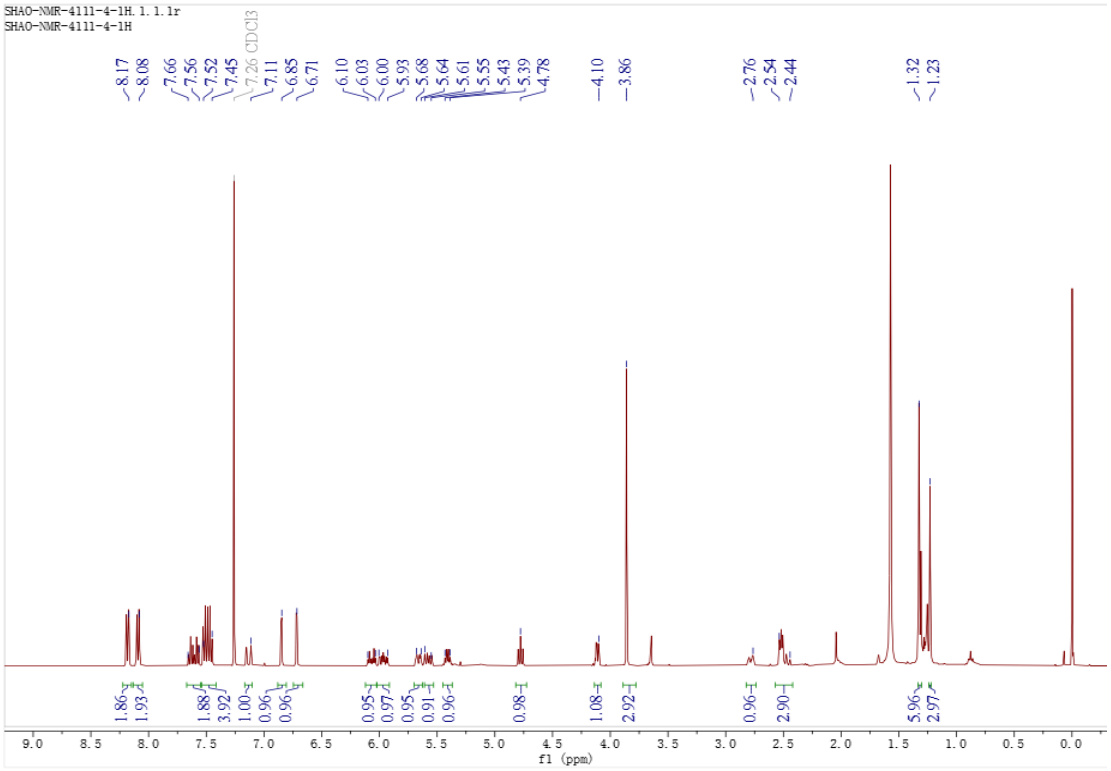


Figure S19. ^{1}H NMR (400 MHz, Chloroform-*d*) spectrum of compound **29**.

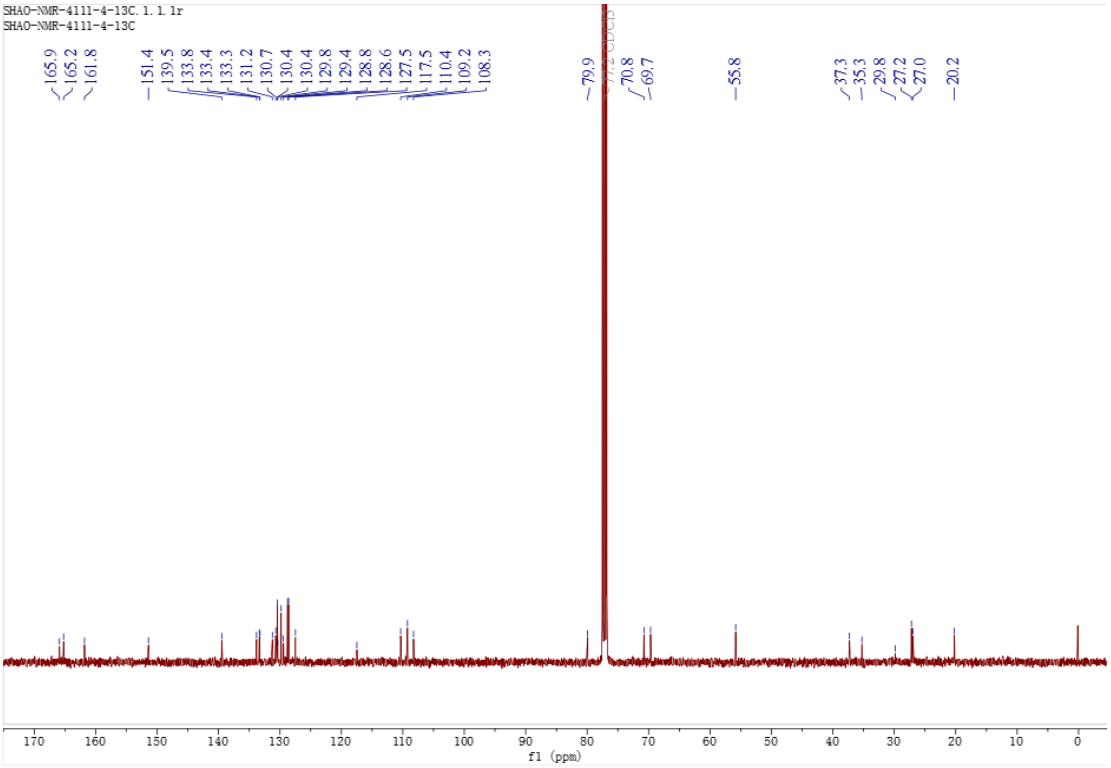


Figure S20. ^{13}C NMR (100 MHz, Chloroform-*d*) spectrum of compound **29**.

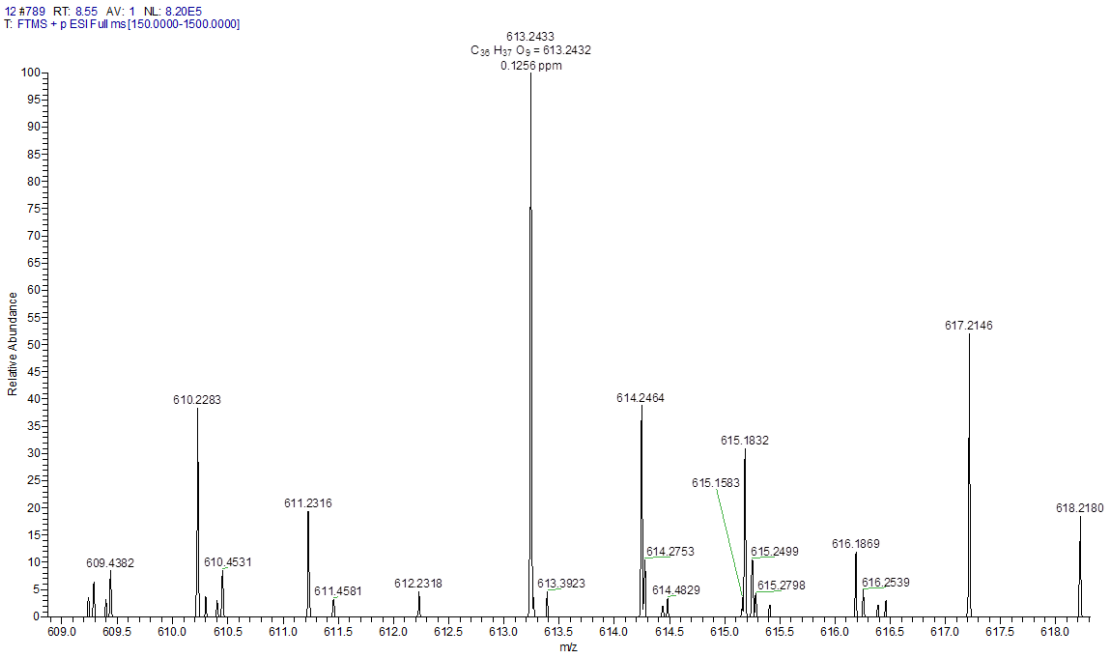


Figure S21. HR-ESI-MS spectrum of compound **29**.

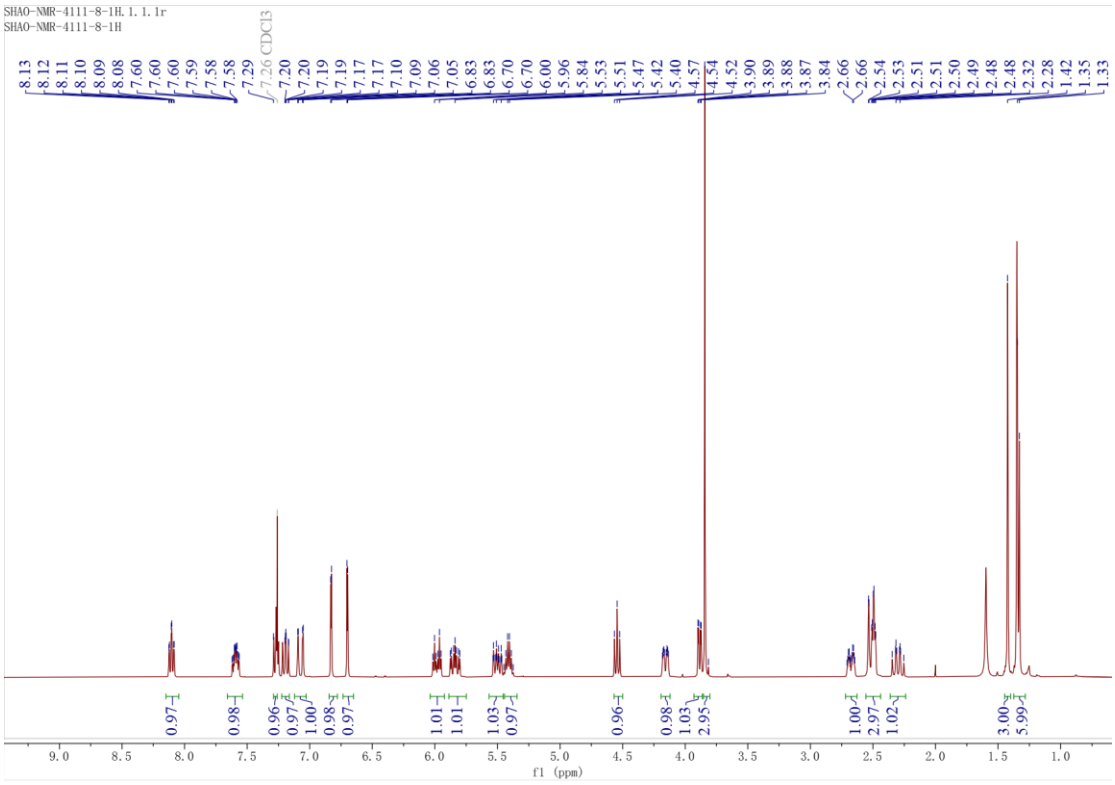


Figure S22. ^{1}H NMR (400 MHz, Chloroform-*d*) spectrum of compound **30**.

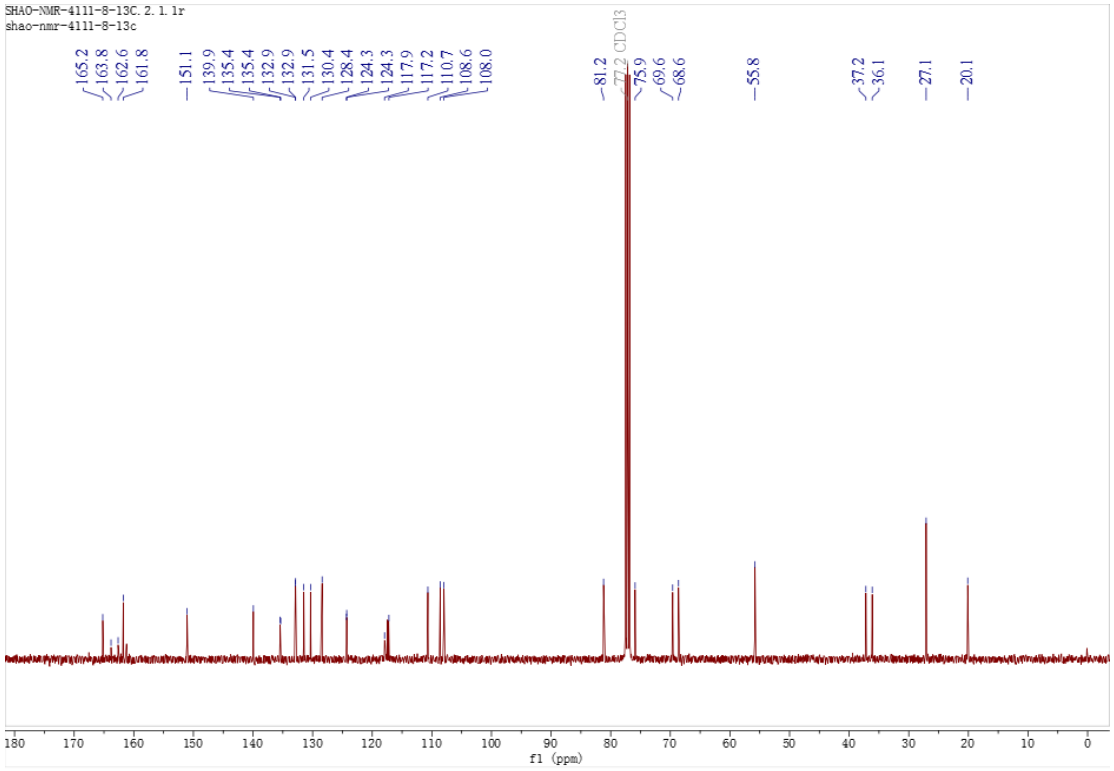


Figure S23. ^{13}C NMR (100 MHz, Chloroform-*d*) spectrum of compound **30**.

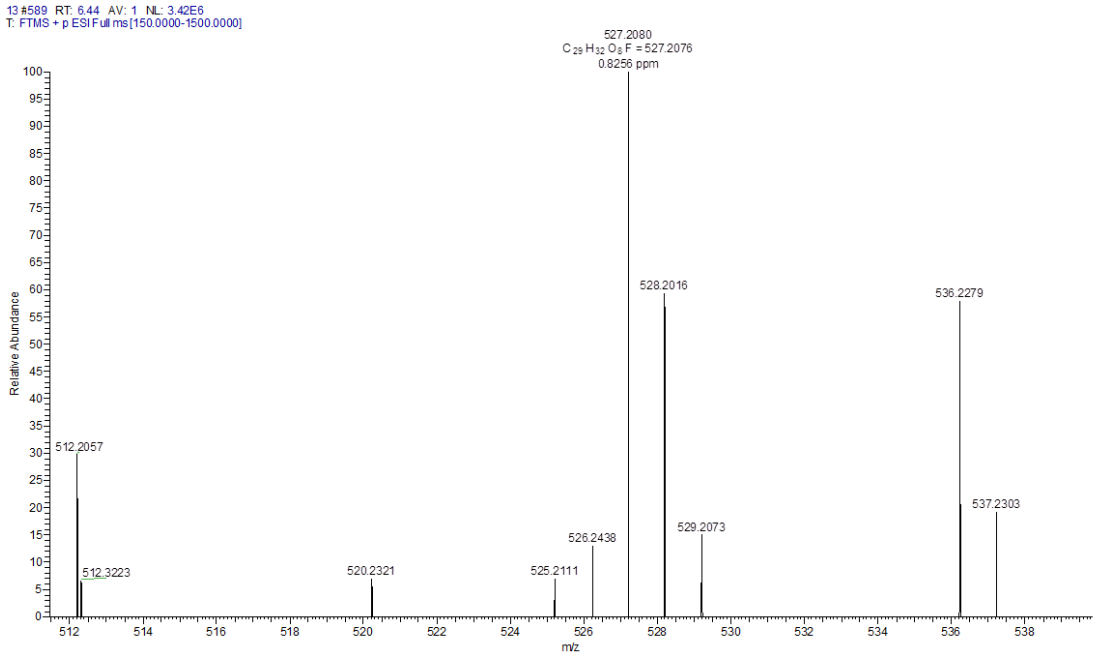


Figure S24. HR-ESI-MS spectrum of compound **30**.

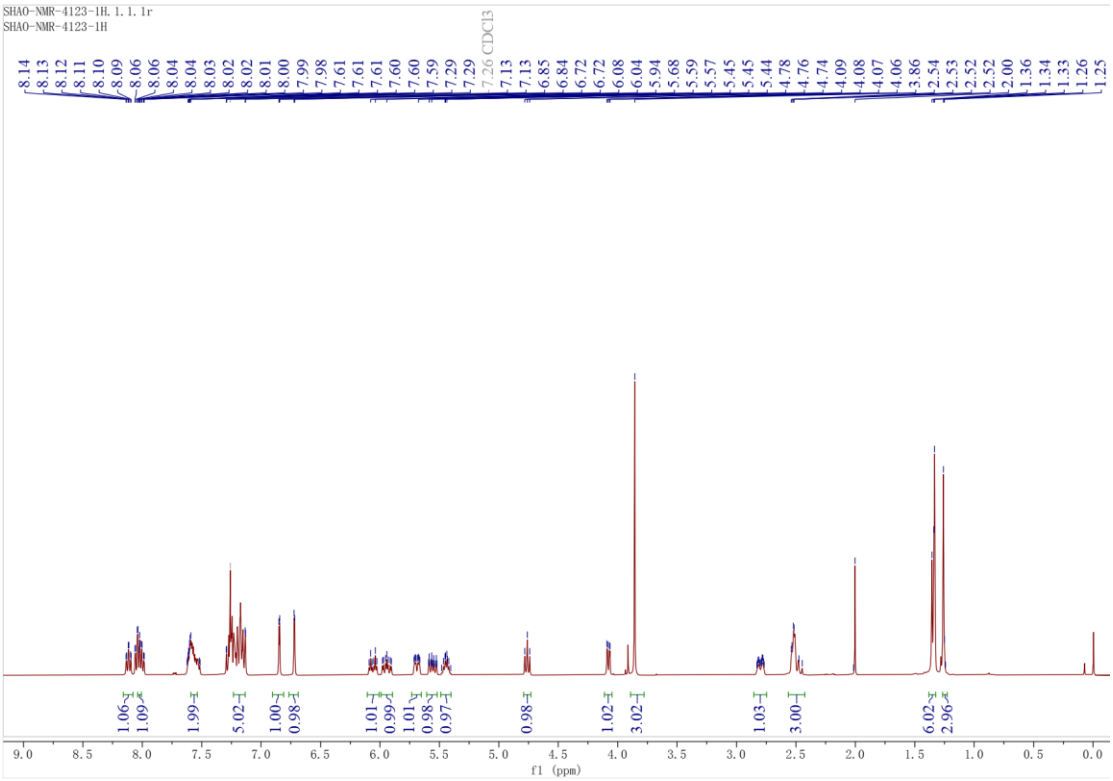


Figure S25. [1]H NMR (400 MHz, Chloroform-*d*) spectrum of compound **31**.

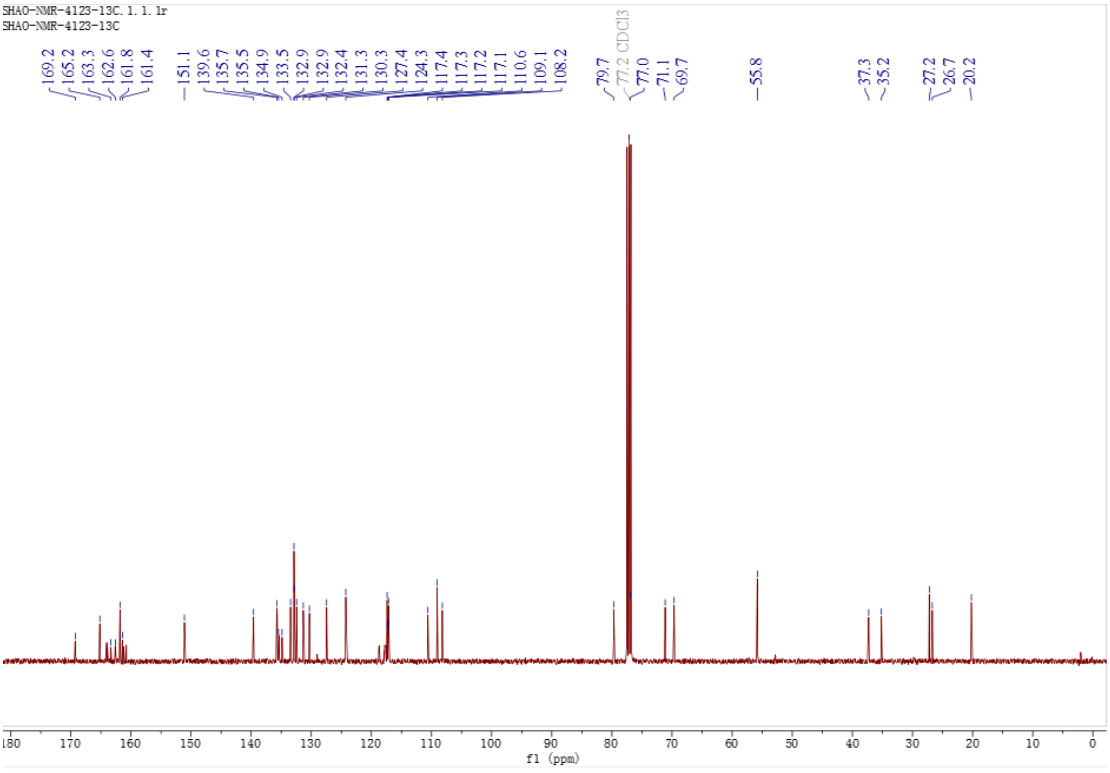


Figure S26. [13]C NMR (100 MHz, Chloroform-*d*) spectrum of compound **31**.

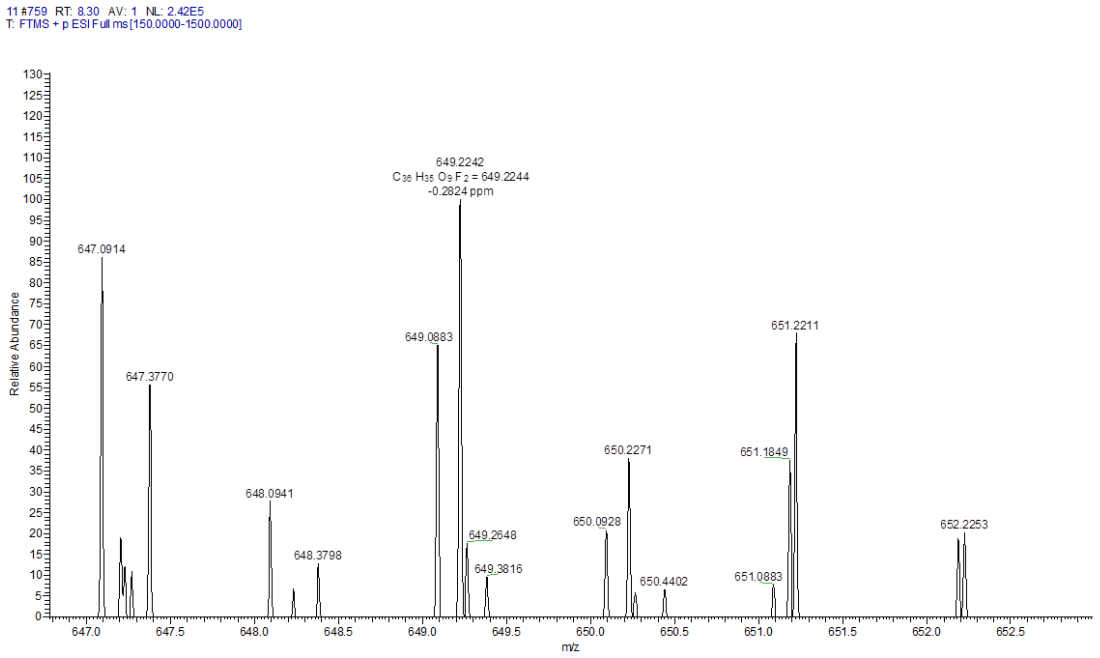


Figure S27. HR-ESI-MS spectrum of compound **31**.

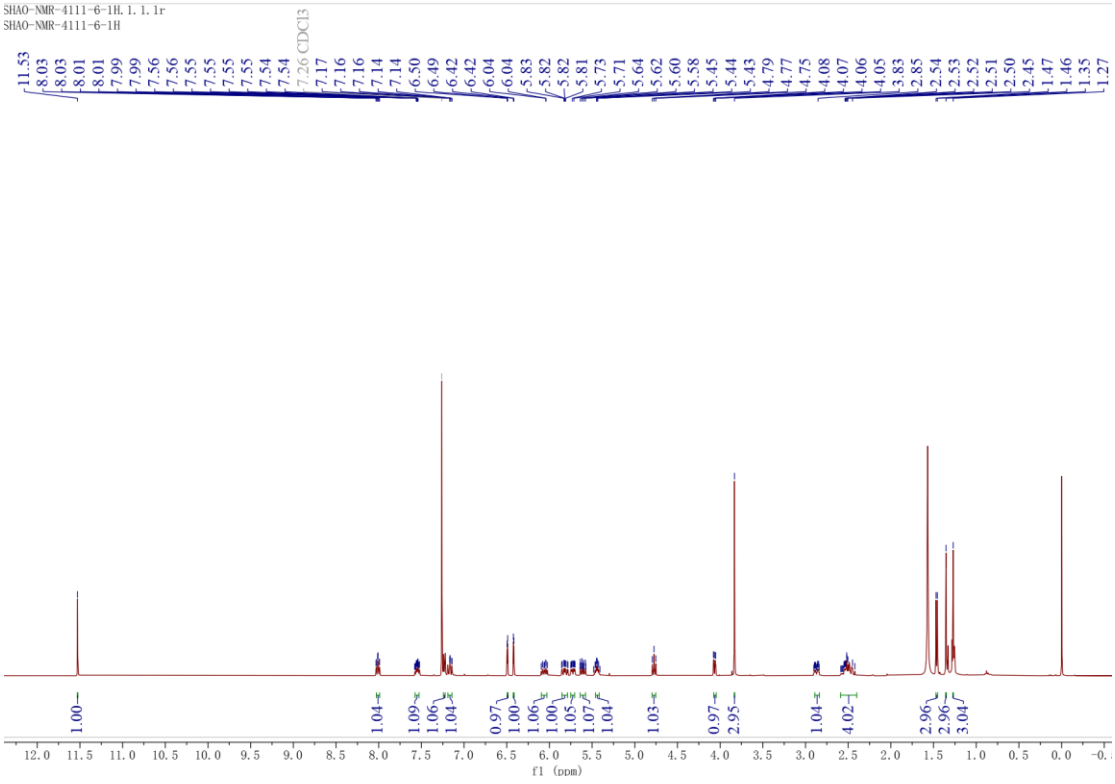


Figure S28. ^{1}H NMR (400 MHz, Chloroform-*d*) spectrum of compound **32**.

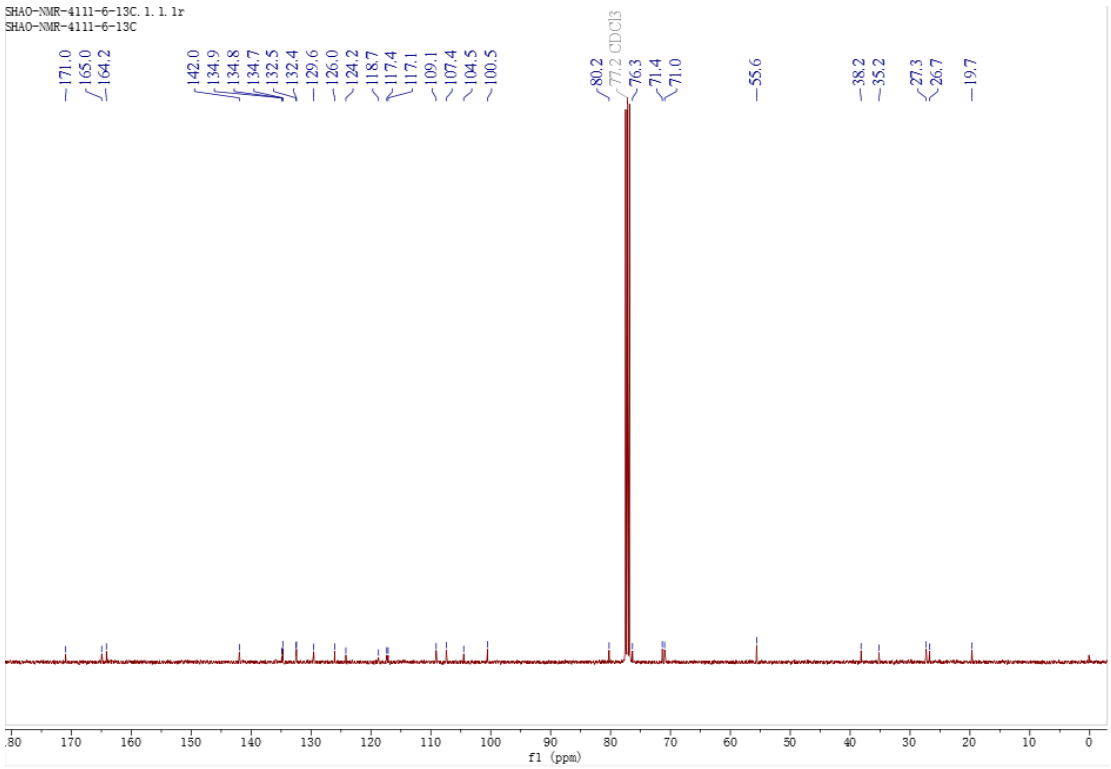


Figure S29. ^{13}C NMR (100 MHz, Chloroform-*d*) spectrum of compound **32**.

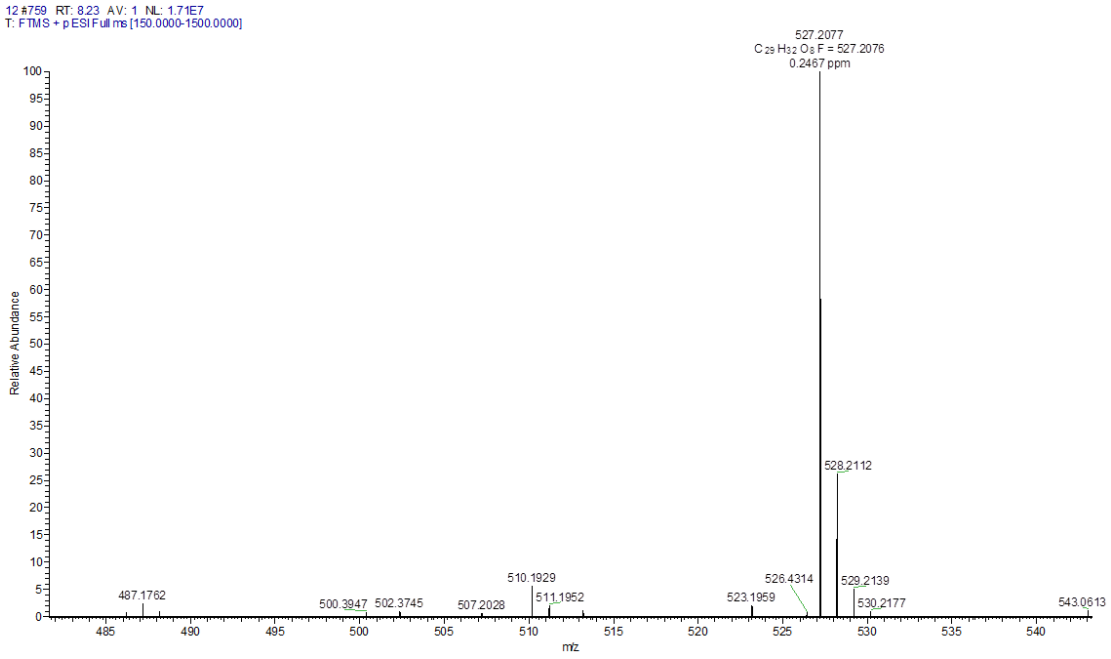


Figure S30. HR-ESI-MS spectrum of compound **32**.

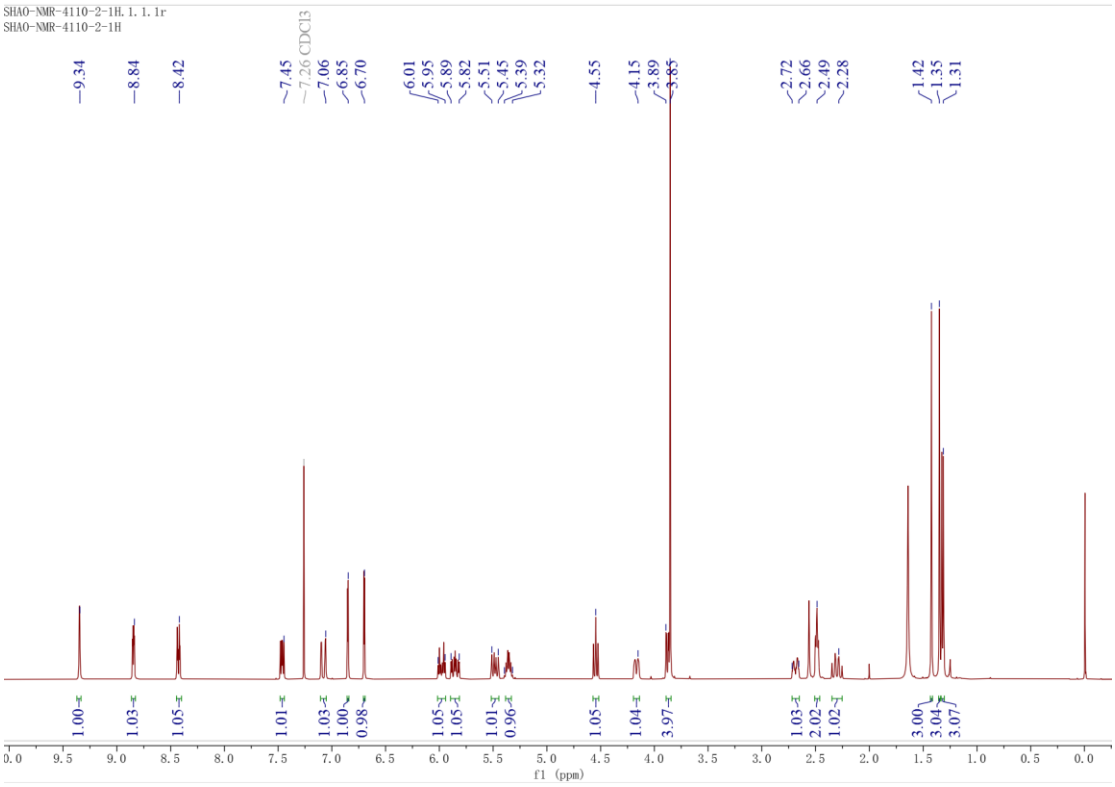


Figure S31. ^{1}H NMR (400 MHz, Chloroform-*d*) spectrum of compound **33**.

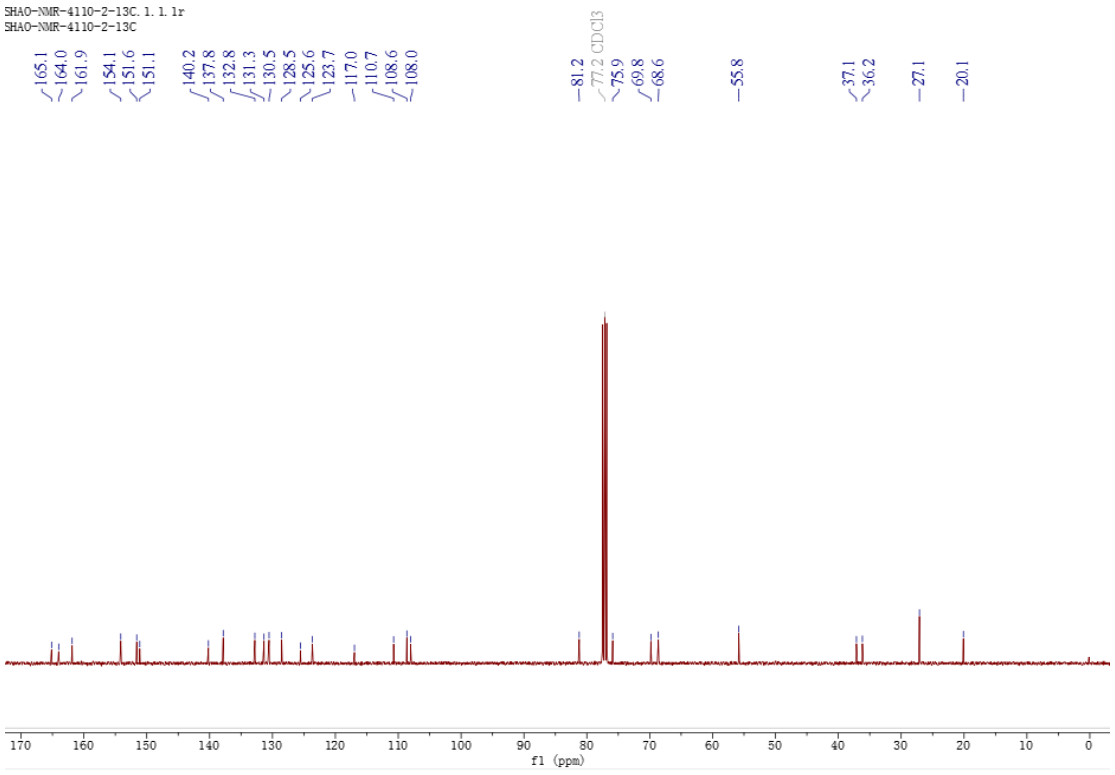


Figure S32. ^{13}C NMR (100 MHz, Chloroform-*d*) spectrum of compound **33**.

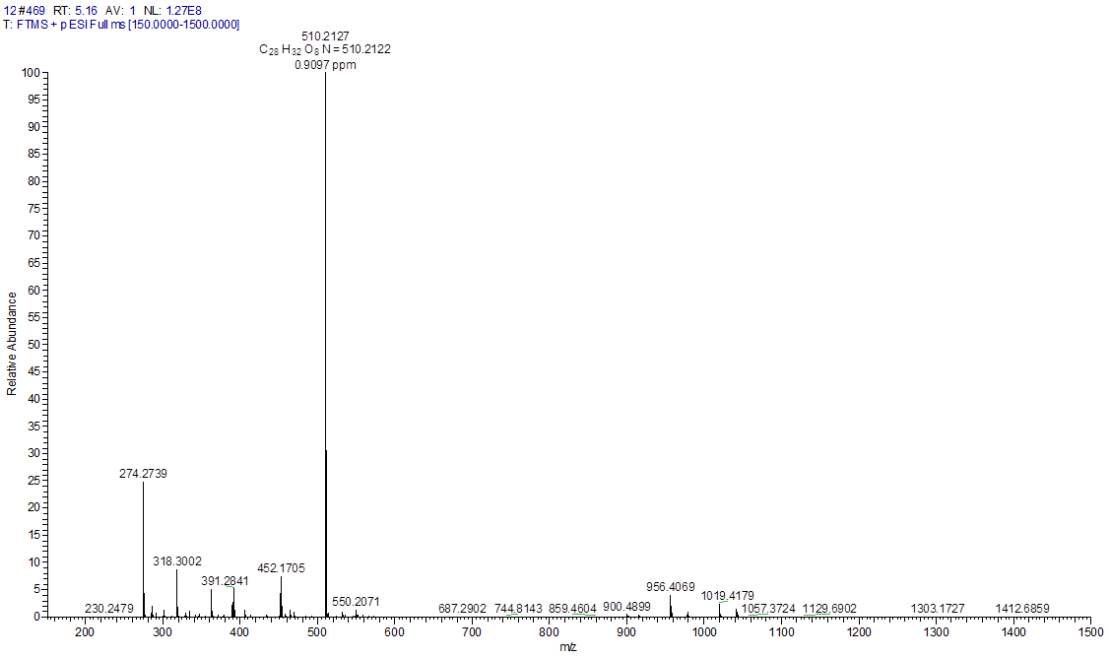


Figure S33. HR-ESI-MS spectrum of compound **33**.

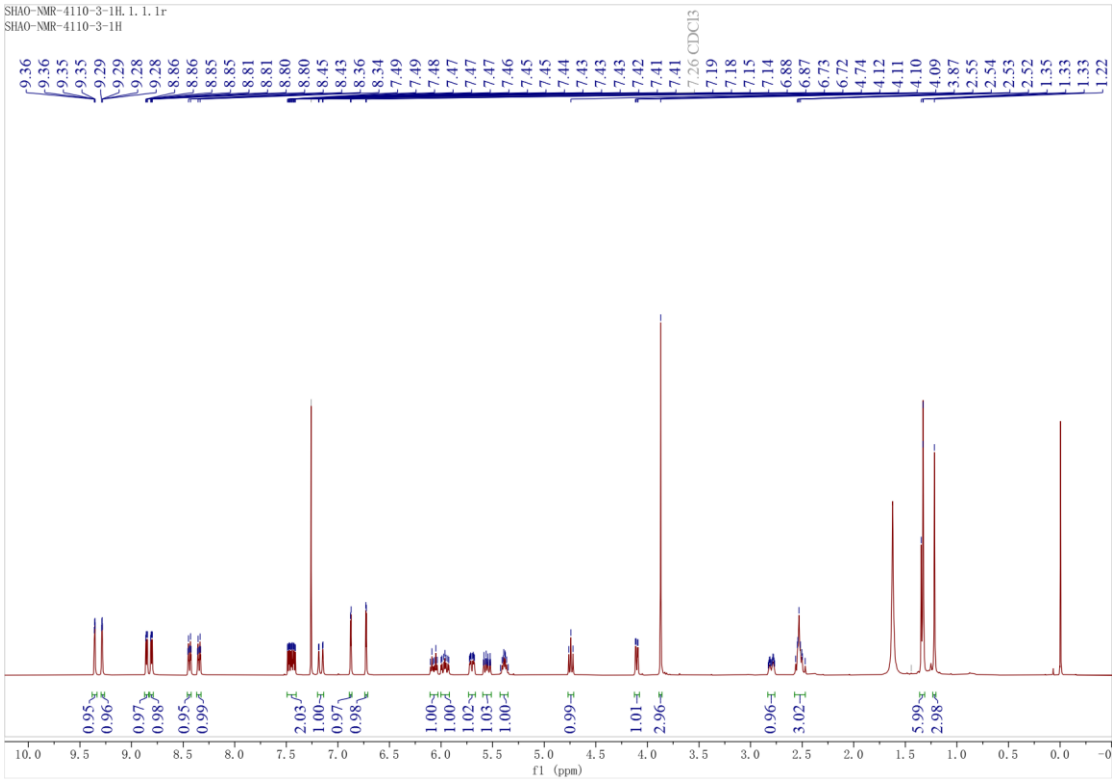


Figure S34. ^{1}H NMR (400 MHz, Chloroform-*d*) spectrum of compound **34**.

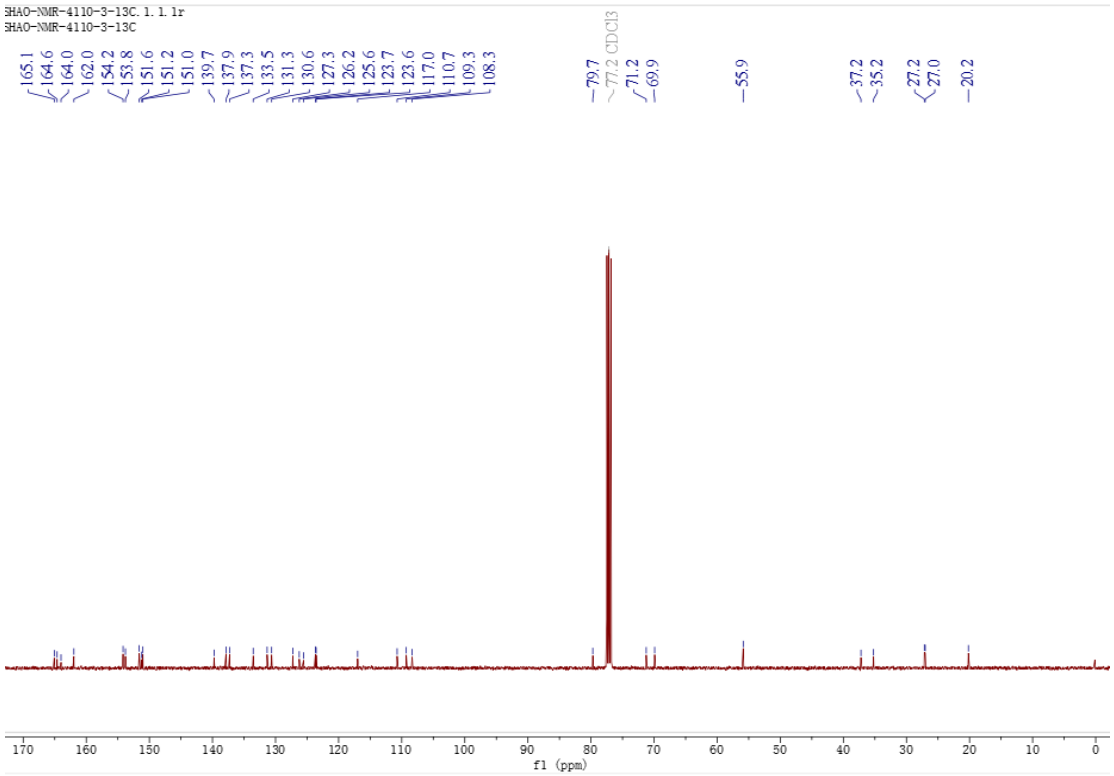


Figure S35 ^{13}C NMR (100 MHz, Chloroform-*d*) spectrum of compound **34**.

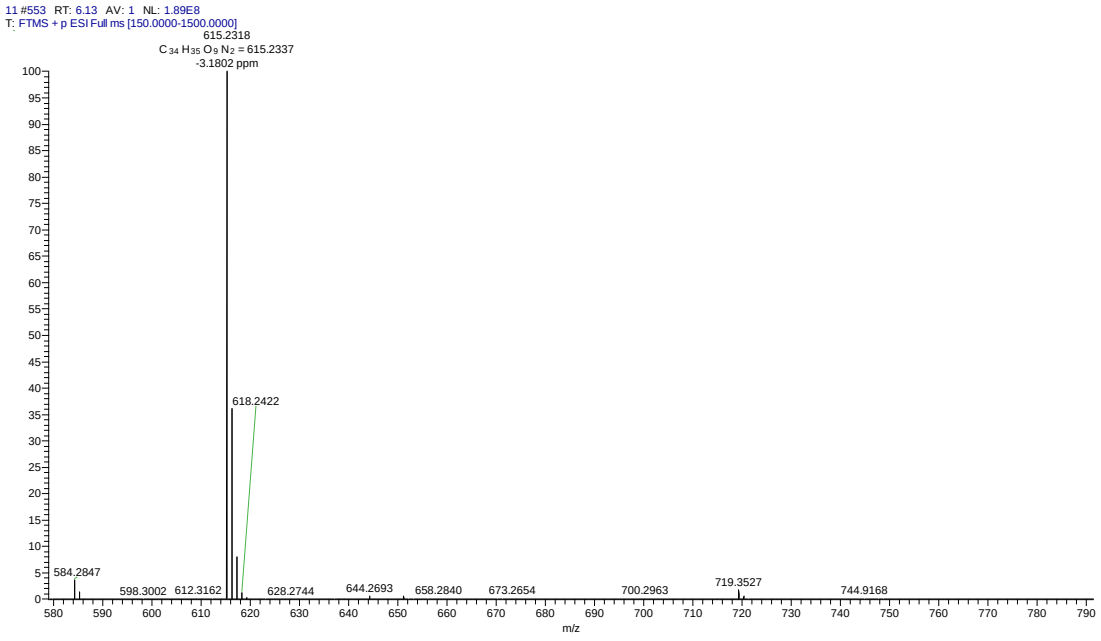


Figure S36. HR-ESI-MS spectrum of compound **34**.

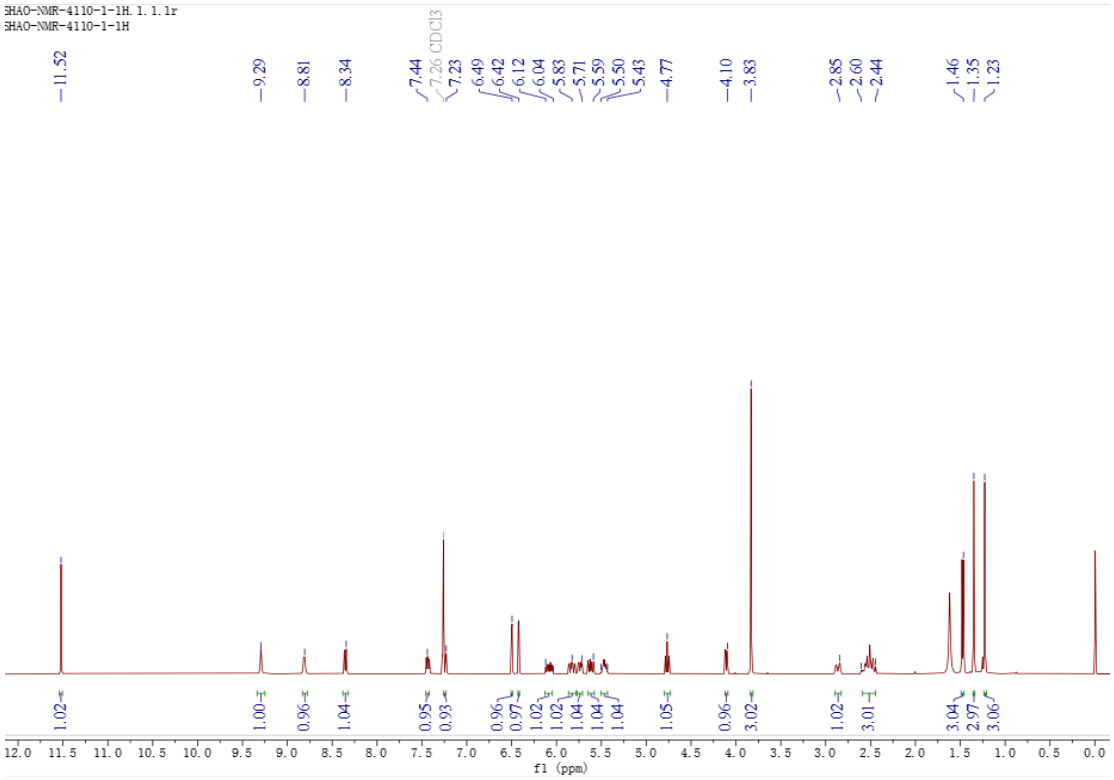


Figure S37. ^{1}H NMR (400 MHz, Chloroform-*d*) spectrum of compound **35**.

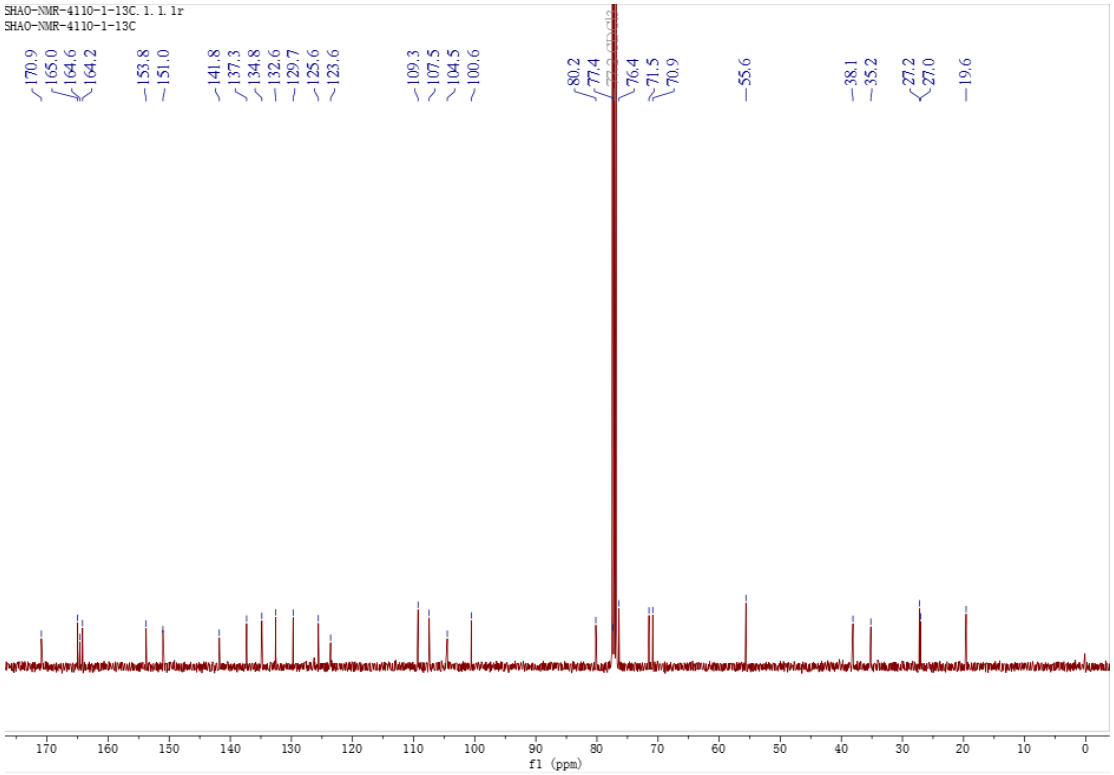


Figure S38. ^{13}C NMR (100 MHz, Chloroform-*d*) spectrum of compound **35**.

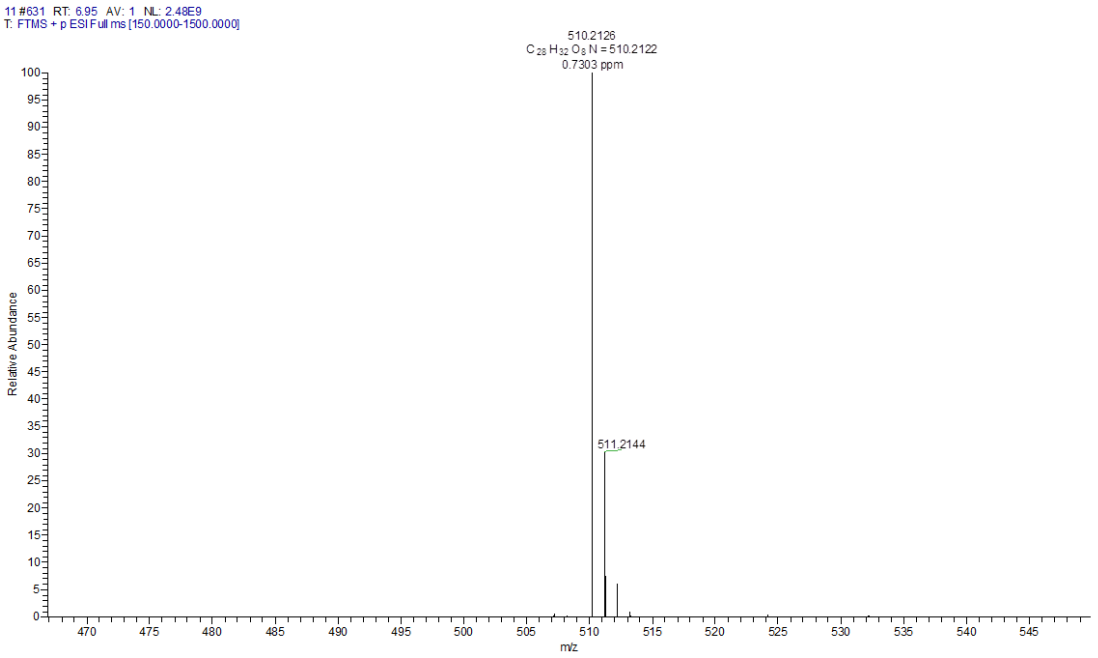


Figure S39. HR-ESI-MS spectrum of compound **35**.

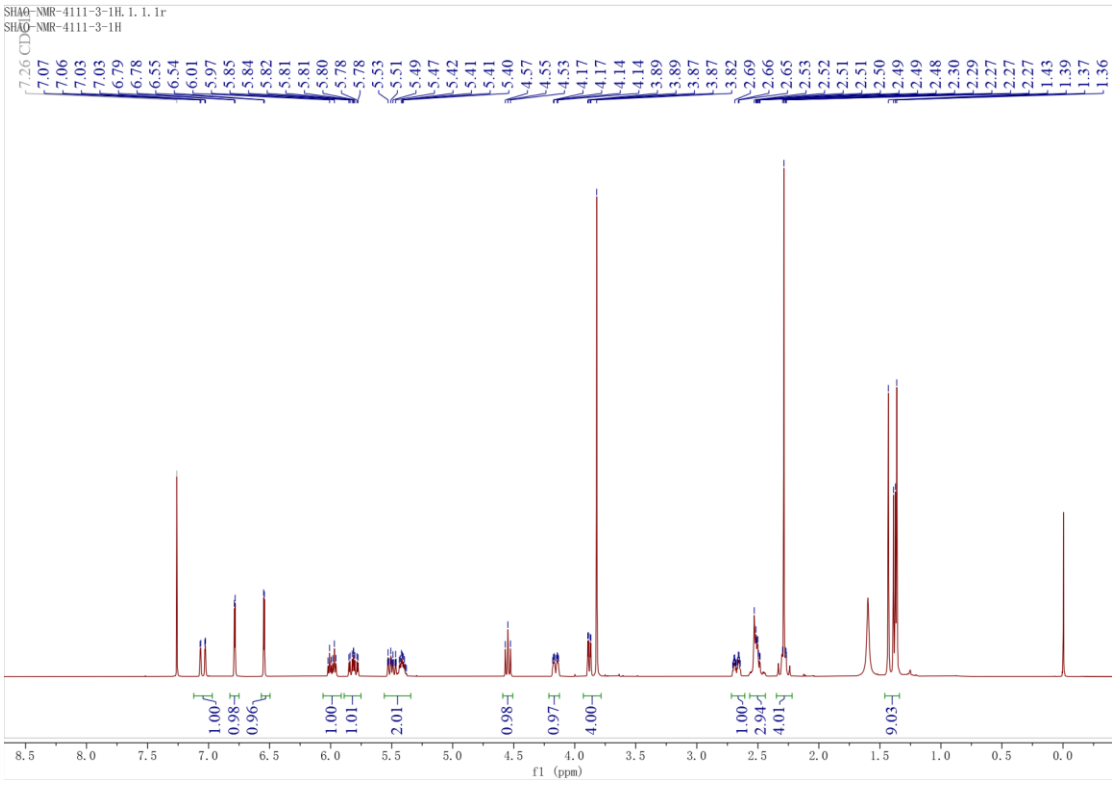


Figure S40. ^{1}H NMR (400 MHz, Chloroform-*d*) spectrum of compound **36**.

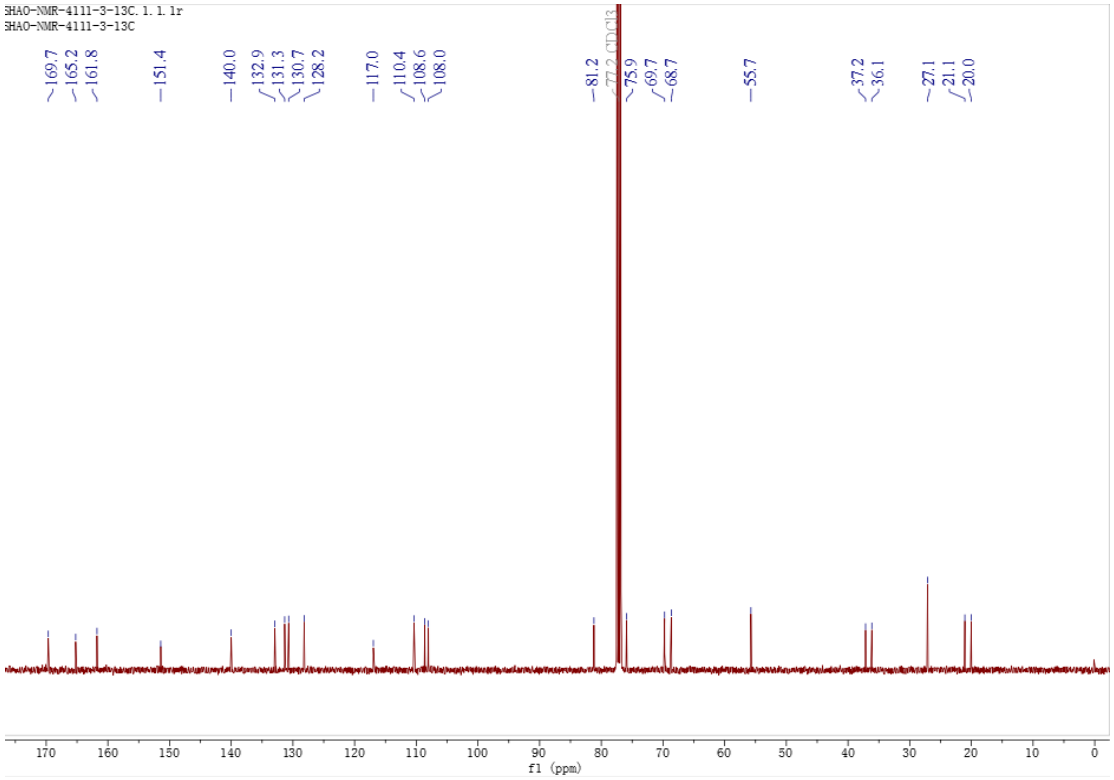


Figure S41. ^{13}C NMR (100 MHz, Chloroform-*d*) spectrum of compound **36**.

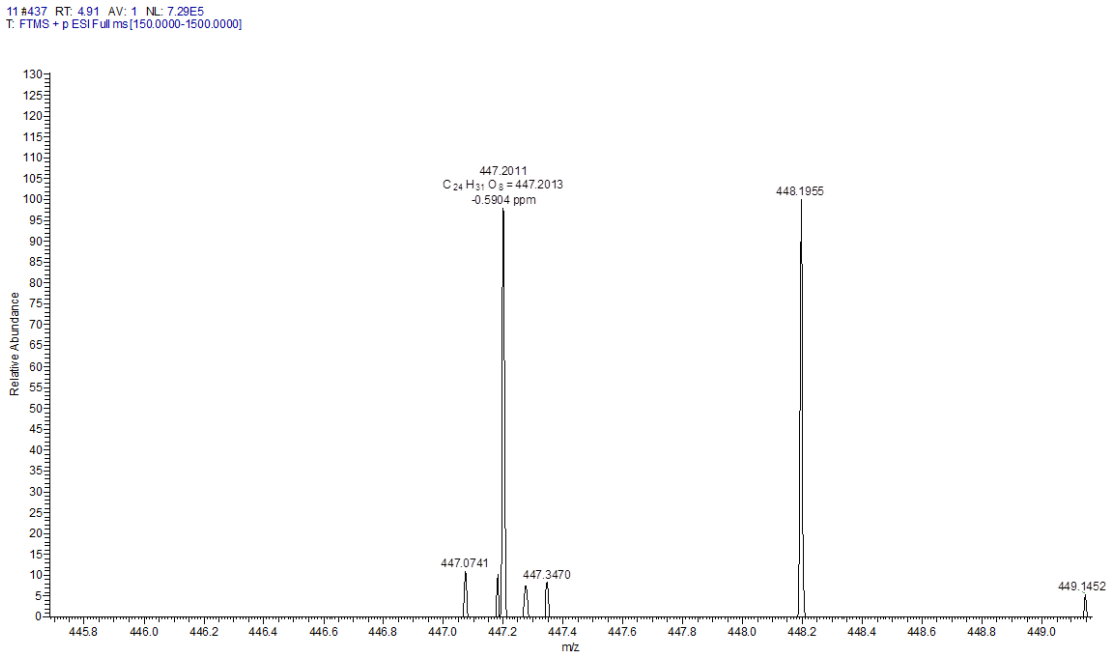


Figure S42. HR-ESI-MS spectrum of compound **36**

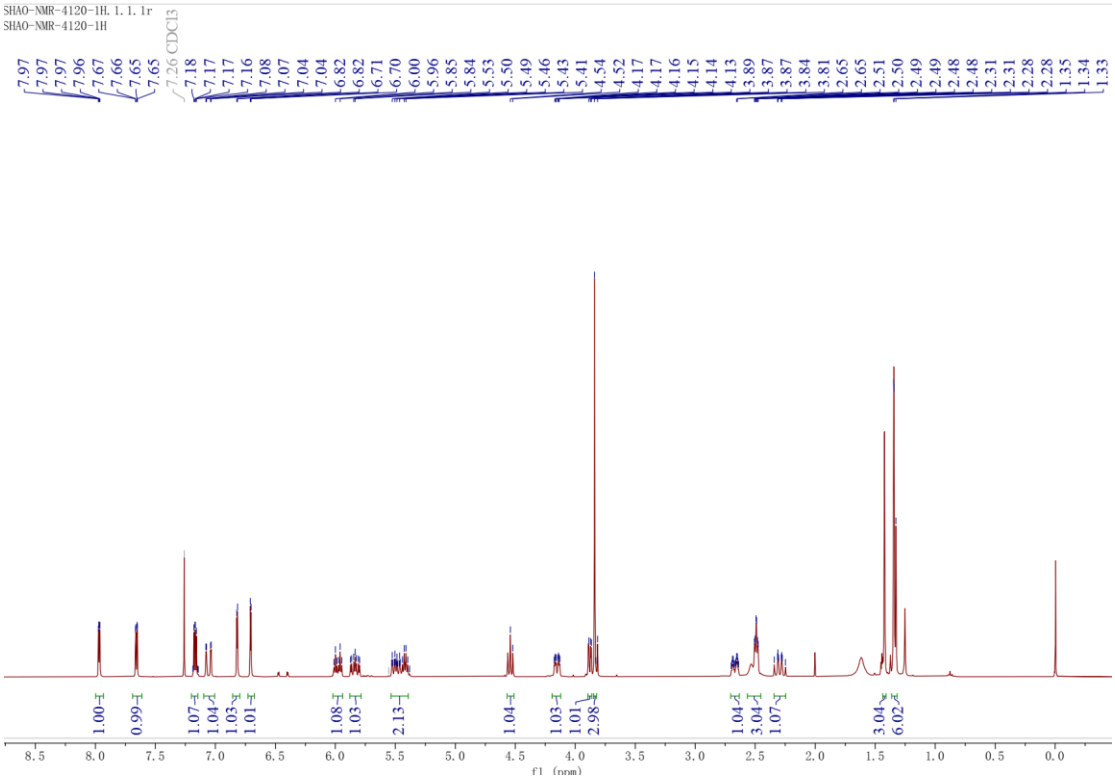


Figure S43. ^{1}H NMR (400 MHz, Chloroform-*d*) spectrum of compound **37**.

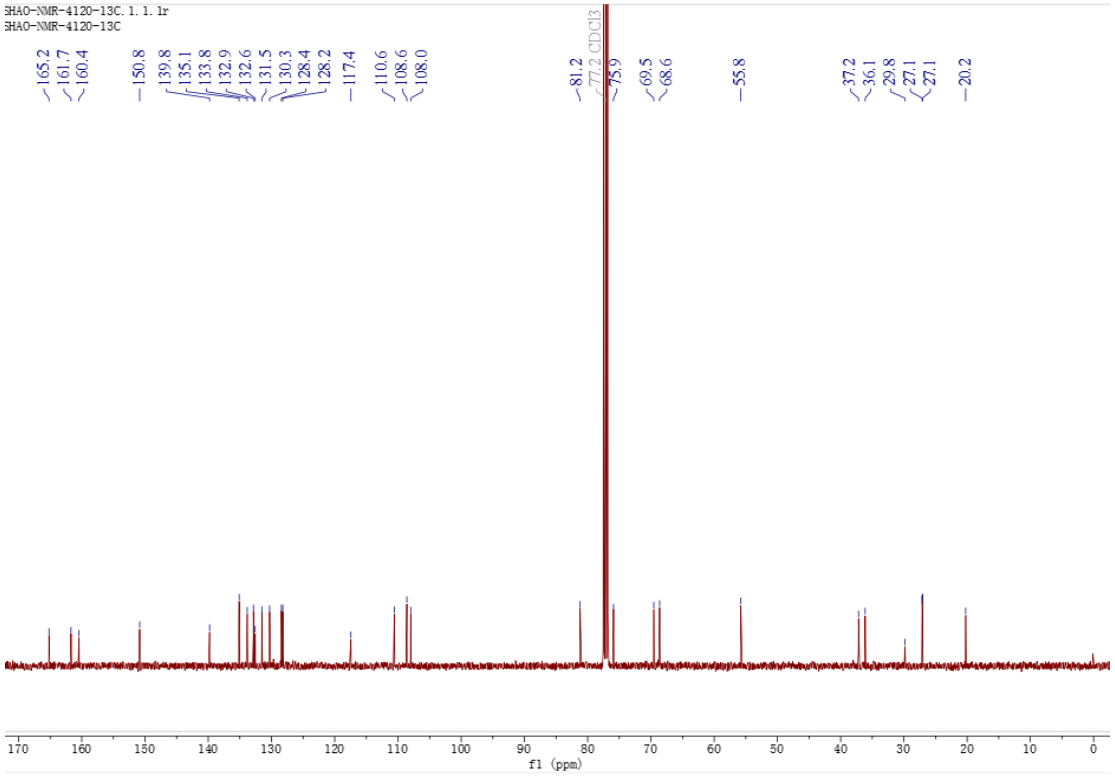


Figure S44. ^{13}C NMR (100 MHz, Chloroform-*d*) spectrum of compound **37**.

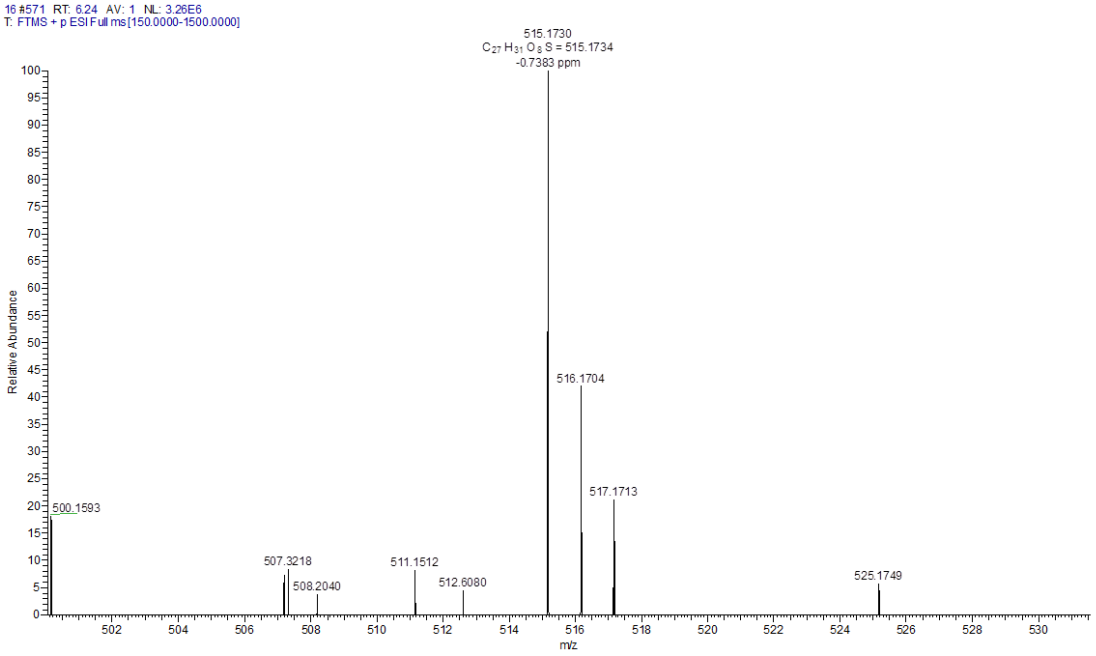


Figure S45. HR-ESI-MS spectrum of compound **37**.

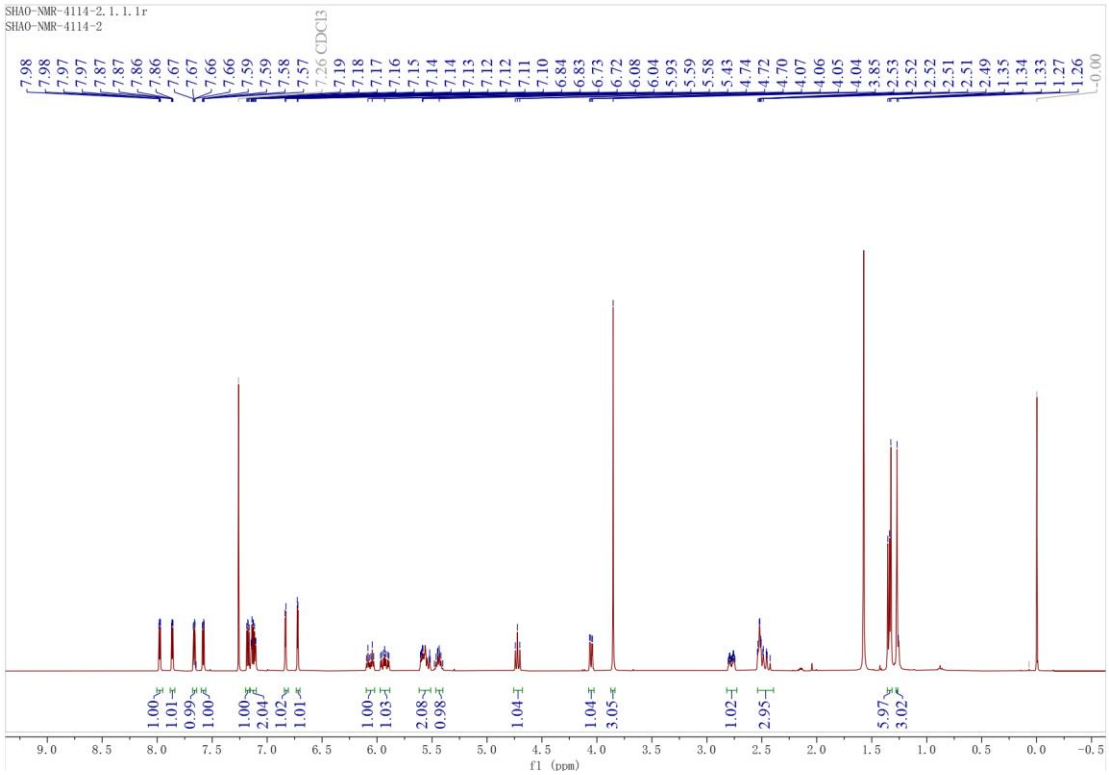


Figure S46. ^{1}H NMR (400 MHz, Chloroform-*d*) spectrum of compound **38**.

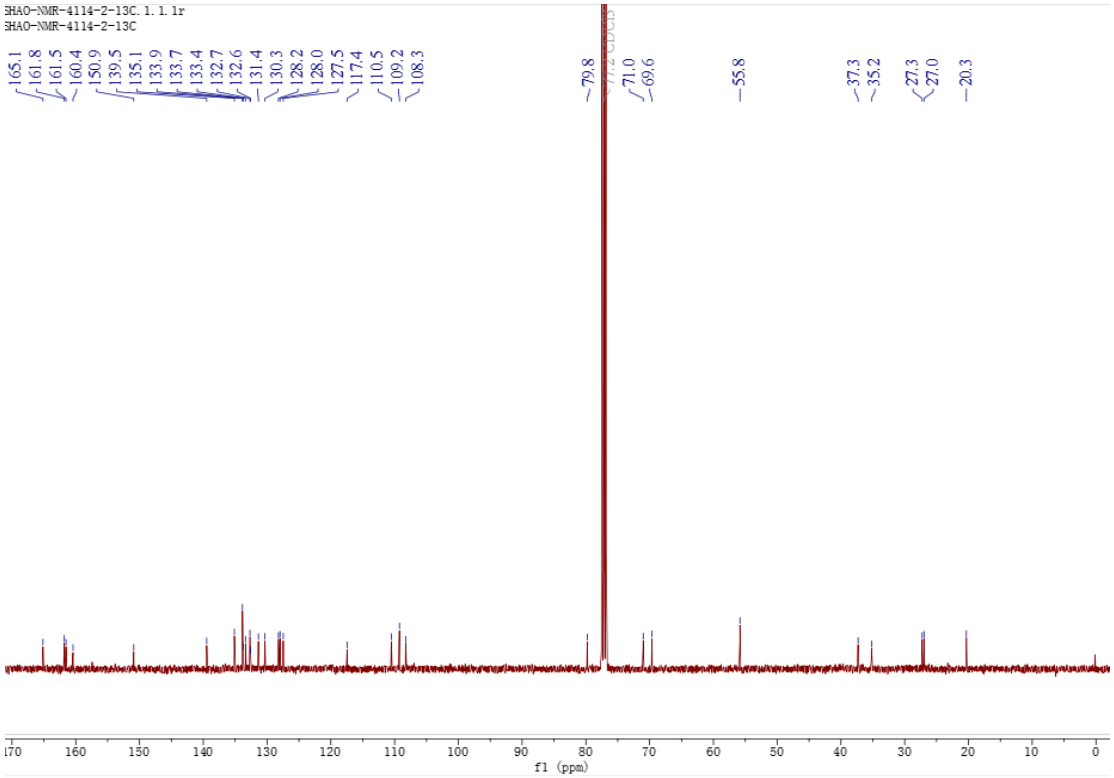


Figure S47. ^{13}C NMR (100 MHz, Chloroform-*d*) spectrum of compound **38**.

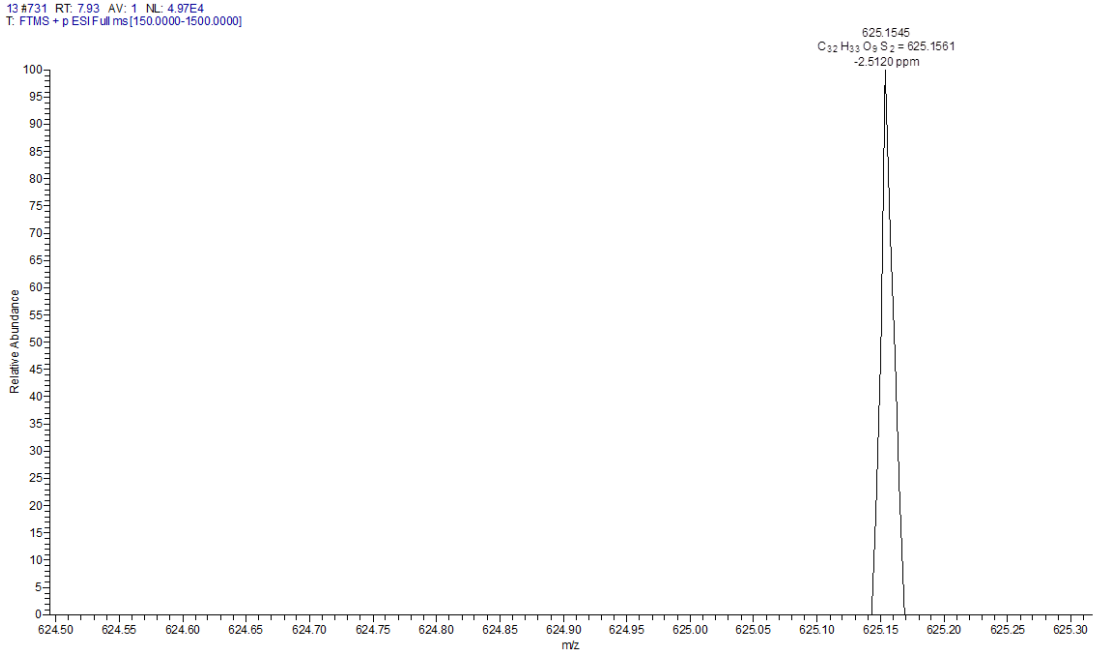


Figure S48. HR-ESI-MS spectrum of compound **38**.