

Supporting Information

Design and Synthesis of Novel Insecticidal 3-Isothiazolols as Potential Antagonists of Insect GABA Receptors

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1. ¹H NMR spectra of compounds 2-5 and 7

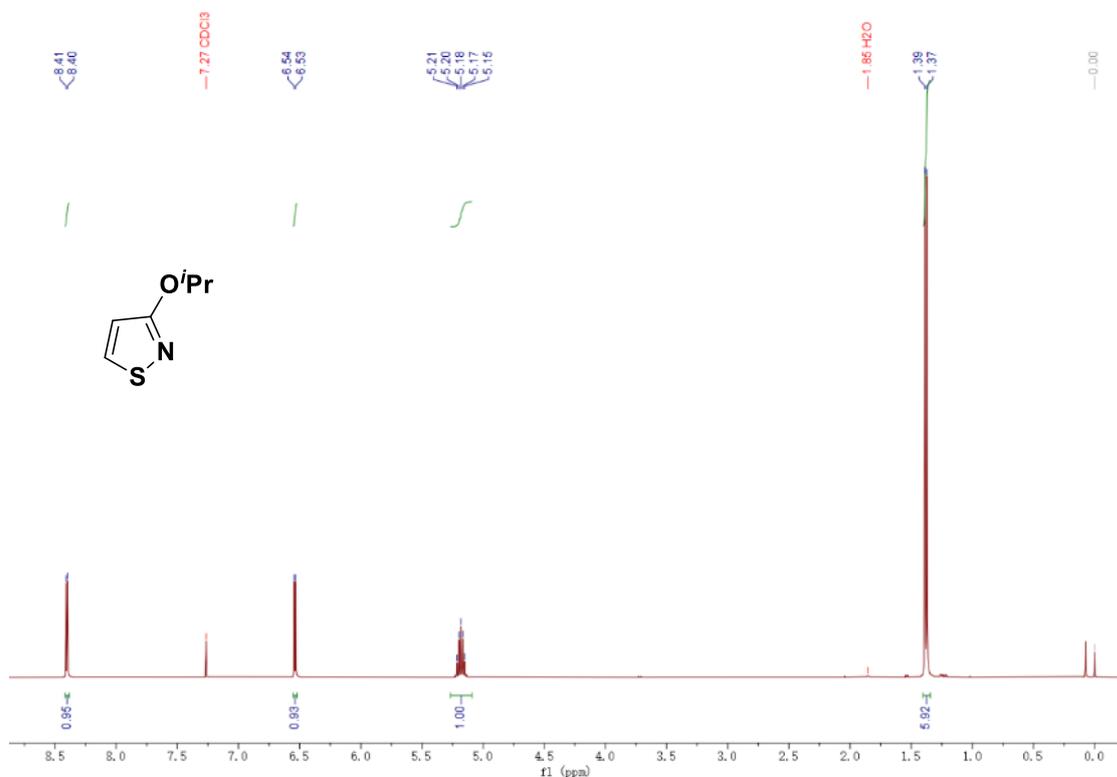


Figure S1. ¹H NMR spectra of compound 2

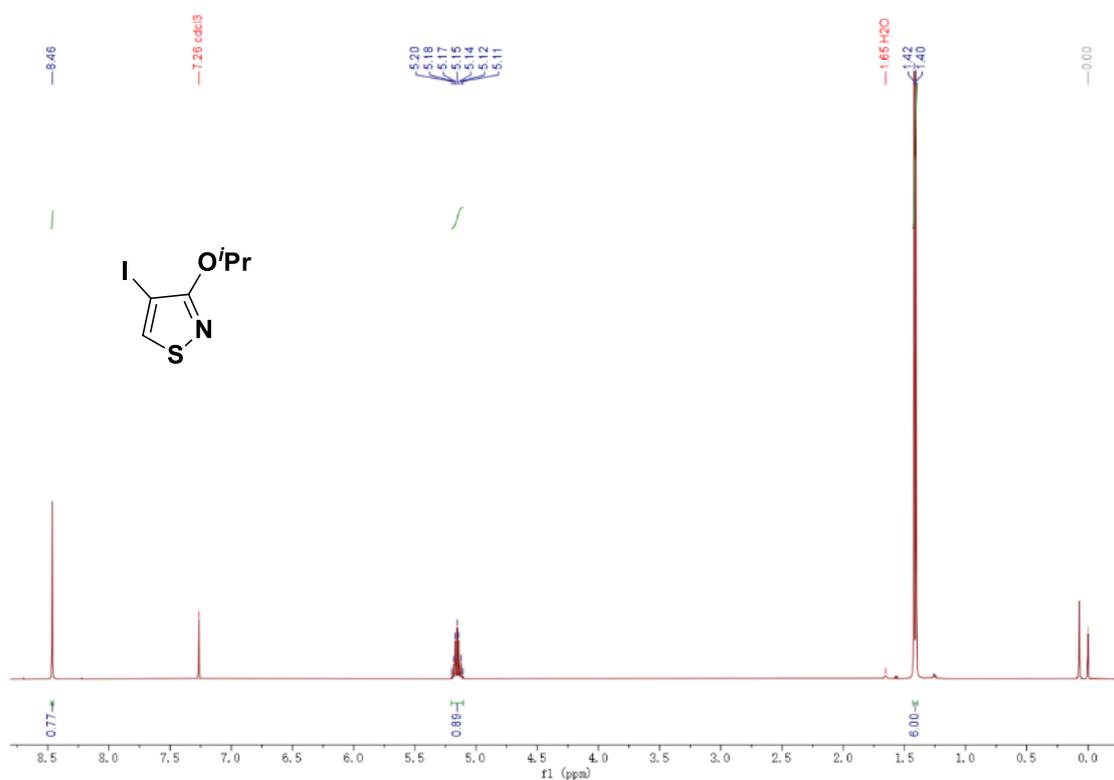


Figure S2. ¹H NMR spectra of compound 3

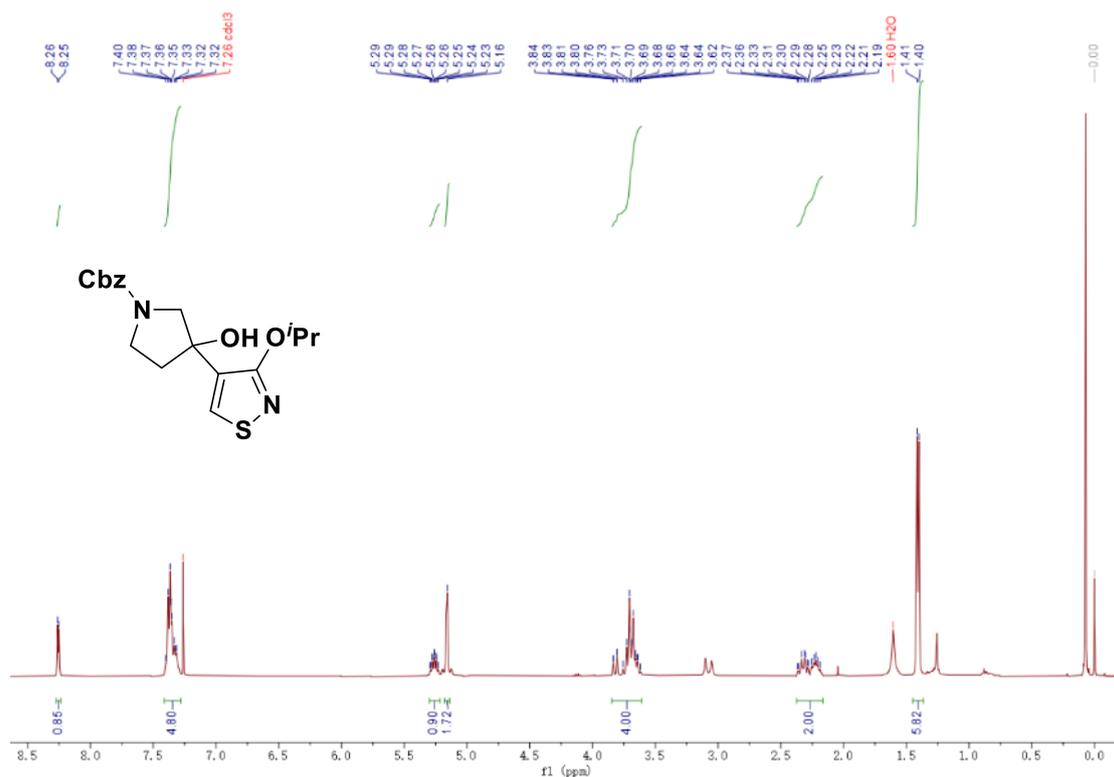


Figure S3. ¹H NMR spectra of compound 4

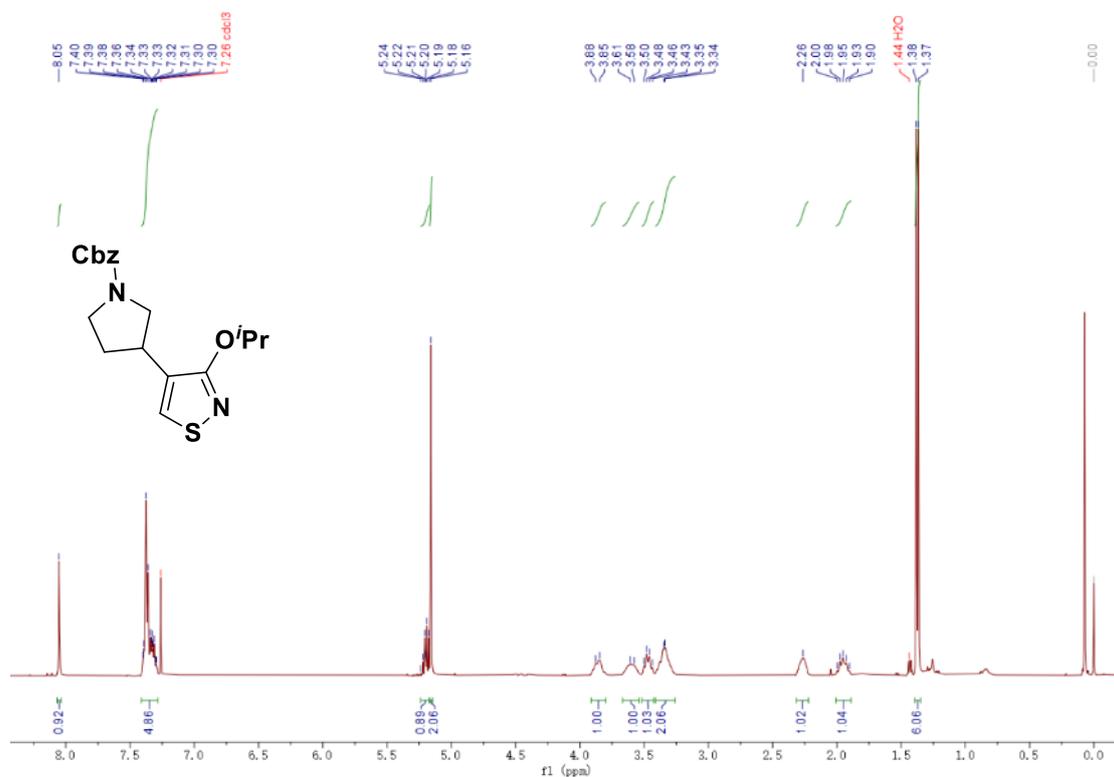
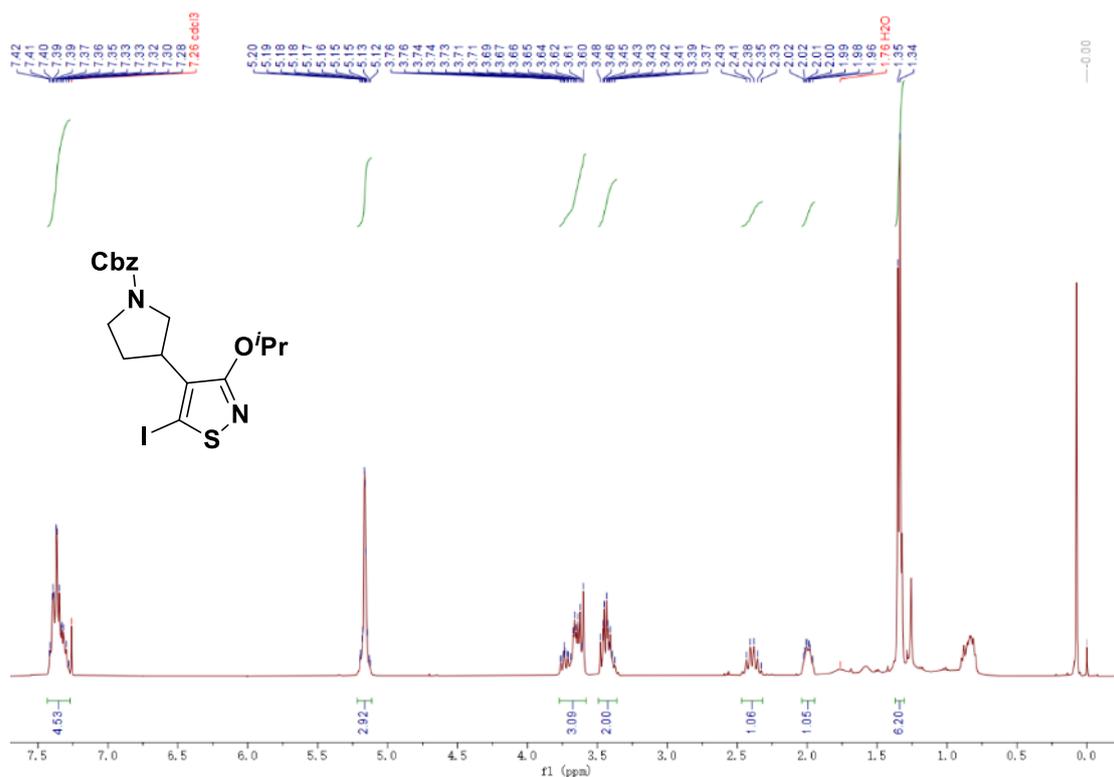
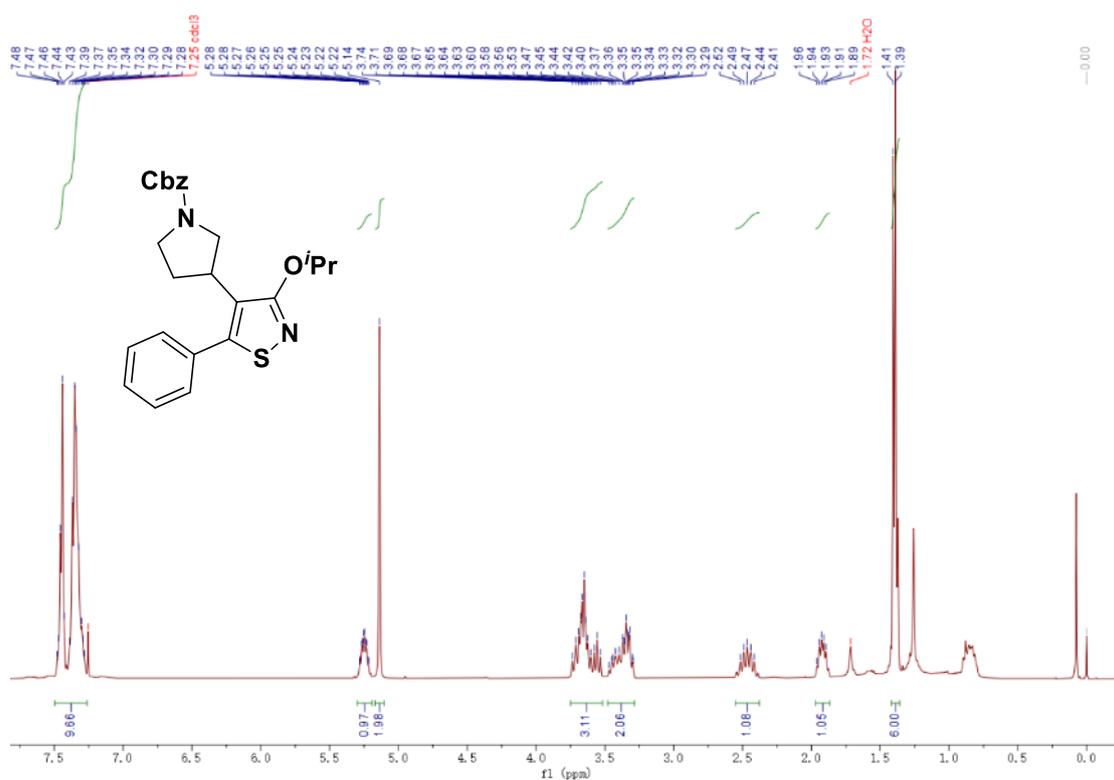


Figure S4. ¹H NMR spectra of compound 5



2. ¹H NMR spectra of compounds 8a-8k



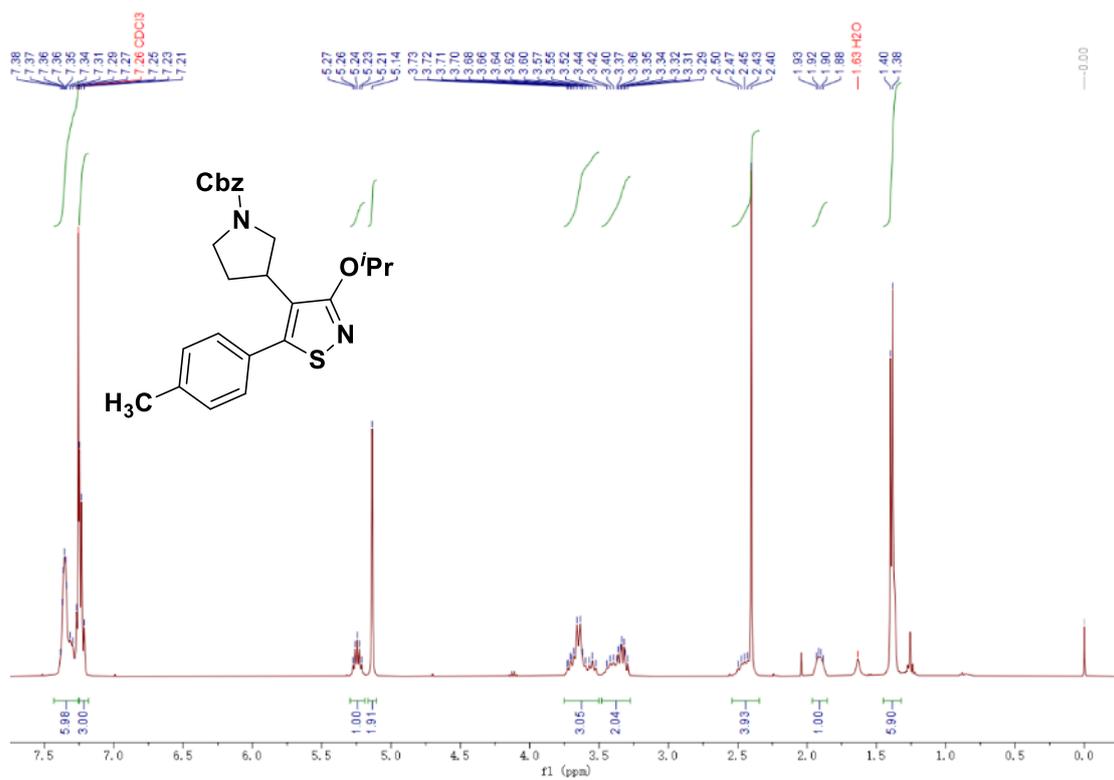


Figure S7. ¹H NMR spectra of compound 8b

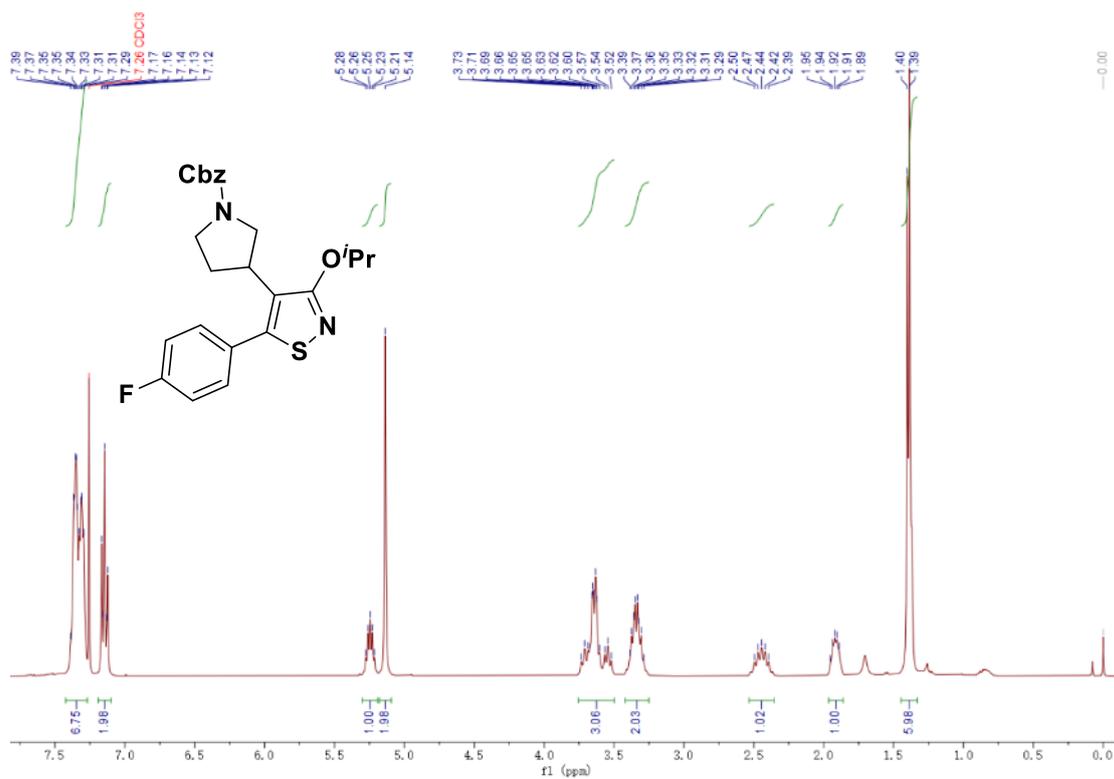


Figure S8. ¹H NMR spectra of compound 8c

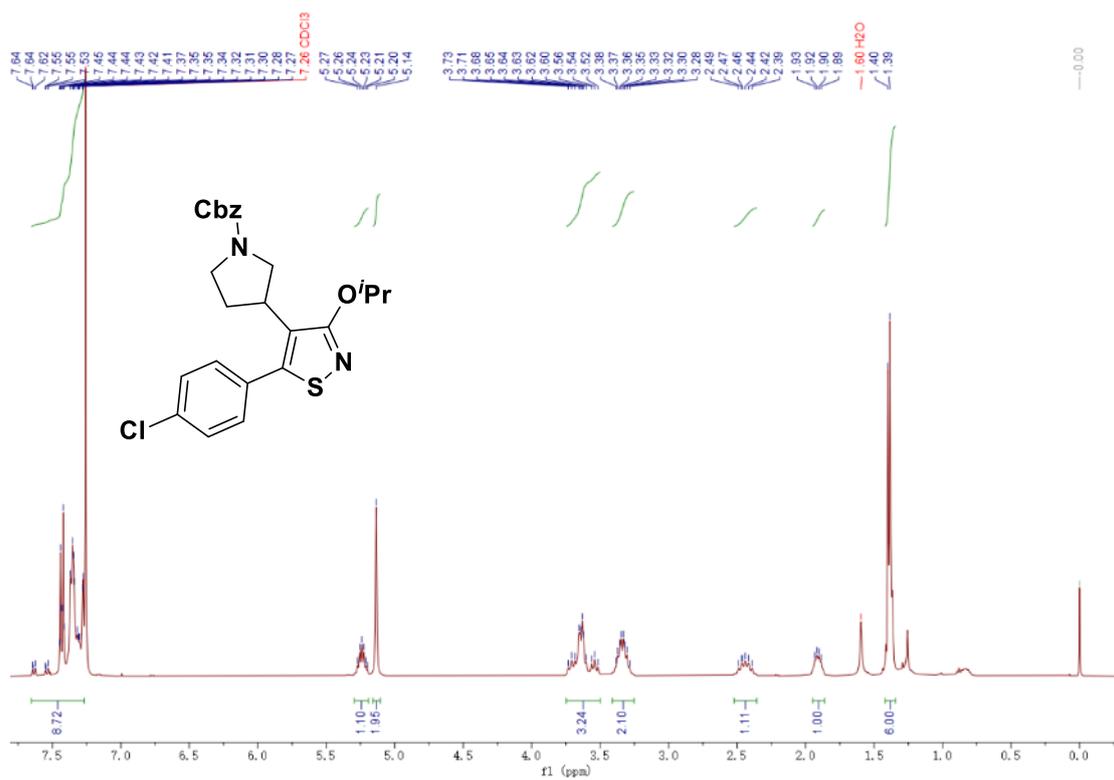


Figure S9. ¹H NMR spectra of compound **8d**

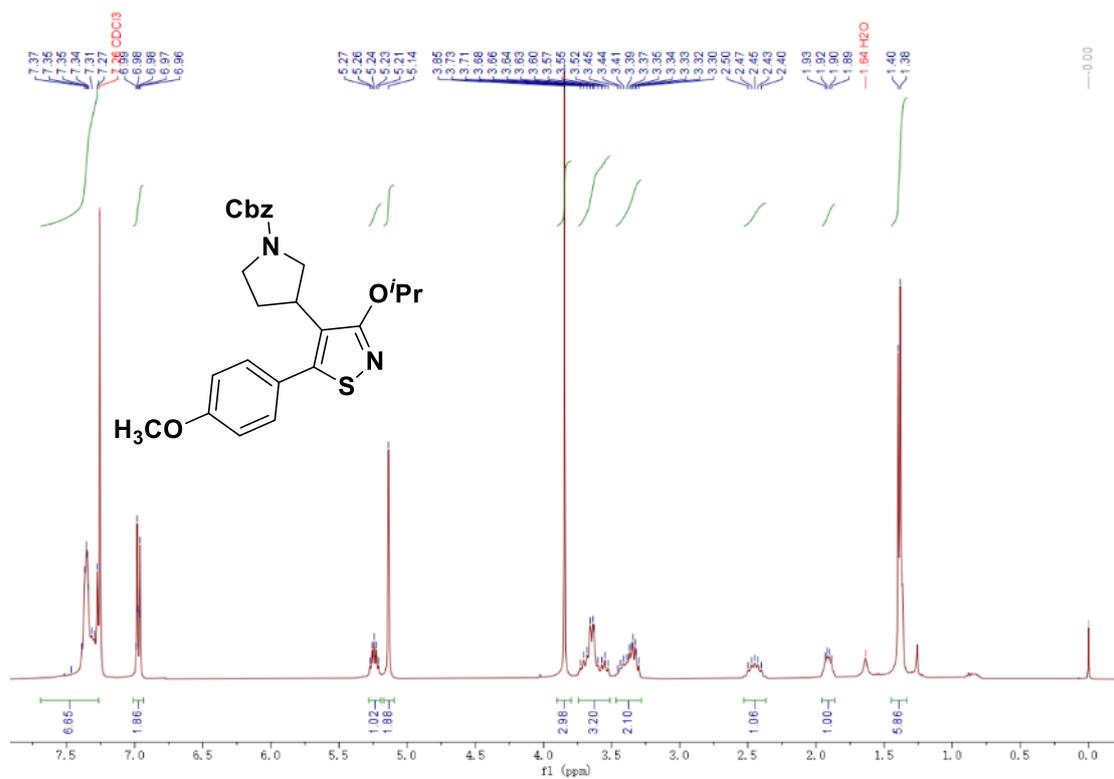


Figure S10. ¹H NMR spectra of compound **8e**

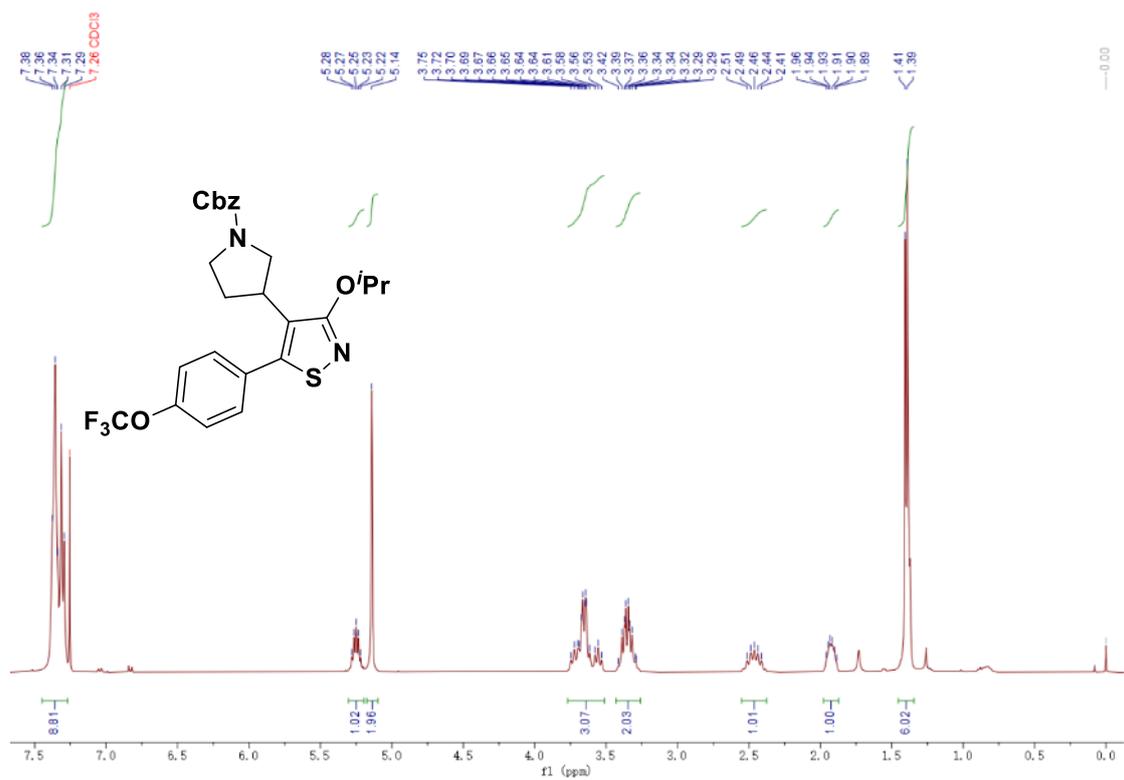


Figure S11. ¹H NMR spectra of compound **8f**

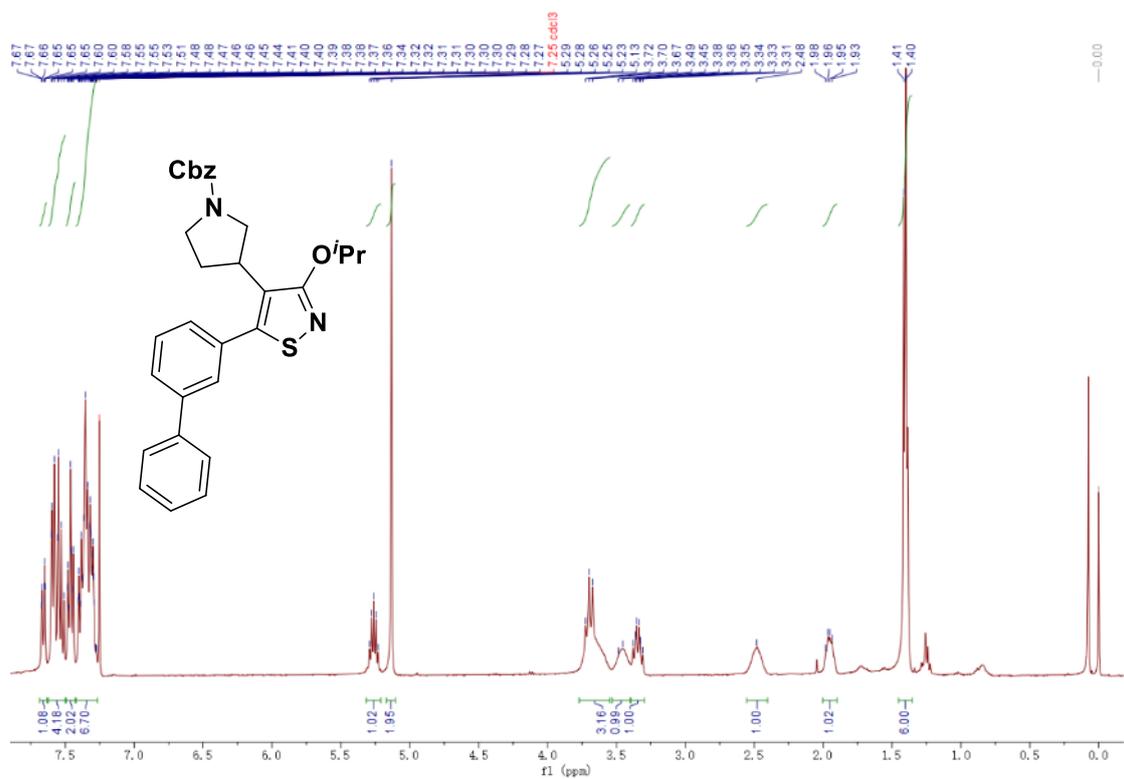


Figure S12. ¹H NMR spectra of compound **8g**

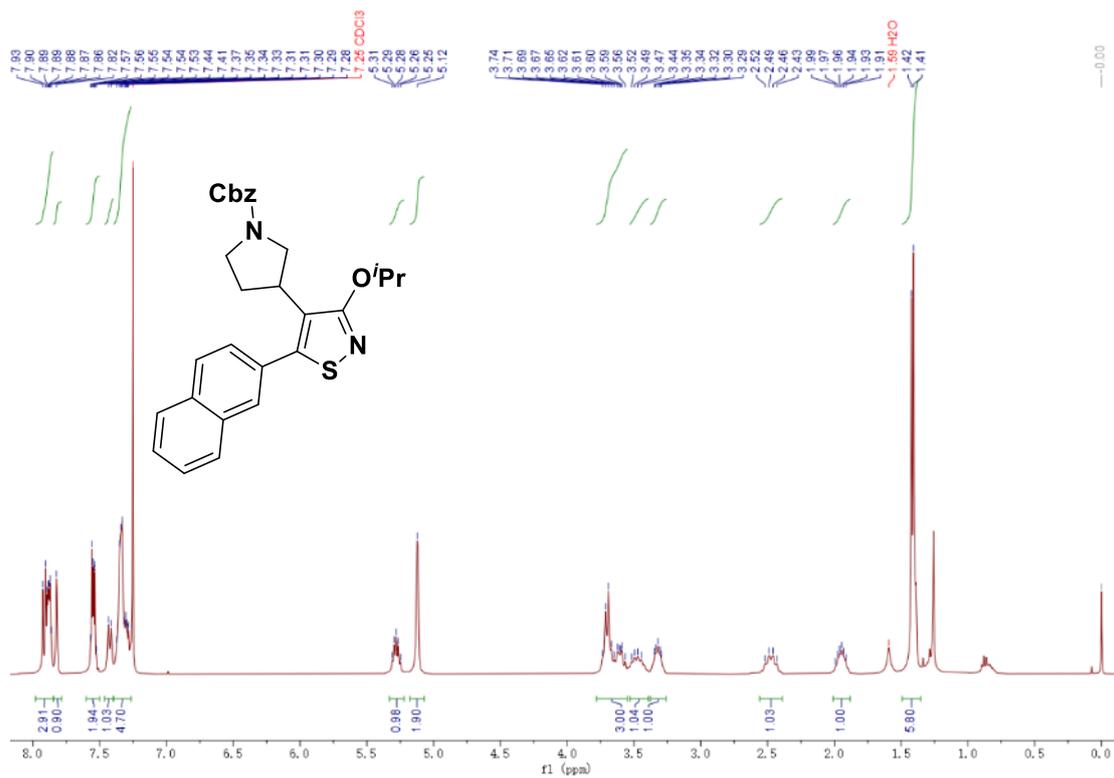


Figure S13. ¹H NMR spectra of compound **8h**

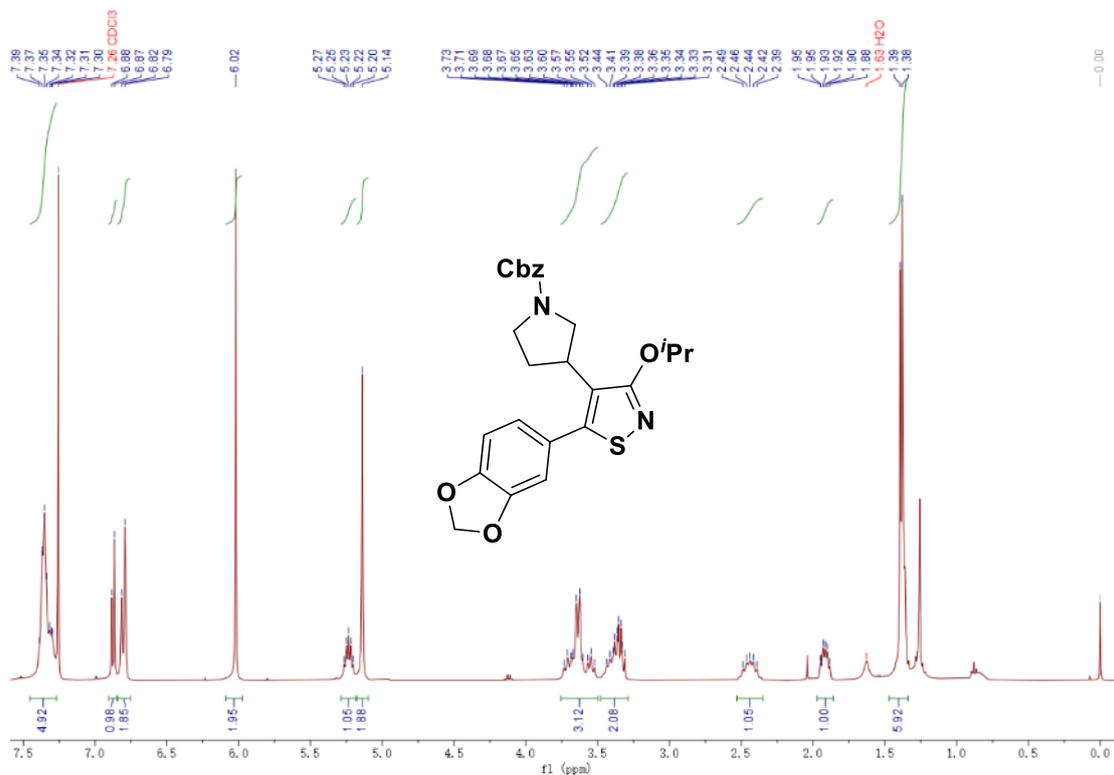


Figure S14. ¹H NMR spectra of compound **8i**

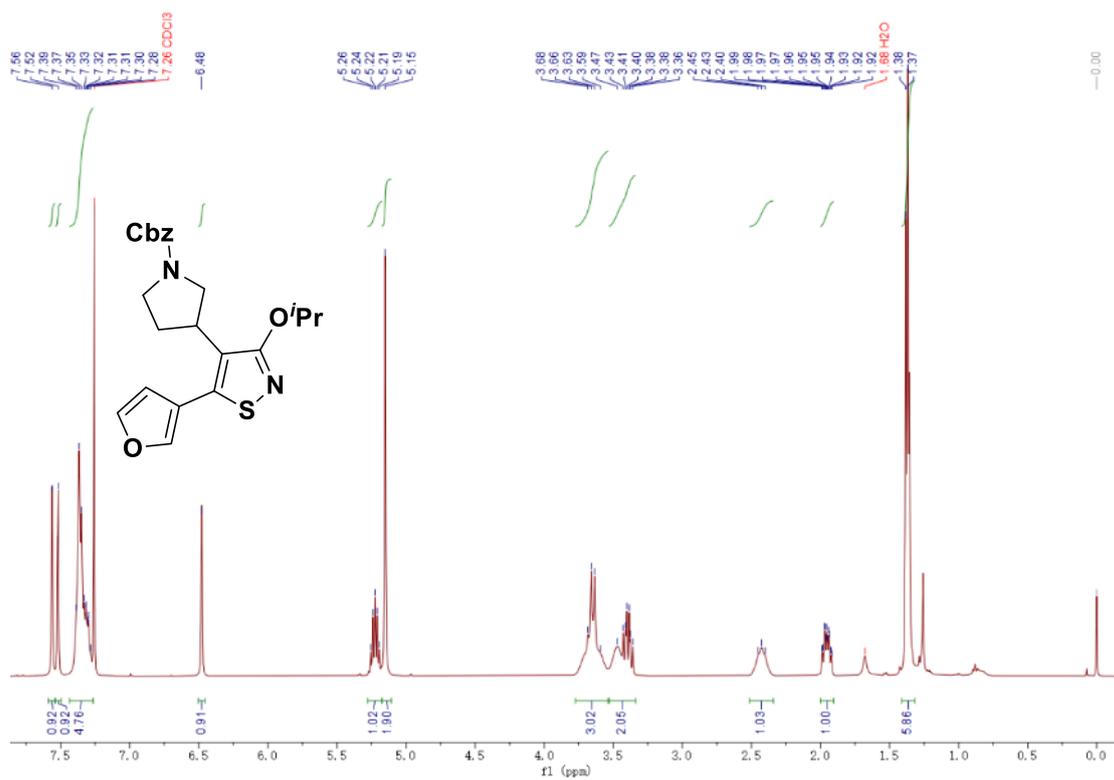


Figure S15. ¹H NMR spectra of compound **8j**

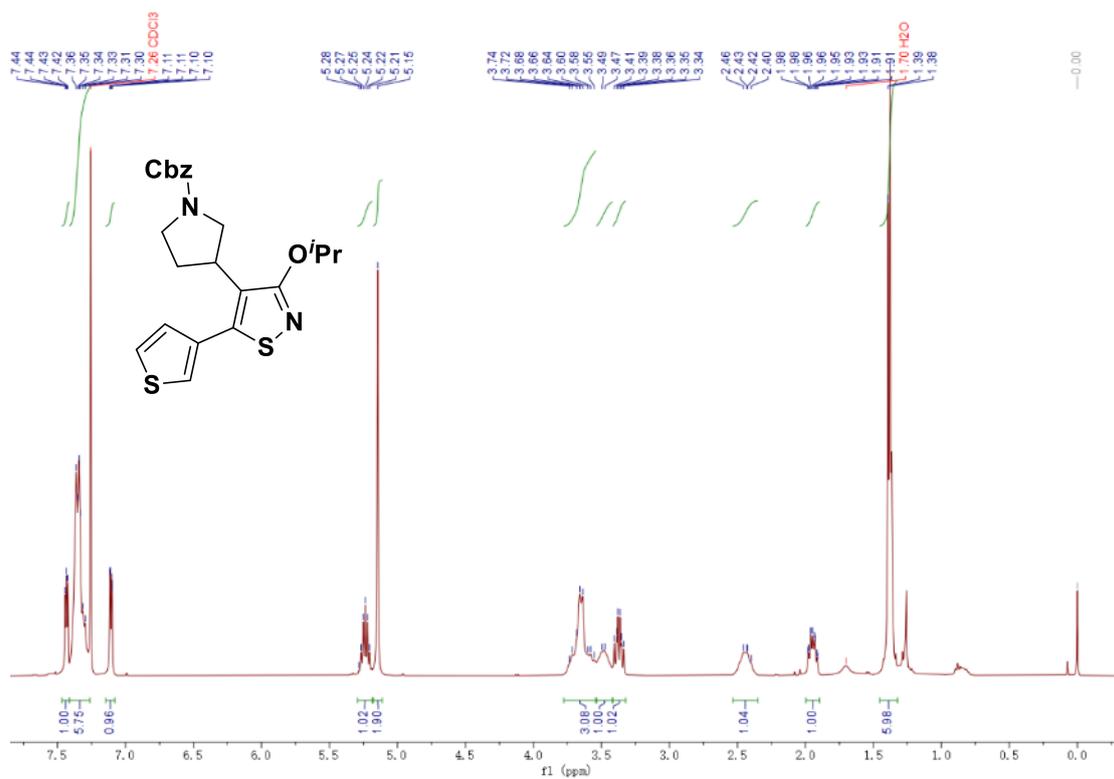


Figure S16. ¹H NMR spectra of compound **8k**

3. ^1H NMR spectra of compounds 10, 11 and 13

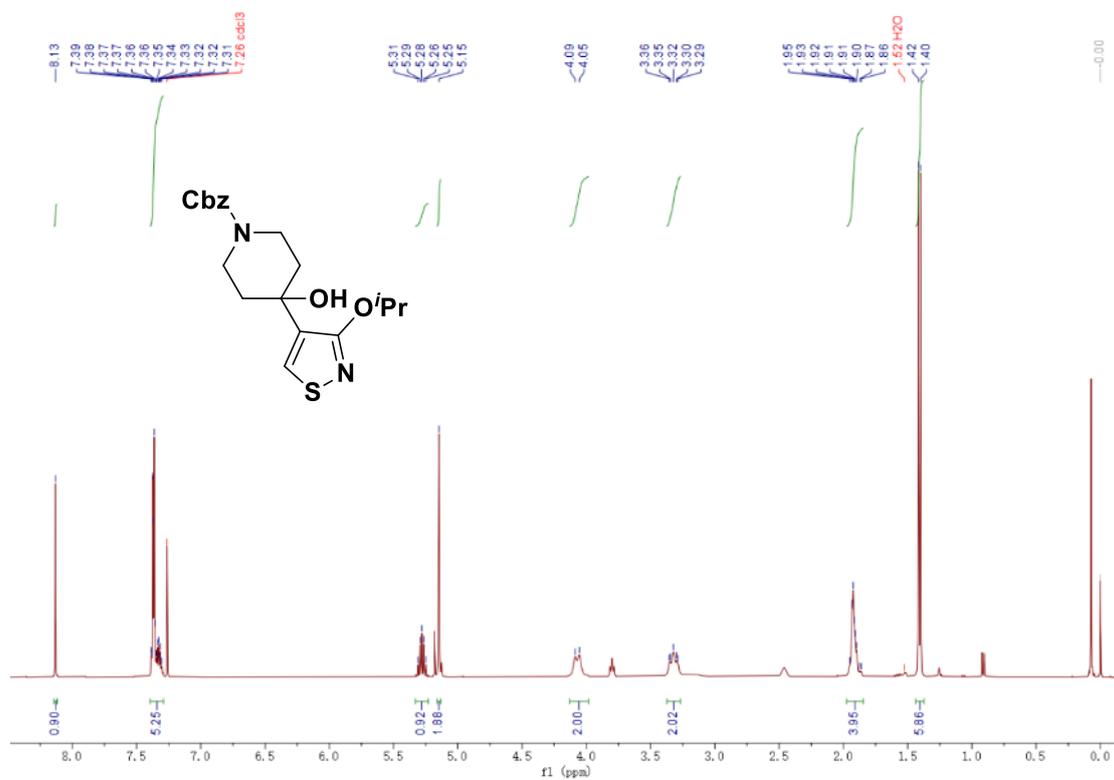


Figure S17. ^1H NMR spectra of compound **10**

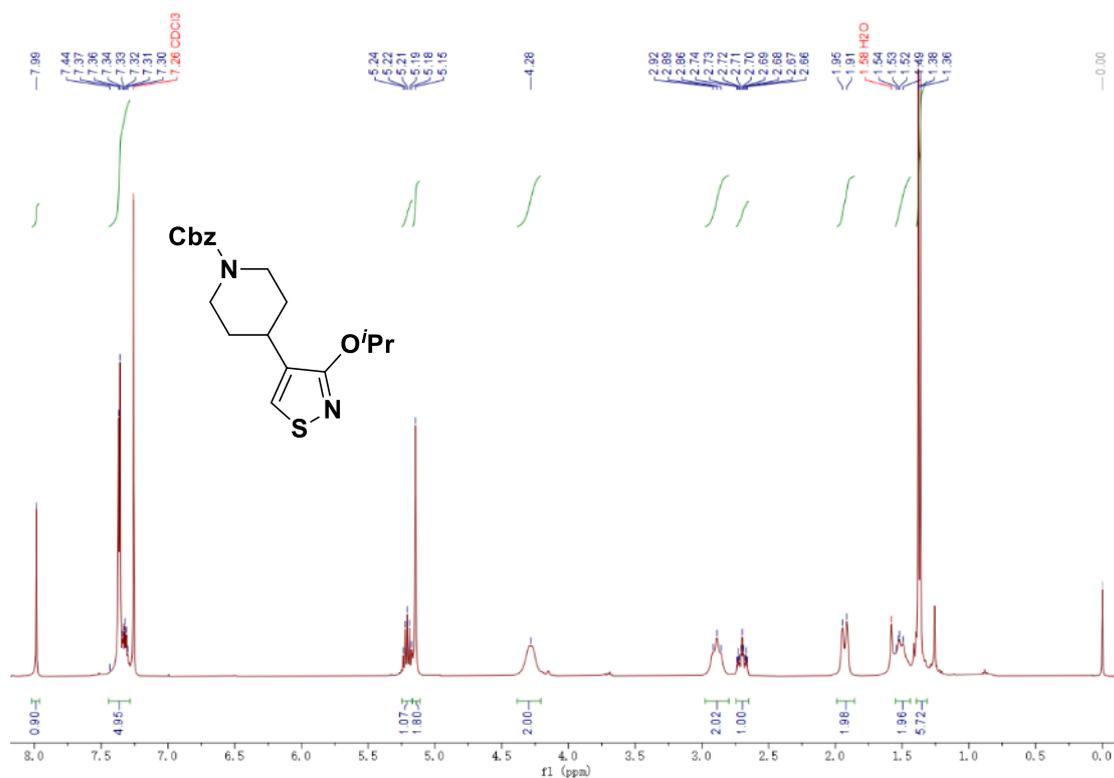


Figure S18. ^1H NMR spectra of compound **11**

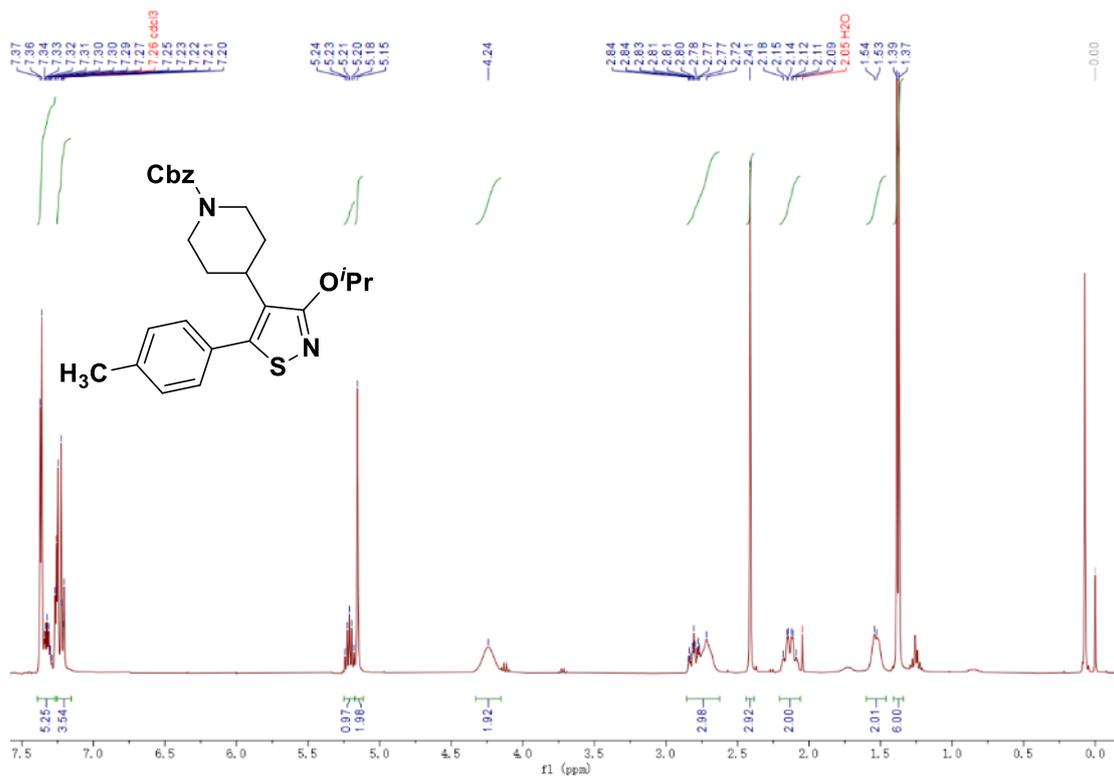


Figure S21. ¹H NMR spectra of compound 14b

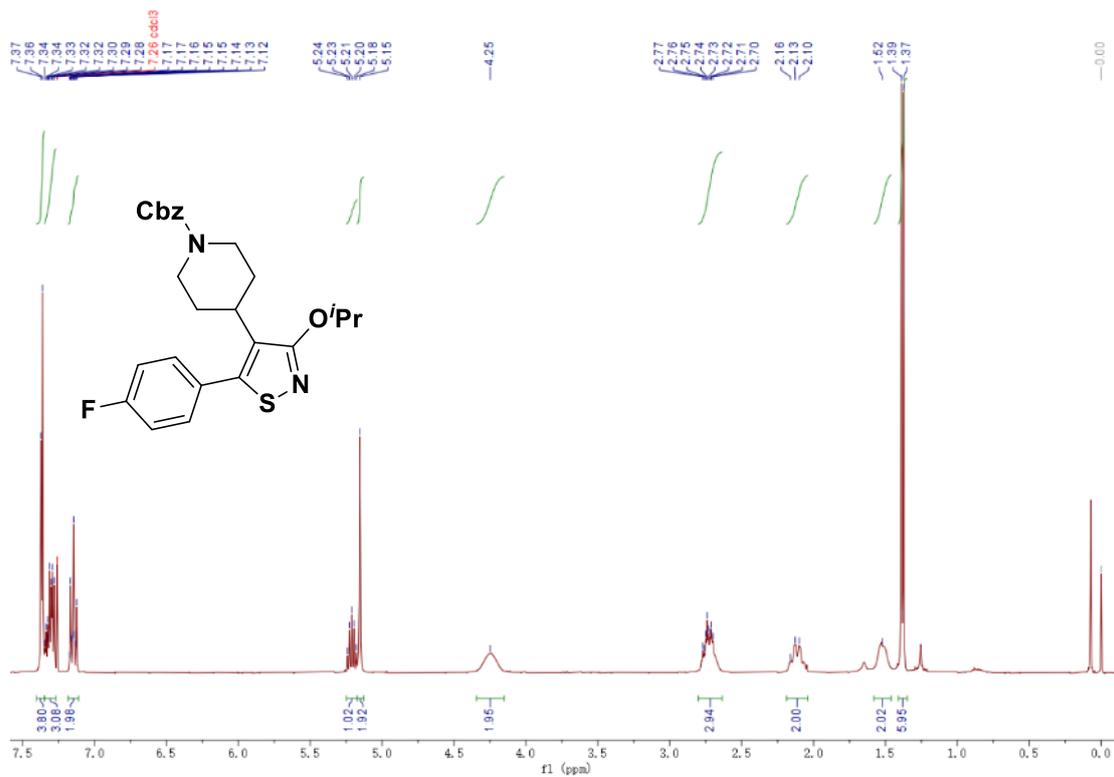


Figure S22. ¹H NMR spectra of compound 14c

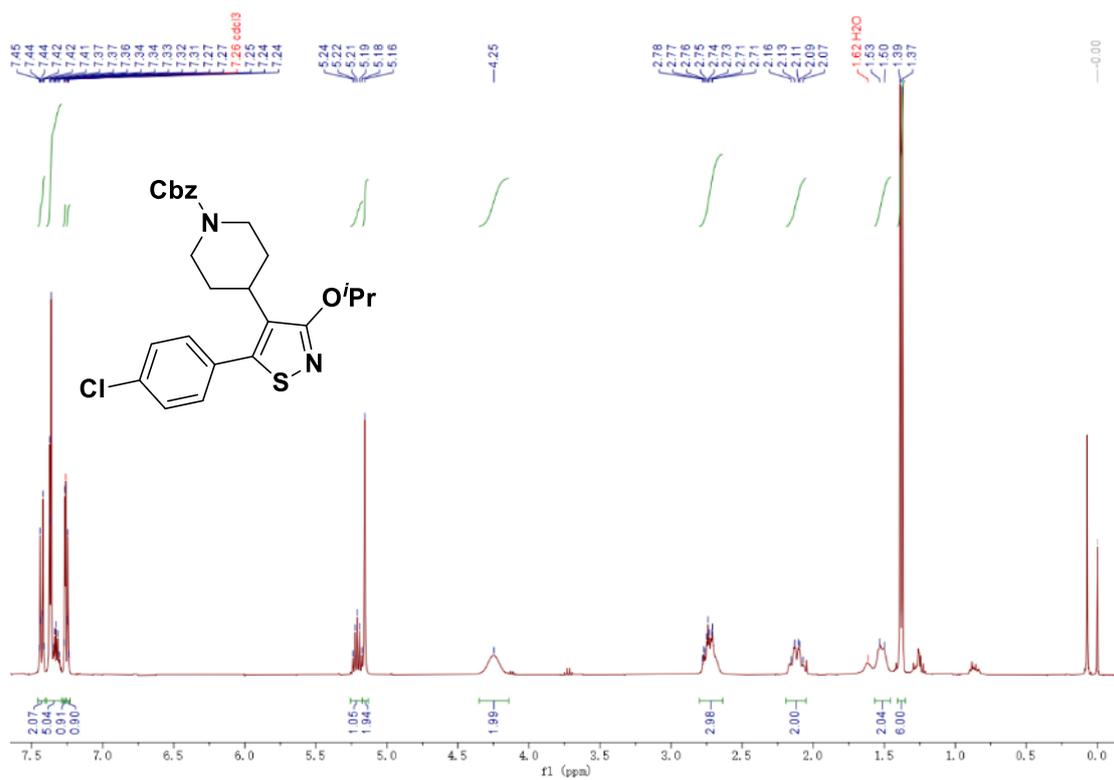


Figure S23. ¹H NMR spectra of compound 14d

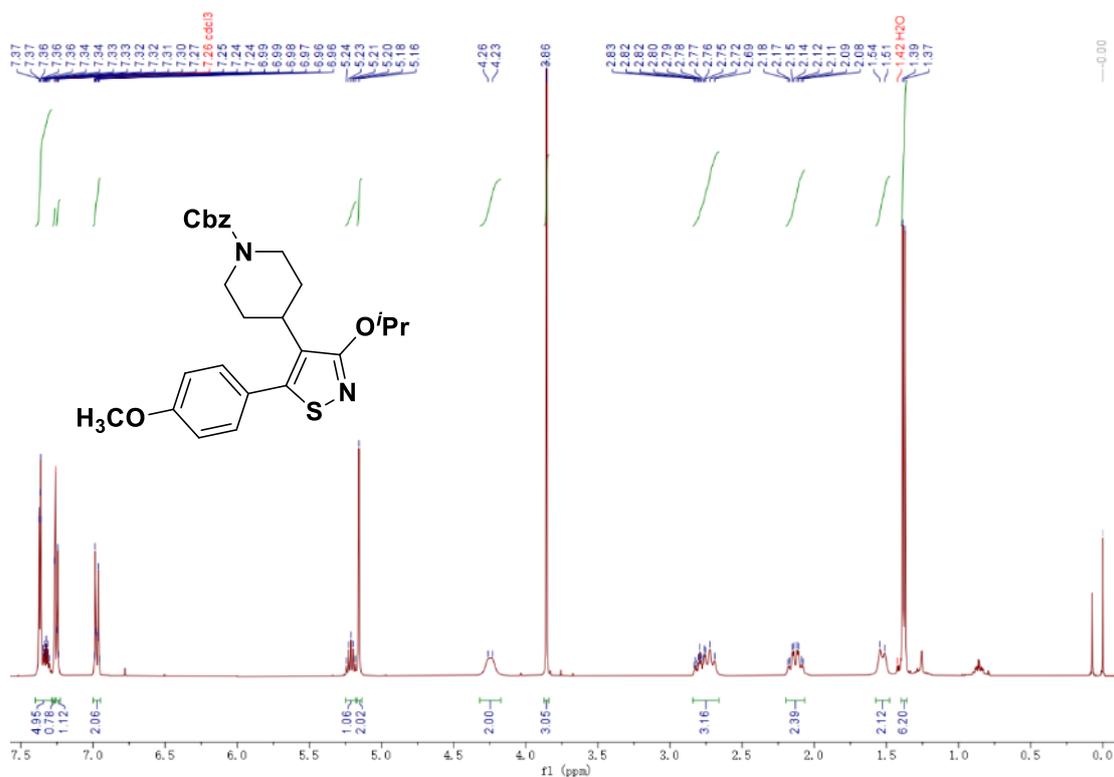


Figure S24. ¹H NMR spectra of compound 14e

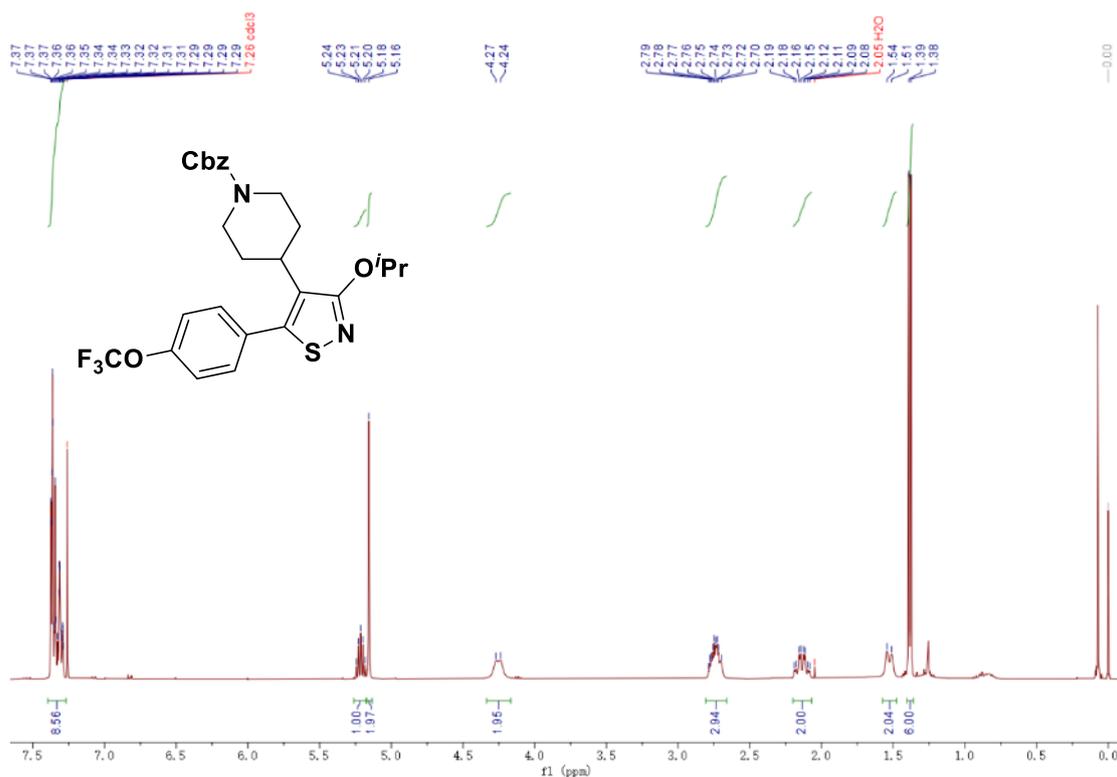


Figure S25. ¹H NMR spectra of compound 14f

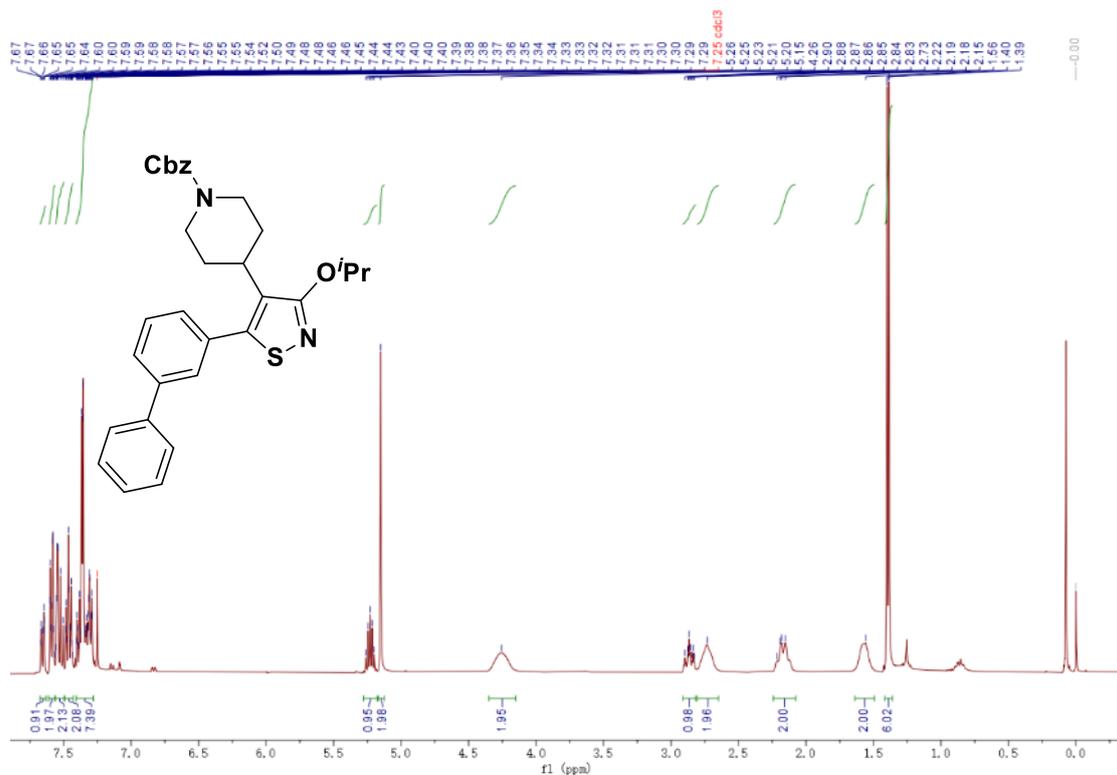


Figure S26. ¹H NMR spectra of compound 14g

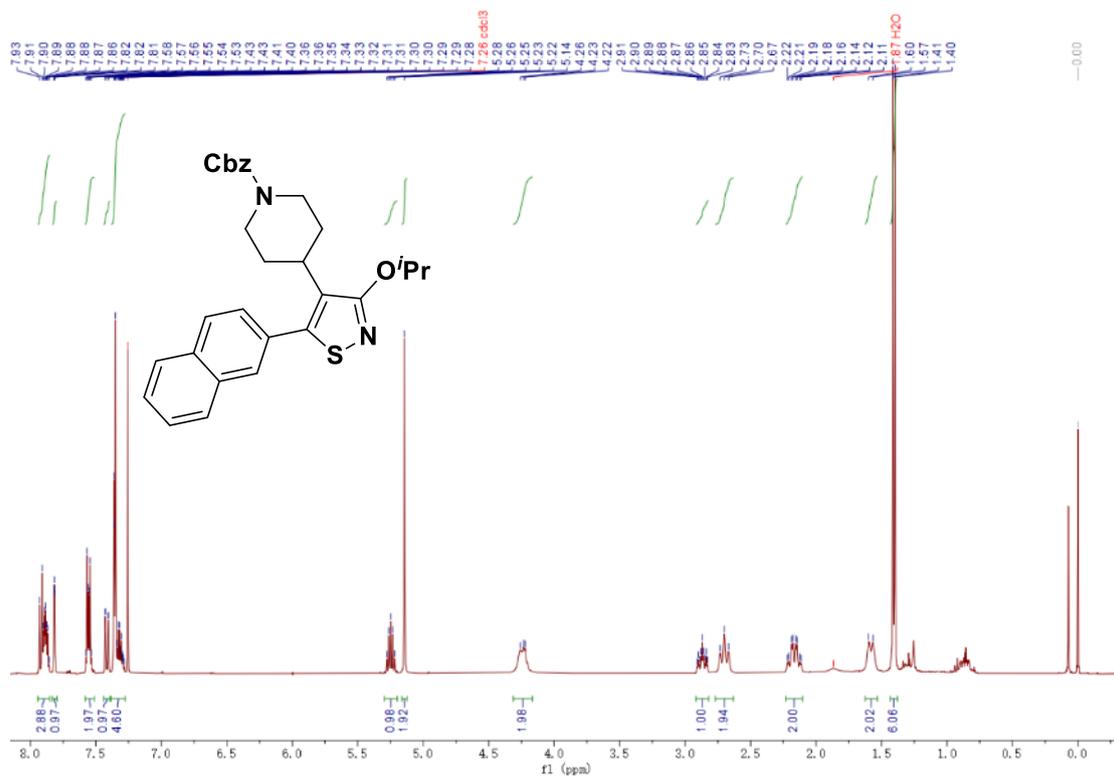


Figure S27. ¹H NMR spectra of compound 14h

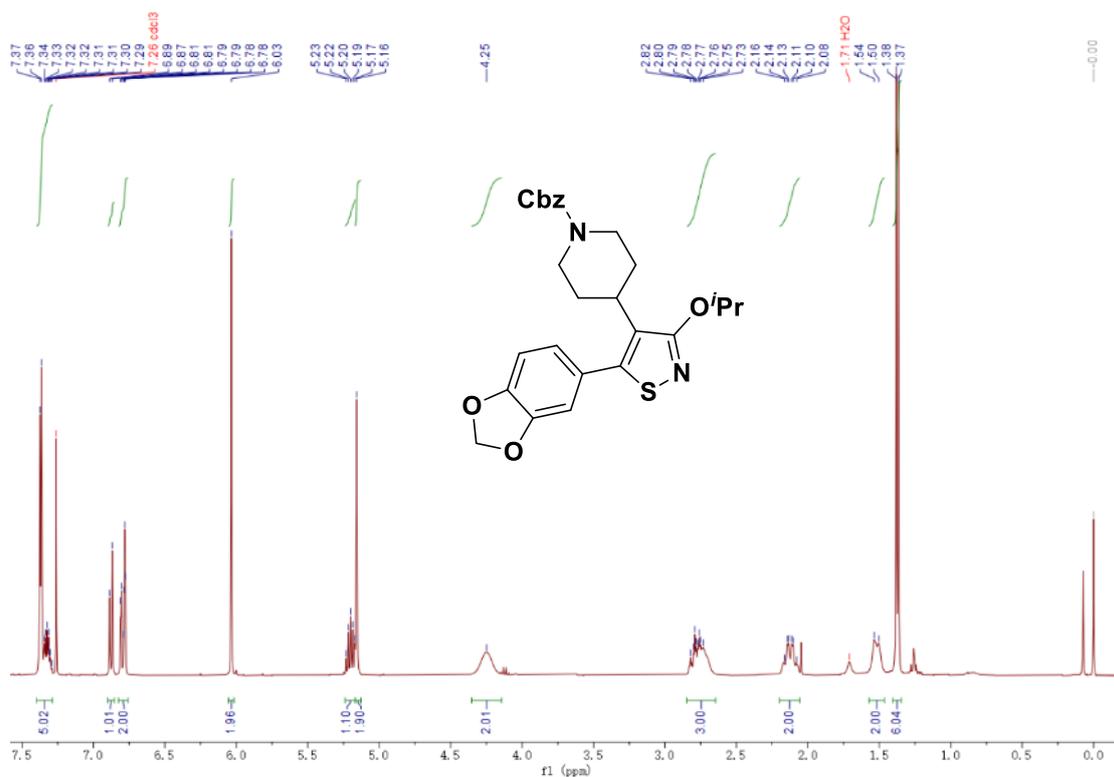


Figure S28. ¹H NMR spectra of compound 14i

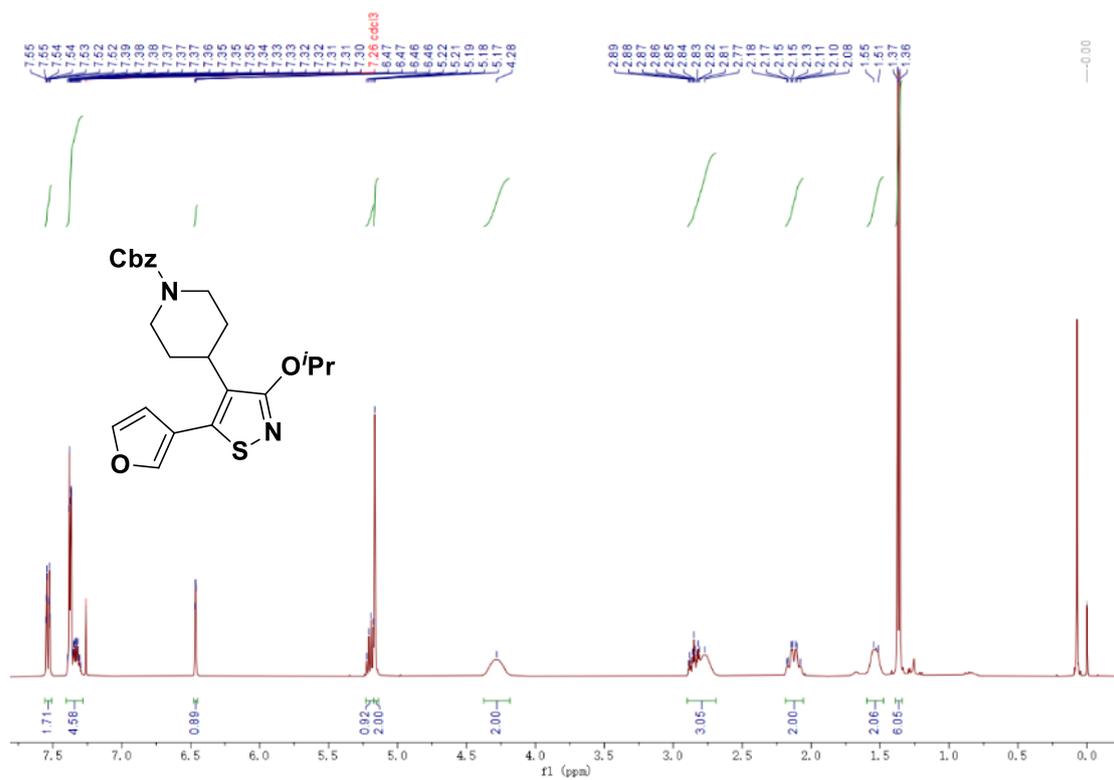


Figure S29. ¹H NMR spectra of compound 14j

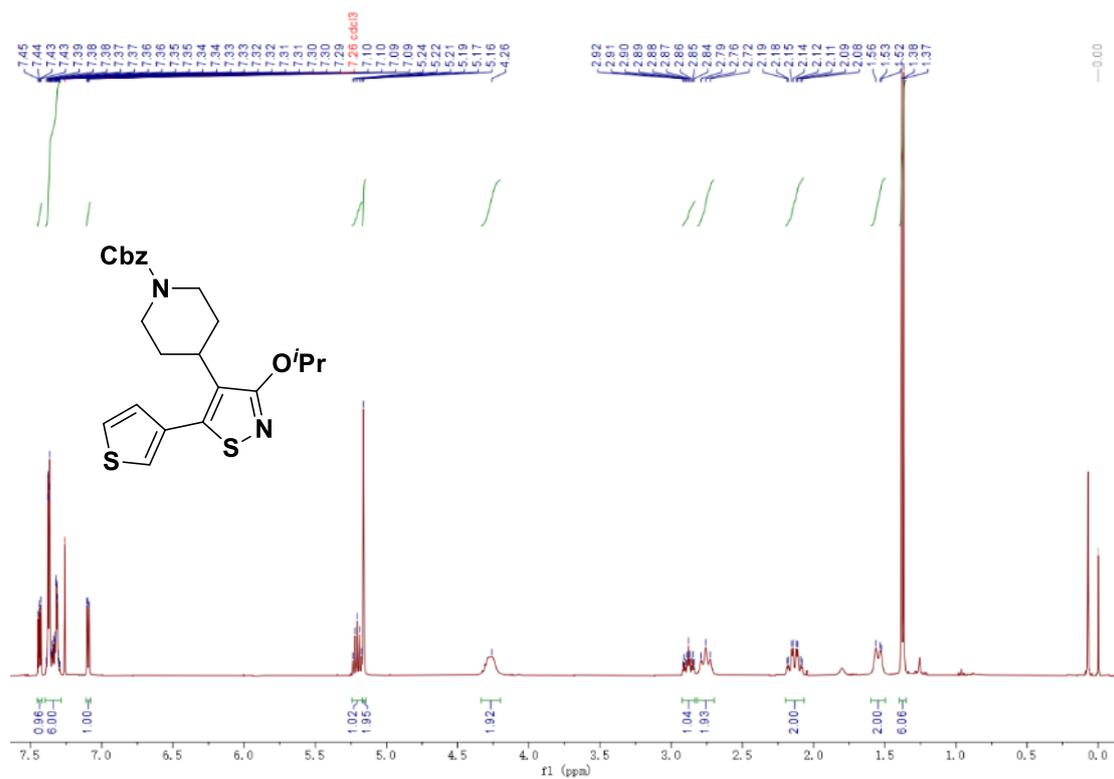


Figure S30. ¹H NMR spectra of compound 14k

5. ^1H NMR spectra and ^{13}C NMR spectra of compounds 6, 9a-9k

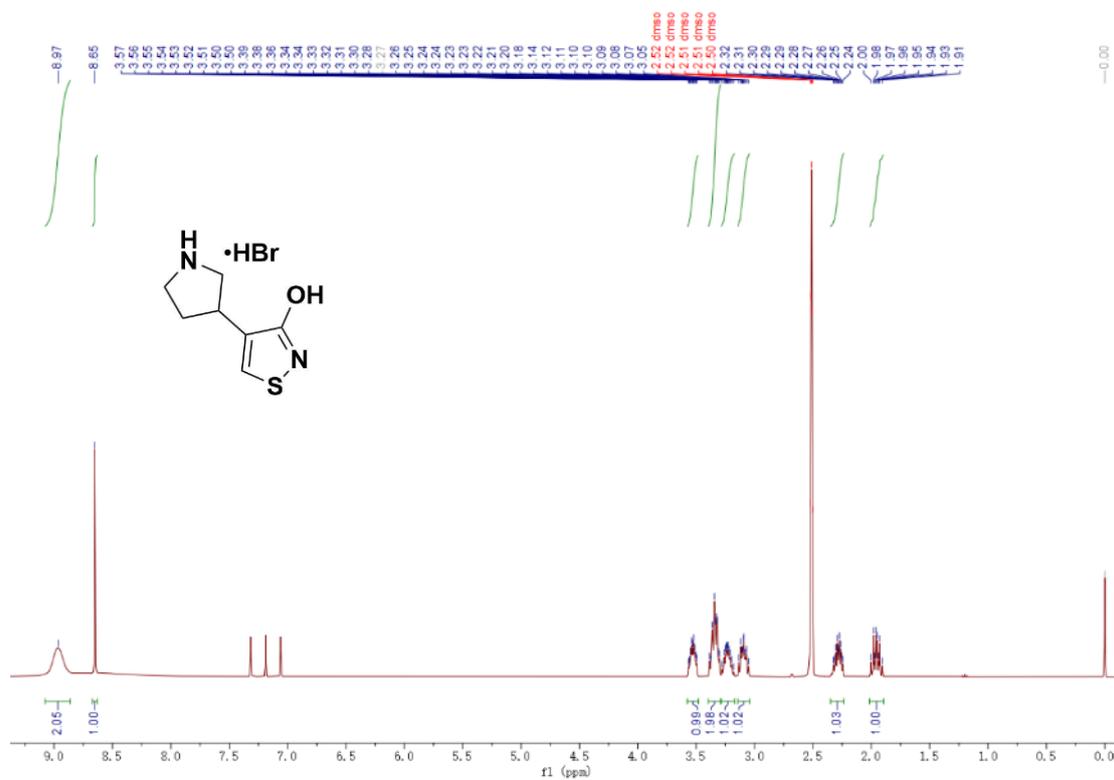


Figure S31. ^1H NMR spectra of compound 6

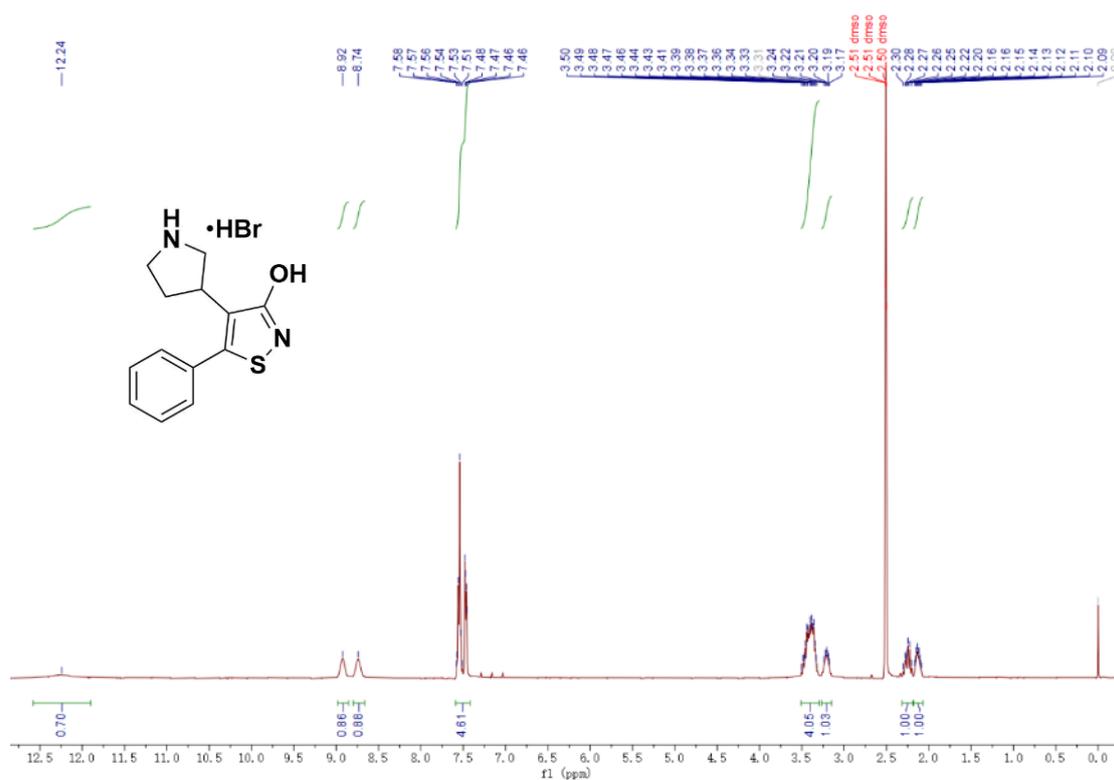


Figure S32. ^1H NMR spectra of compound 9a

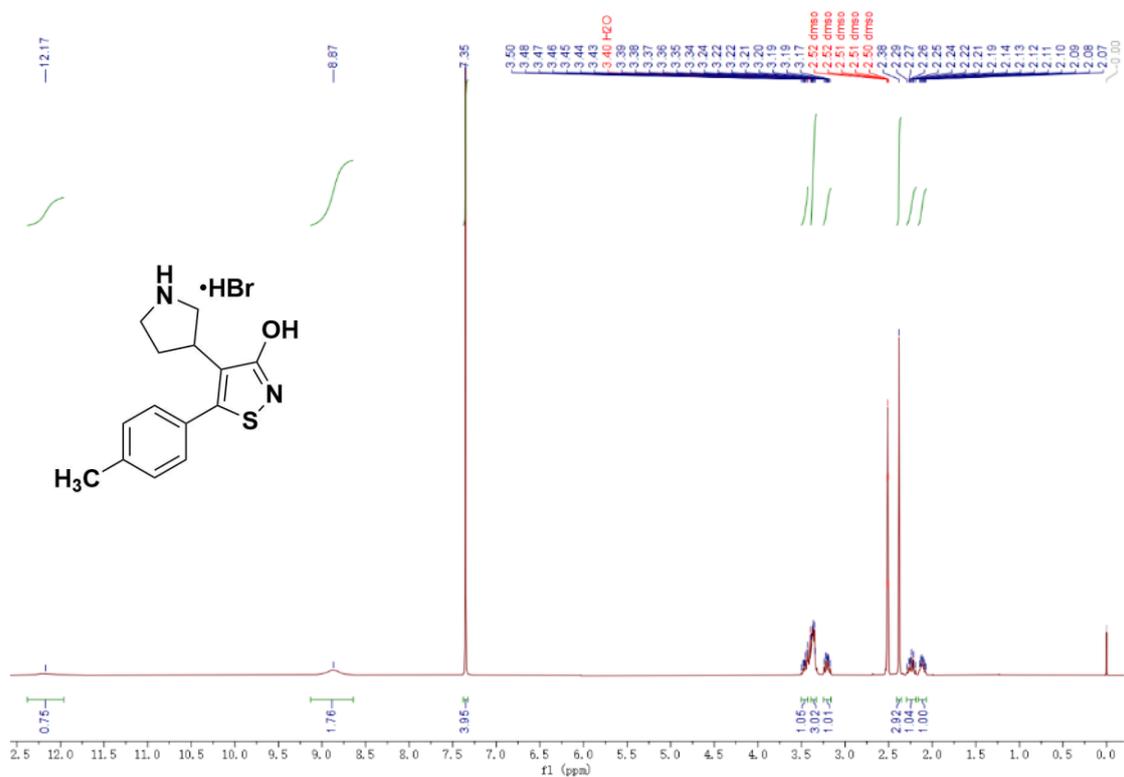


Figure S33. ¹H NMR spectra of compound 9b

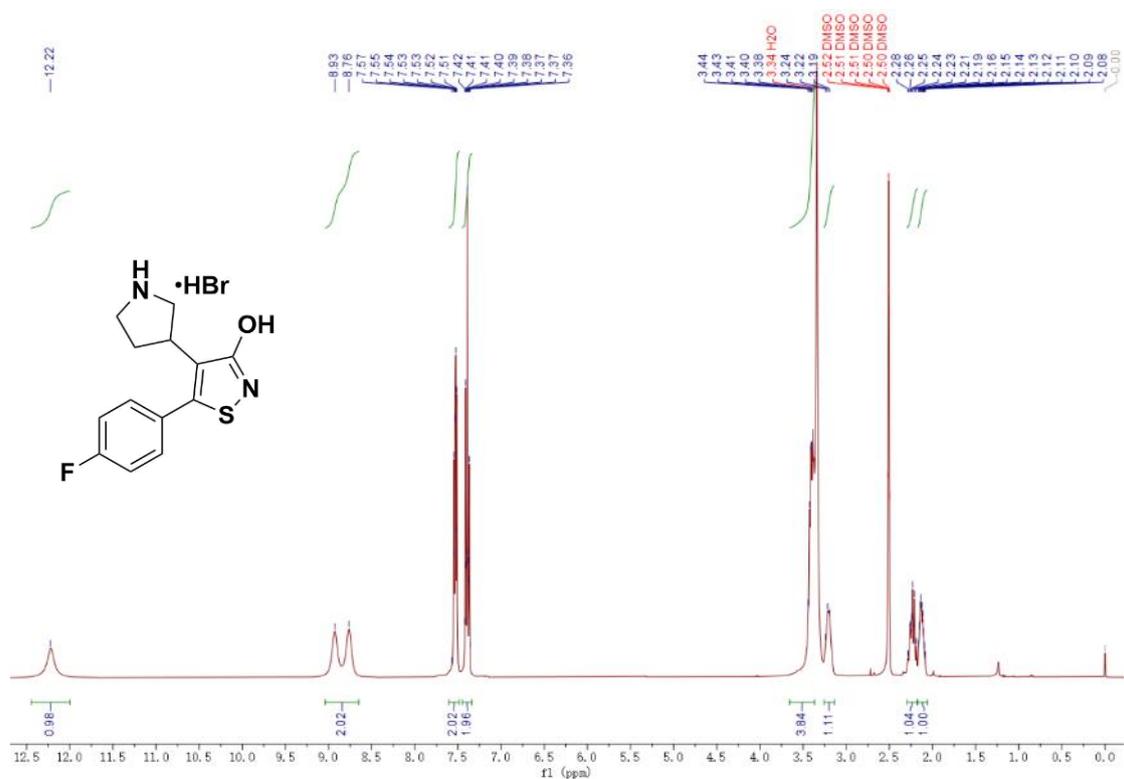


Figure S34. ¹H NMR spectra of compound 9c

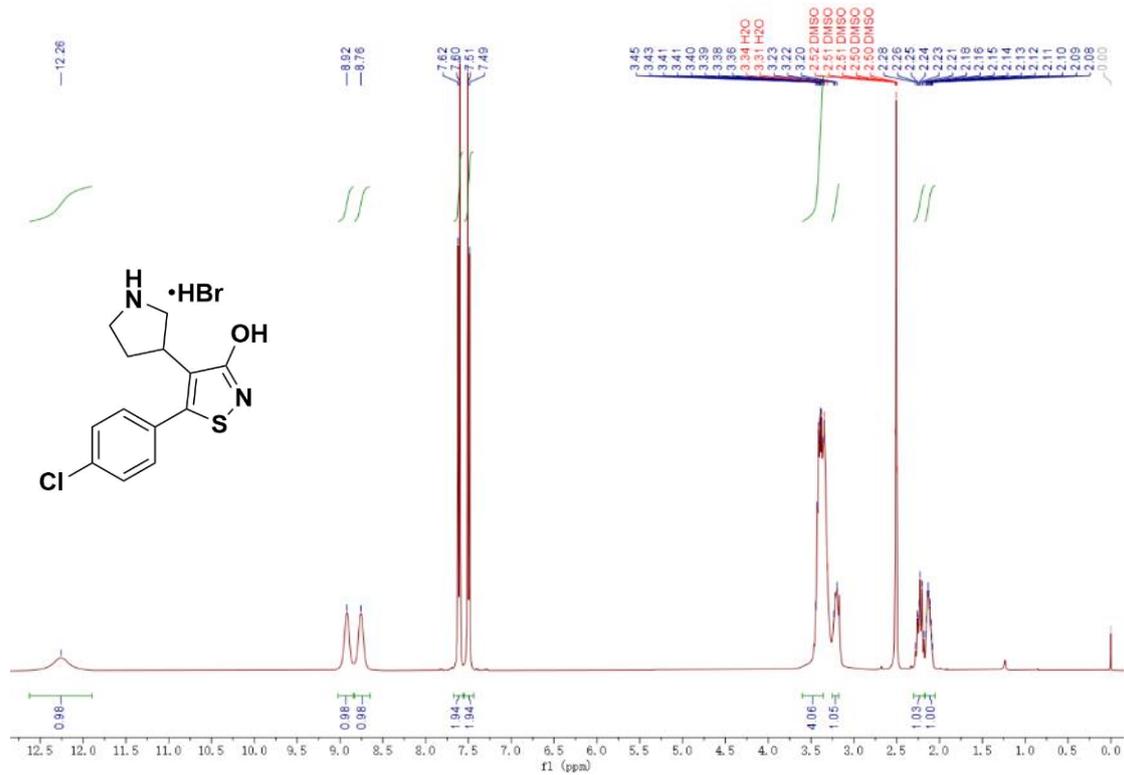


Figure S35. ¹H NMR spectra of compound 9d

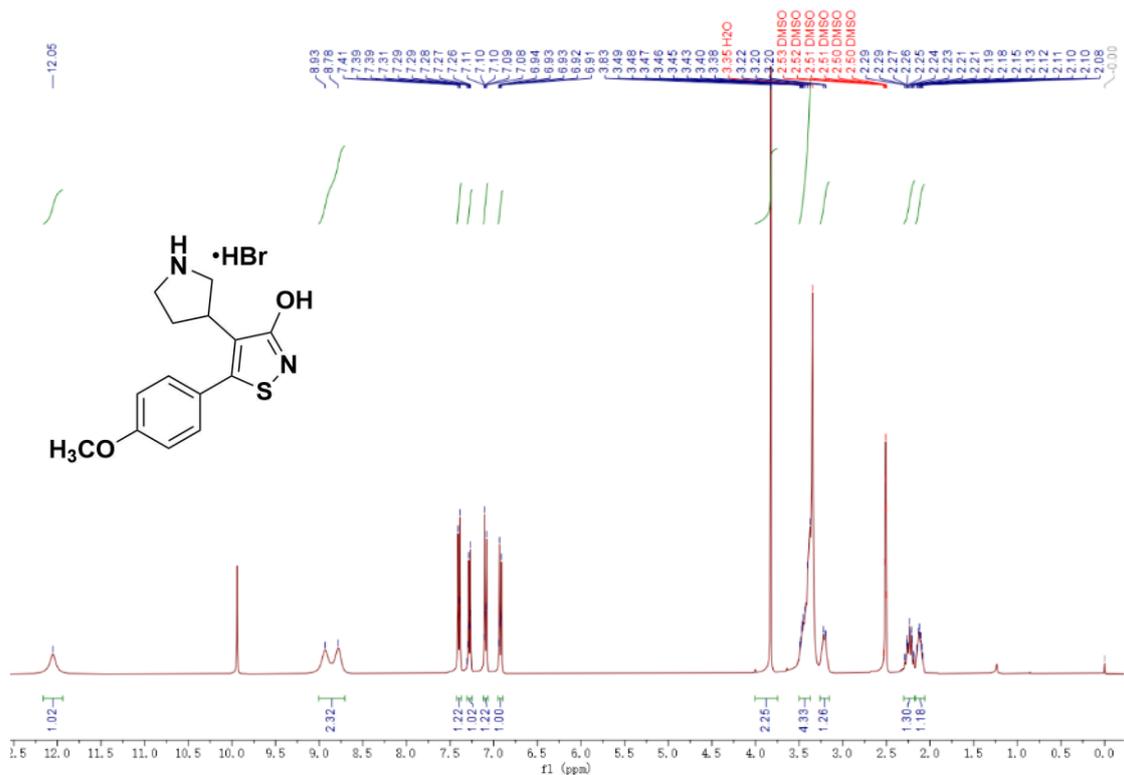


Figure S36. ¹H NMR spectra of compound 9e

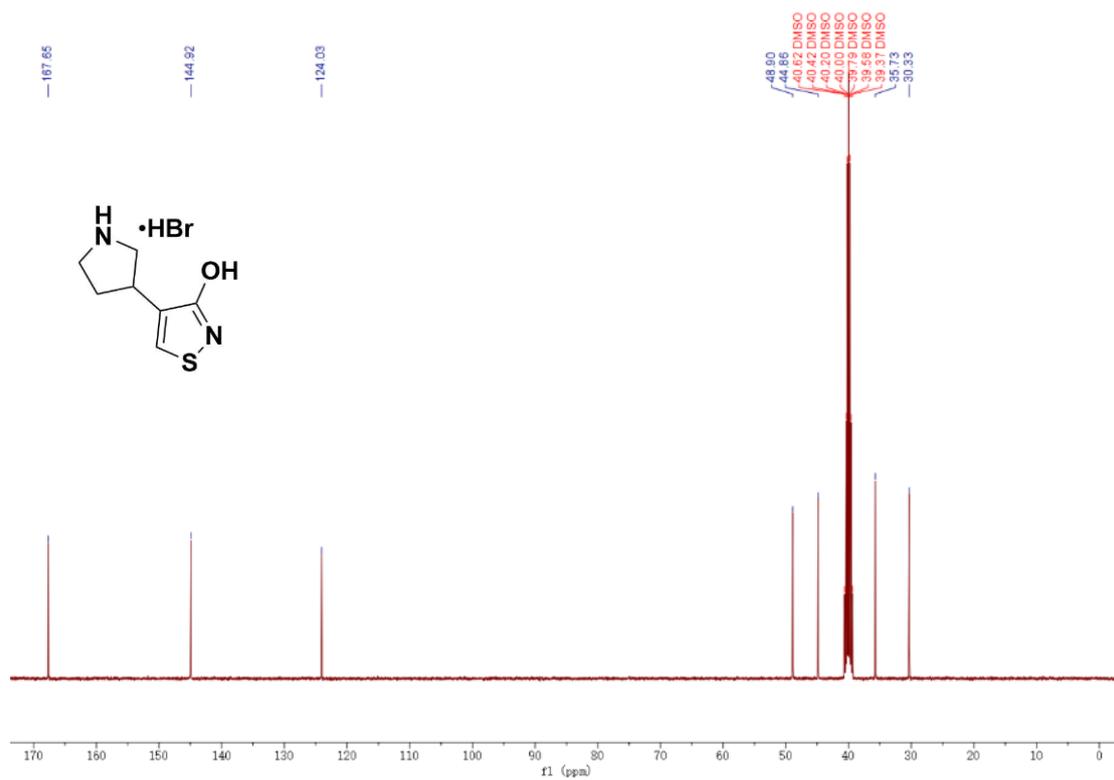


Figure S43. ^{13}C NMR spectra of compound 6

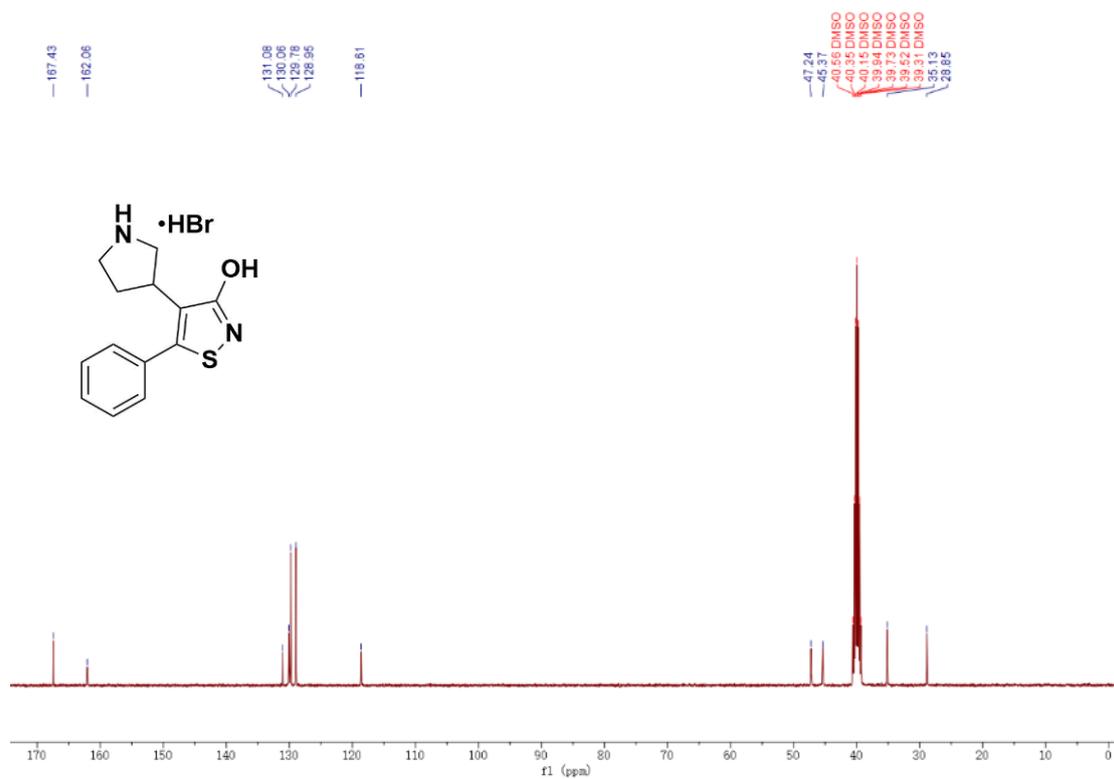


Figure S44. ^{13}C NMR spectra of compound 9a

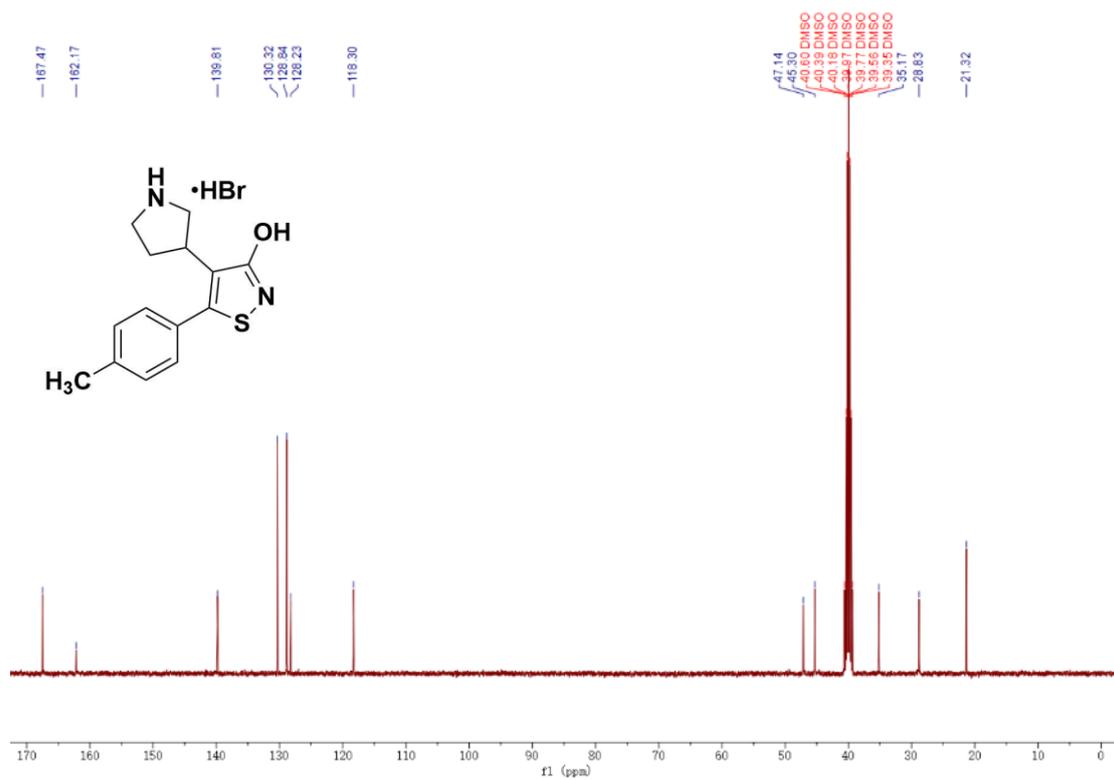


Figure S45. ^{13}C NMR spectra of compound **9b**

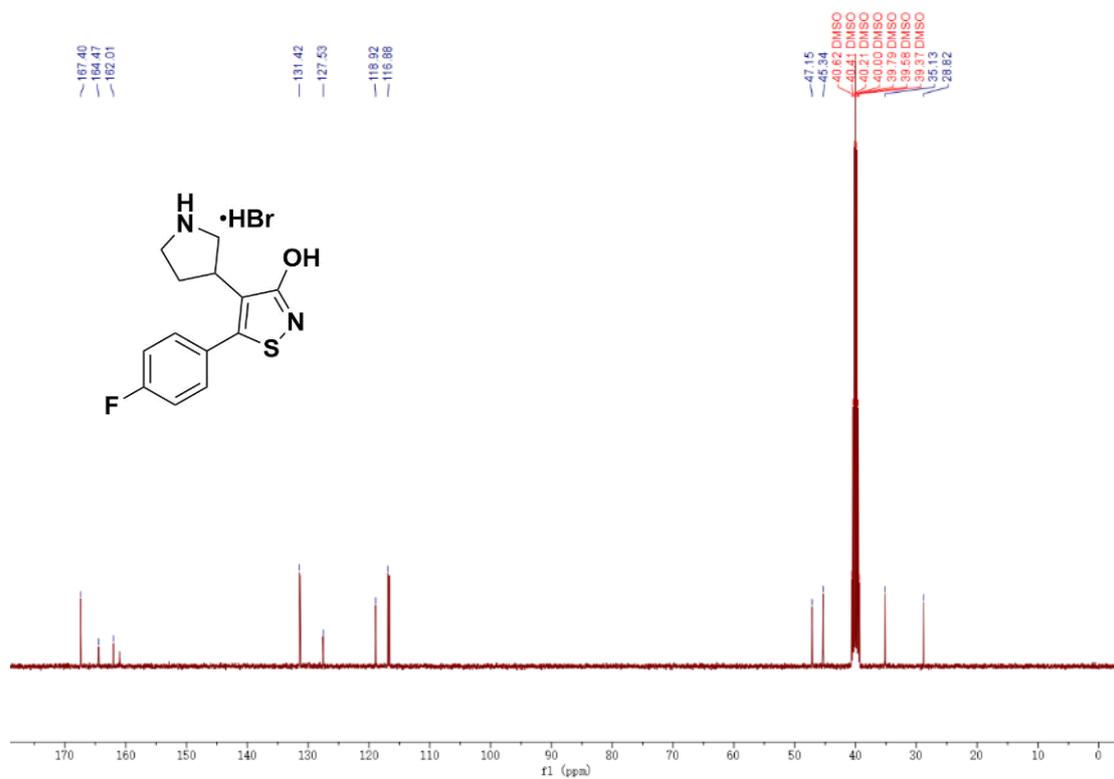


Figure S46. ^{13}C NMR spectra of compound **9c**

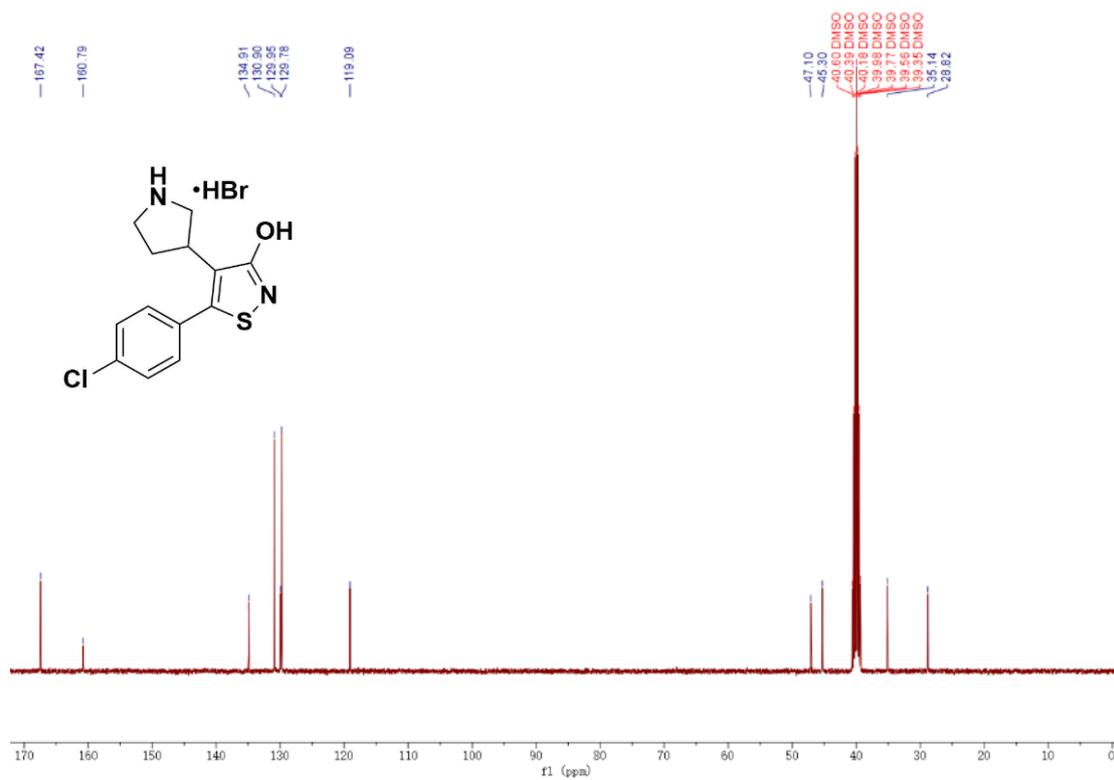


Figure S47. ¹³C NMR spectra of compound 9d

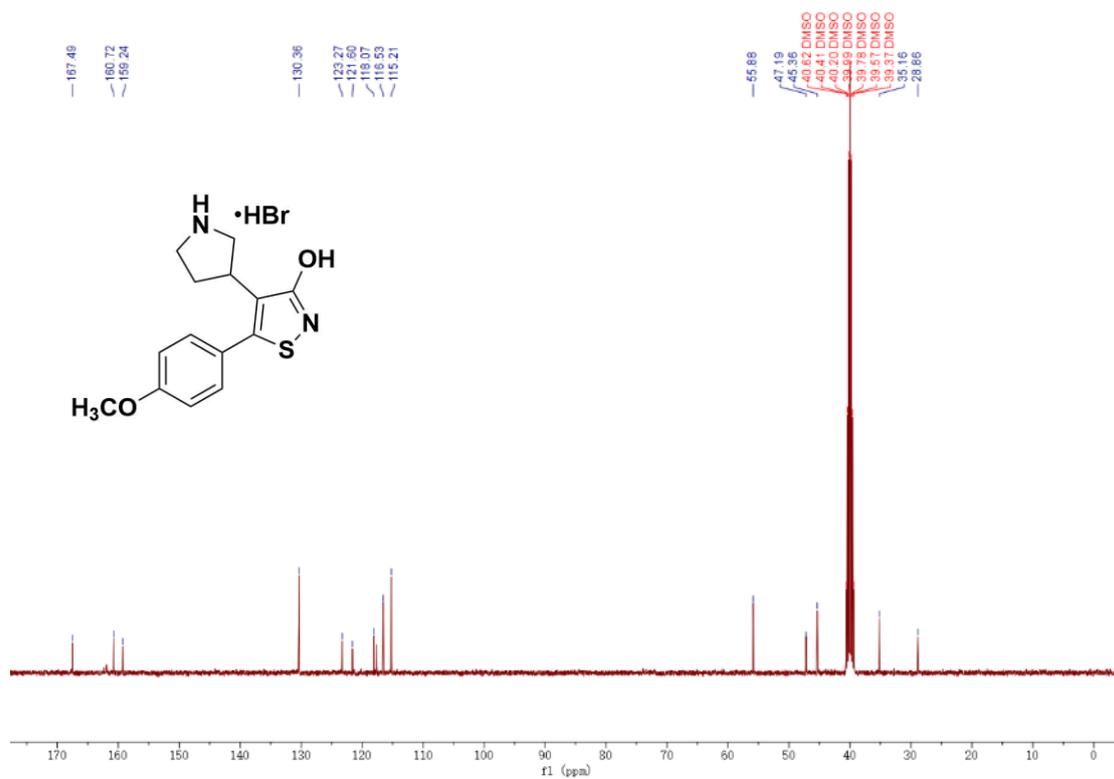


Figure S48. ¹³C NMR spectra of compound 9e

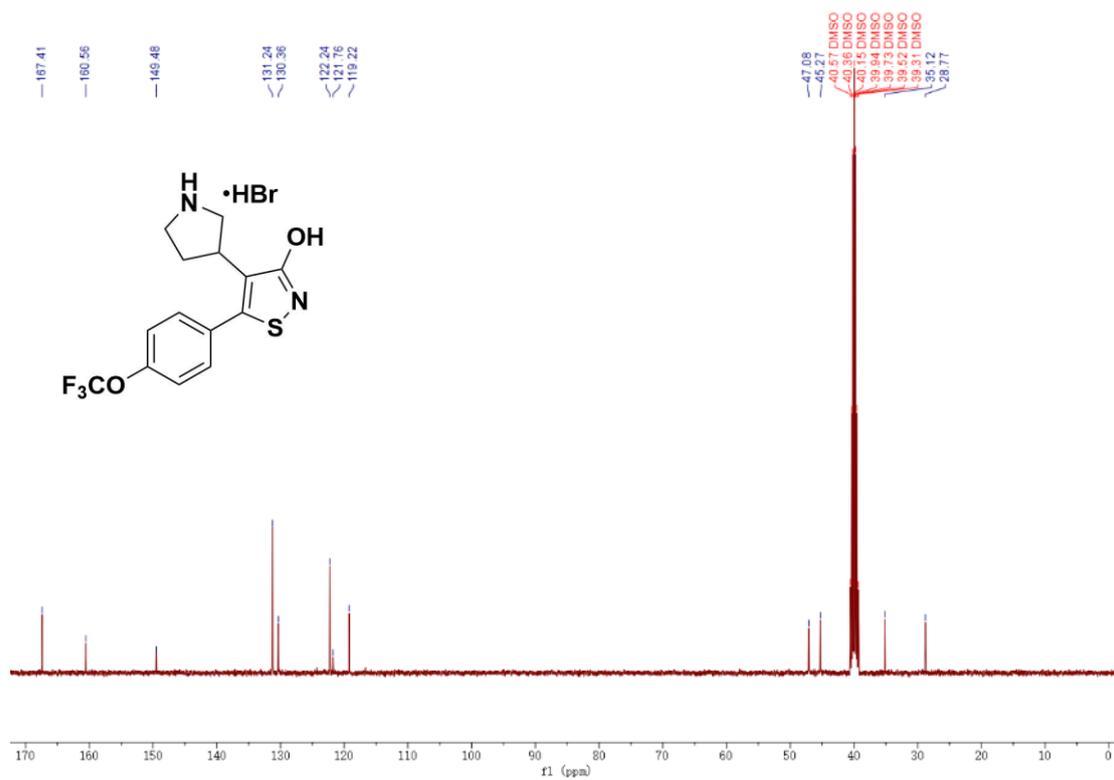


Figure S49. ¹³C NMR spectra of compound 9f

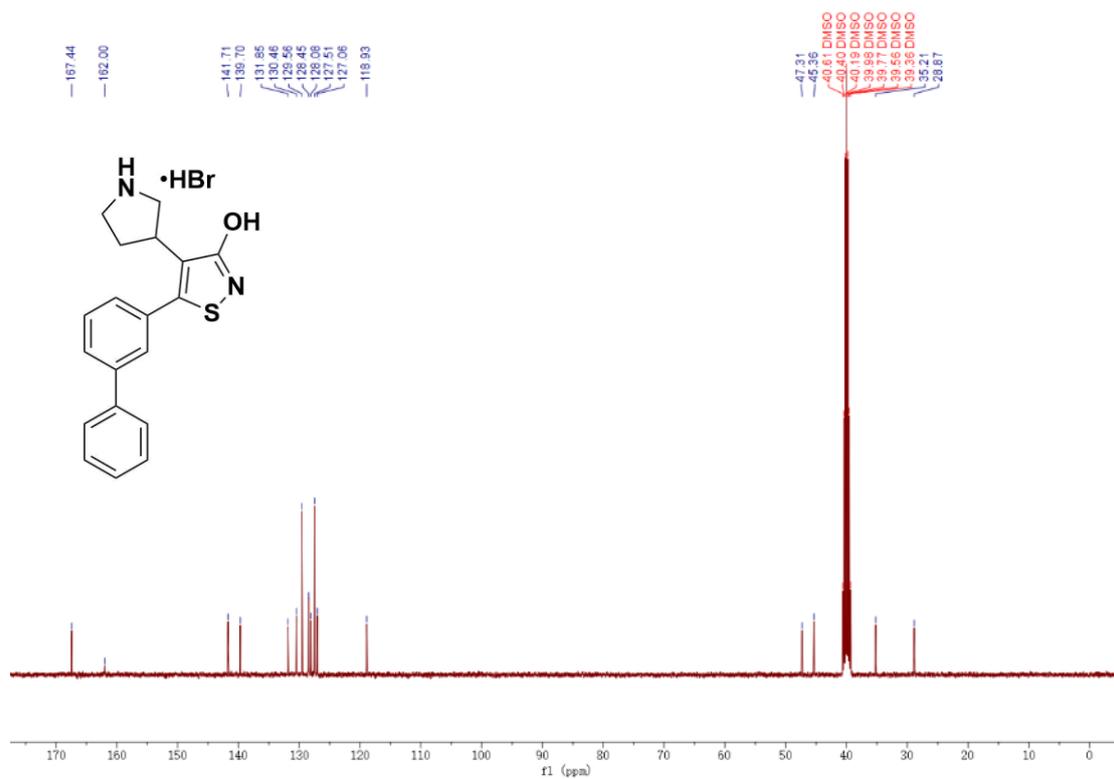


Figure S50. ¹³C NMR spectra of compound 9g

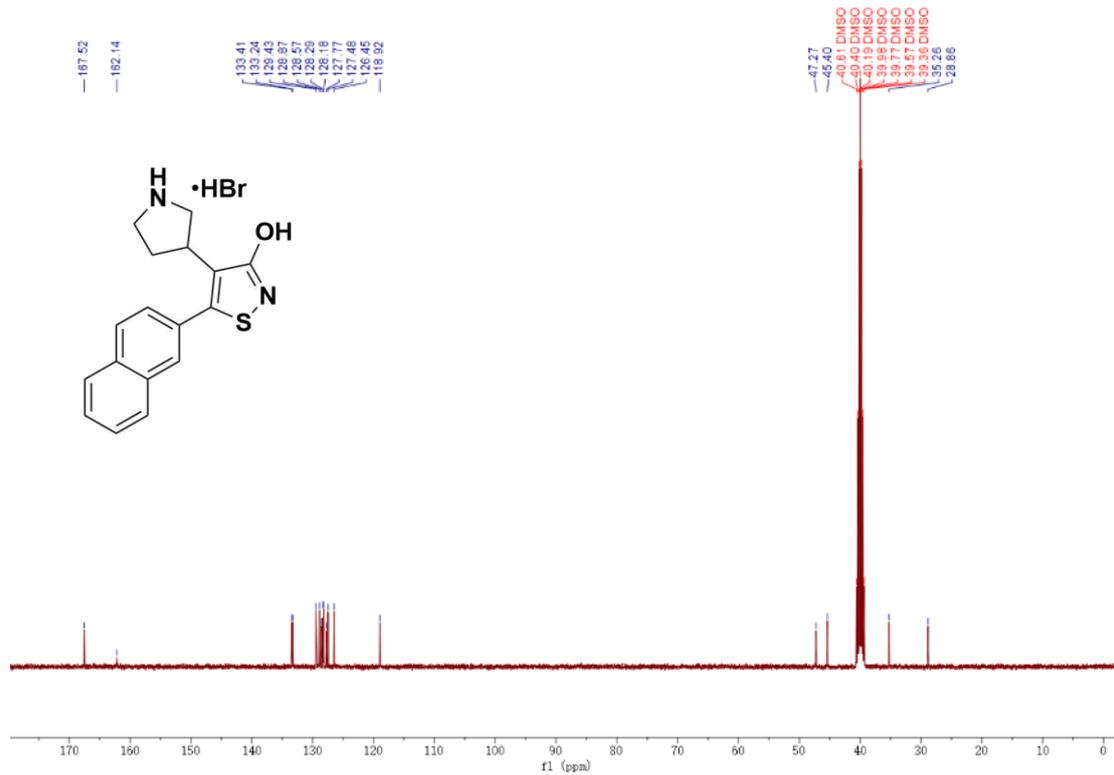


Figure S51. ¹³C NMR spectra of compound **9h**

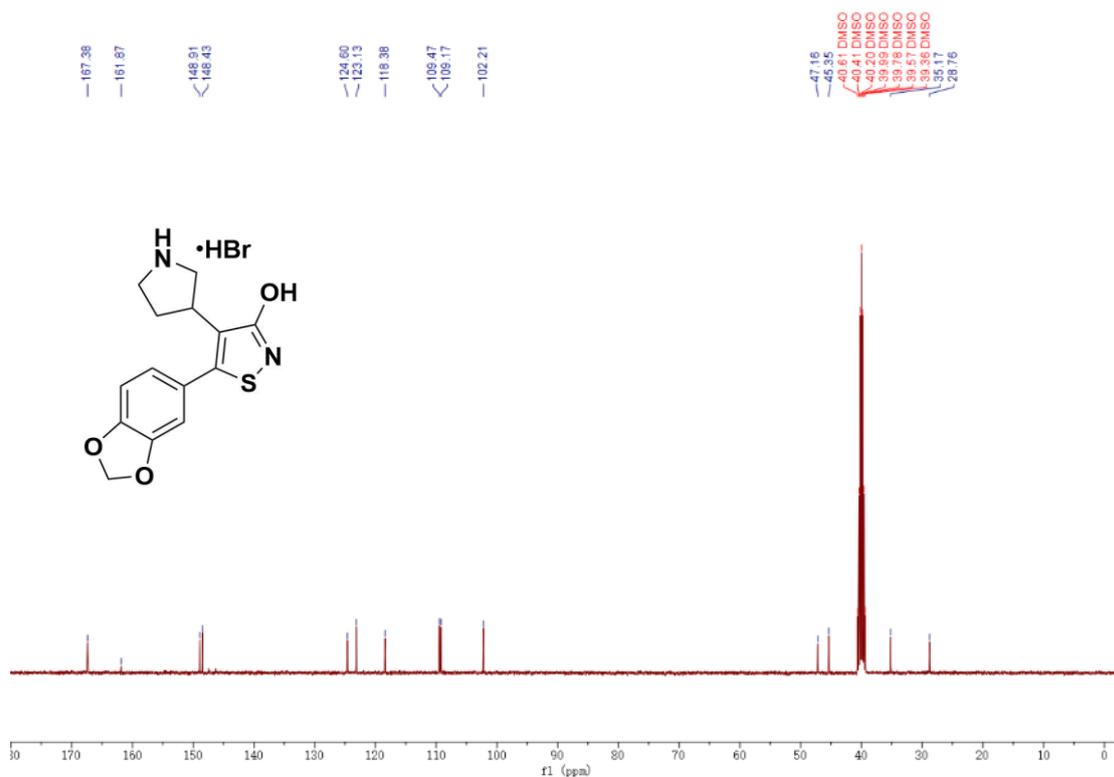


Figure S52. ¹³C NMR spectra of compound **9i**

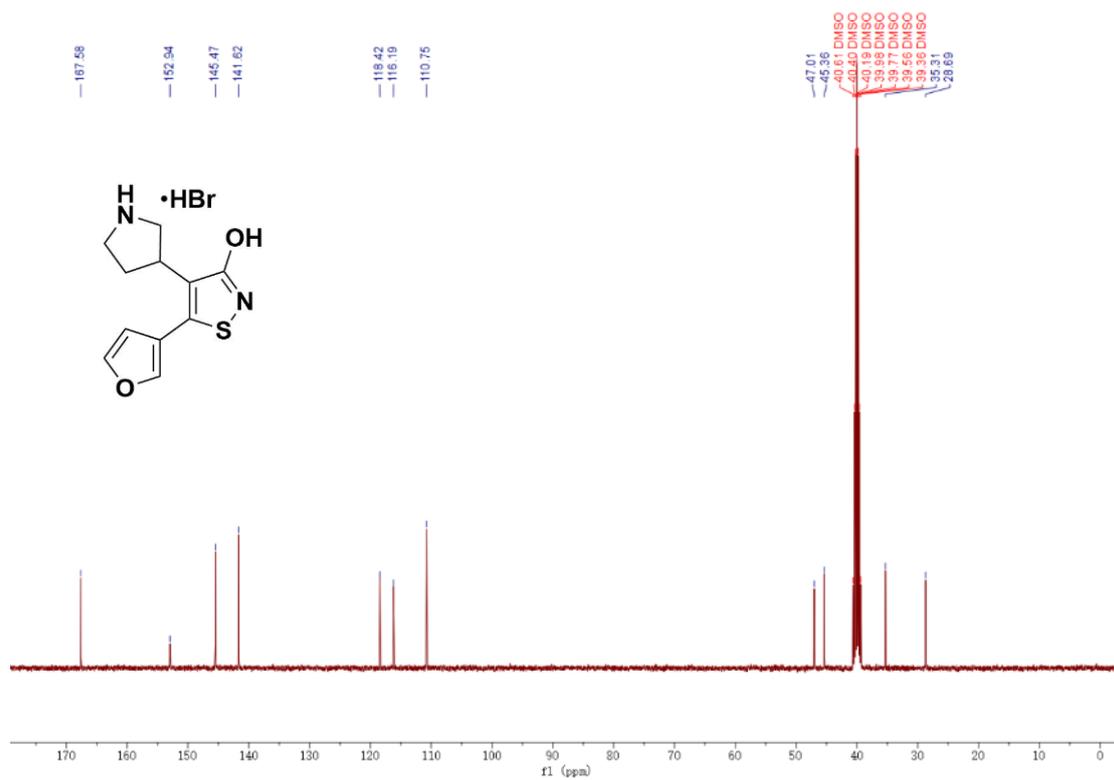


Figure S53. ¹³C NMR spectra of compound 9j

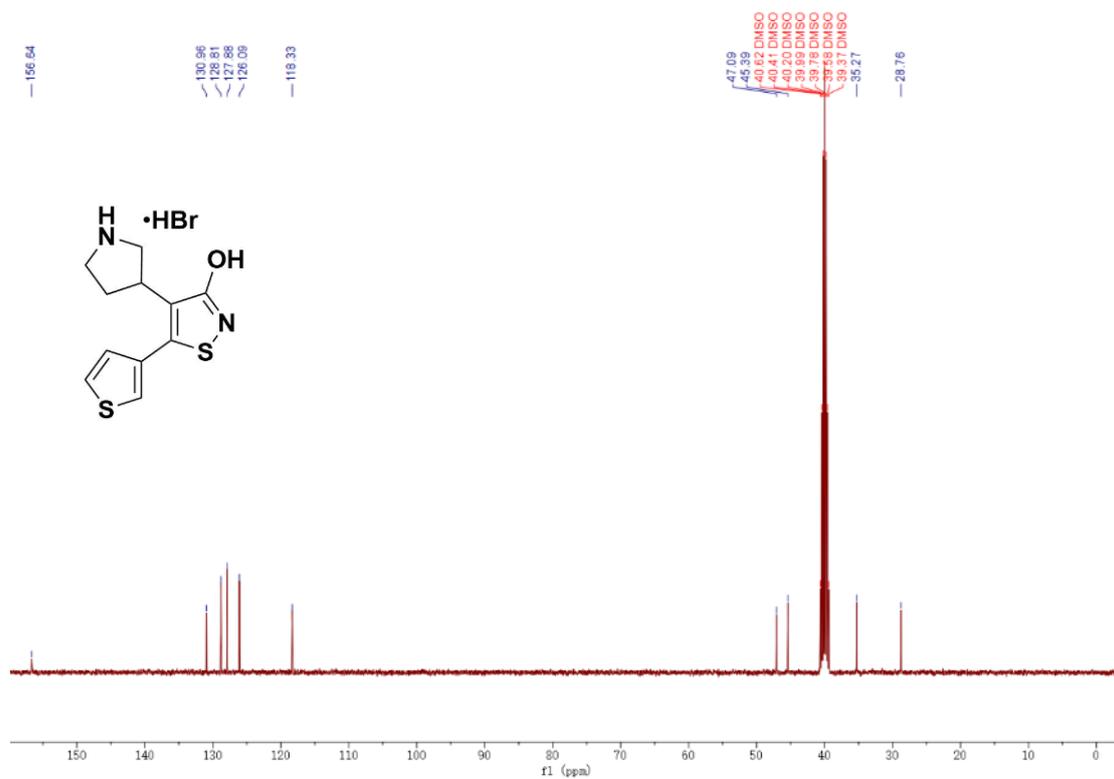


Figure S54. ¹³C NMR spectra of compound 9k

6. ^1H NMR spectra and ^{13}C NMR spectra of compounds 12, 15a-15k

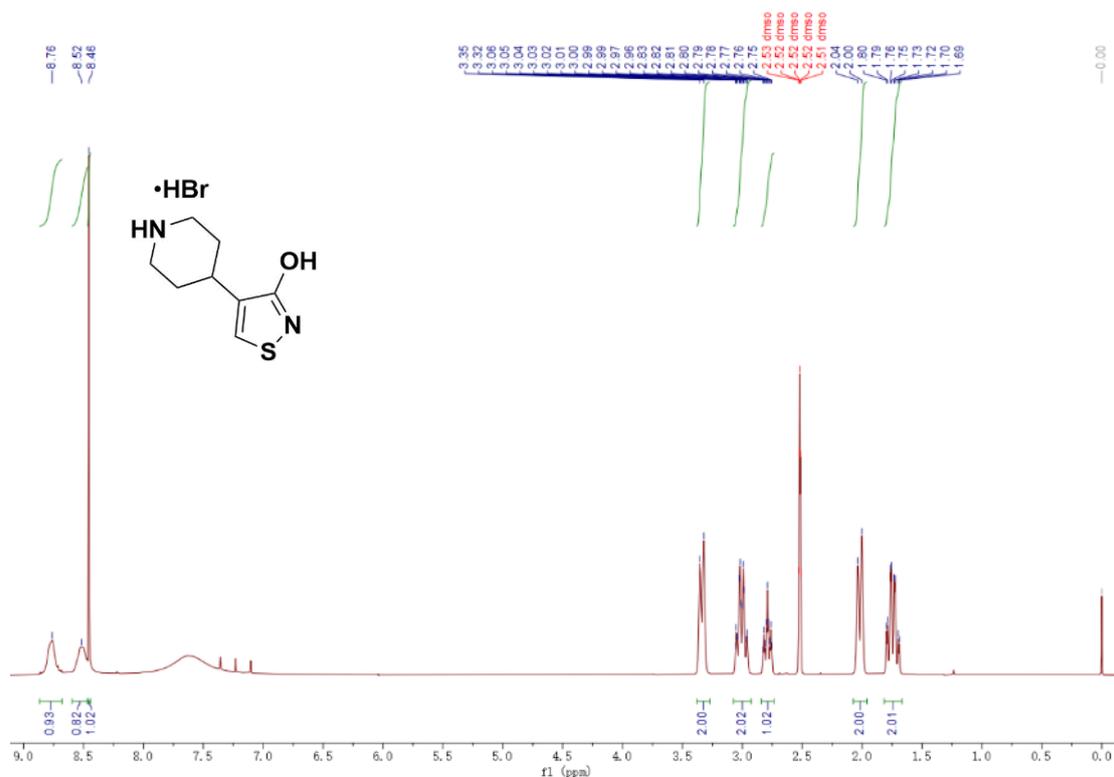


Figure S55. ^1H NMR spectra of compound 12

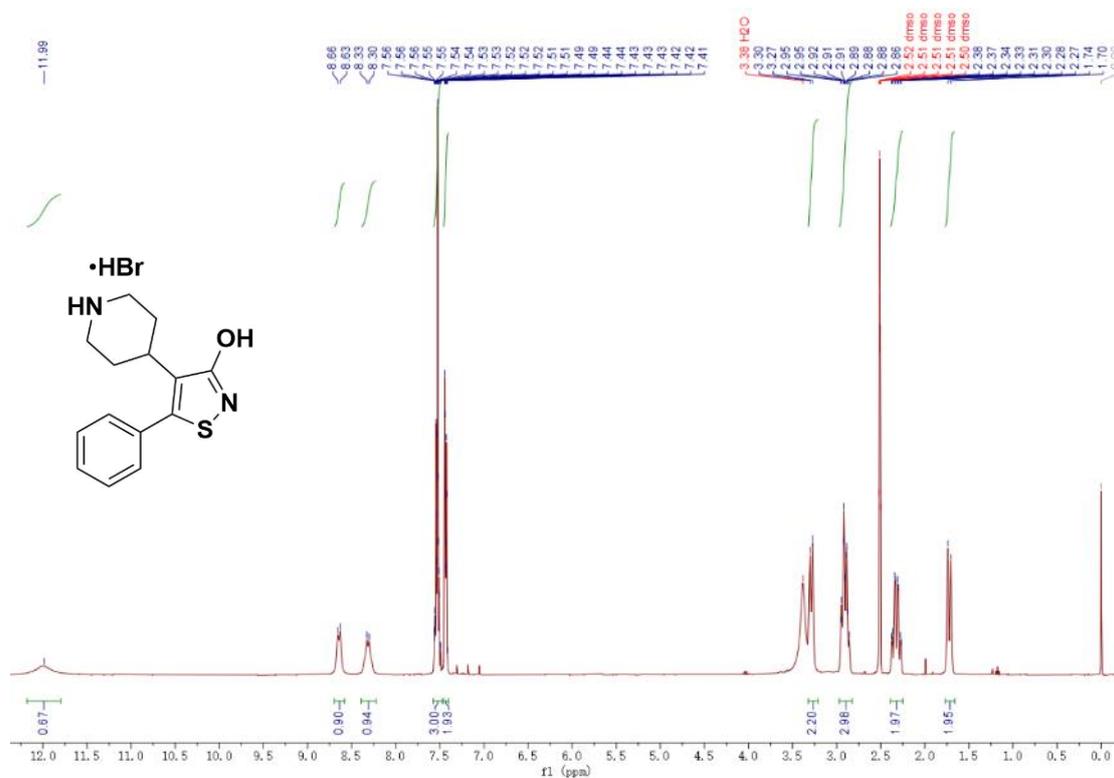


Figure S56. ^1H NMR spectra of compound 15a

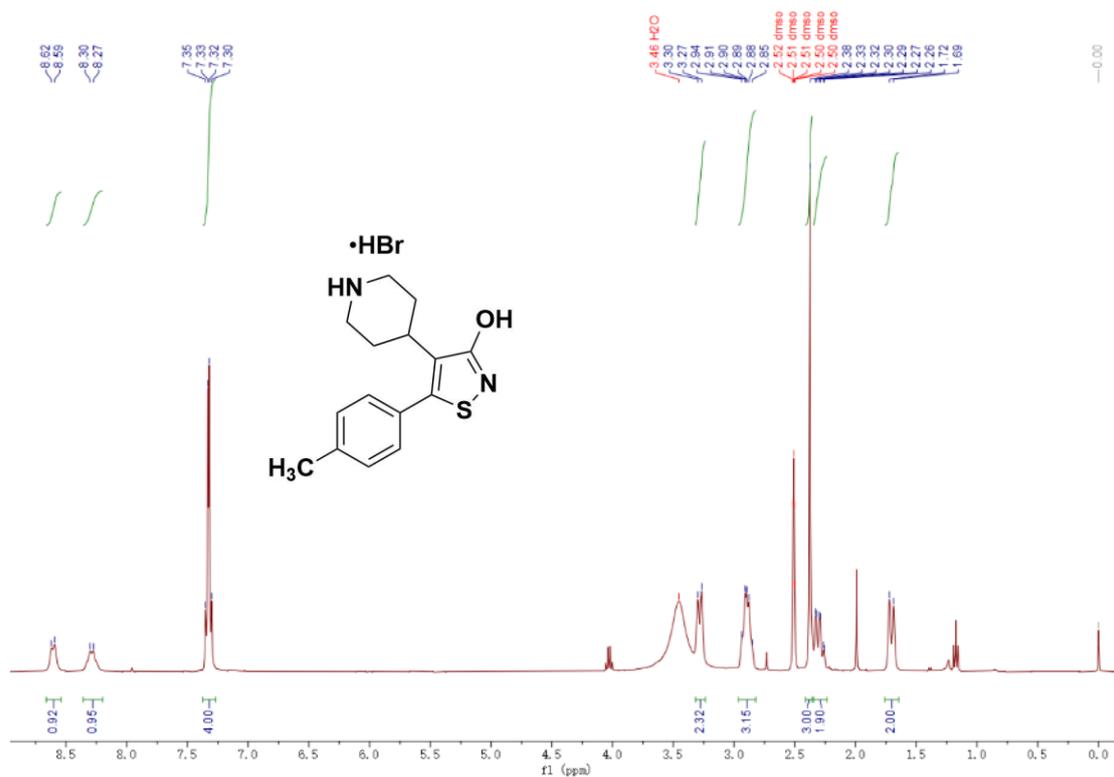


Figure S57. ¹H NMR spectra of compound 15b

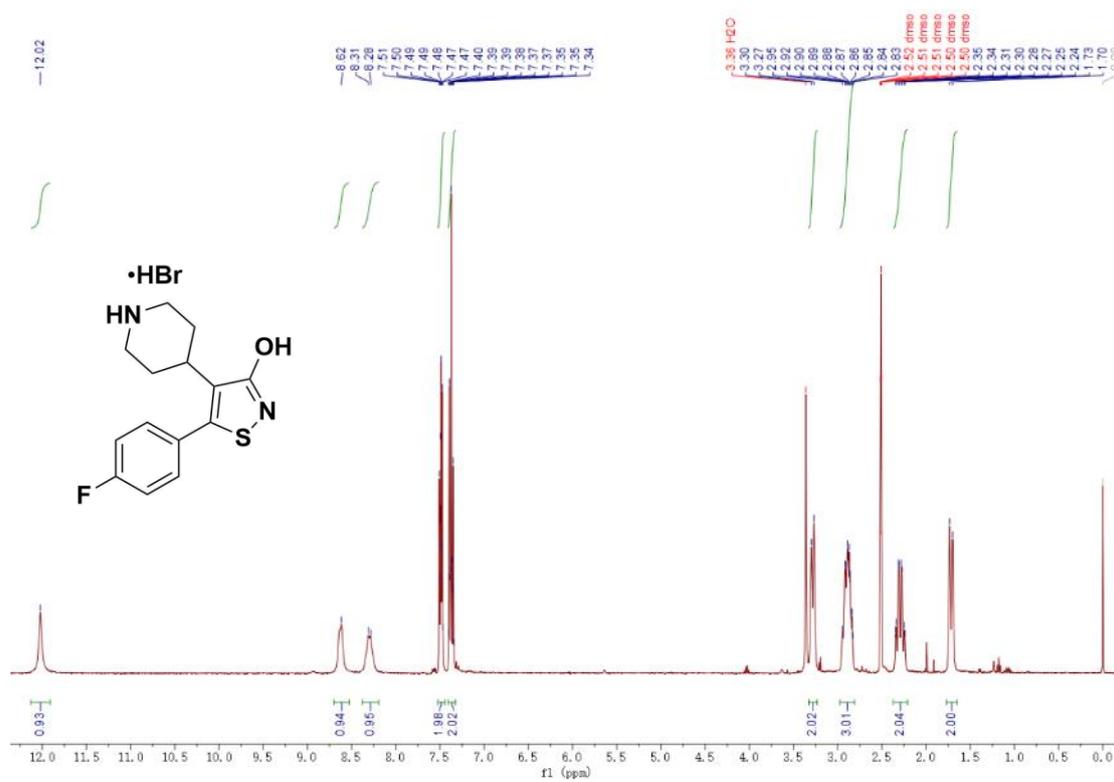


Figure S58. ¹H NMR spectra of compound 15c

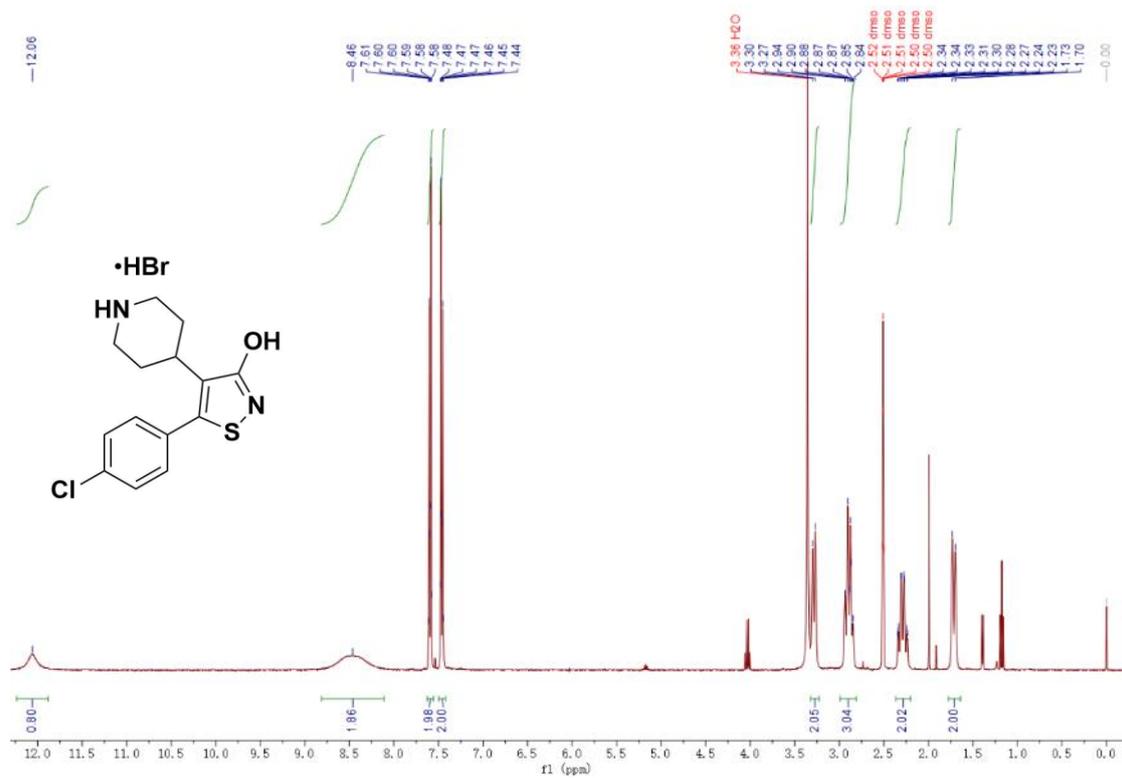


Figure S59. ¹H NMR spectra of compound 15d

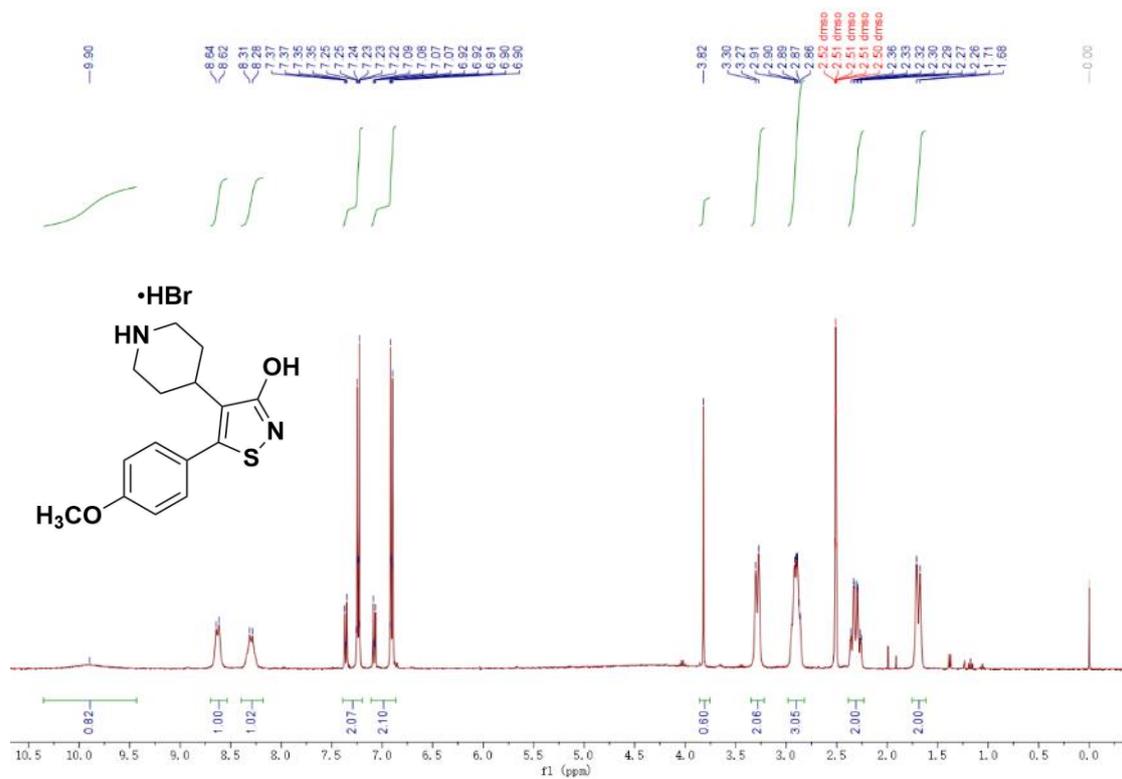


Figure S60. ¹H NMR spectra of compound 15e

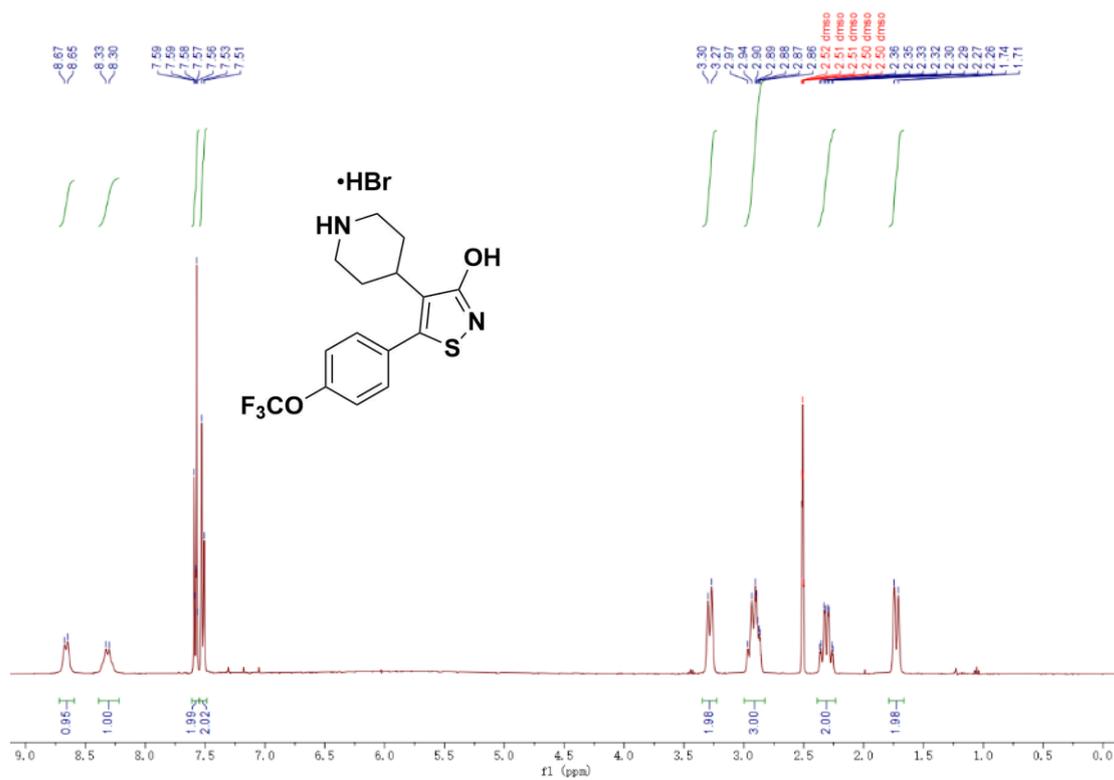


Figure S61. ¹H NMR spectra of compound 15f

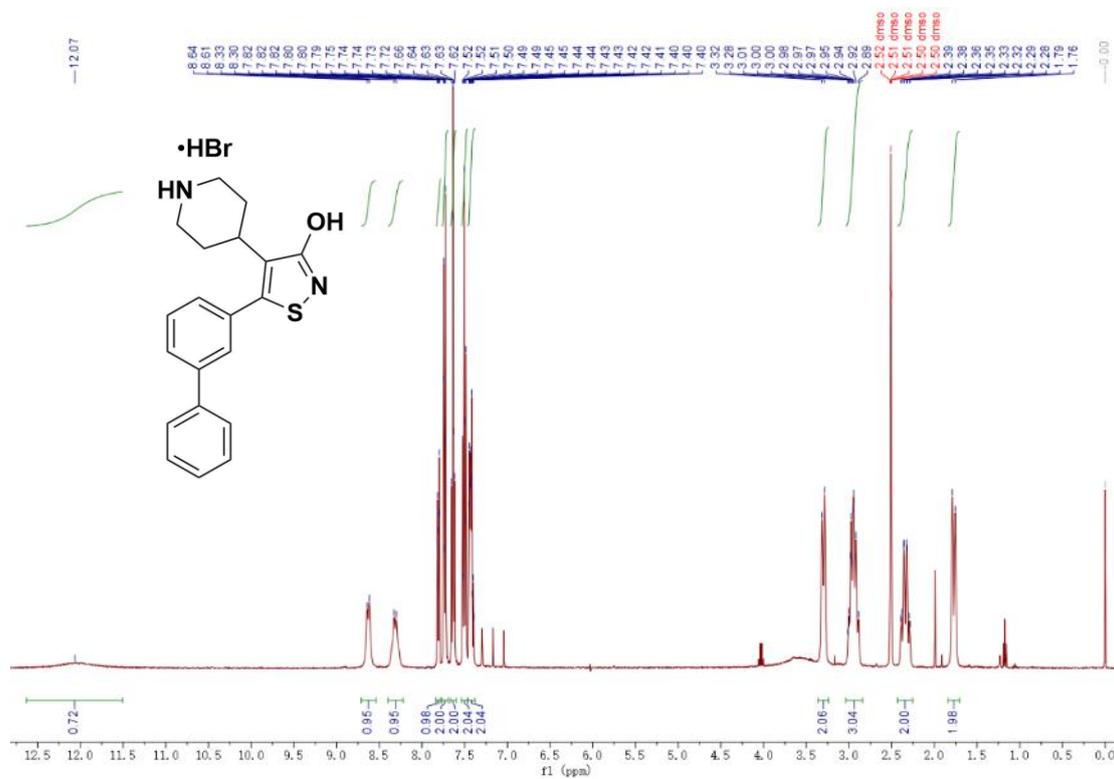


Figure S62. ¹H NMR spectra of compound 15g

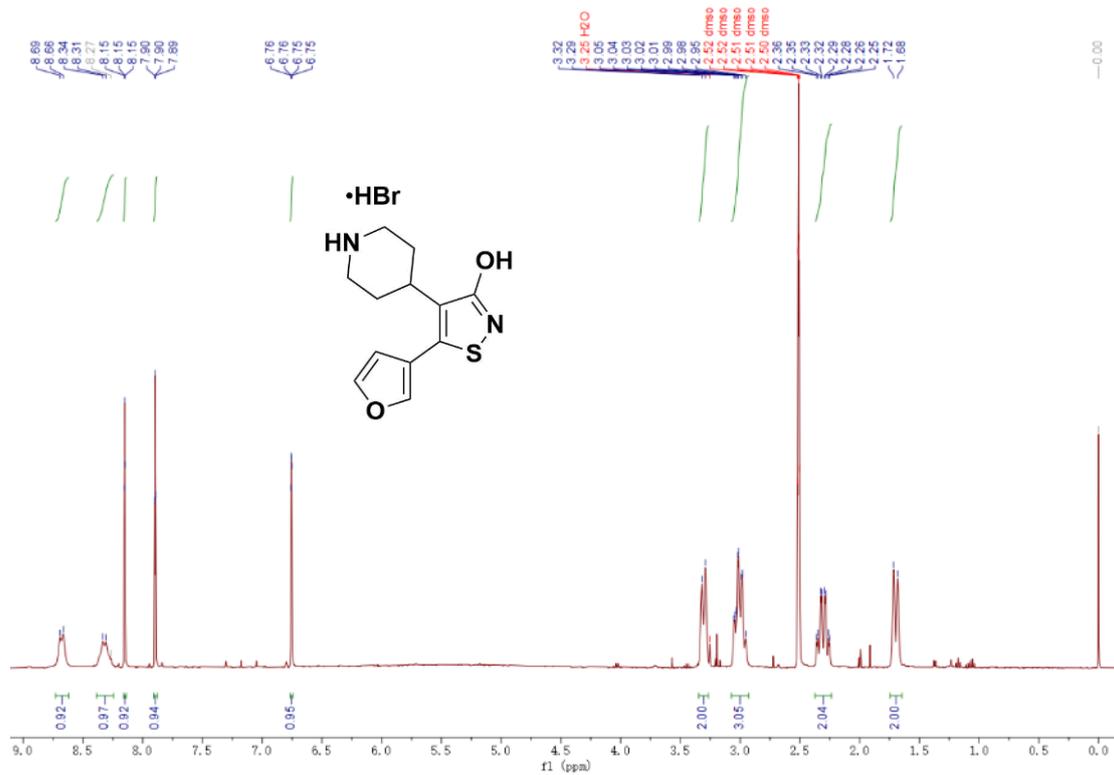


Figure S65. ^1H NMR spectra of compound 15j

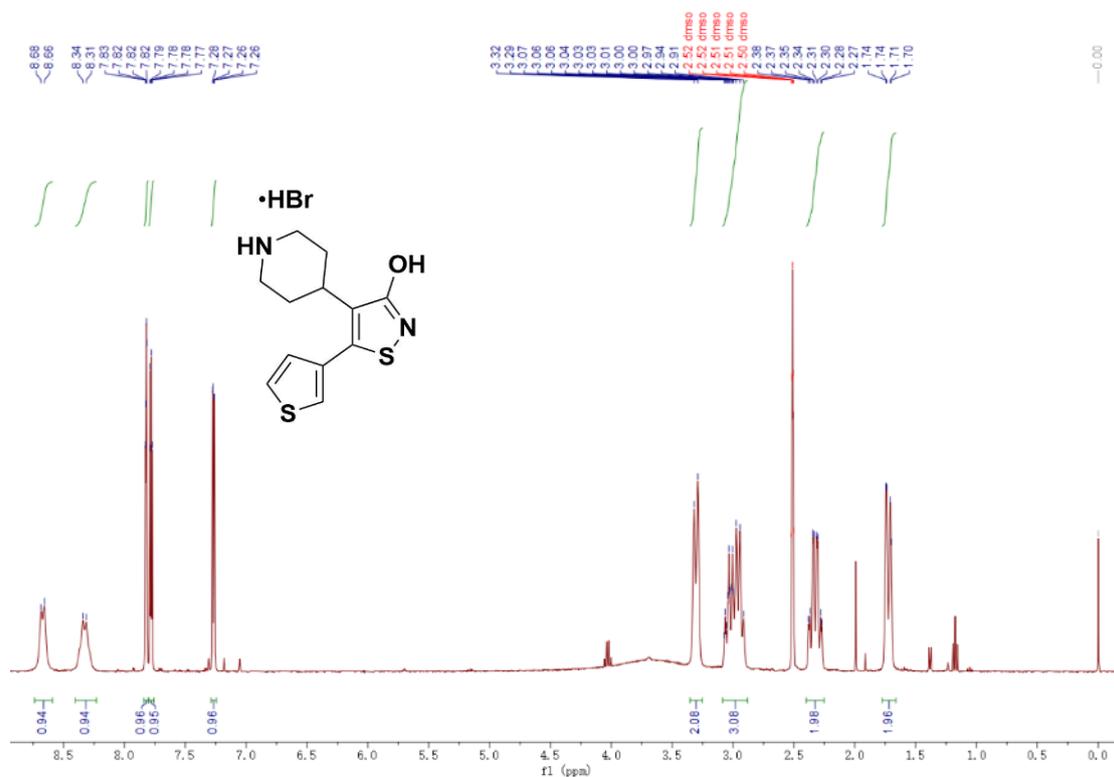


Figure S66. ^1H NMR spectra of compound 15k

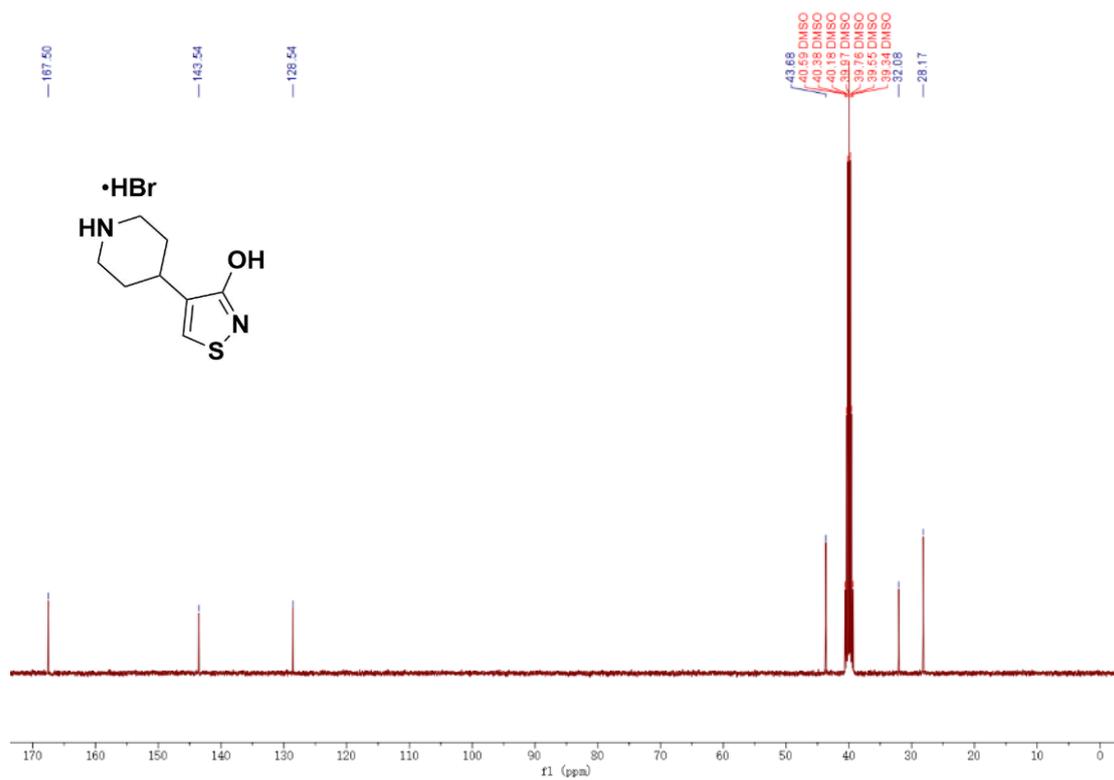


Figure S67. ^{13}C NMR spectra of compound 12

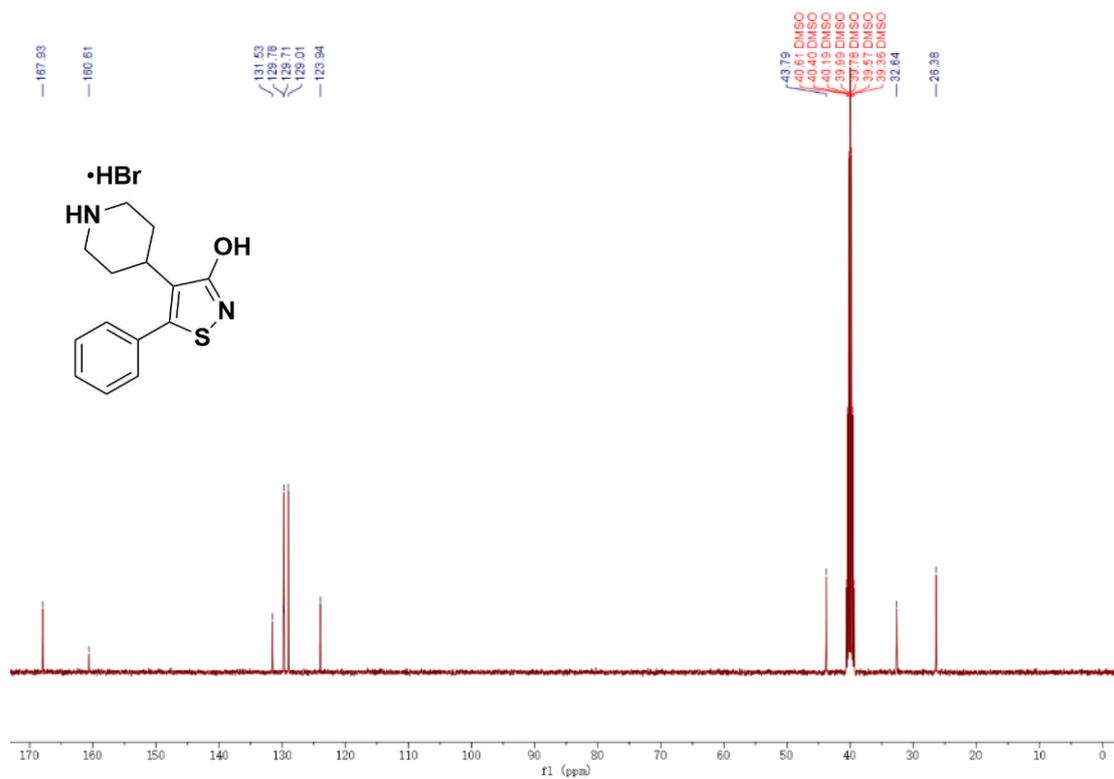


Figure S68. ^{13}C NMR spectra of compound 15a

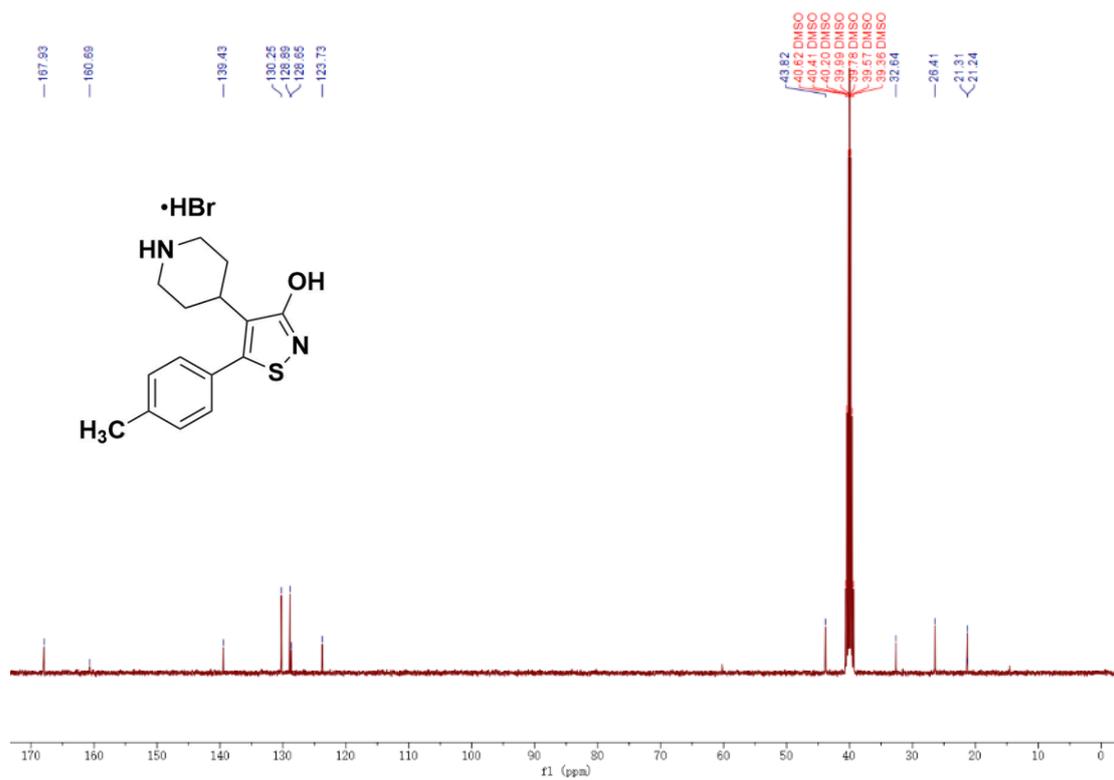


Figure S69. ¹³C NMR spectra of compound **15b**

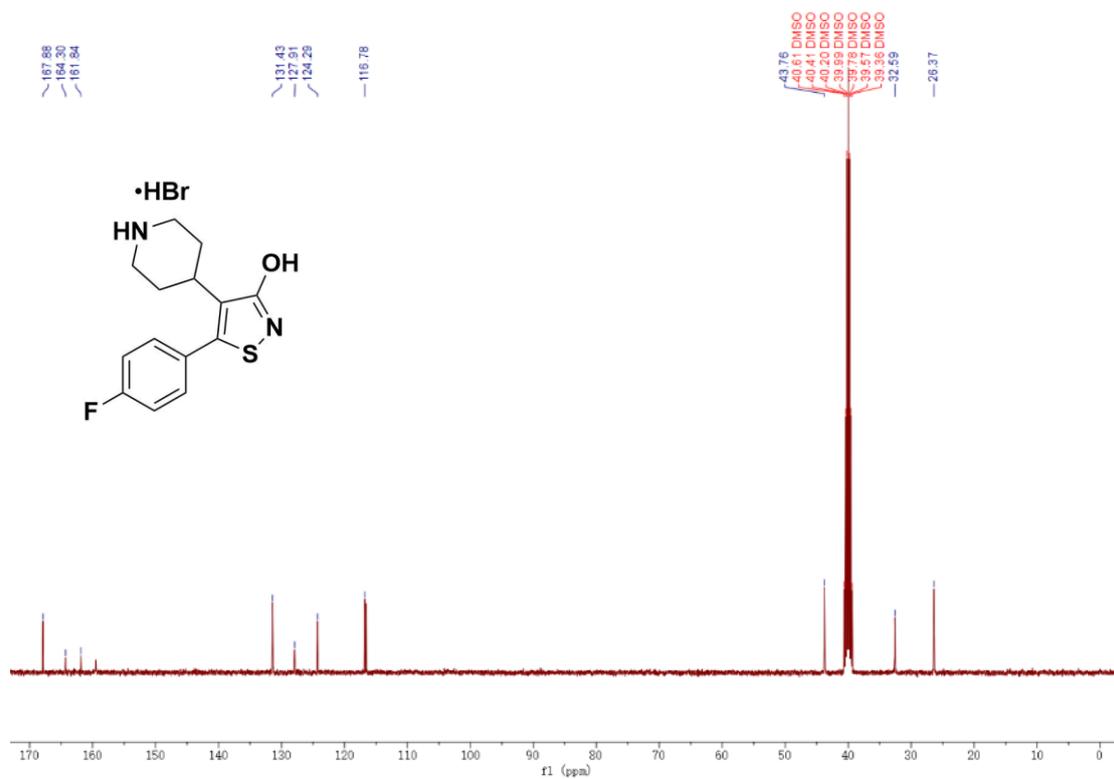


Figure S70. ¹³C NMR spectra of compound **15c**

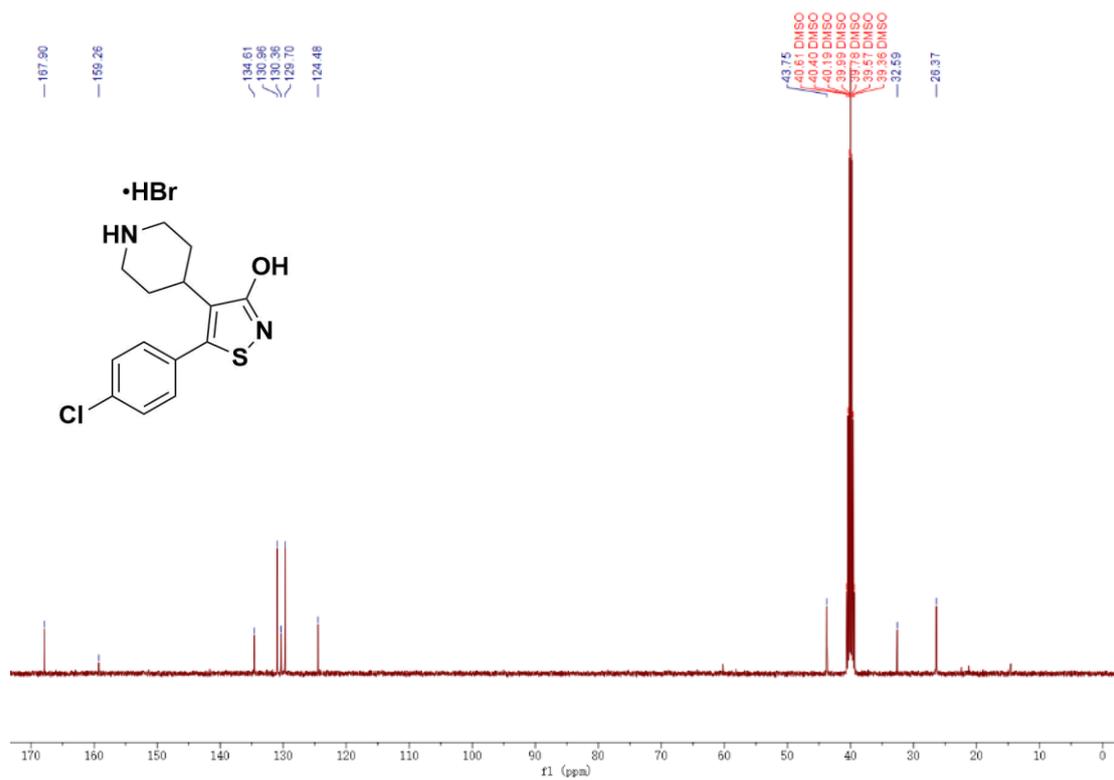


Figure S71. ¹³C NMR spectra of compound 15d

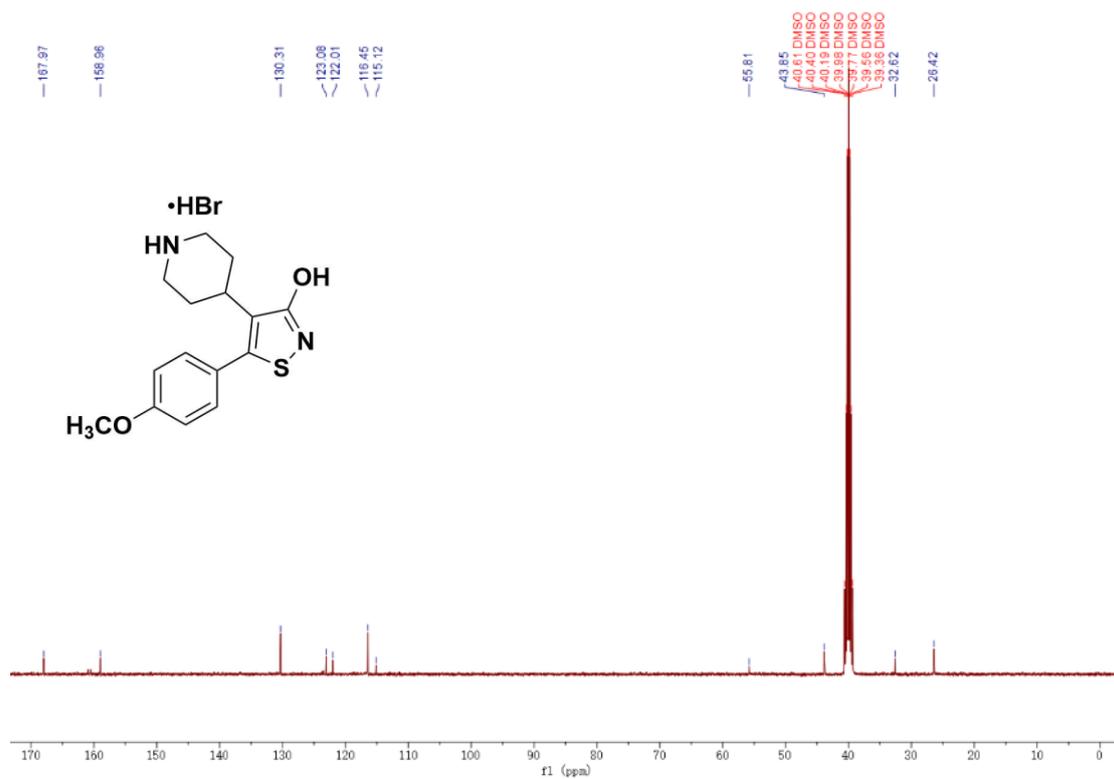


Figure S72. ¹³C NMR spectra of compound 15e

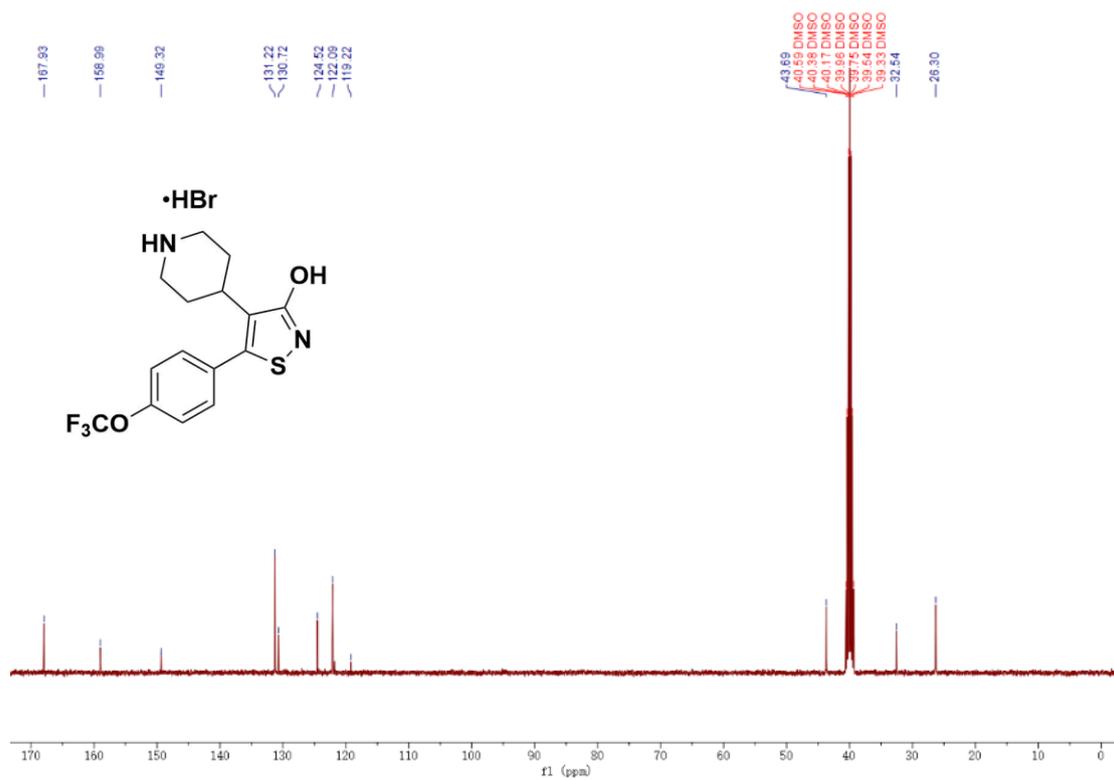


Figure S73. ¹³C NMR spectra of compound **15f**

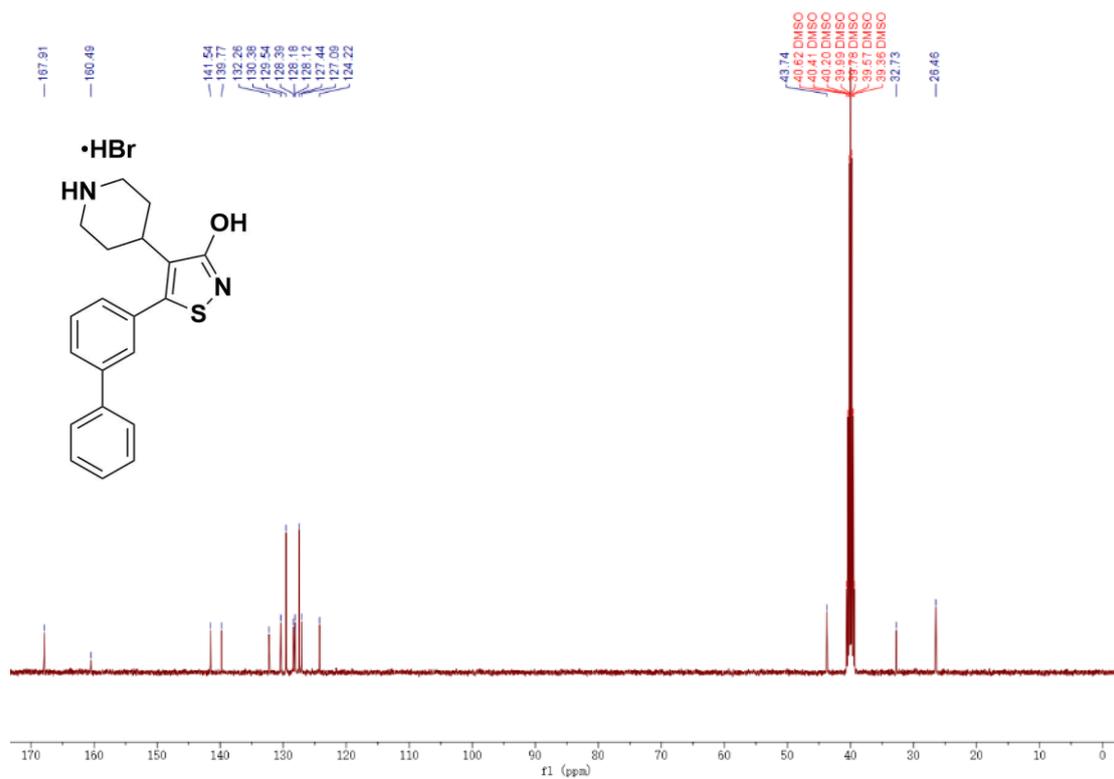


Figure S74. ¹³C NMR spectra of compound **15g**

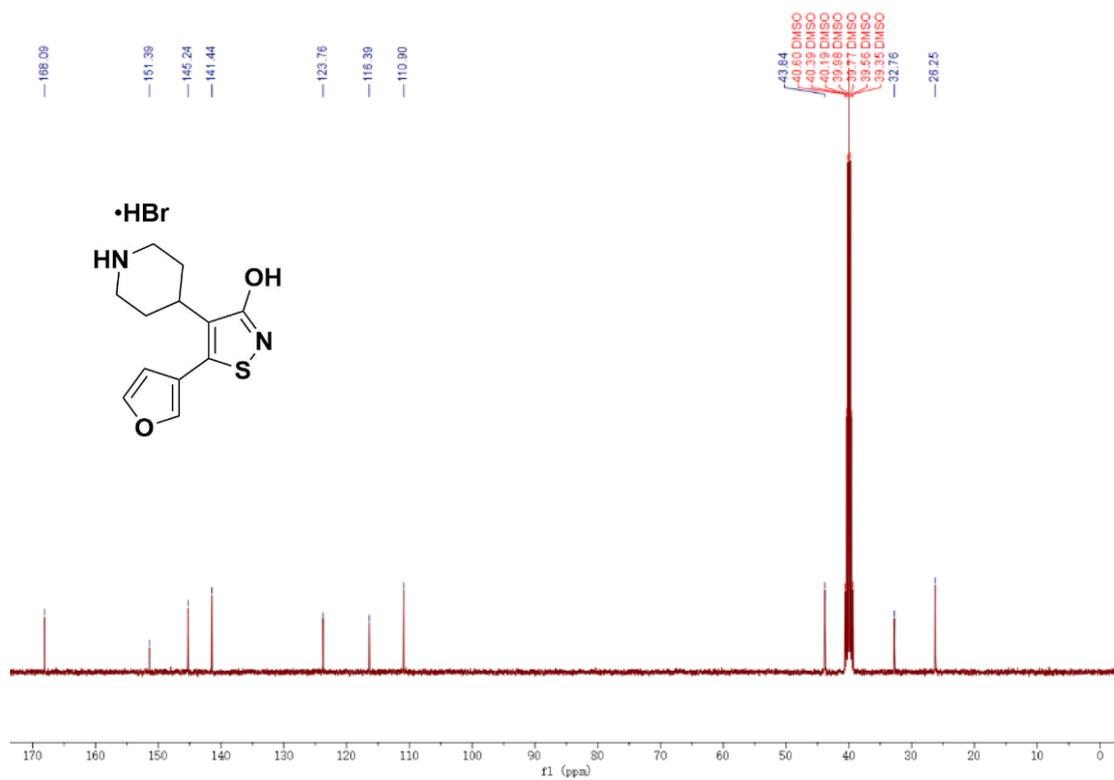


Figure S77. ^{13}C NMR spectra of compound 15j

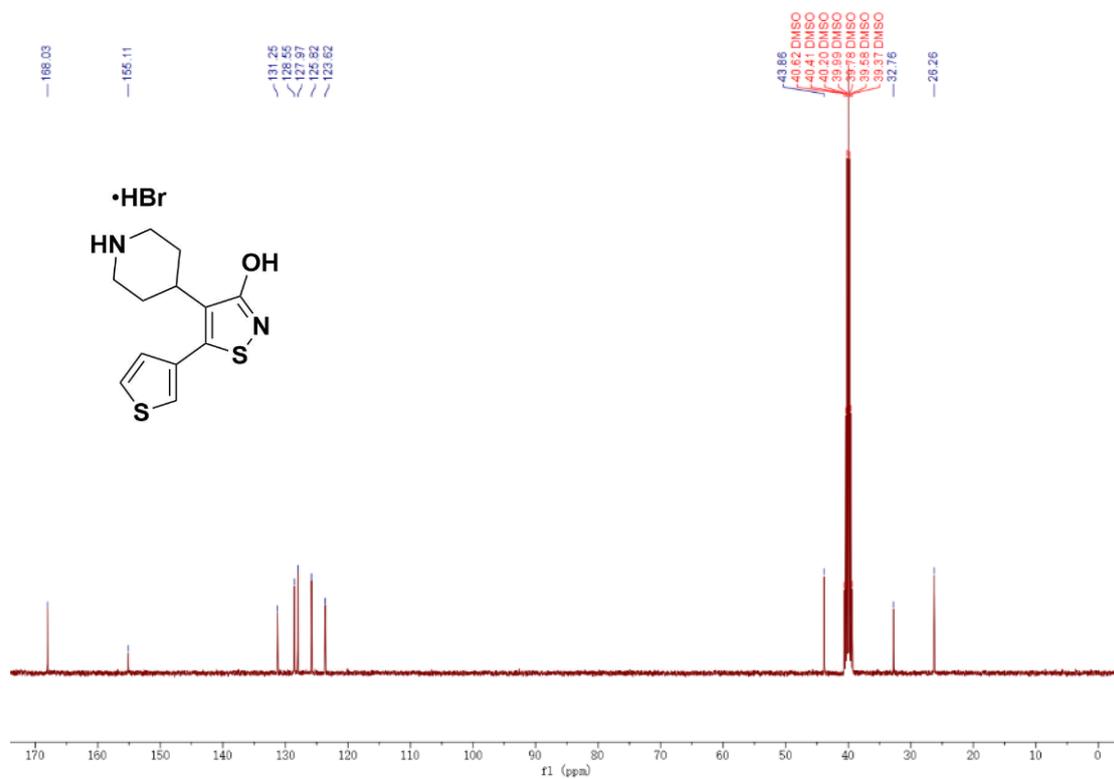


Figure S78. ^{13}C NMR spectra of compound 15k

7. HRMS of compounds 6, 9a-9k, 12, and 15a-15k

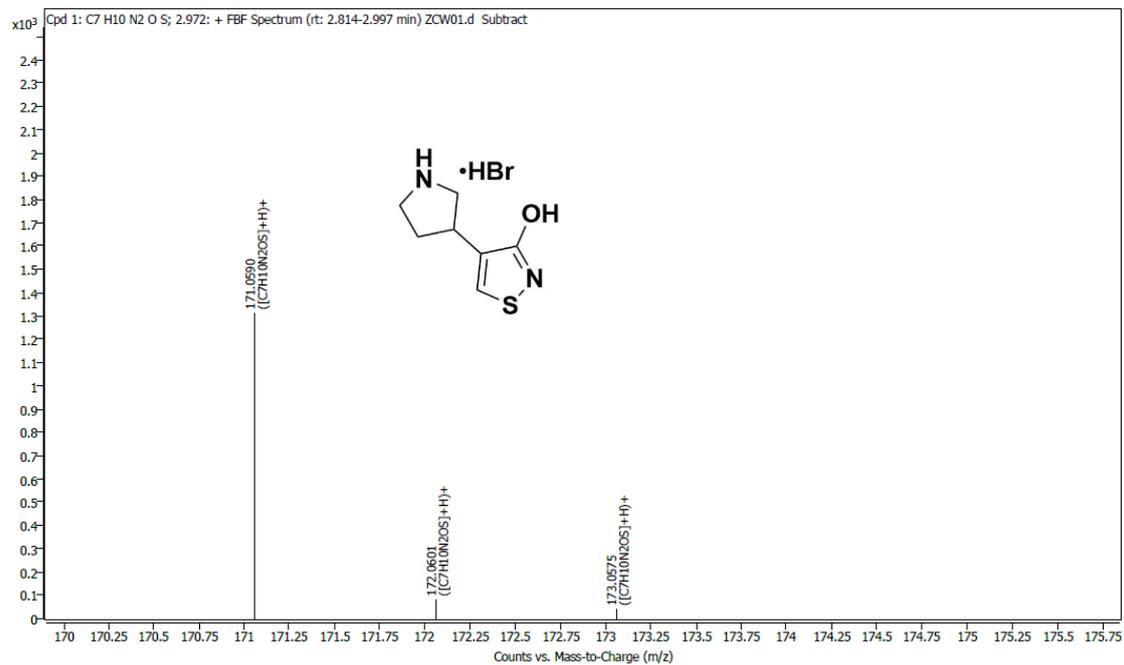


Figure S79. HRMS of compound 6

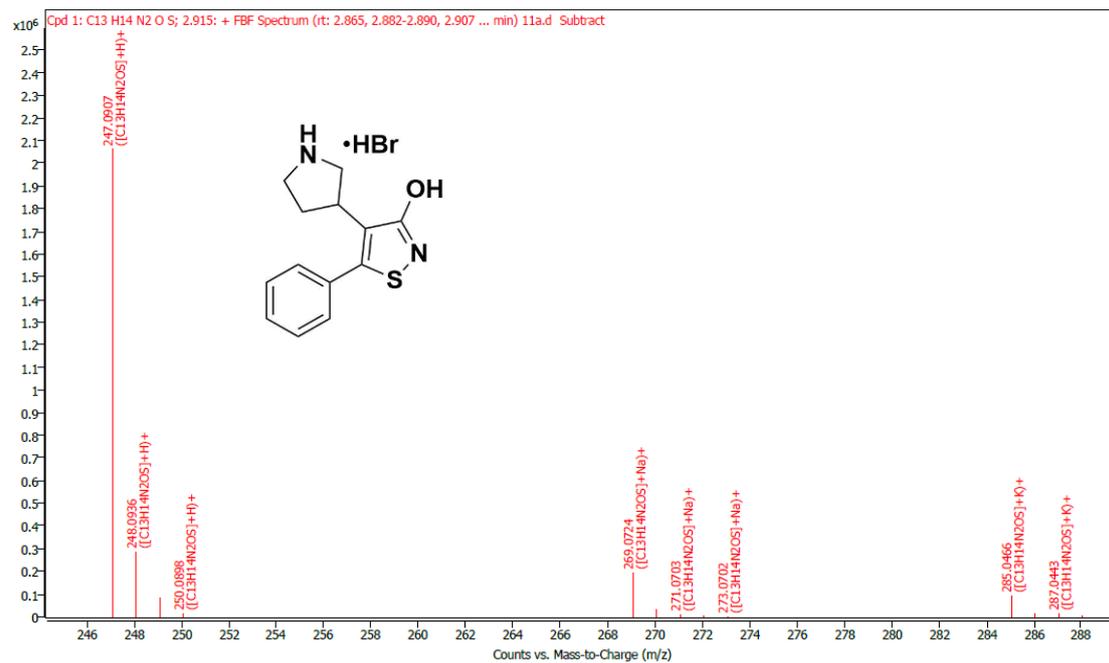


Figure S80. HRMS of compound 9a

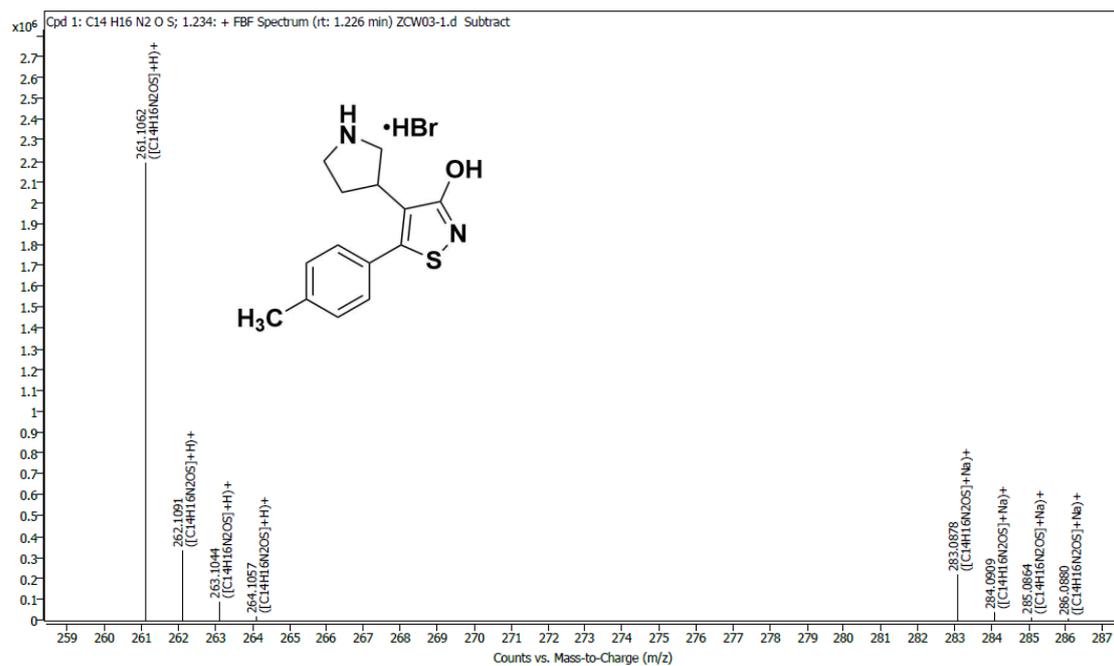


Figure S81. HRMS of compound 9b

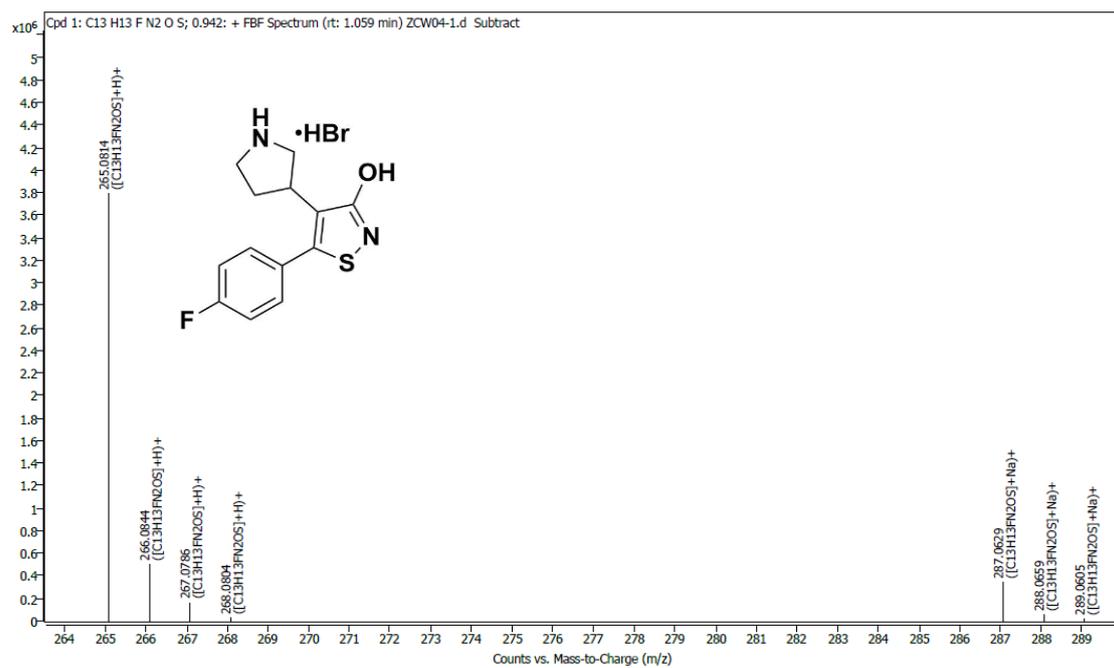


Figure S82. HRMS of compound 9c

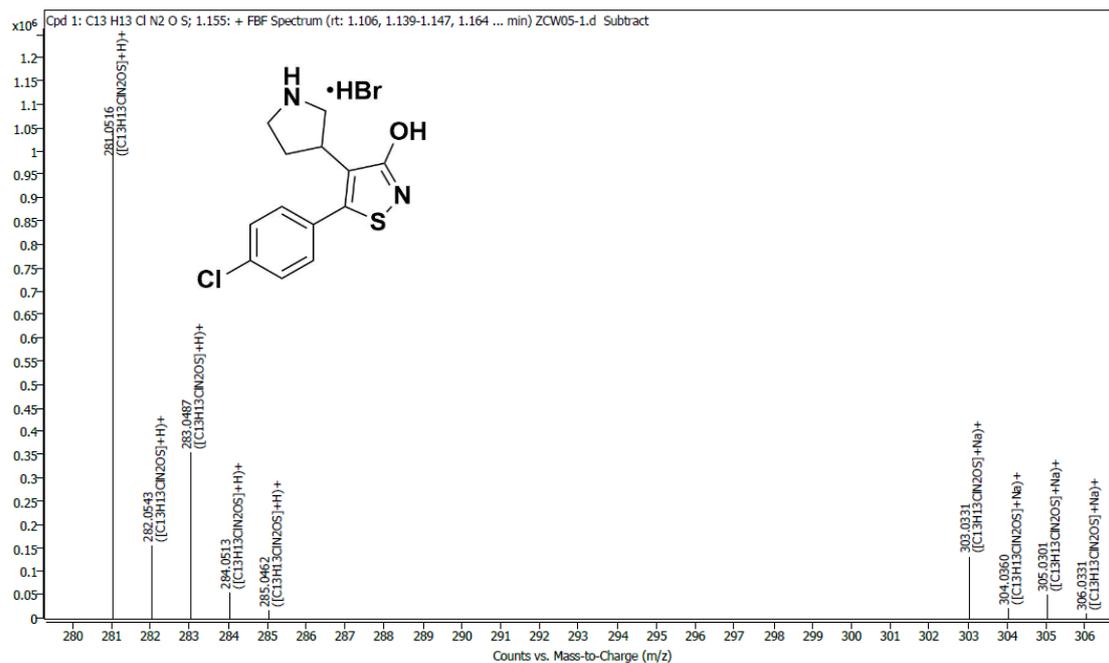


Figure S83. HRMS of compound 9d

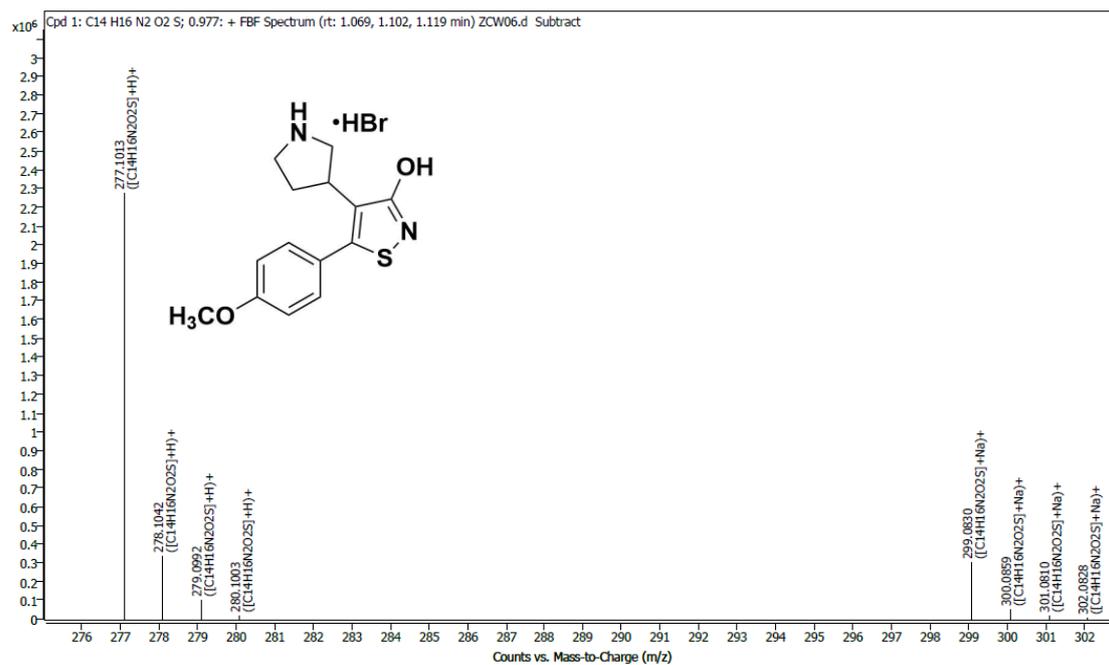


Figure S84. HRMS of compound 9e

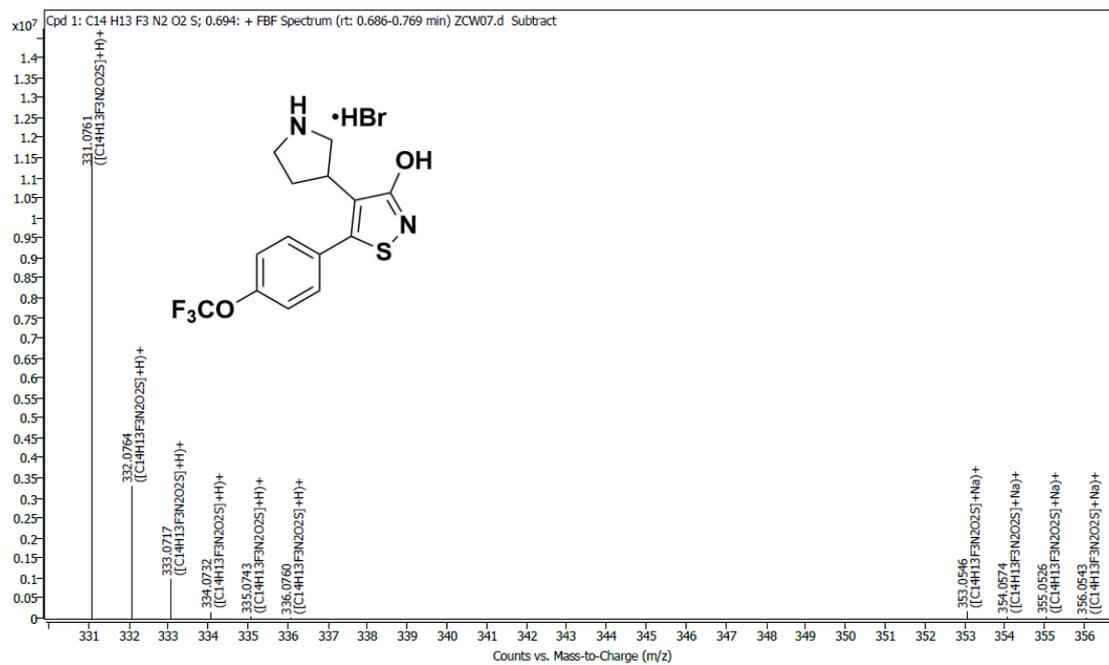


Figure S85. HRMS of compound 9f

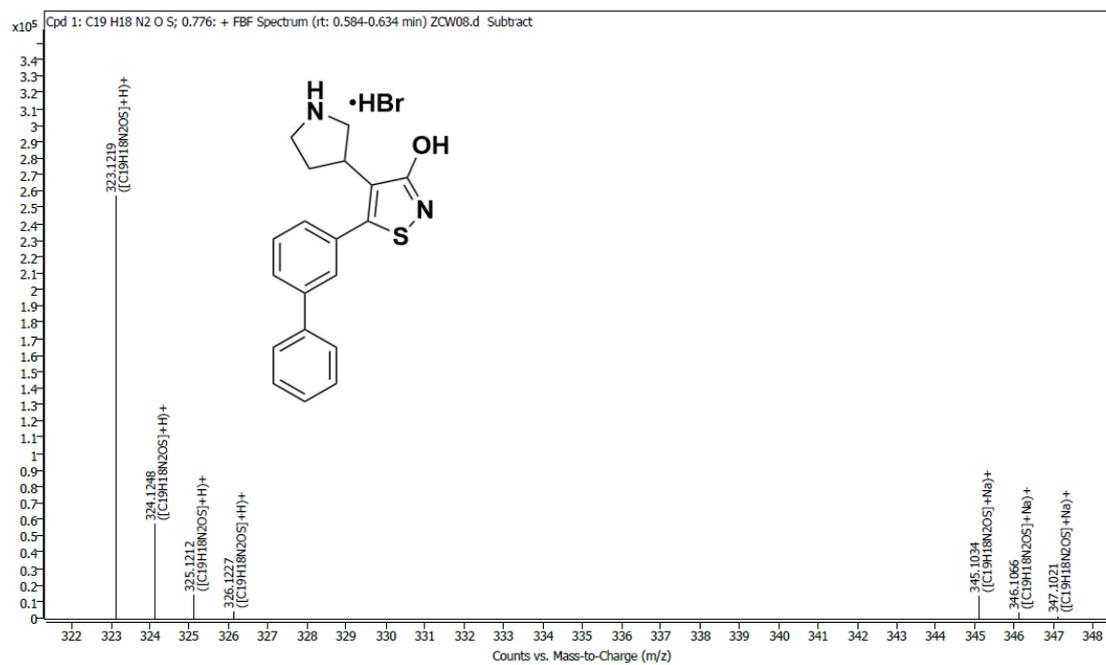


Figure S86. HRMS of compound 9g

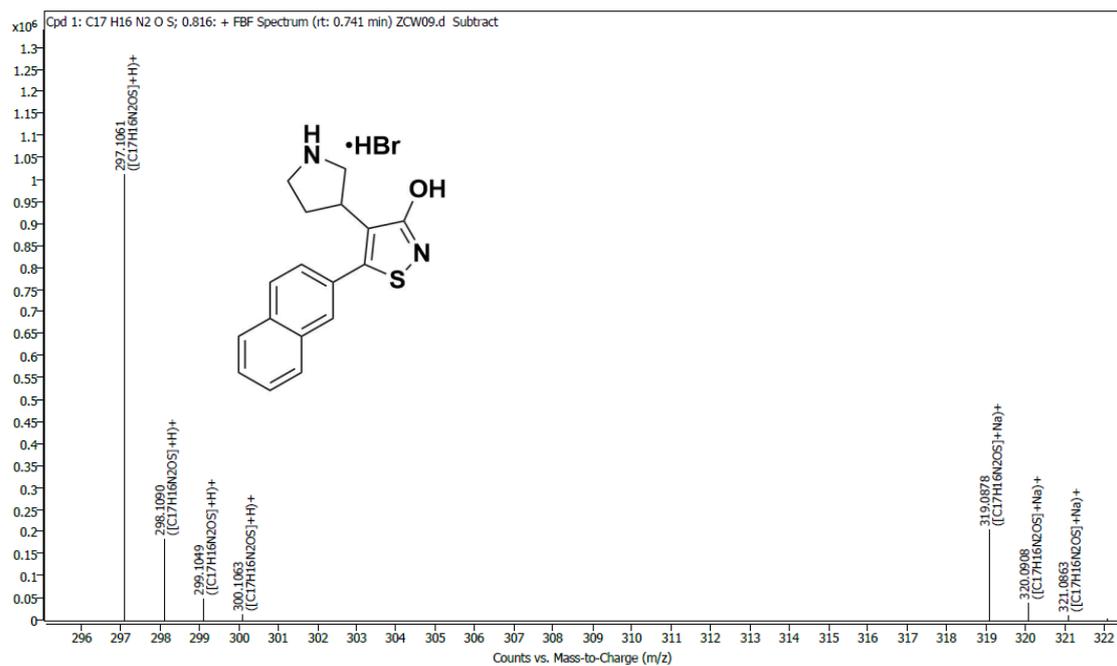


Figure S87. HRMS of compound 9h

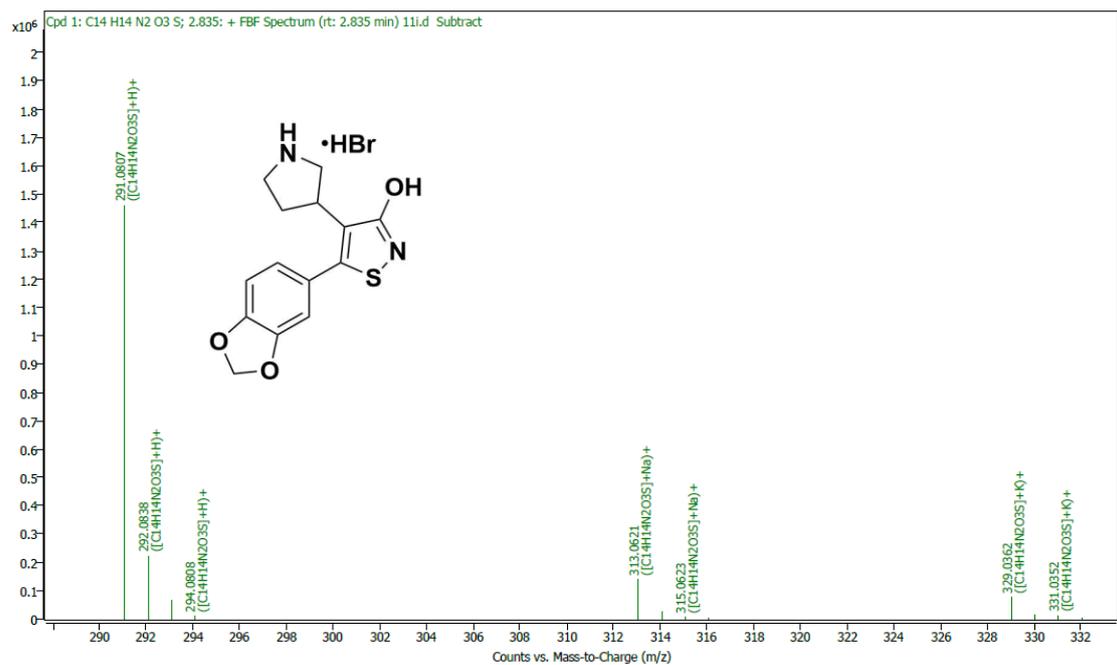


Figure S88. HRMS of compound 9i

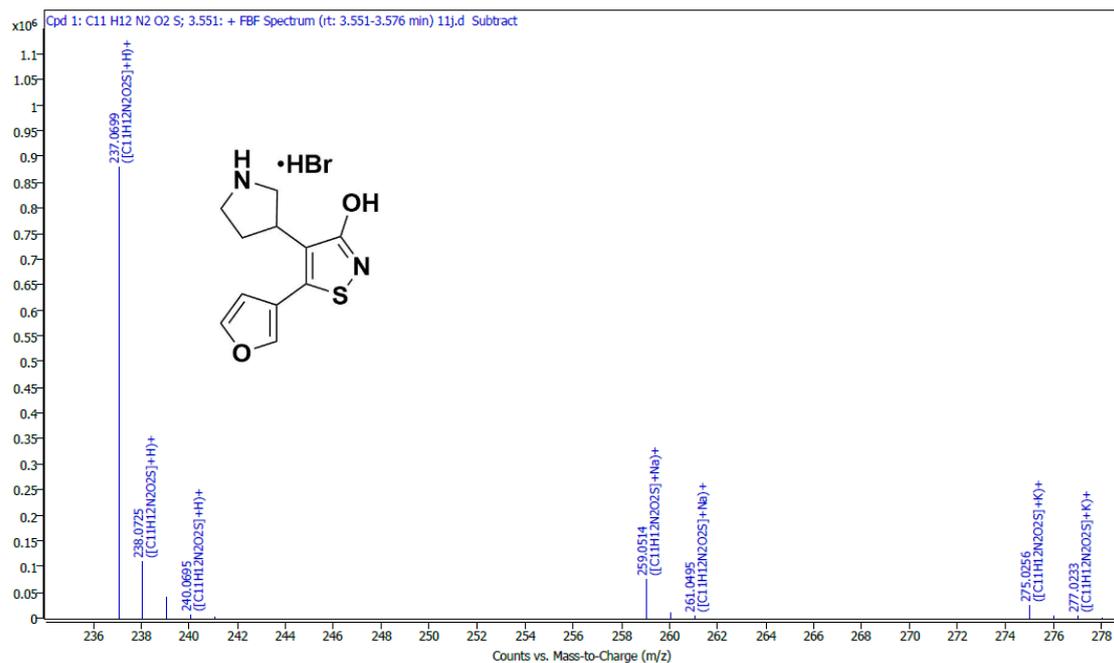


Figure S89. HRMS of compound 9j

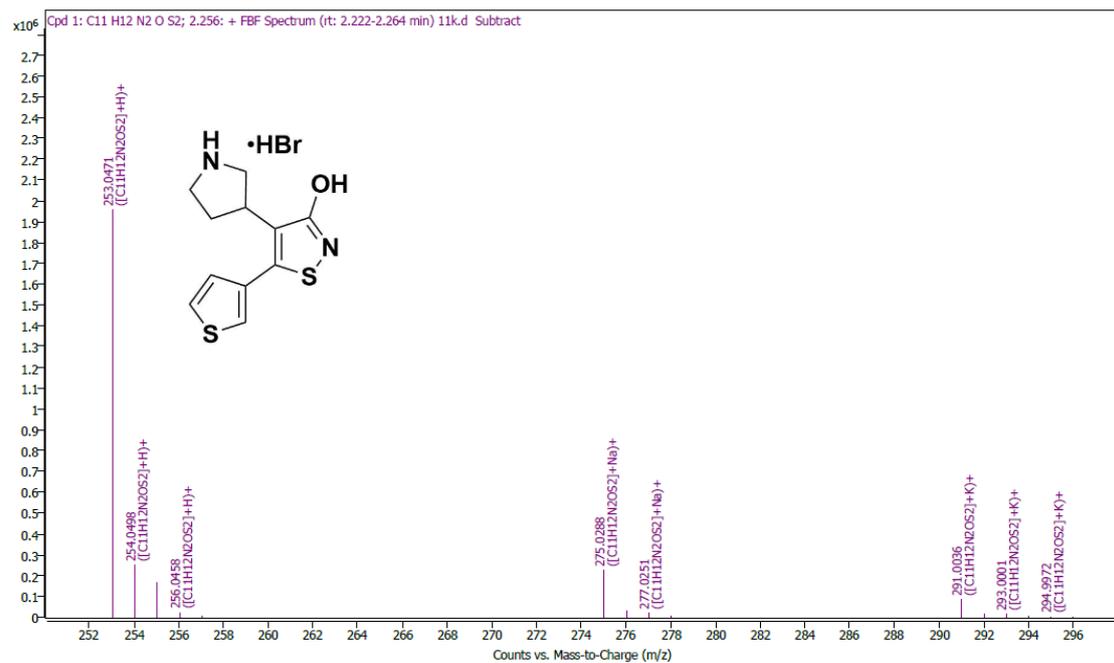


Figure S90. HRMS of compound 9k

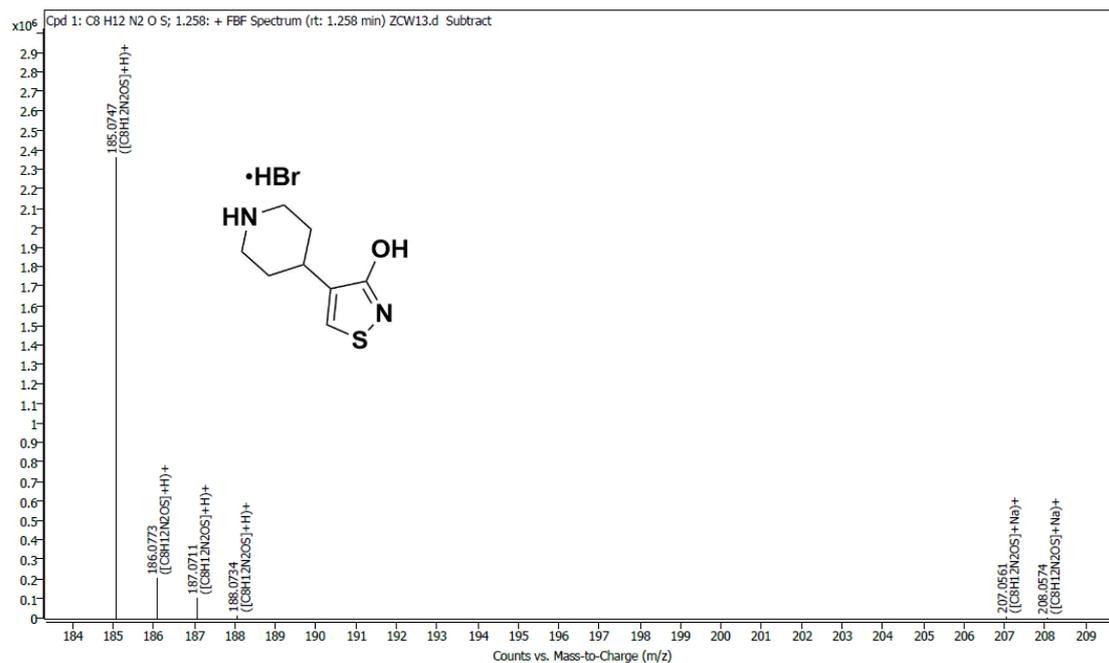


Figure S91. HRMS of compound 12

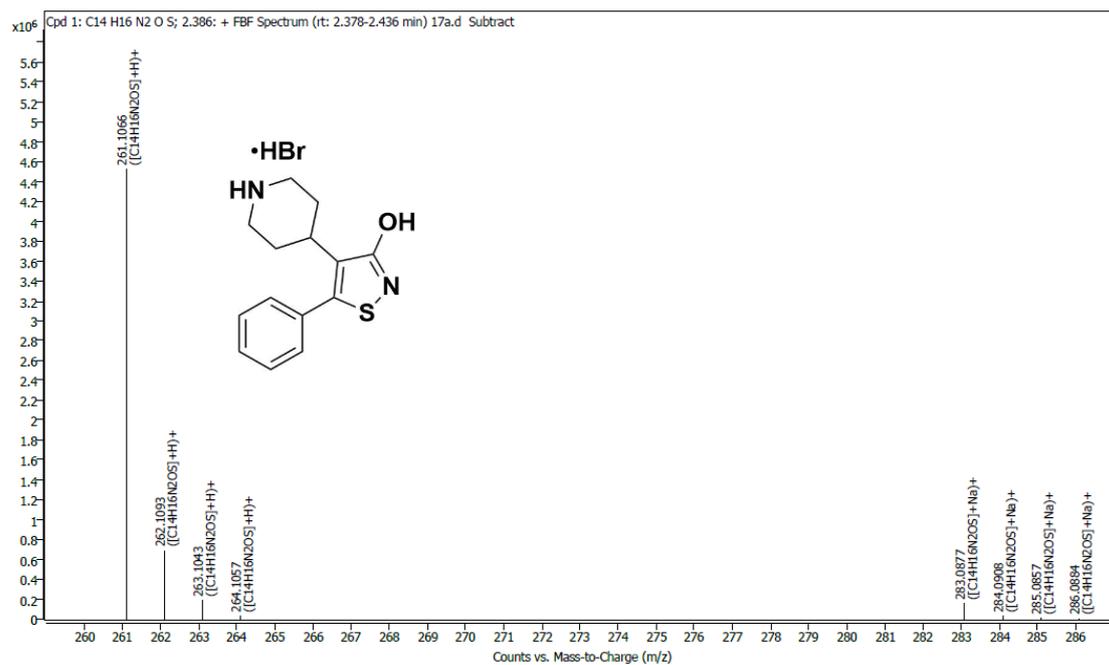


Figure S92. HRMS of compound 15a

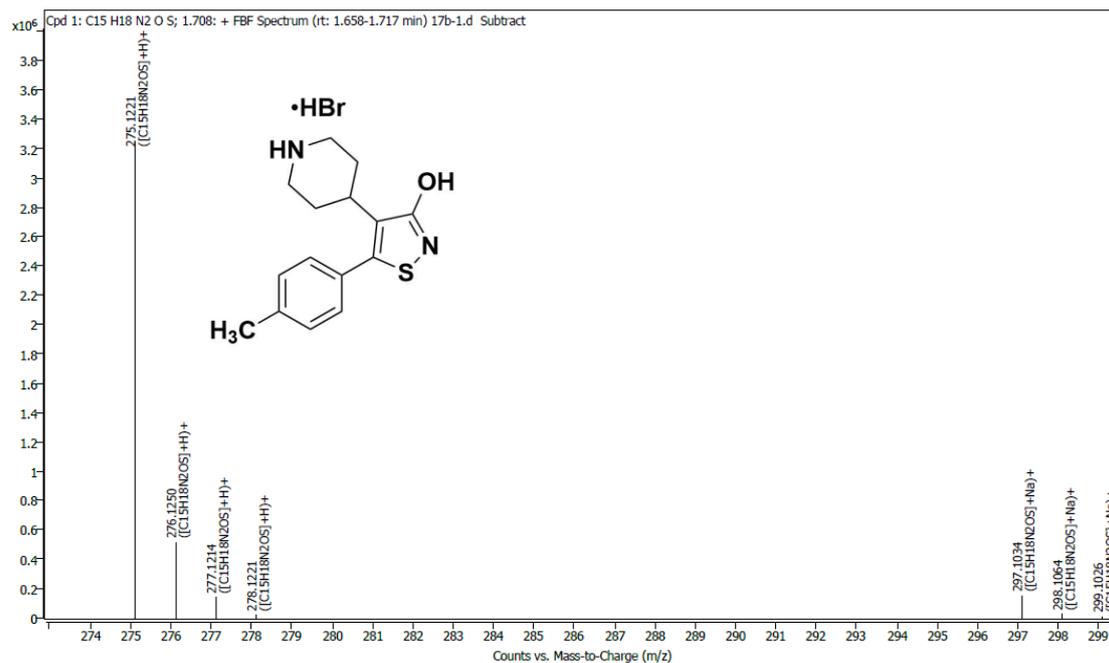


Figure S93. HRMS of compound 15b

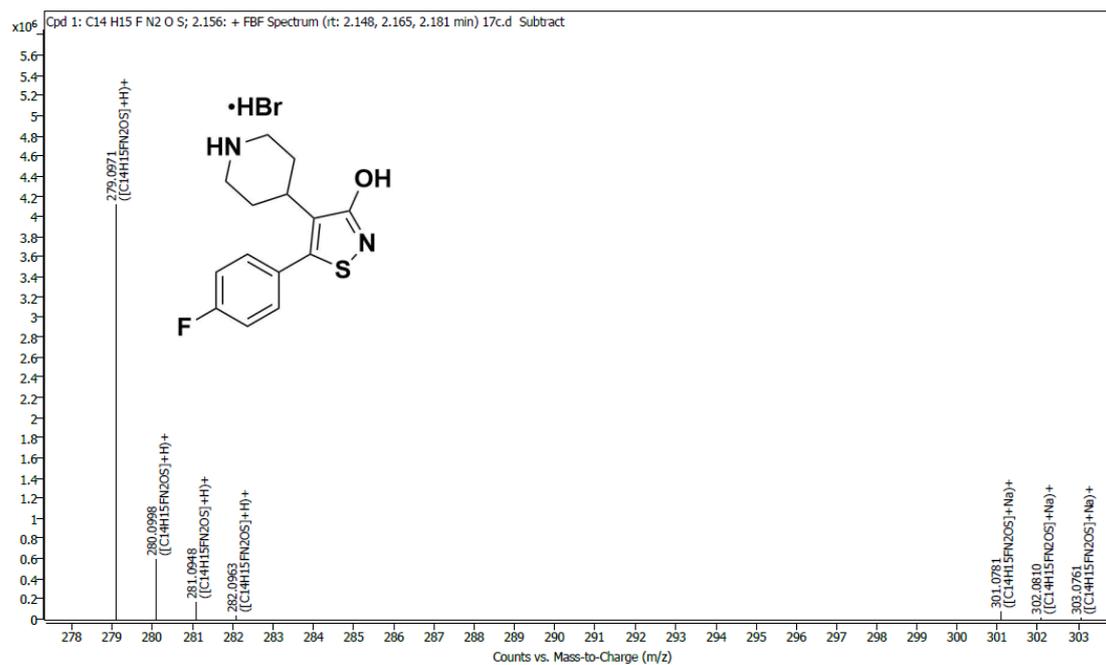


Figure S94. HRMS of compound 15c

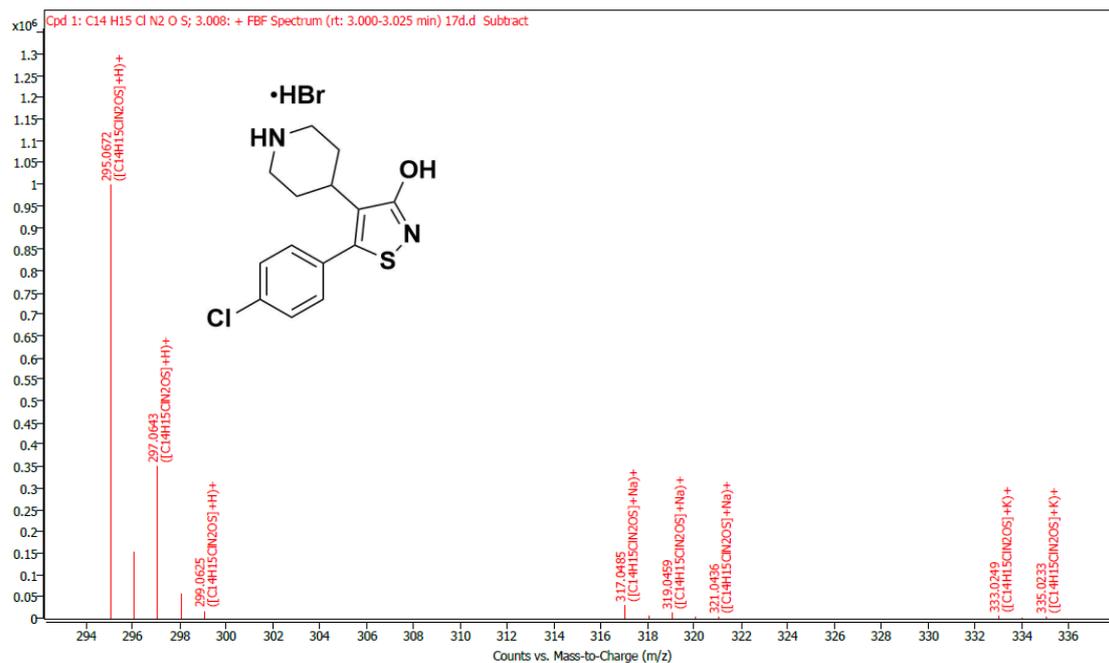


Figure S95. HRMS of compound 15d

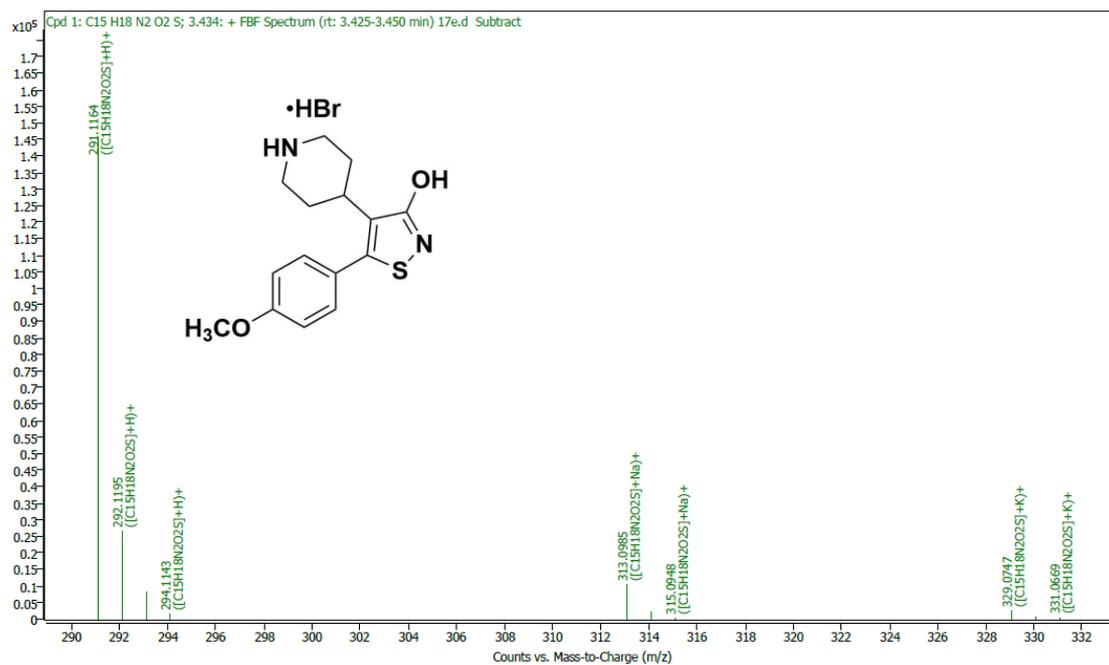


Figure S96. HRMS of compound 15e

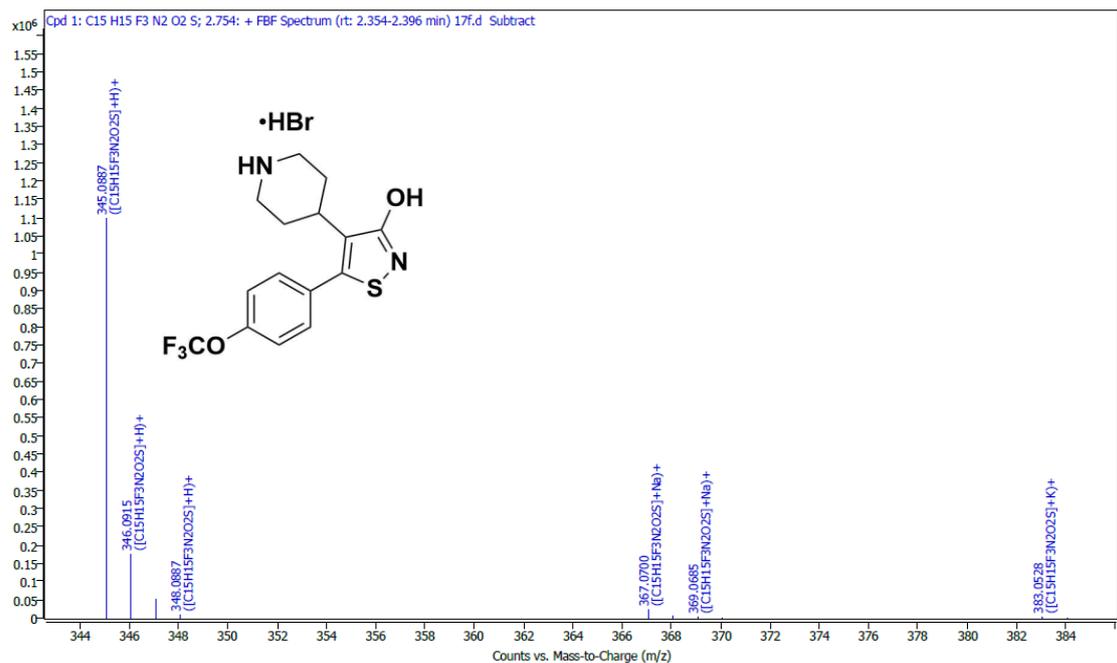


Figure S97. HRMS of compound 15f

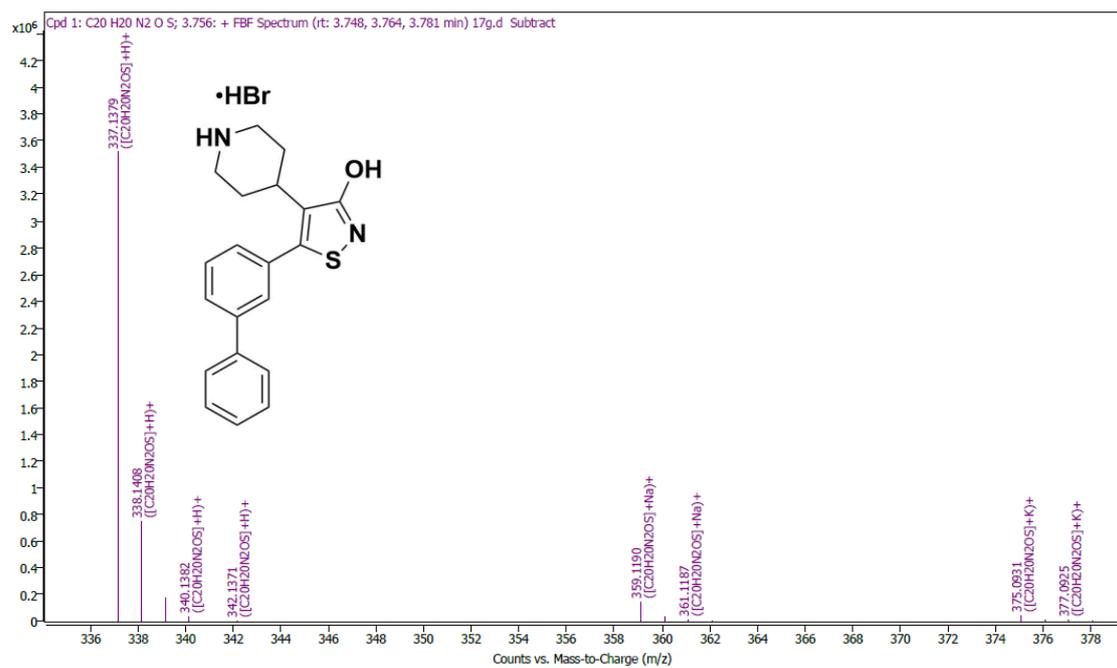


Figure S98. HRMS of compound 15g

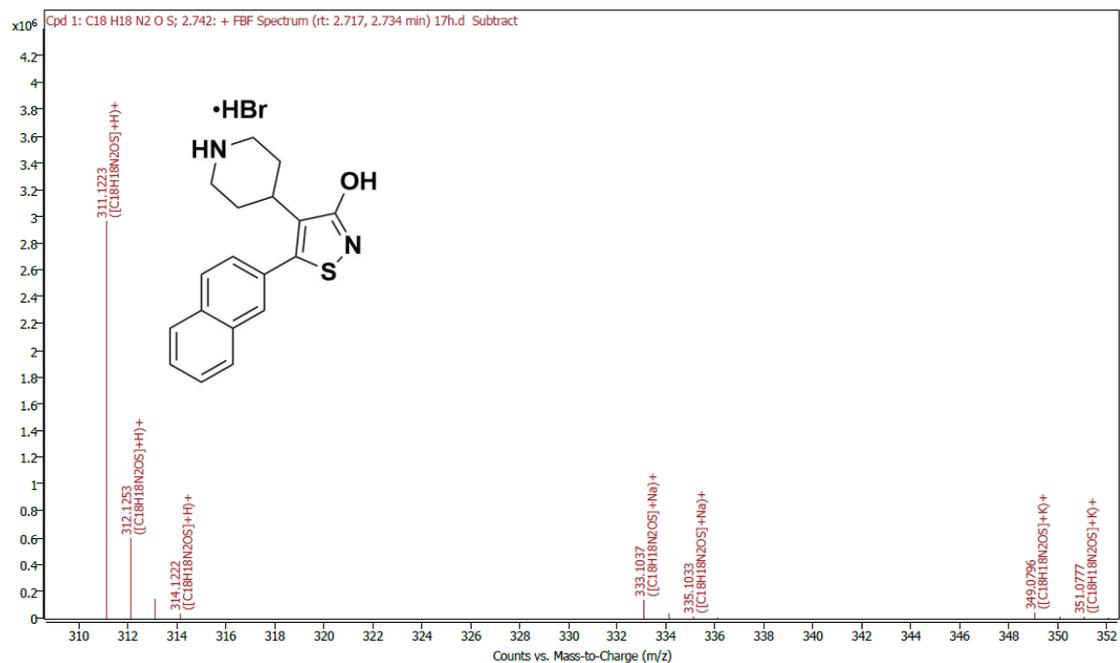


Figure S99. HRMS of compound 15h

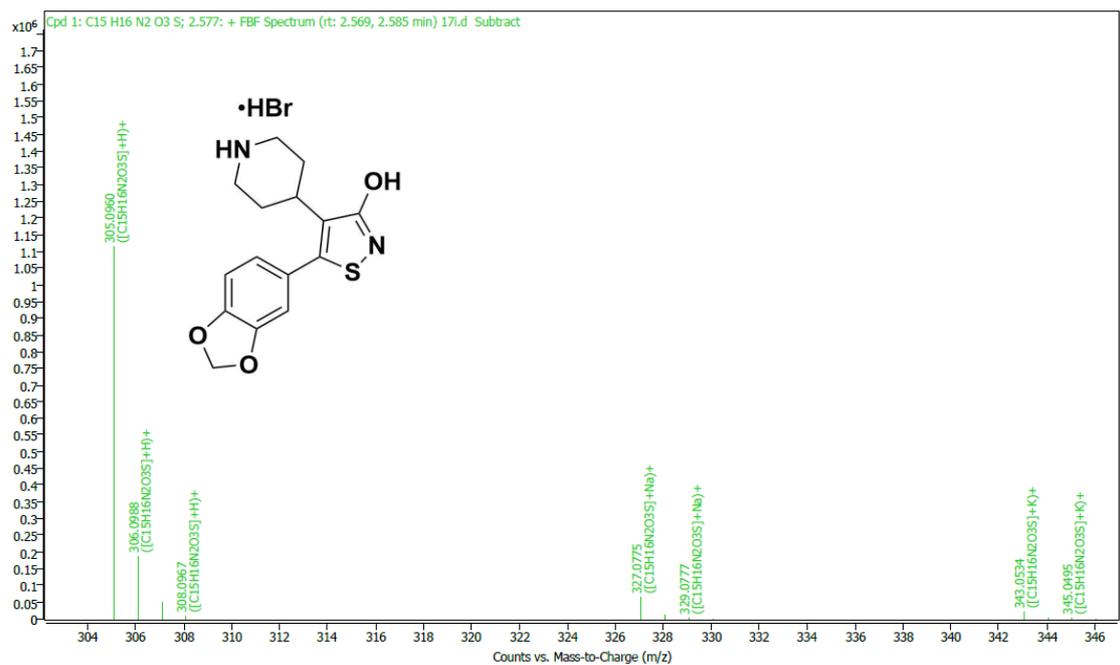


Figure S100. HRMS of compound 15i

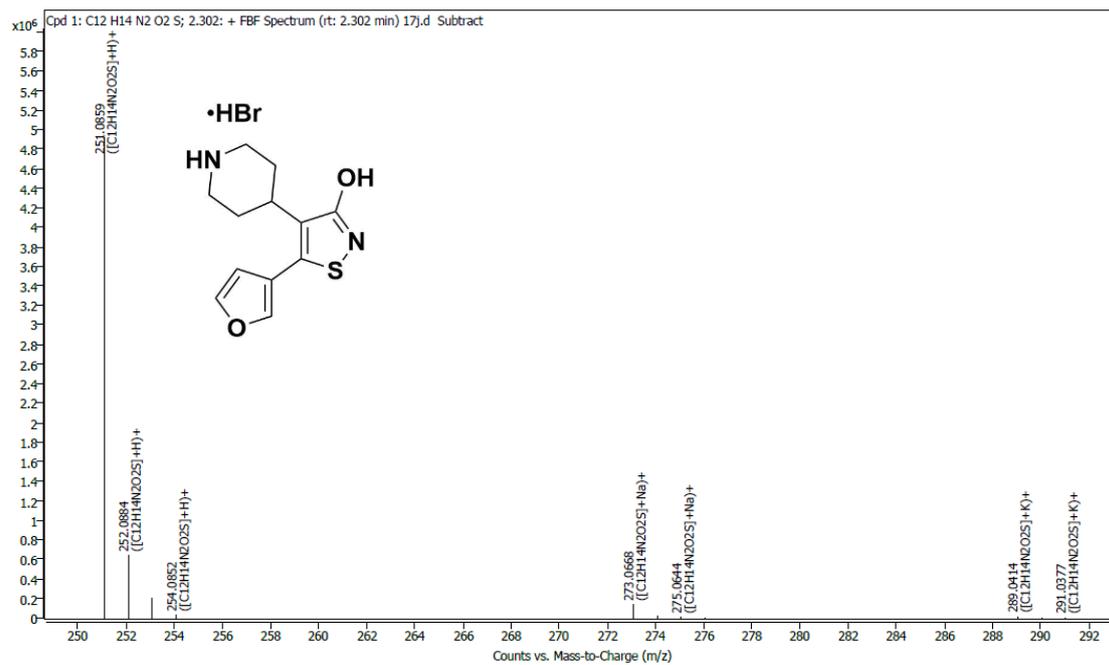


Figure S101. HRMS of compound 15j

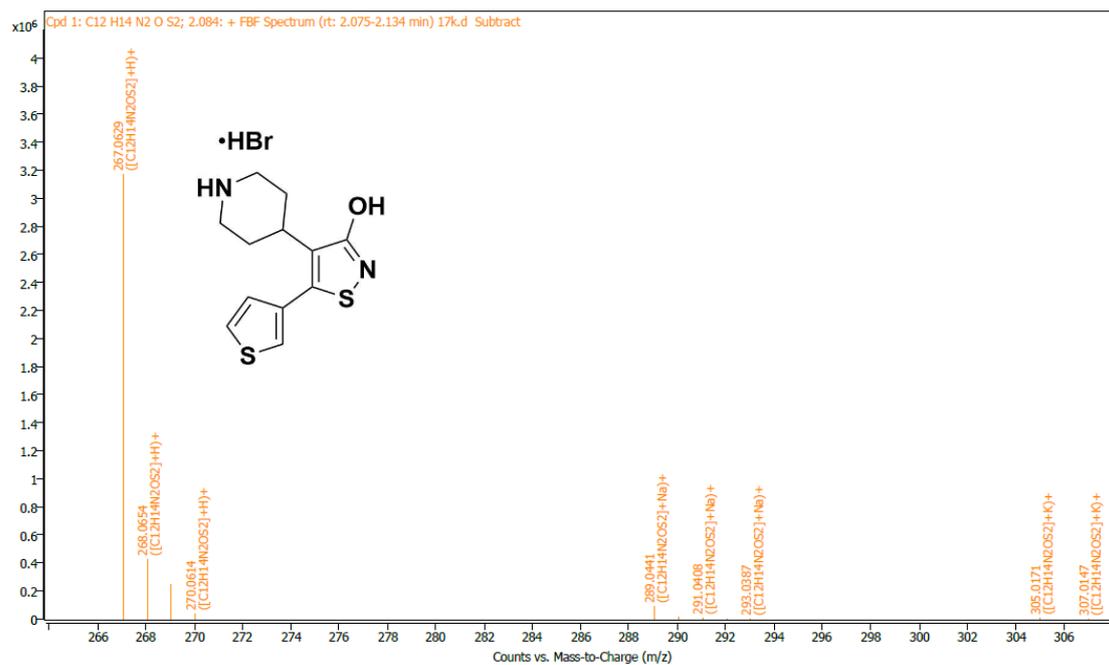


Figure S102. HRMS of compound 15k