

Synthesis and insecticidal activity of novel anthranilic diamide insecticides containing indane and its analogs

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Supporting Information

Contents:

1. ^1H NMR and ^{13}C NMR spectra of target compounds **8a–8u**;
2. Safety assessment data of compound **8q** and chlorantraniliprole.

1. ^1H NMR and ^{13}C NMR spectra of target compounds 8a–8u.

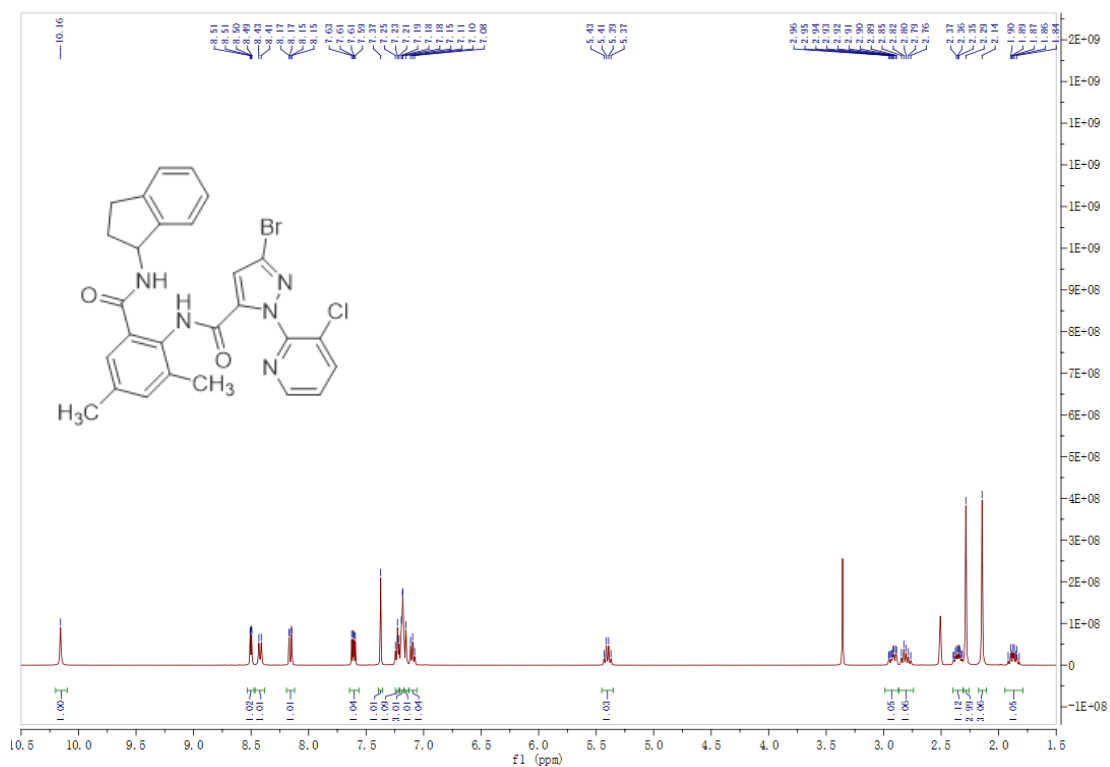


Figure S1. The ^1H NMR spectrum of 8a ($\text{DMSO}-d_6$).

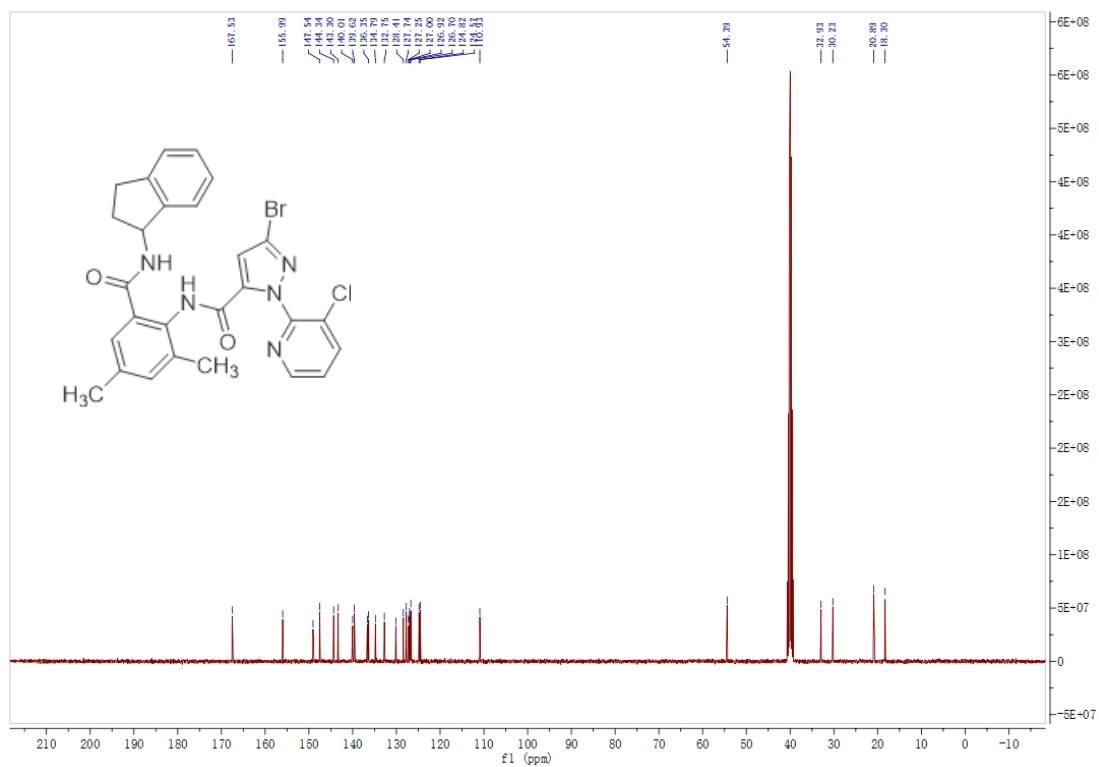


Figure S2. The ^{13}C NMR spectrum of 8a ($\text{DMSO}-d_6$).

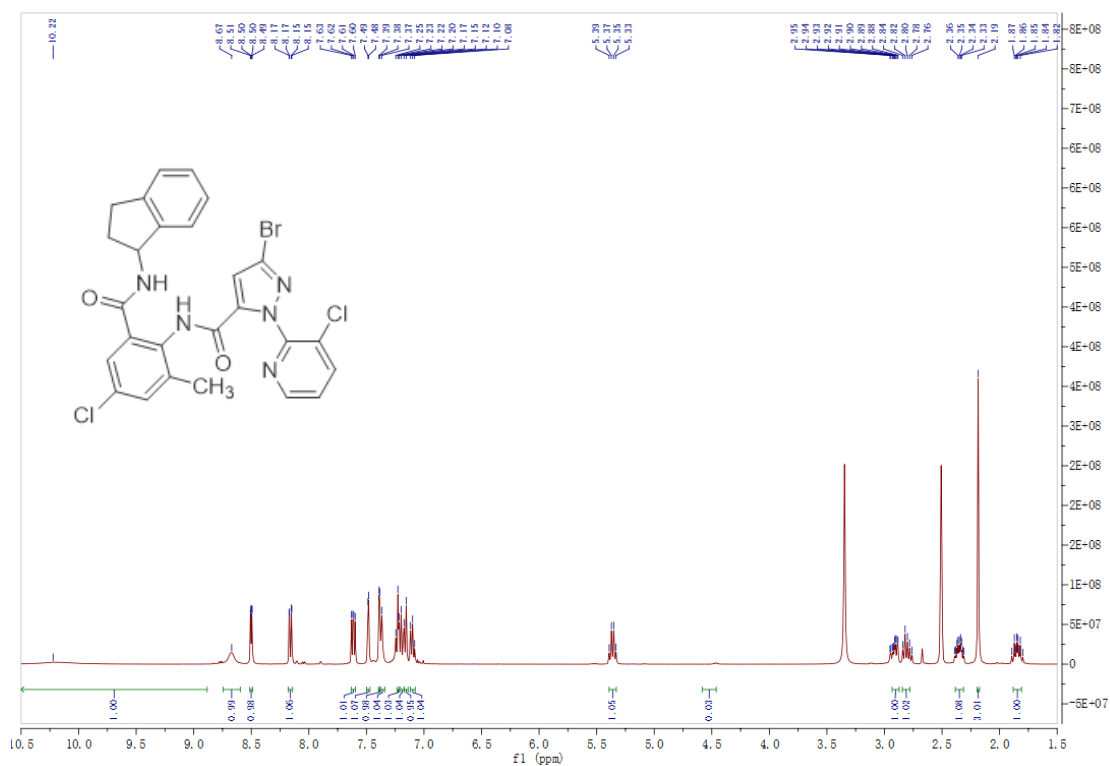


Figure S3. The ^1H NMR spectrum of **8b** (DMSO- d_6).

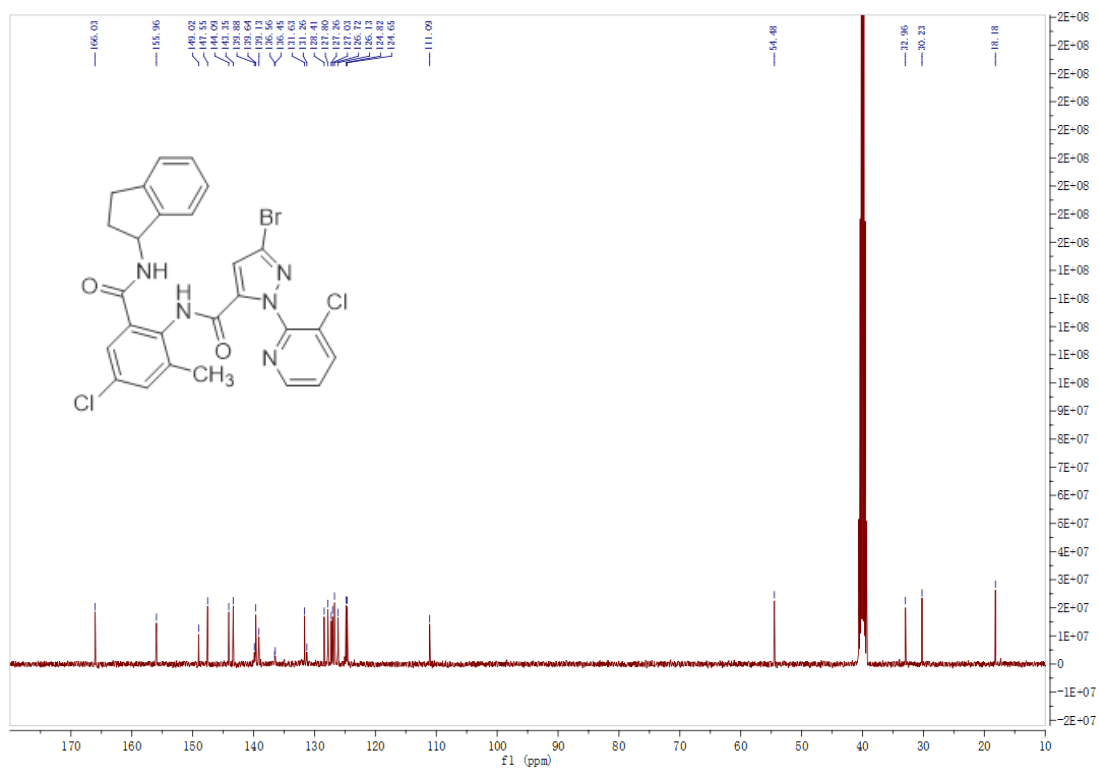


Figure S4. The ^{13}C NMR spectrum of **8b** (DMSO- d_6).

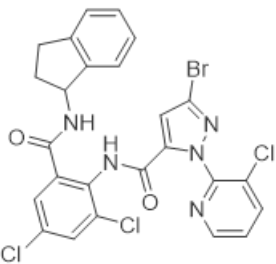


Figure S5. The ^1H NMR spectrum of **8c** ($\text{DMSO-}d_6$).

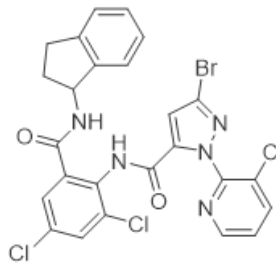


Figure S6. The ^{13}C NMR spectrum of **8c** (DMSO- d_6).

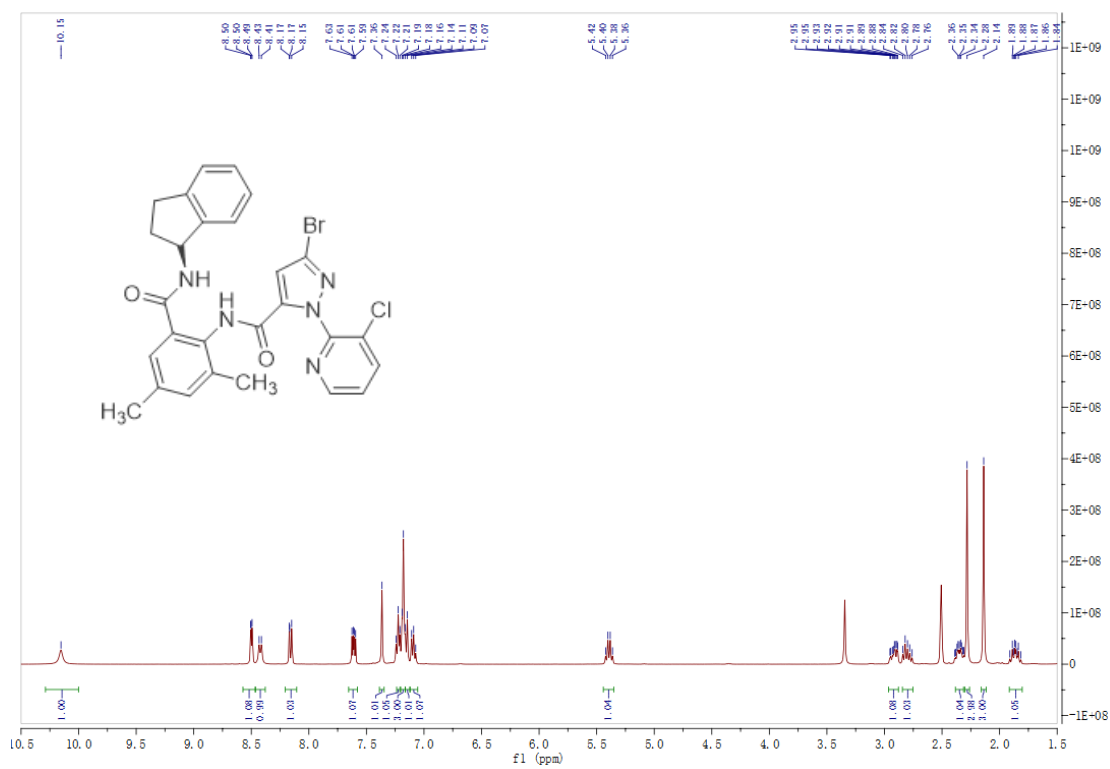


Figure S7. The ¹H NMR spectrum of 8d (DMSO-*d*₆).

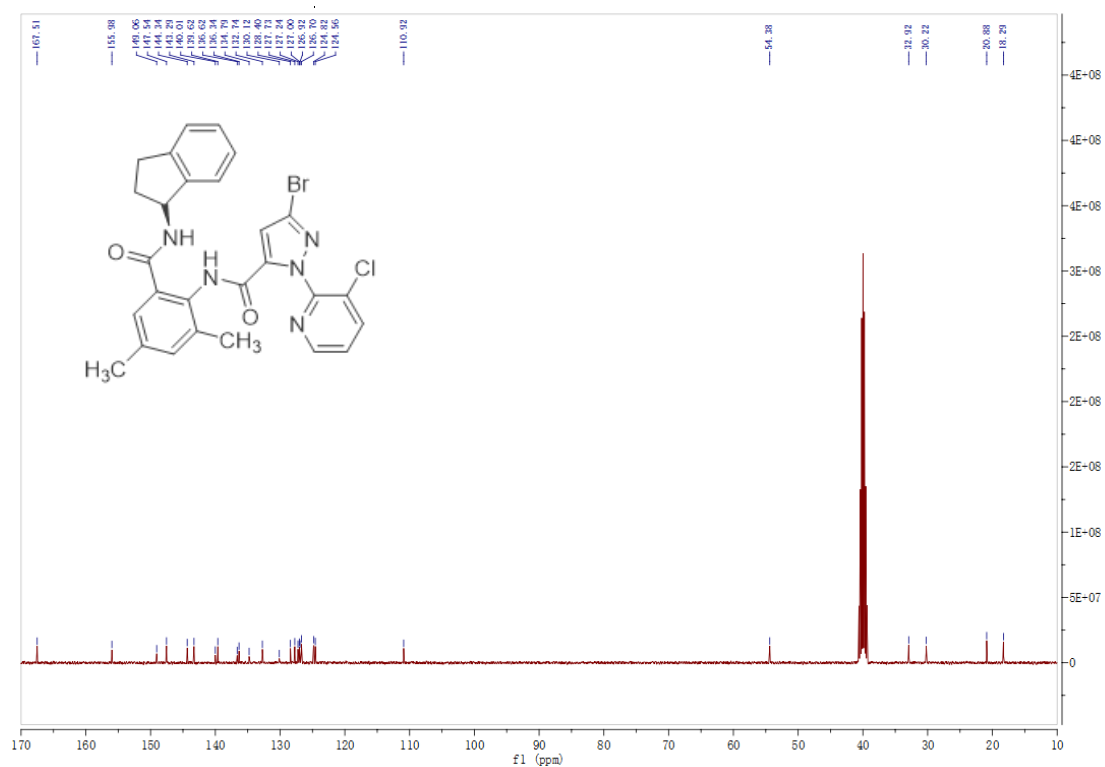


Figure S8. The ¹³C NMR spectrum of 8d (DMSO-*d*₆).

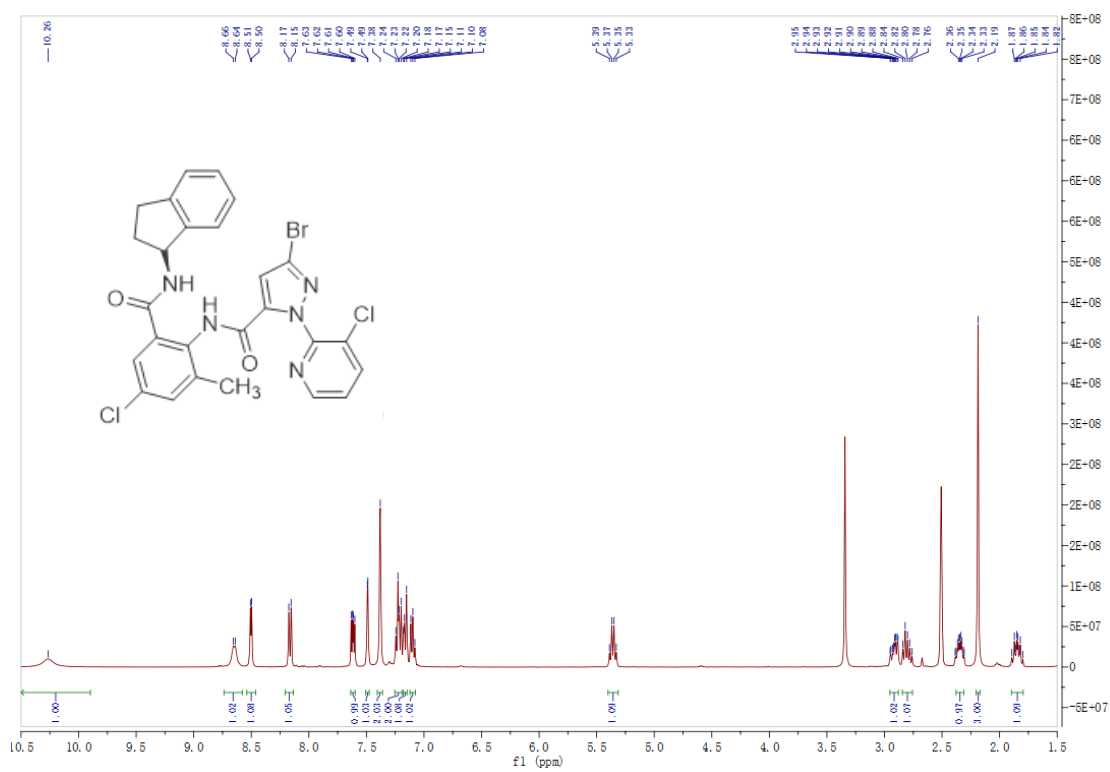


Figure S9. The ^1H NMR spectrum of **8e** (DMSO- d_6).

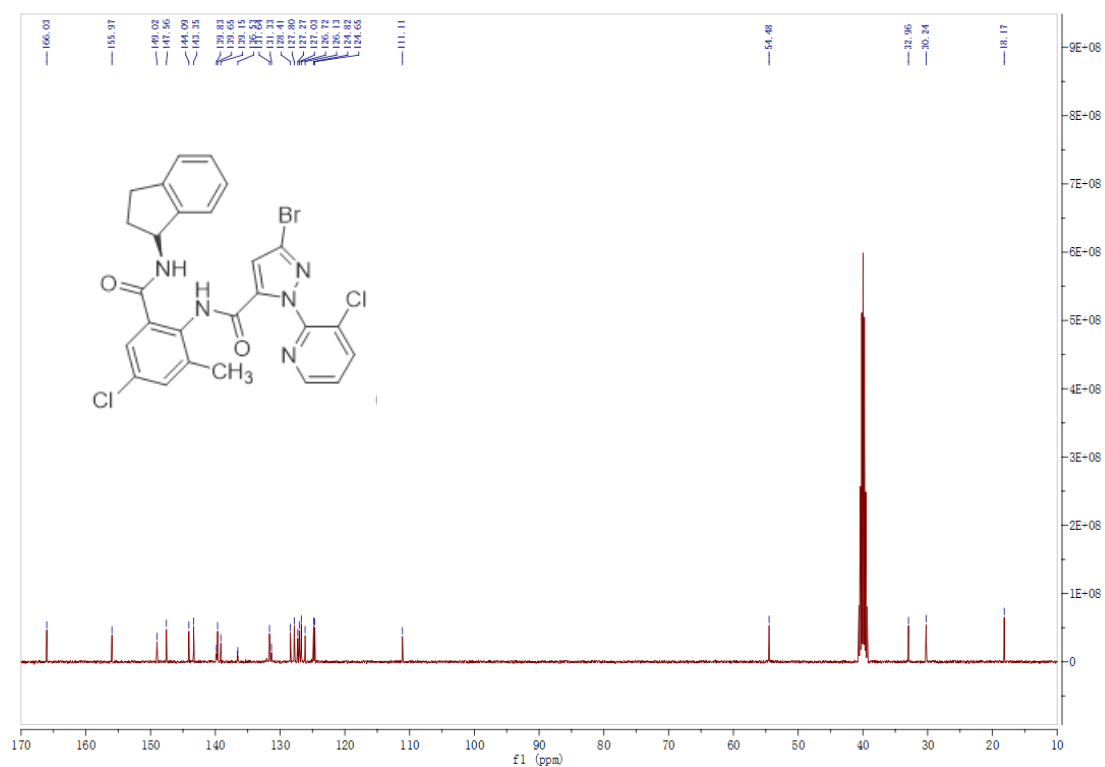


Figure S10. The ^{13}C NMR spectrum of **8e** (DMSO- d_6).

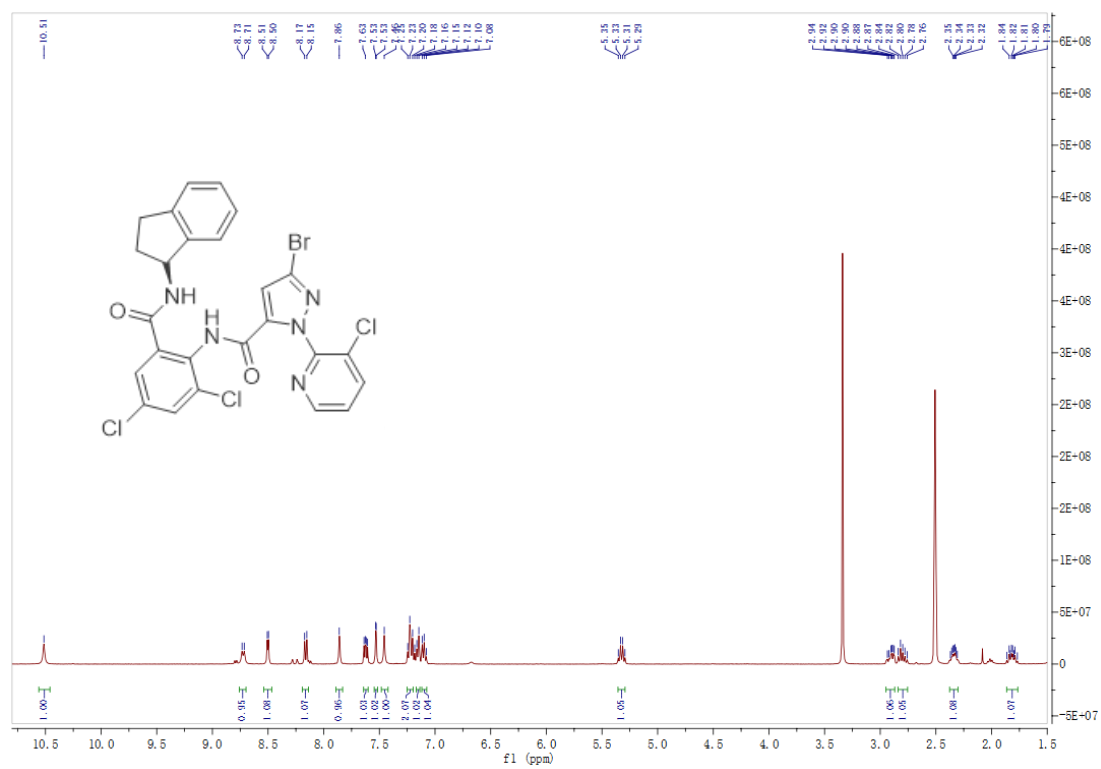


Figure S11. The ¹H NMR spectrum of 8f (DMSO-*d*₆).

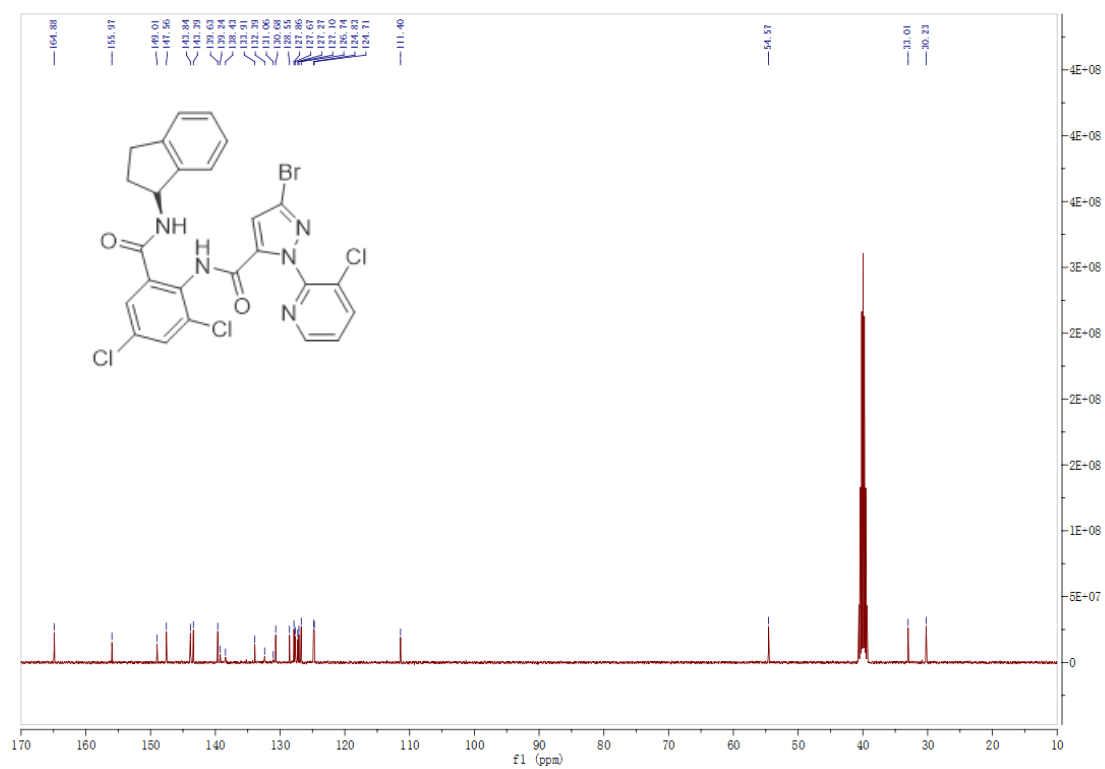


Figure S12. The ¹³C NMR spectrum of 8f (DMSO-*d*₆).

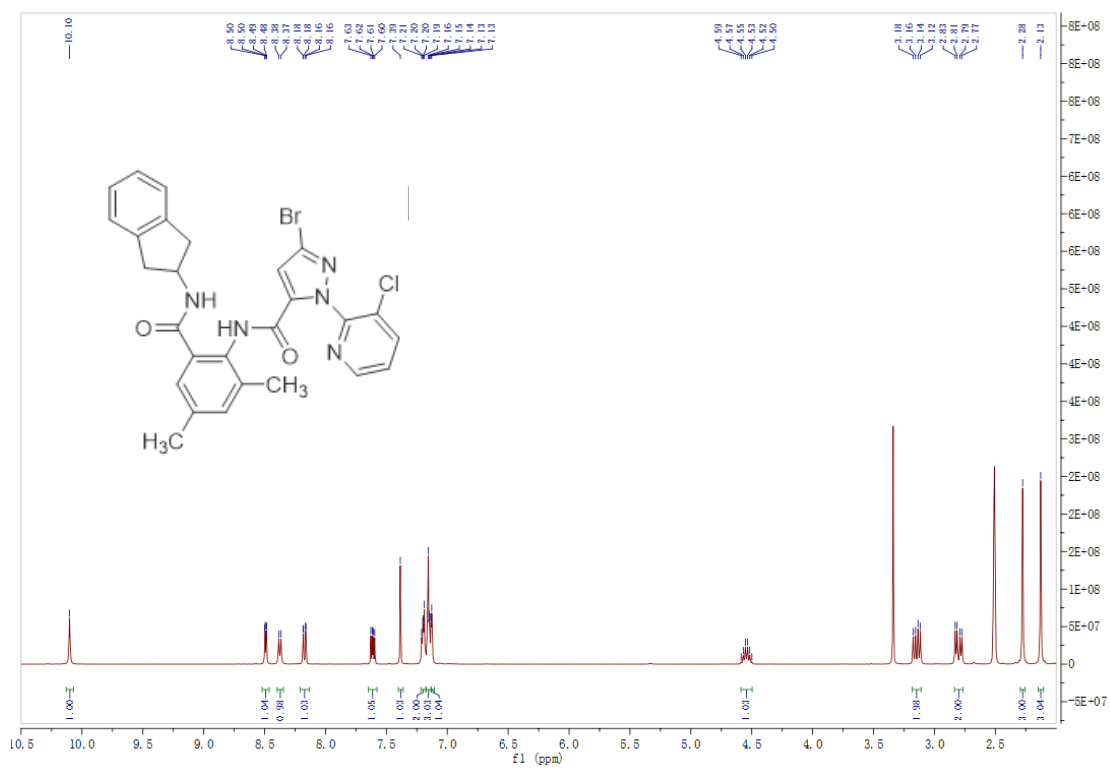


Figure S13. The ¹H NMR spectrum of **8g** (DMSO-*d*₆).

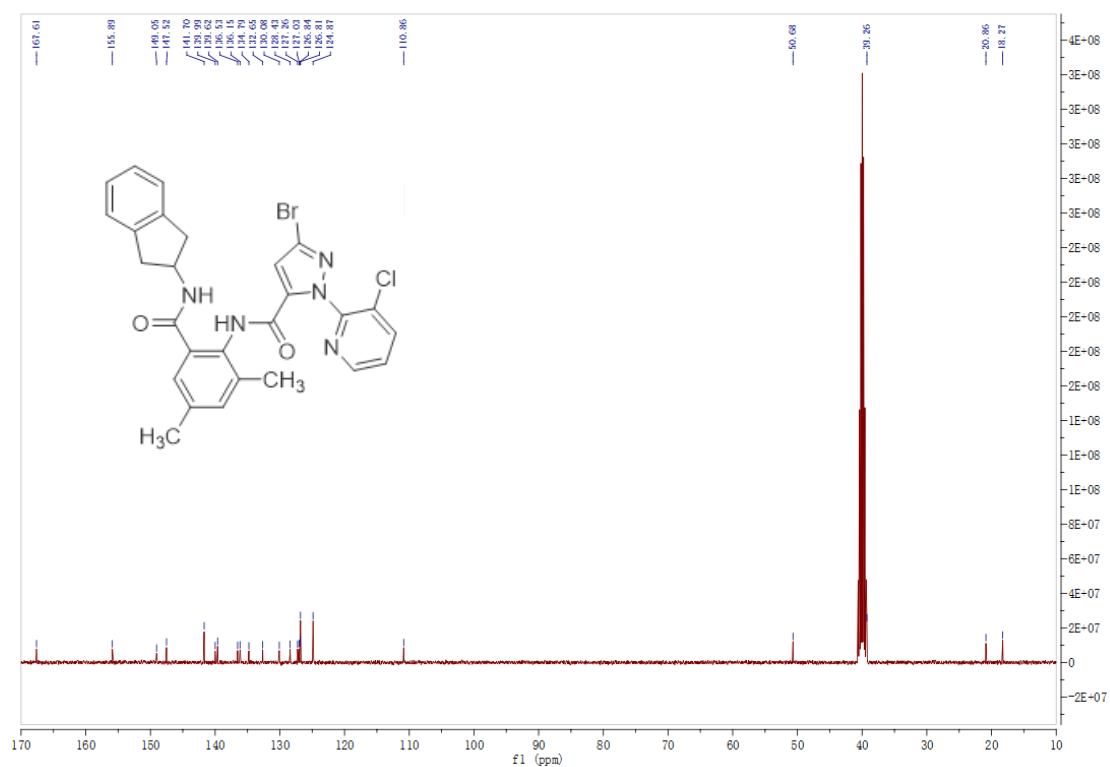


Figure S14. The ¹³C NMR spectrum of **8g** (DMSO-*d*₆).

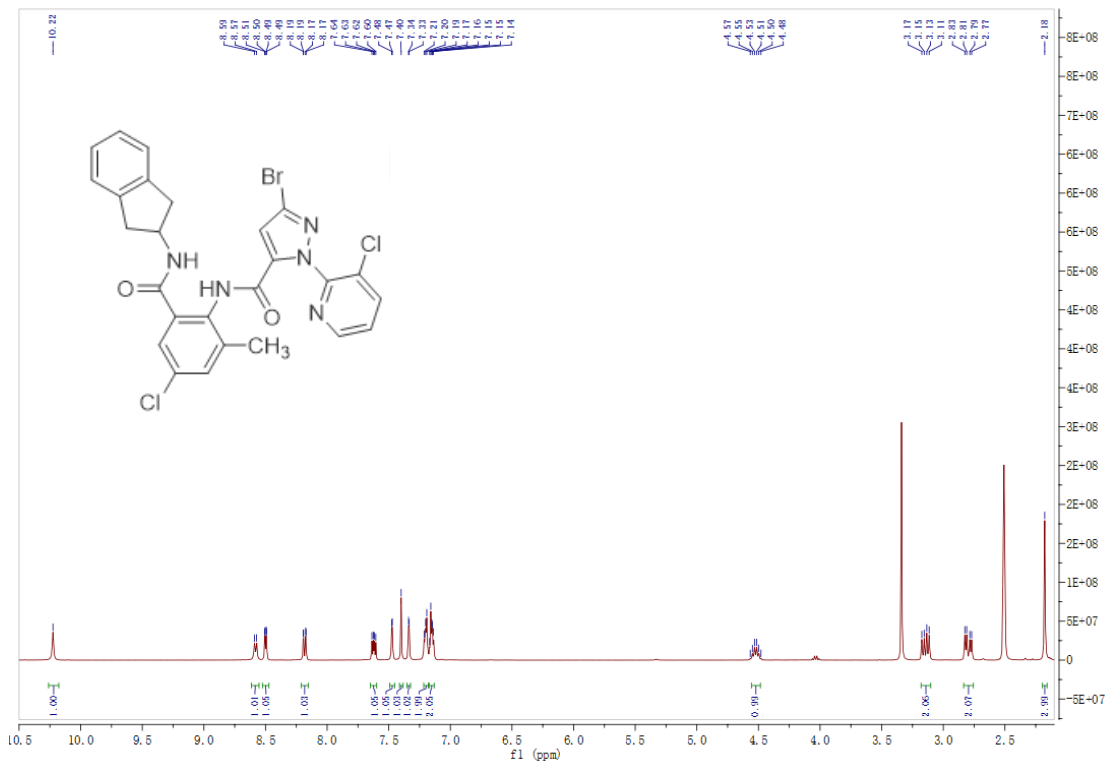


Figure S15. The ^1H NMR spectrum of **8h** (DMSO- d_6).

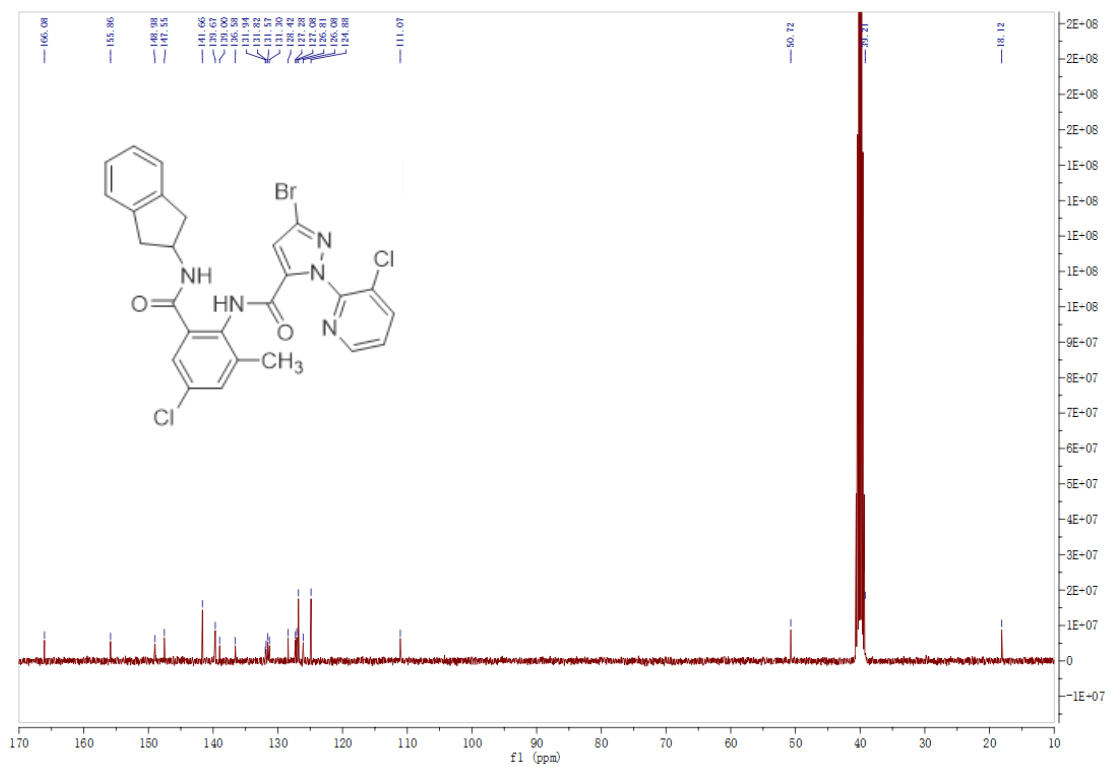
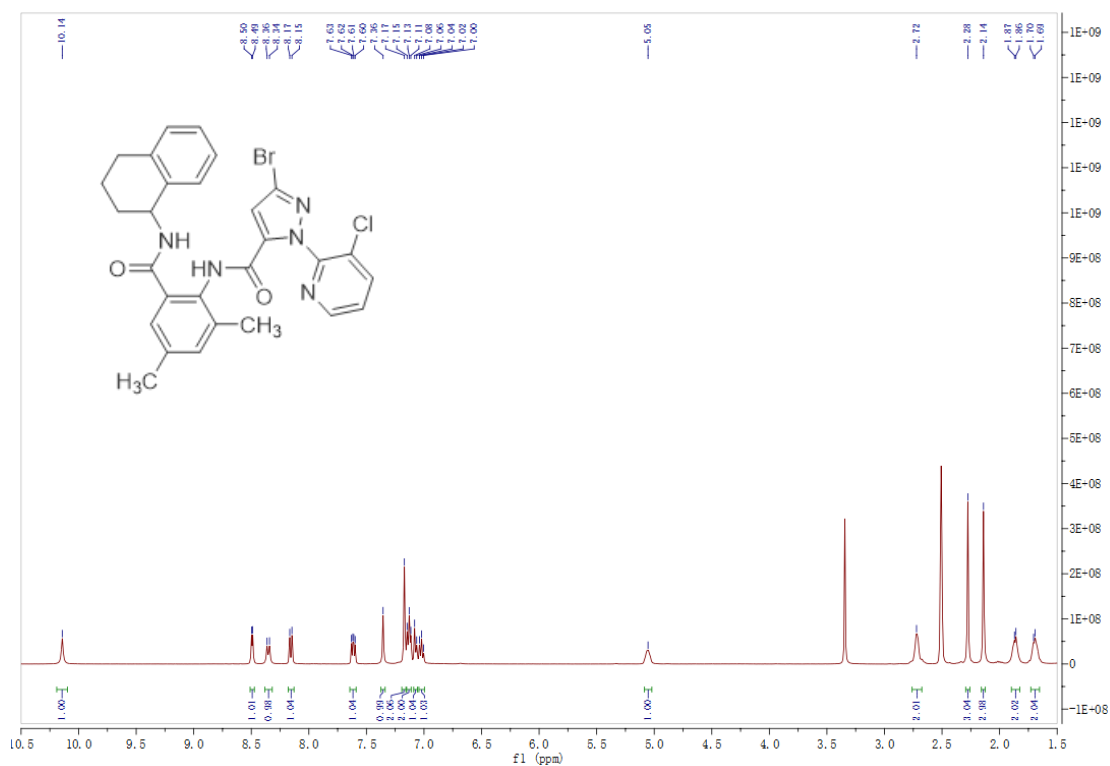


Figure S16. The ^{13}C NMR spectrum of **8h** (DMSO- d_6).



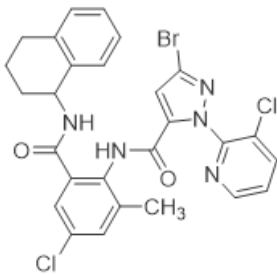


Figure S21. The ^1H NMR spectrum of **8k** ($\text{DMSO}-d_6$).

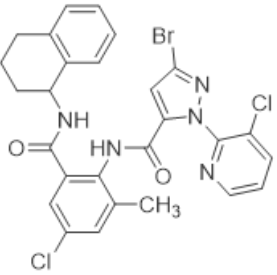


Figure S22. The ^{13}C NMR spectrum of **8k** ($\text{DMSO}-d_6$).

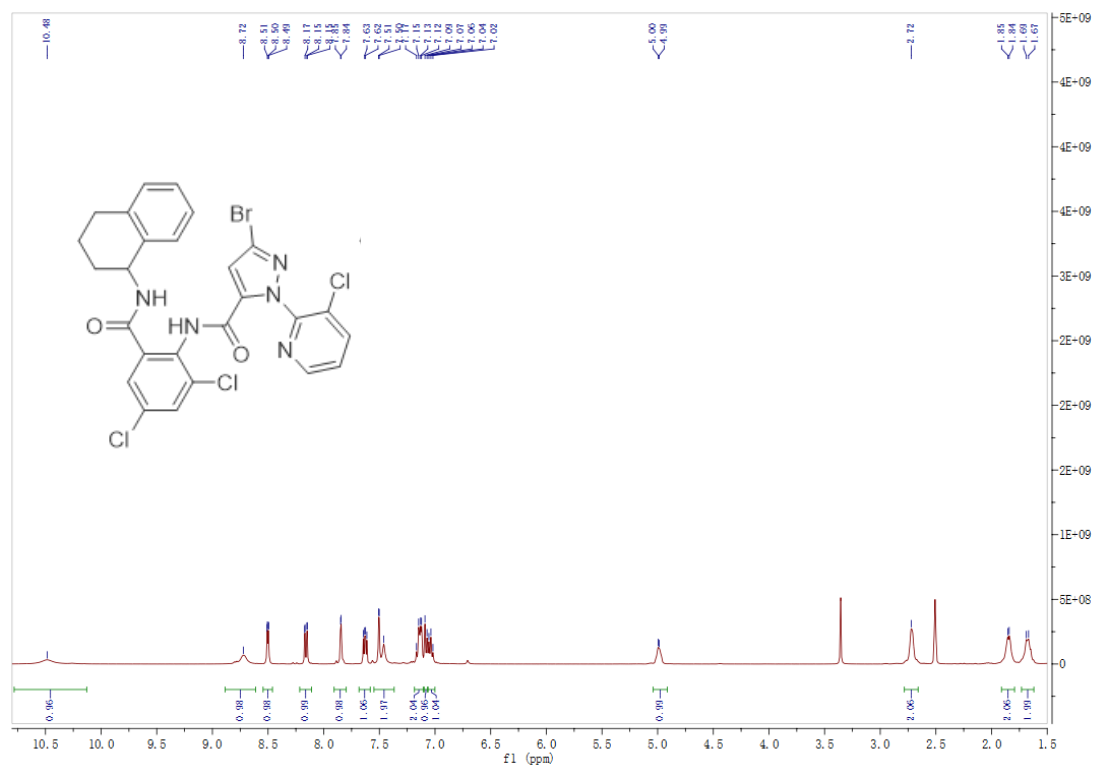


Figure S23. The ¹H NMR spectrum of 8l (DMSO-*d*₆).

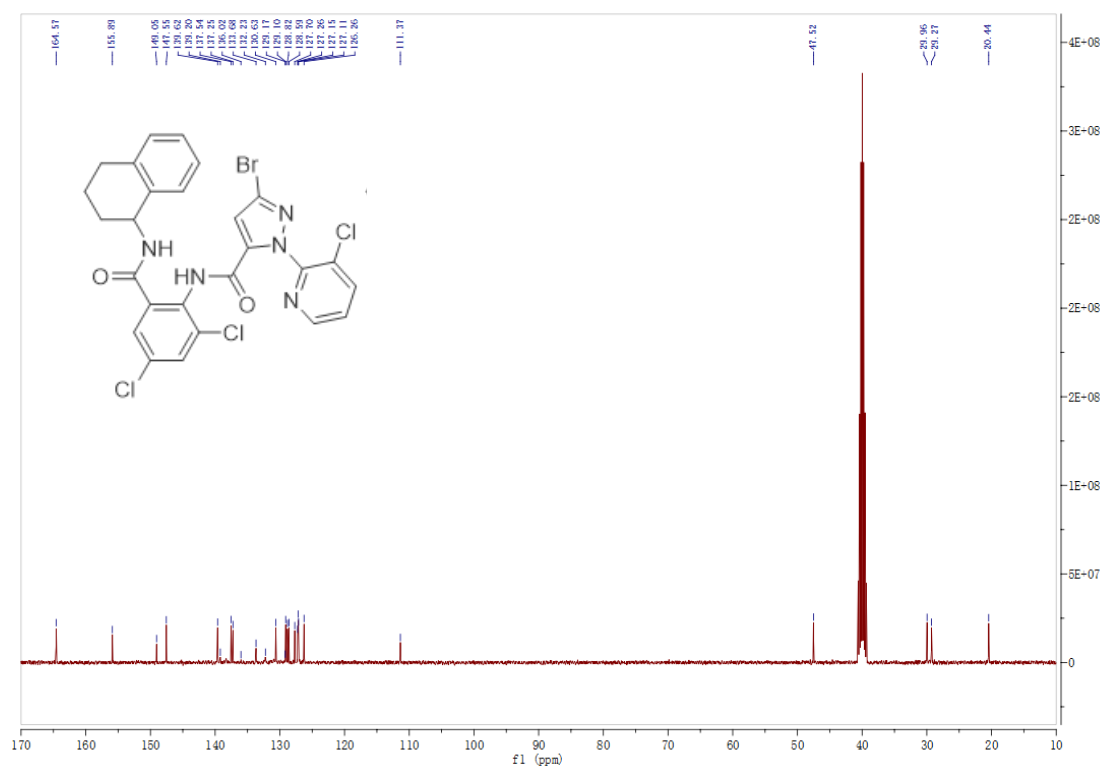


Figure S24. The ¹³C NMR spectrum of 8l (DMSO-*d*₆).

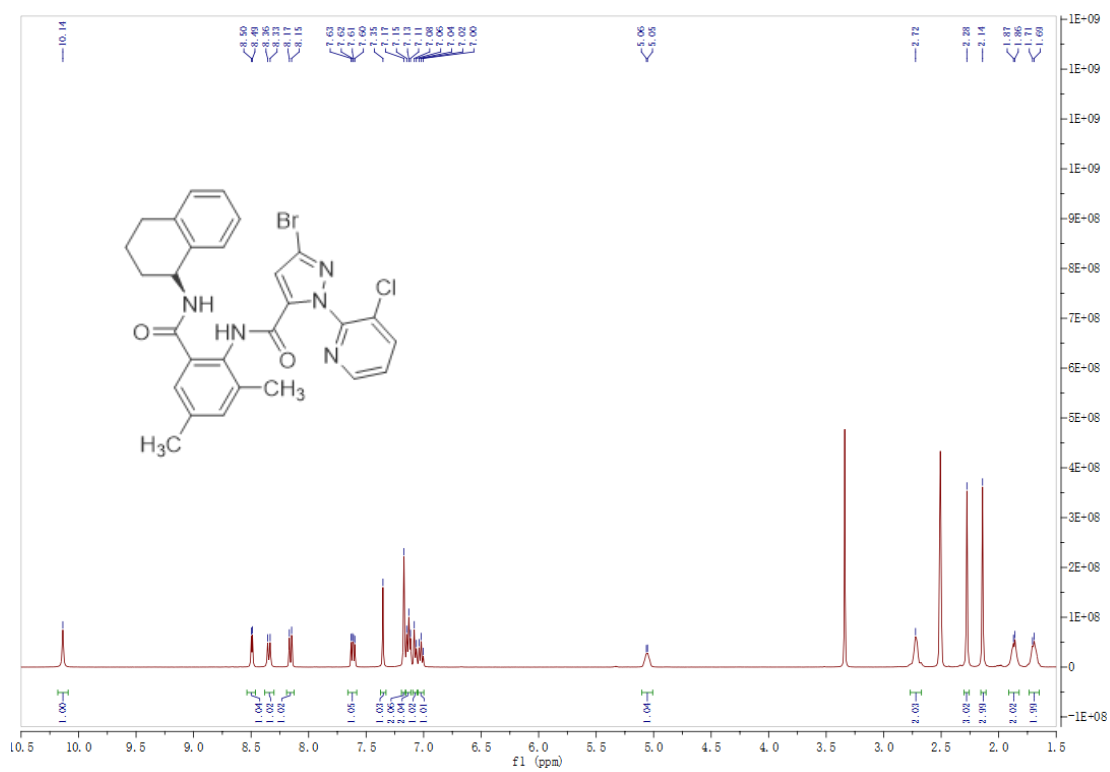


Figure S25. The ^1H NMR spectrum of **8m** (DMSO- d_6).

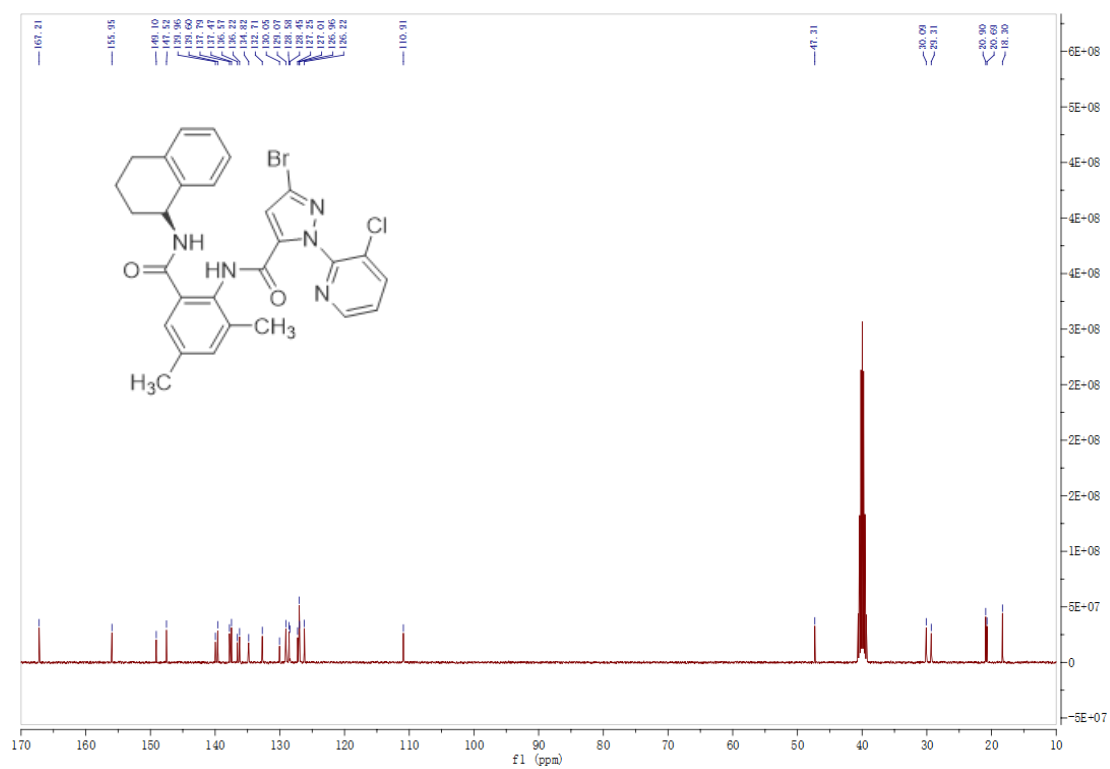


Figure S26. The ^{13}C NMR spectrum of **8m** (DMSO- d_6).

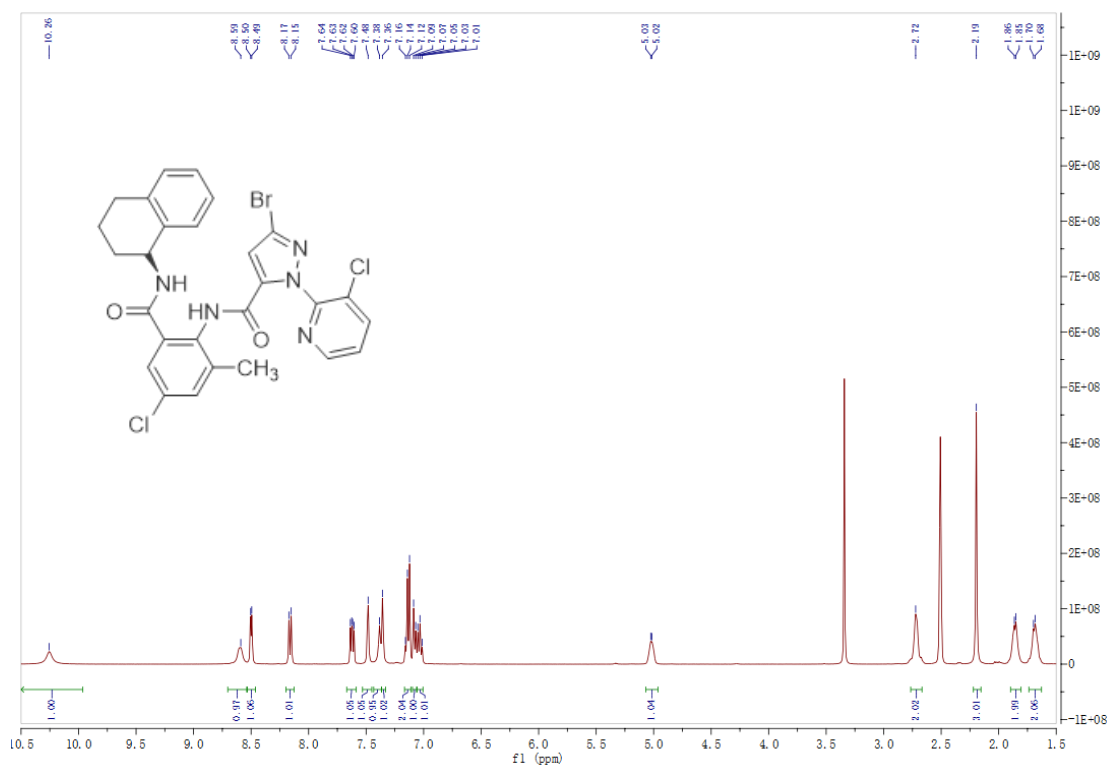


Figure S27. The ¹H NMR spectrum of **8n** (DMSO-*d*₆).

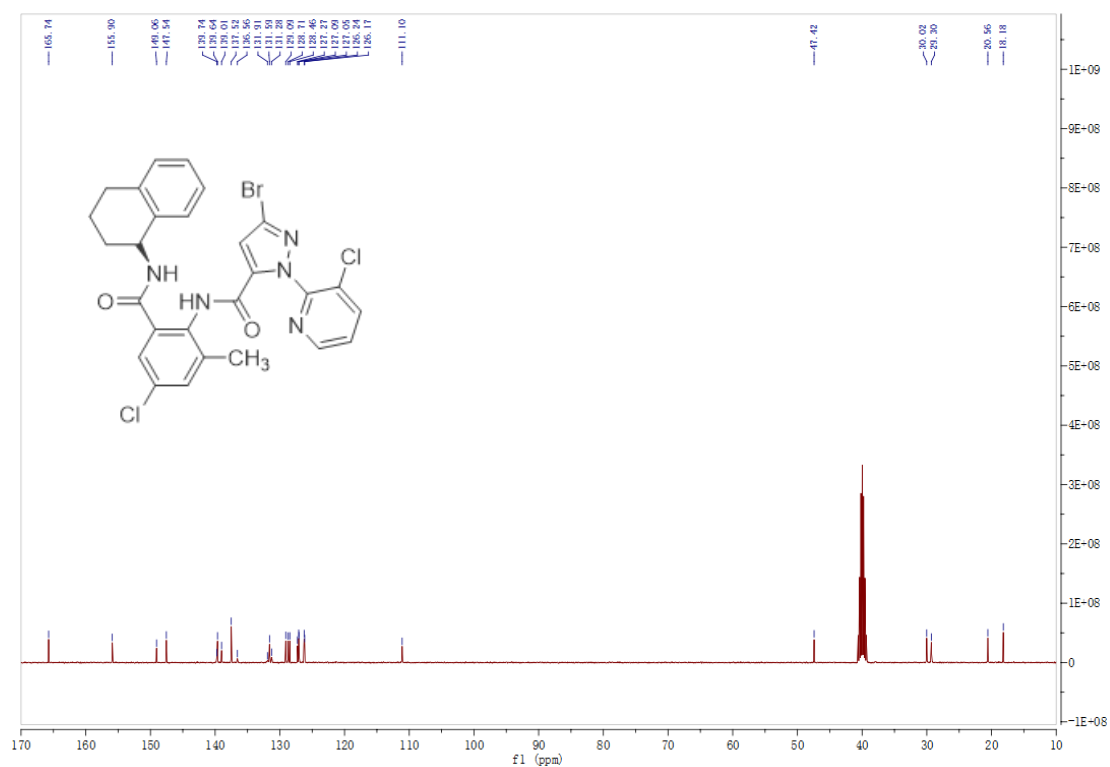


Figure S28. The ¹³C NMR spectrum of **8n** (DMSO-*d*₆).

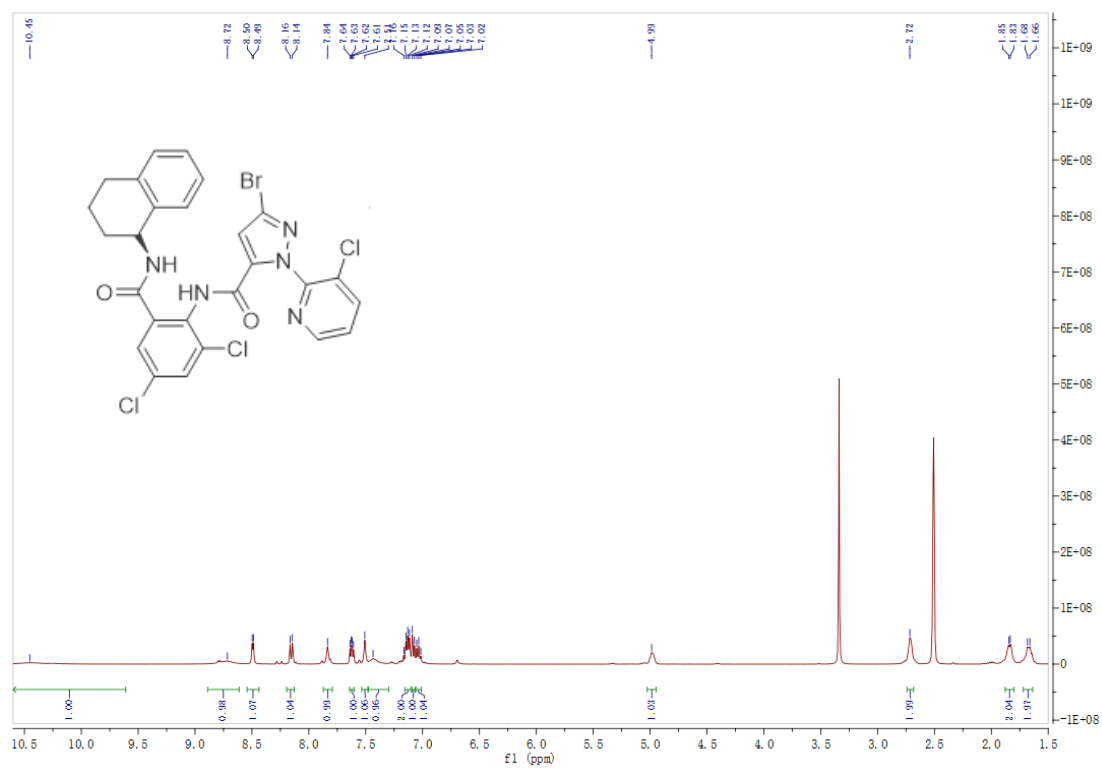


Figure S29. The ^1H NMR spectrum of **8o** (DMSO- d_6).

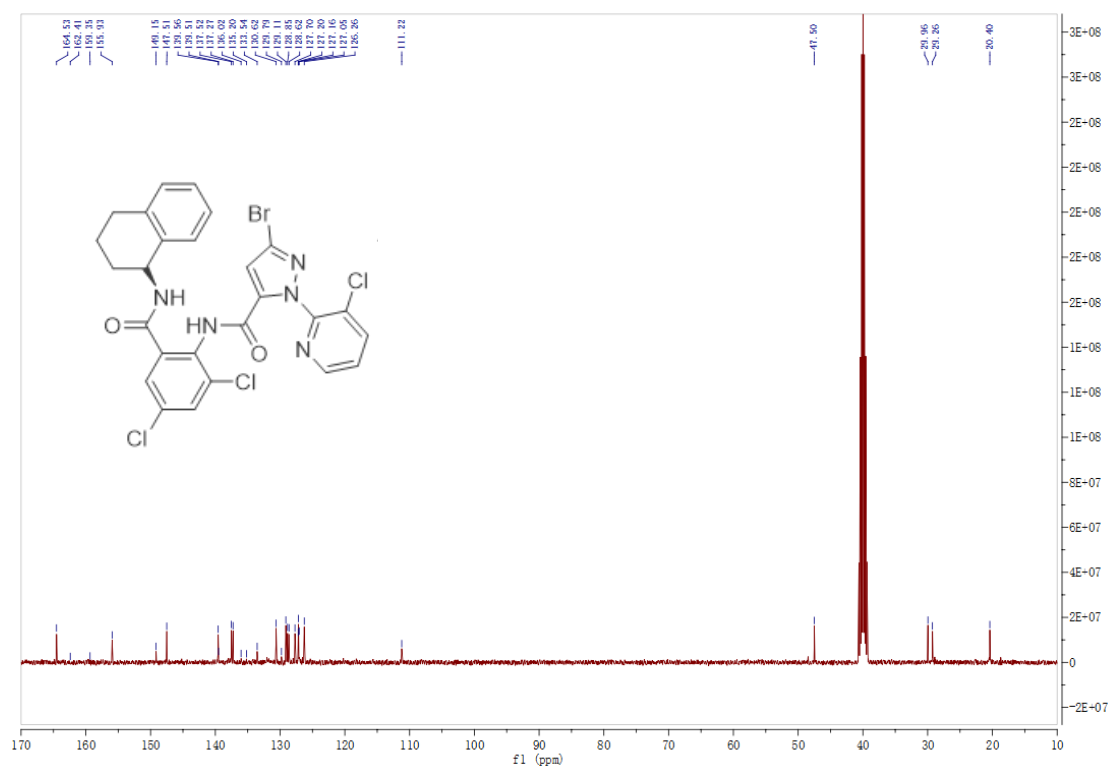


Figure S30. The ^{13}C NMR spectrum of **8o** (DMSO- d_6).

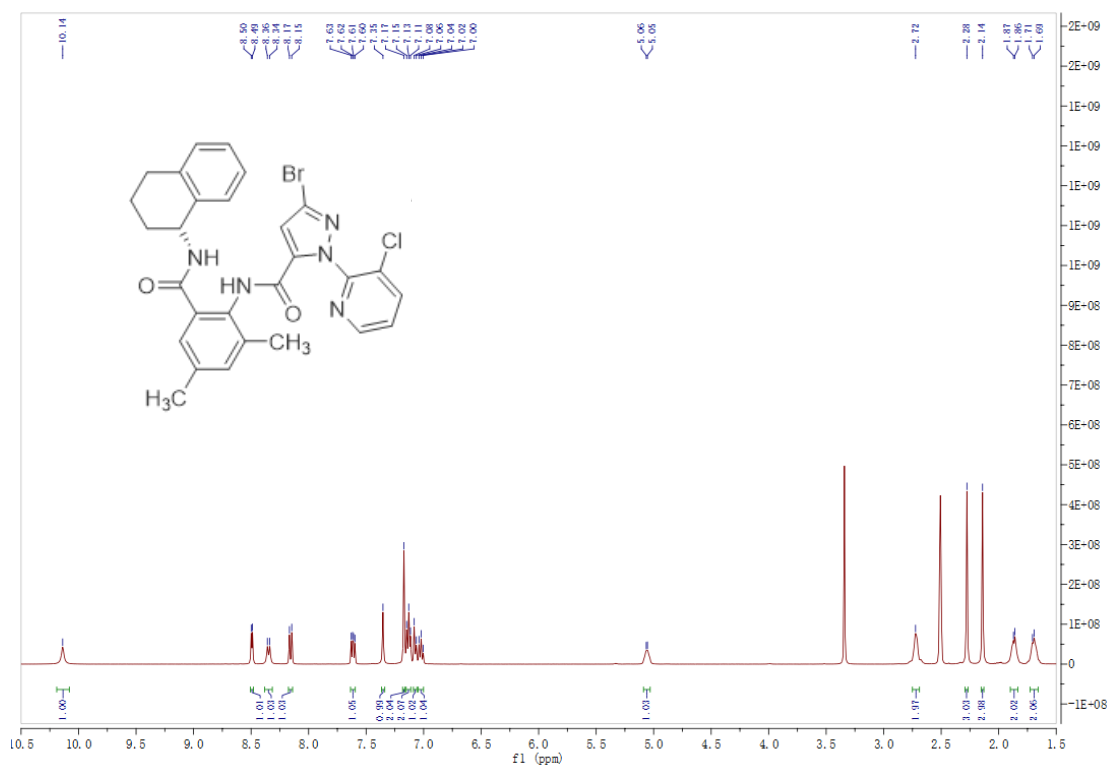


Figure S31. The ¹H NMR spectrum of **8p** (DMSO-*d*₆).

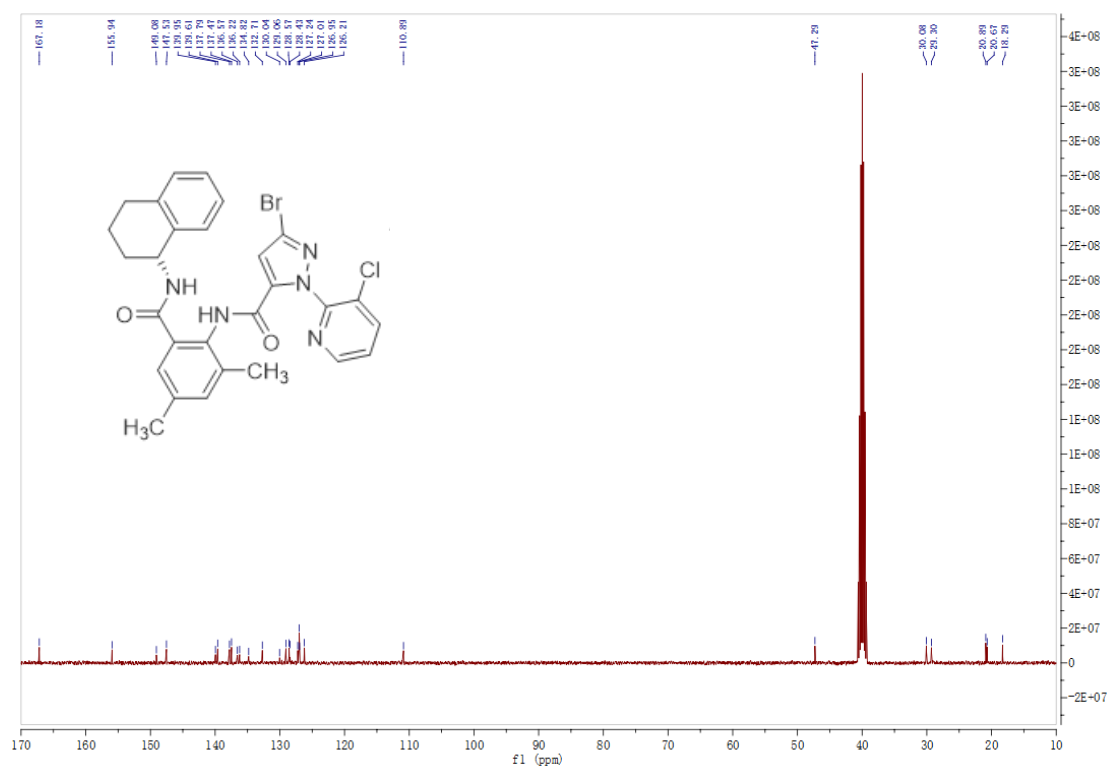


Figure S32. The ¹³C NMR spectrum of **8p** (DMSO-*d*₆).

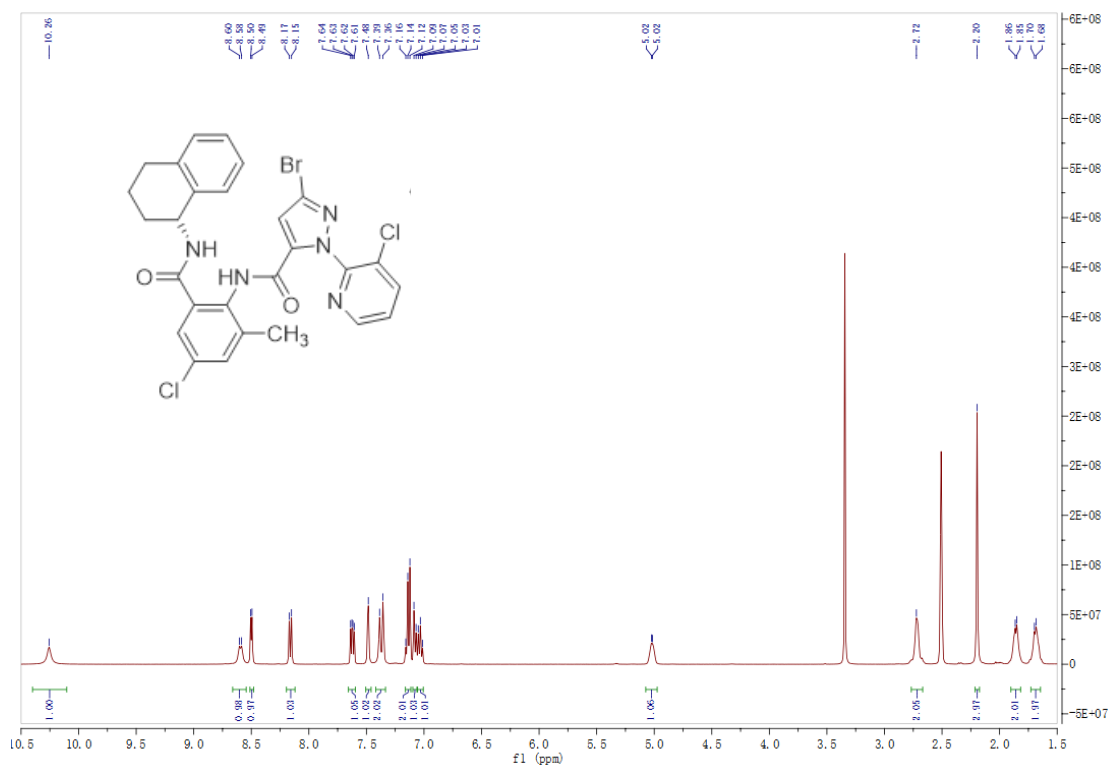


Figure S33. The ^1H NMR spectrum of **8q** (DMSO- d_6).

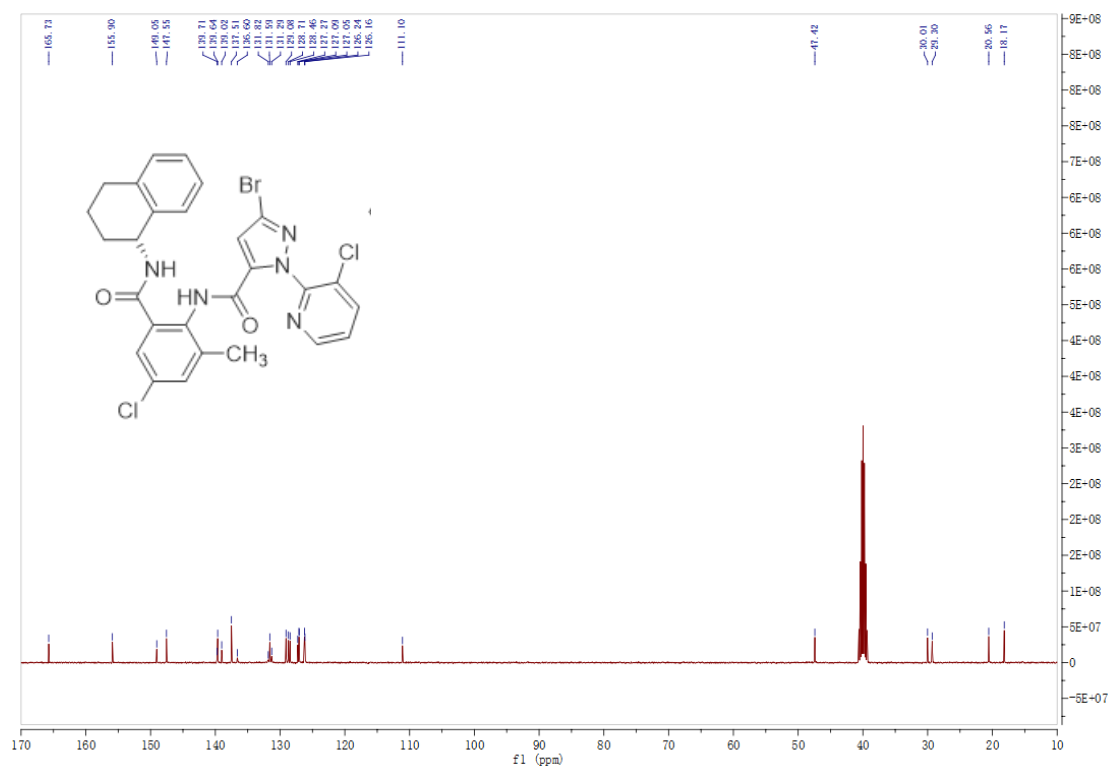


Figure S34. The ^{13}C NMR spectrum of **8q** (DMSO- d_6).

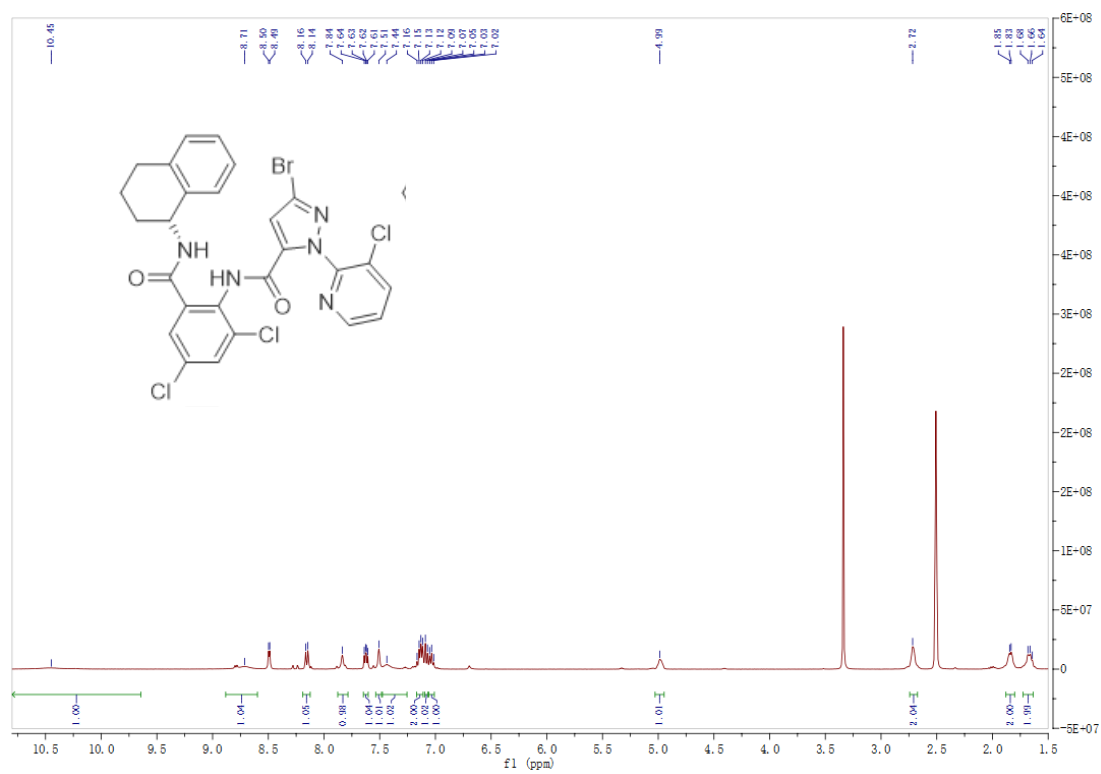


Figure S35. The ¹H NMR spectrum of **8r** (DMSO-*d*₆).

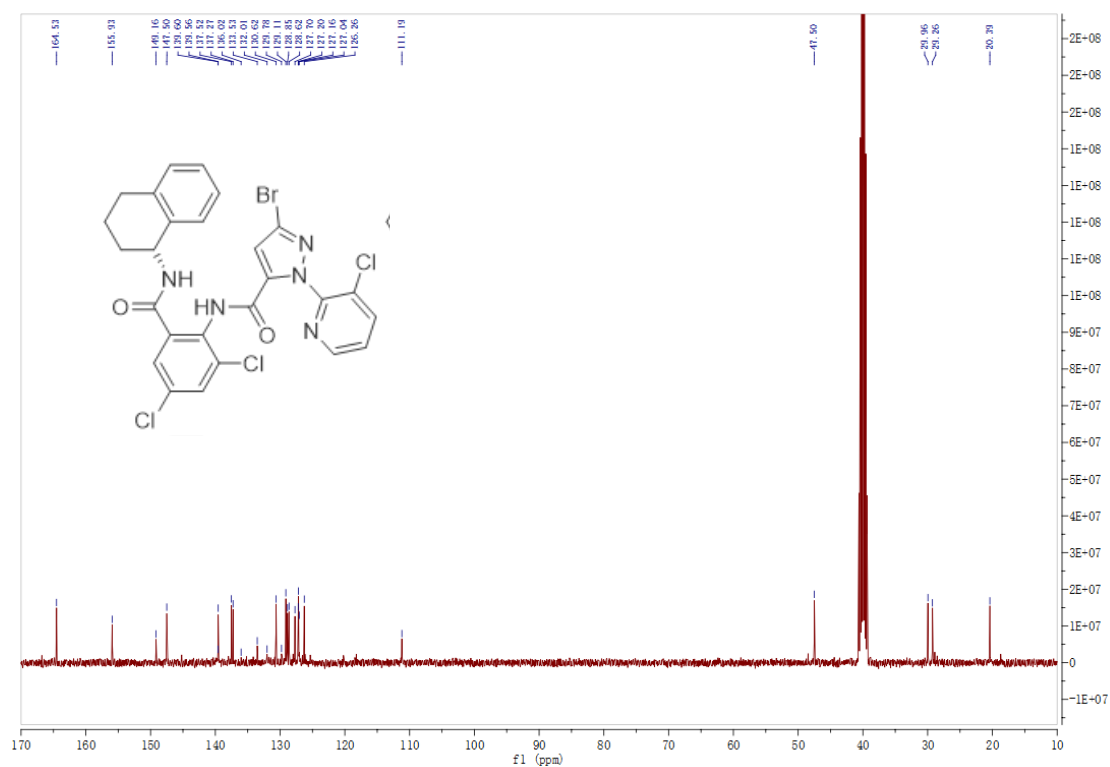


Figure S36. The ¹³C NMR spectrum of **8r** (DMSO-*d*₆).

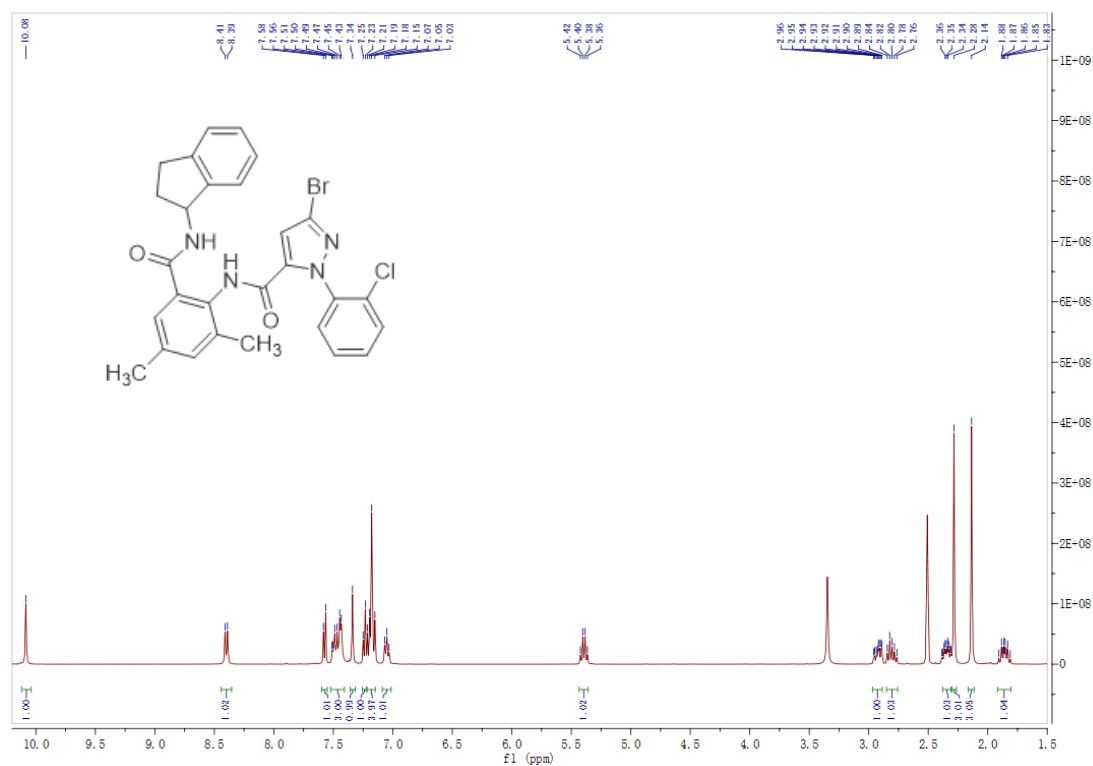


Figure S37. The ^1H NMR spectrum of **8s** ($\text{DMSO}-d_6$).

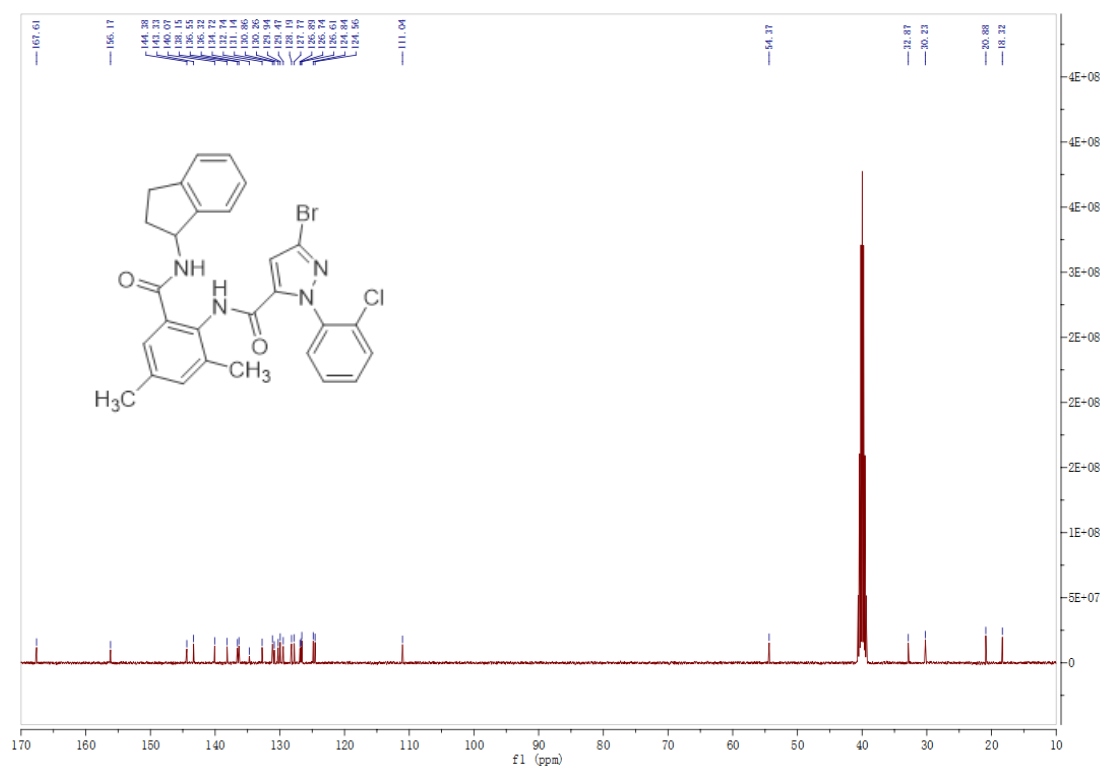


Figure S38. The ^{13}C NMR spectrum of **8s** ($\text{DMSO}-d_6$).

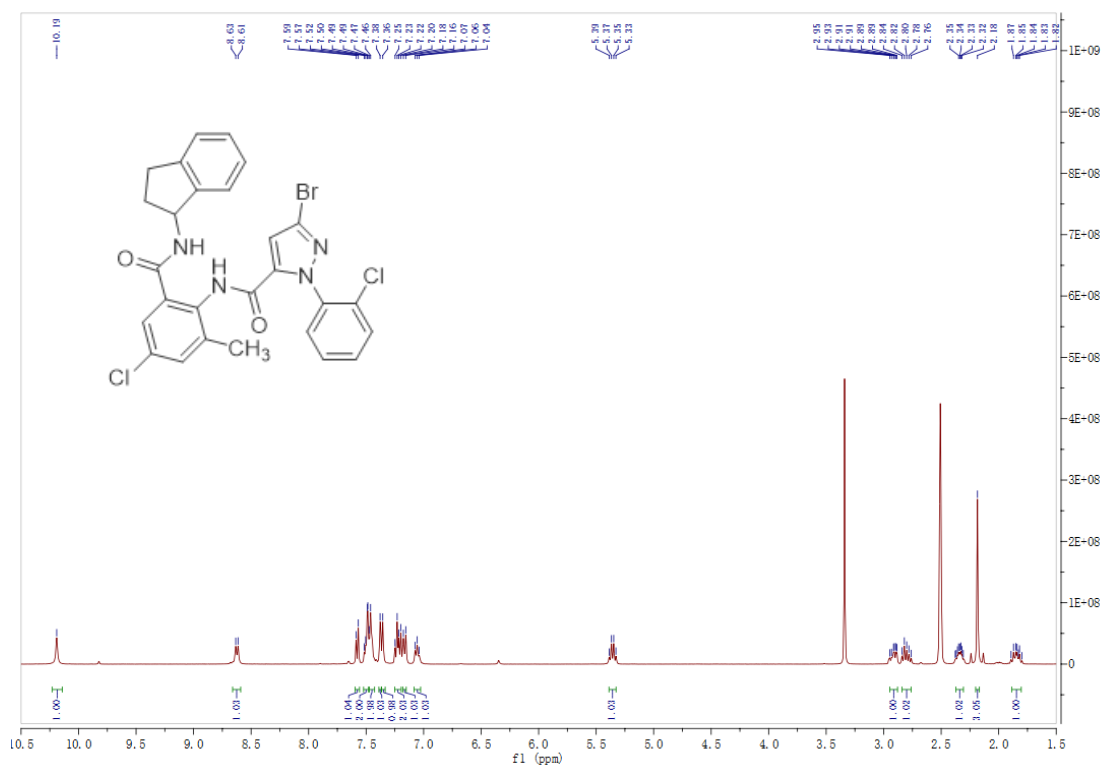


Figure S39. The ¹H NMR spectrum of 8t (DMSO-*d*₆).

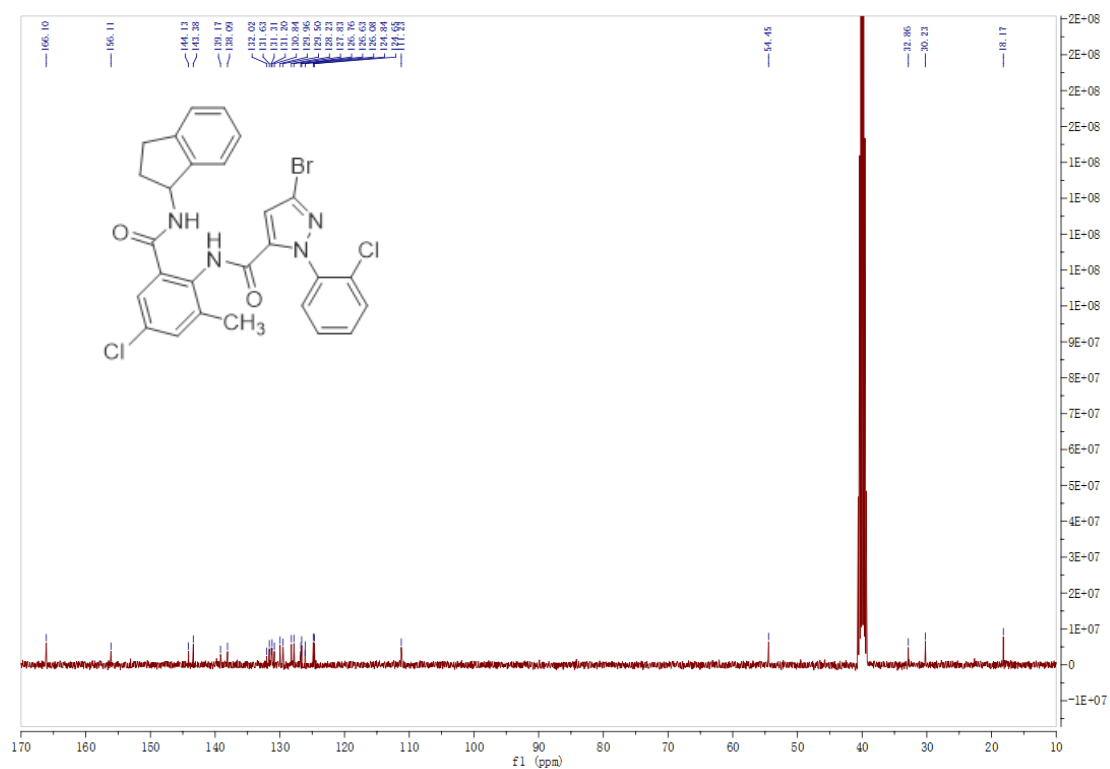


Figure S40. The ¹³C NMR spectrum of 8t (DMSO-*d*₆).

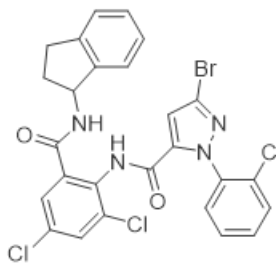


Figure S41. The ^1H NMR spectrum of **8u** (DMSO- d_6).

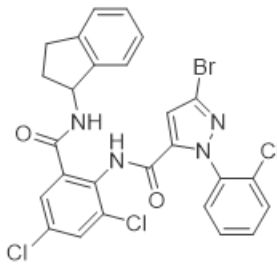


Figure S42. The ^{13}C NMR spectrum of **8u** (DMSO- d_6).

2. Safety assessment data of compound 8q and chlorantraniliprole.

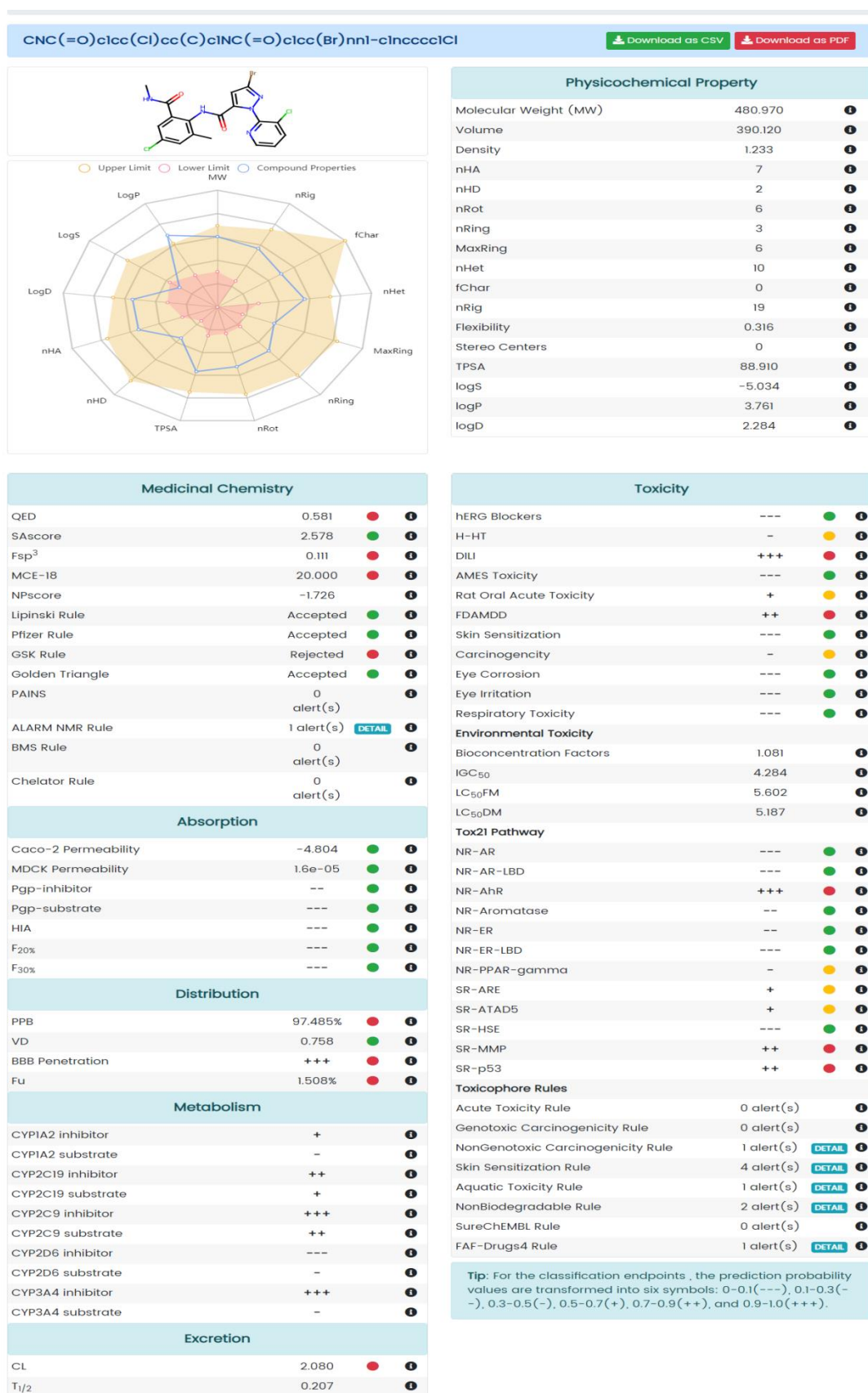


Figure S43. The safety assessment data of chlorantraniliprole.

