

## Supporting Information

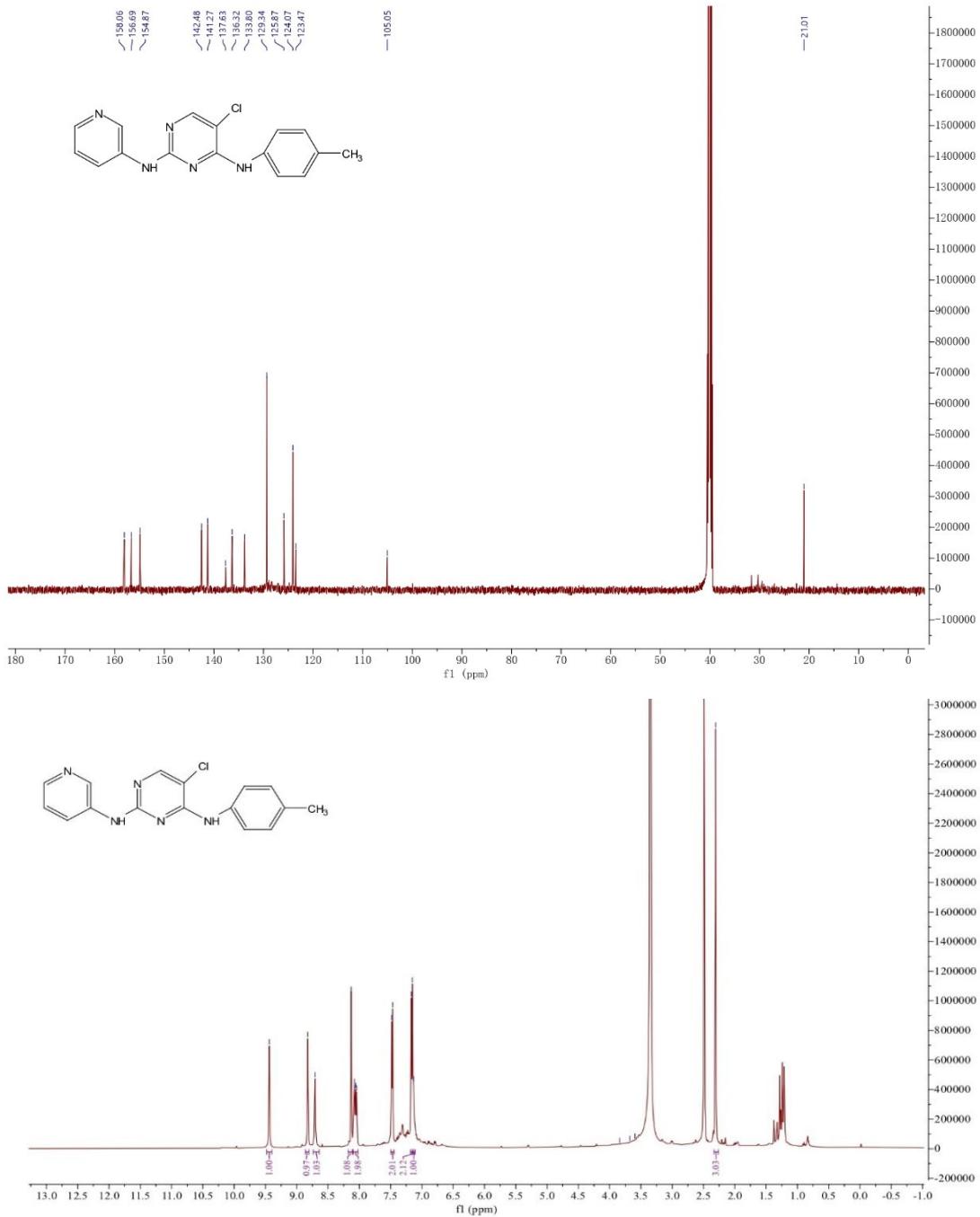
### Discovery of a novel pyrimidine derivative for treatment of acute lung injury through reducing oxidative stress and inflammatory response

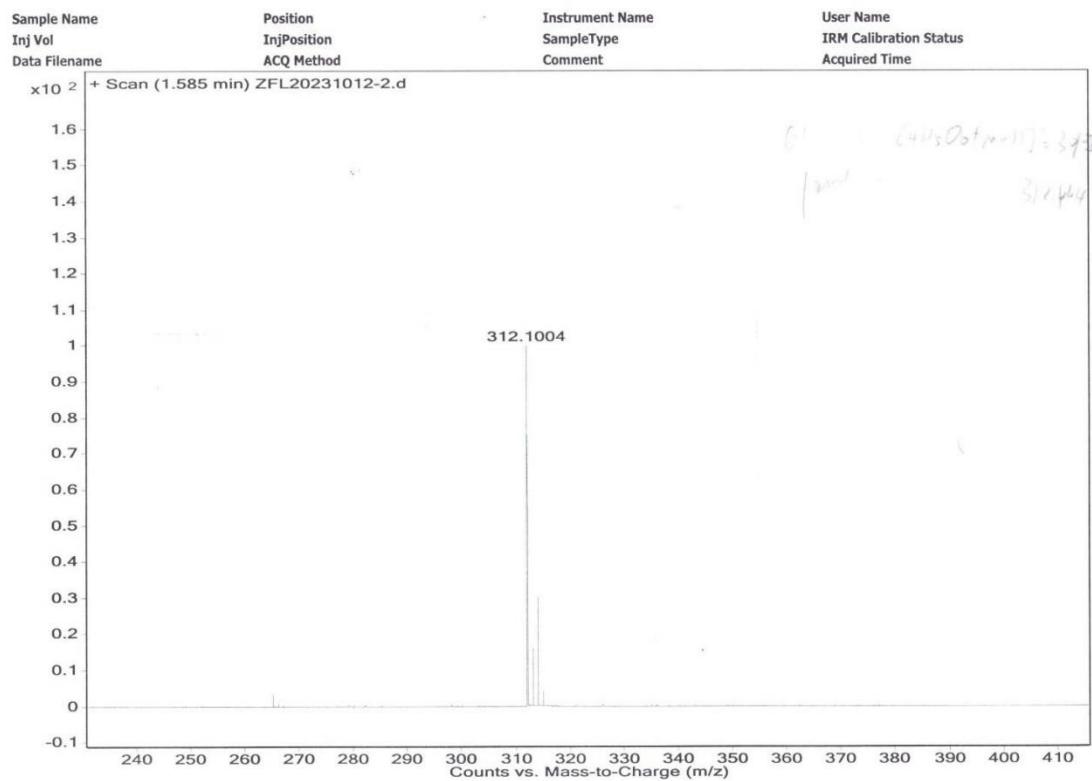
Yu Jie Jian<sup>a</sup>, Qi Lv<sup>a</sup>, Lieran Du<sup>a</sup>, Cen Cen Lei<sup>a</sup>, Li ping Zhi<sup>b,\*</sup>and Xin Hua Liu<sup>a,\*</sup>

#### Contents

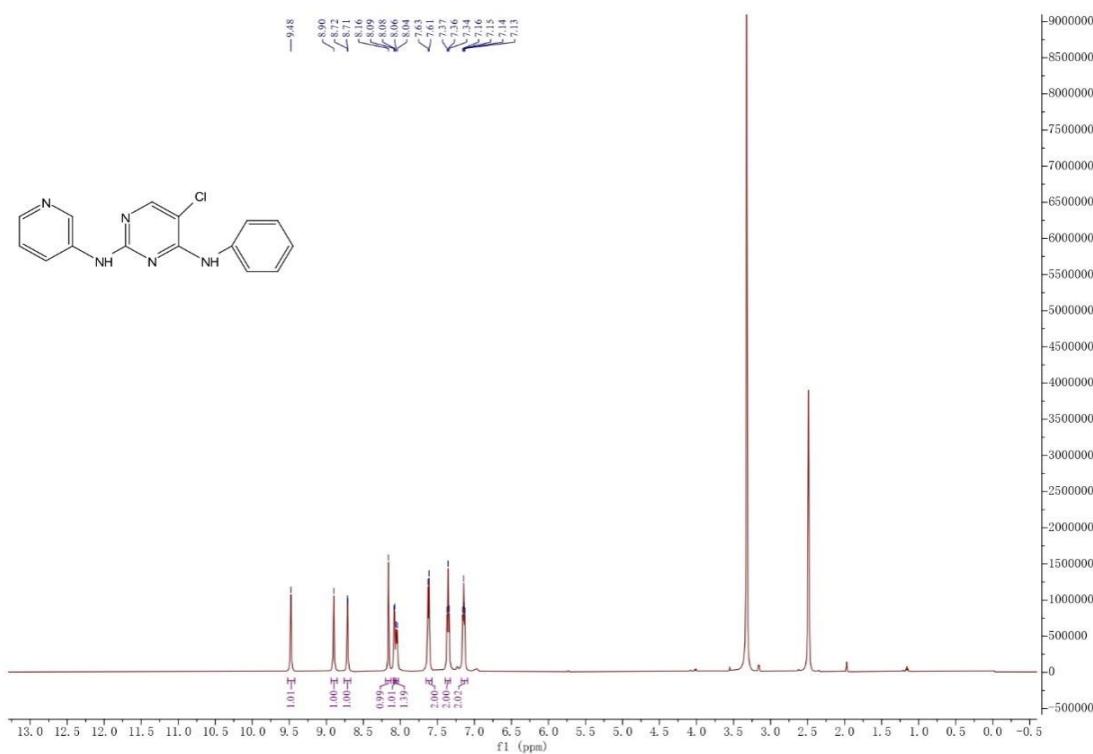
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2. Example of original western blot for three repeats .....	44

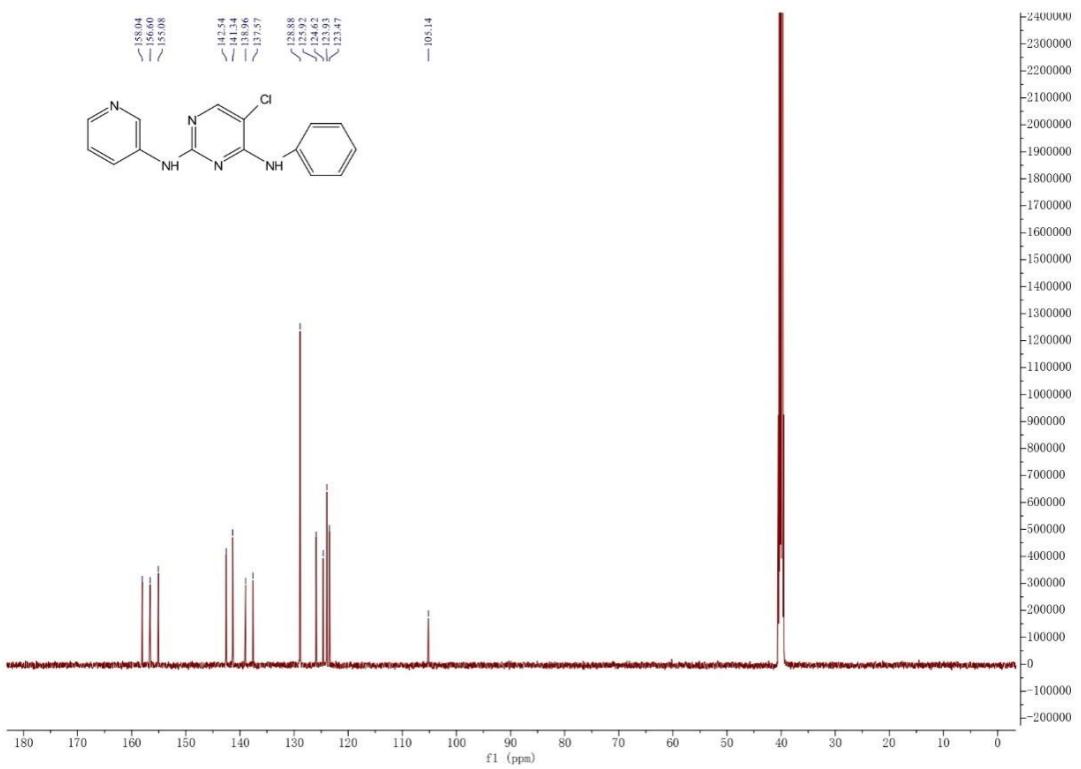
## 1. The $^1\text{H}$ NMR, $^{13}\text{C}$ NMR and ESI-HRMS

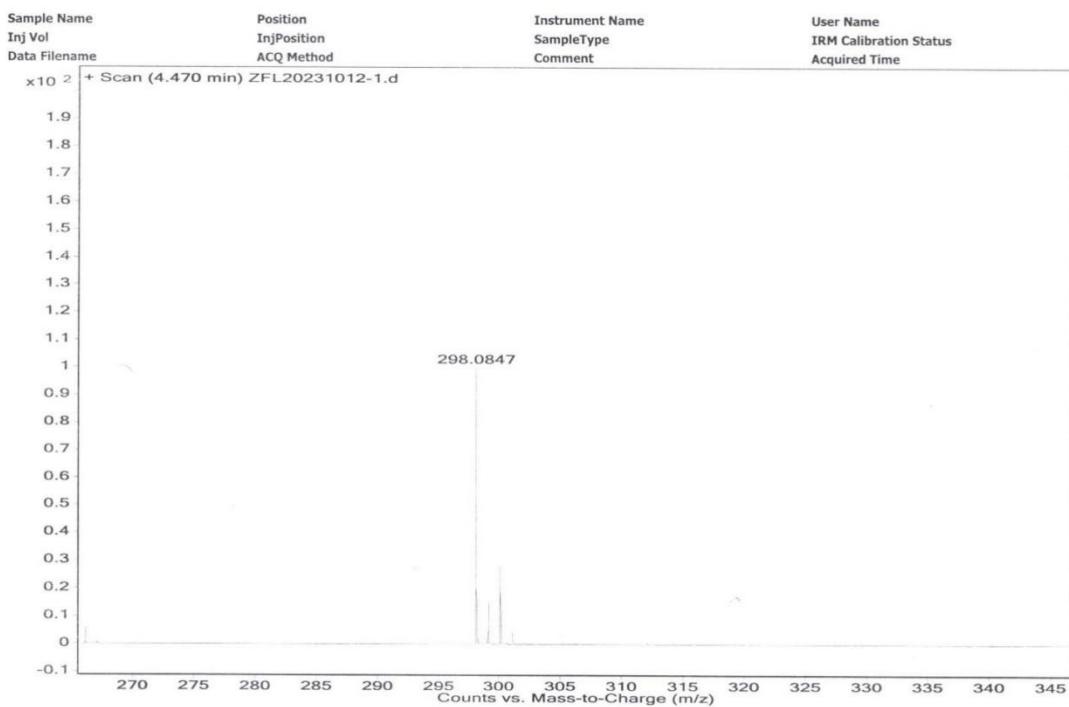




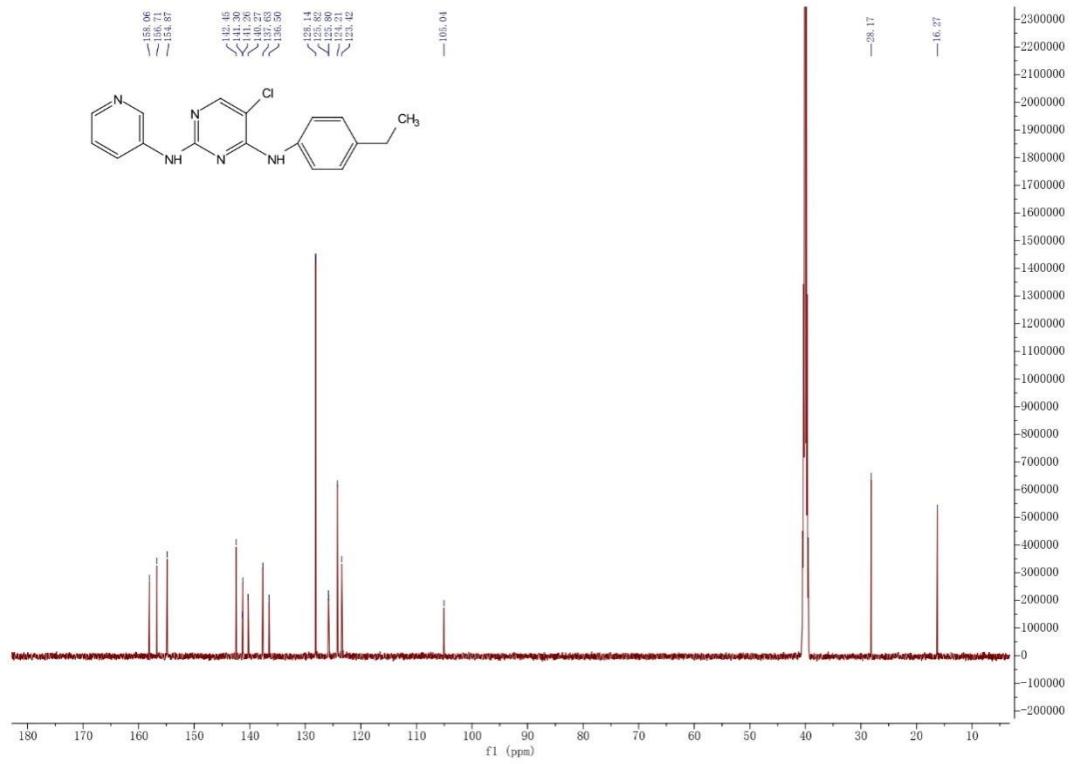
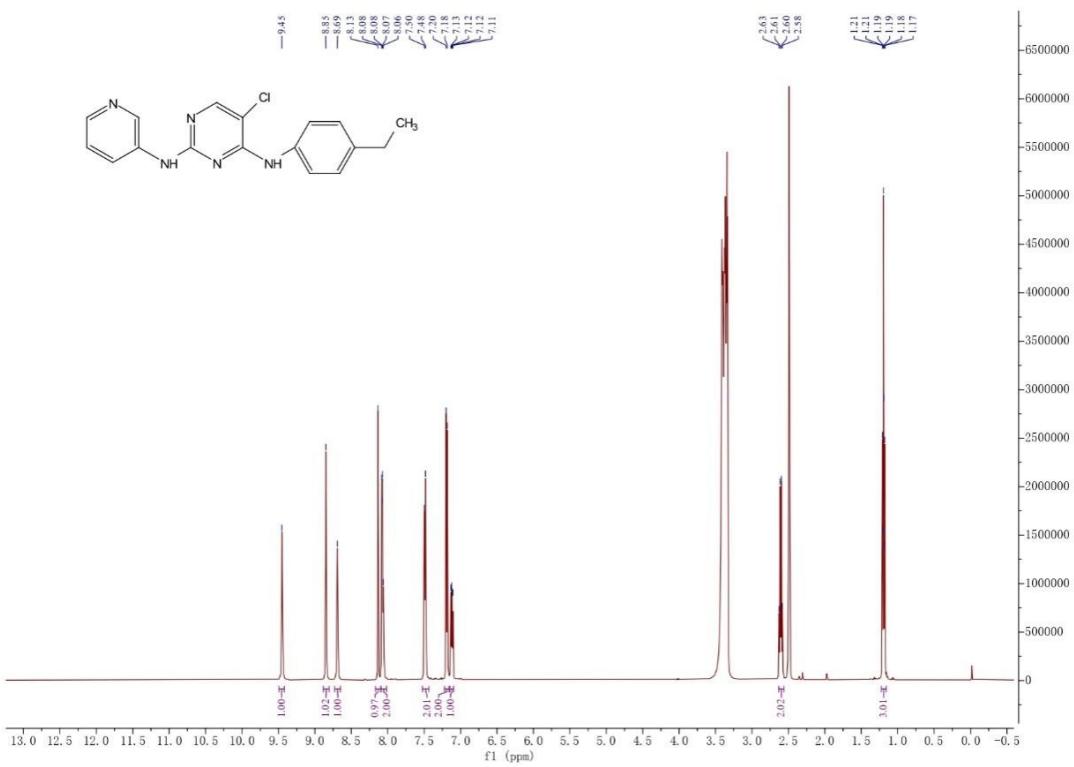
**Figure S1.** The  $^1\text{H}$  NMR,  $^{13}\text{C}$  NMR and ESI-HRMS spectra of compound **6**.

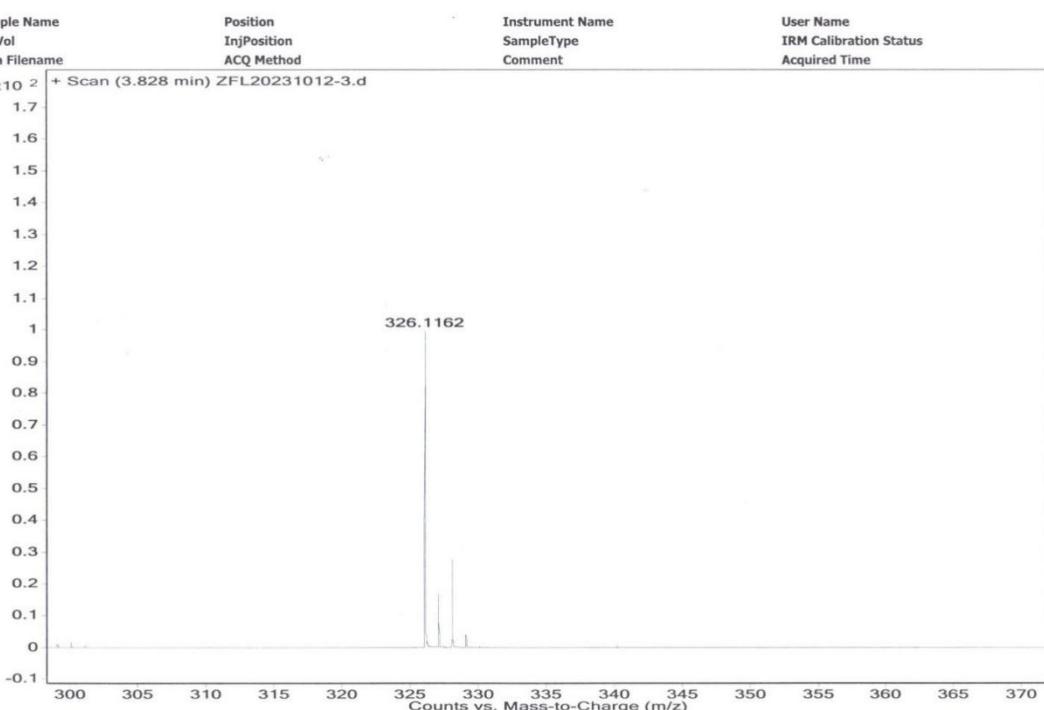




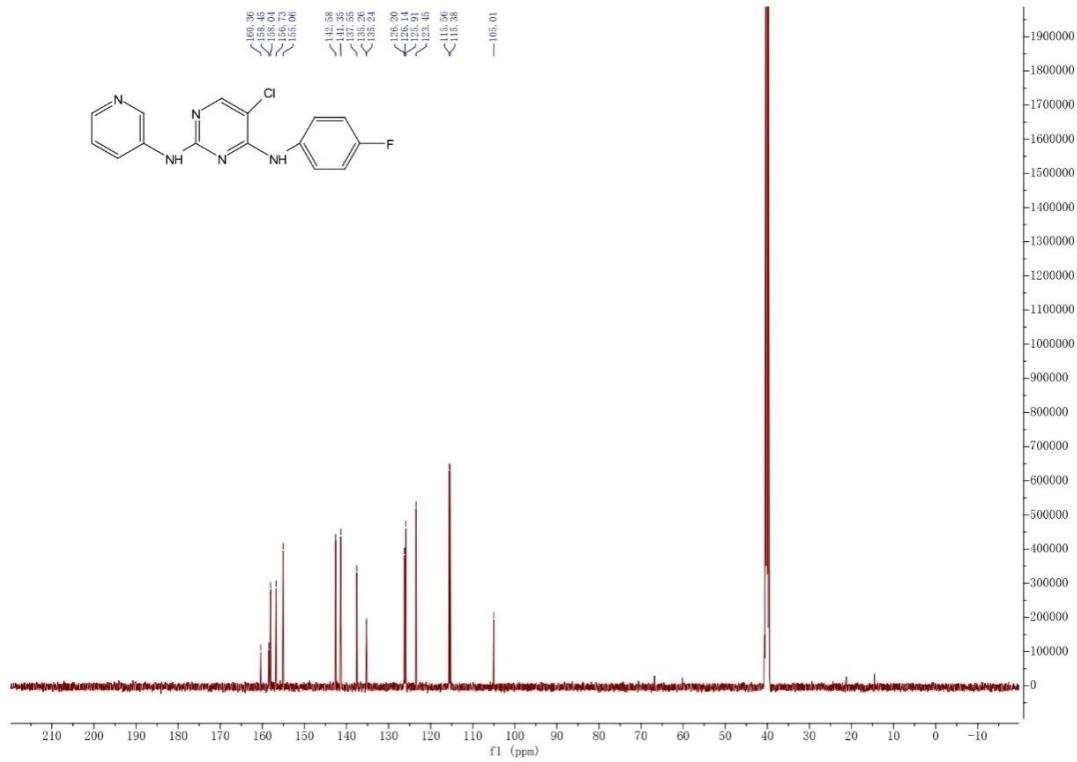
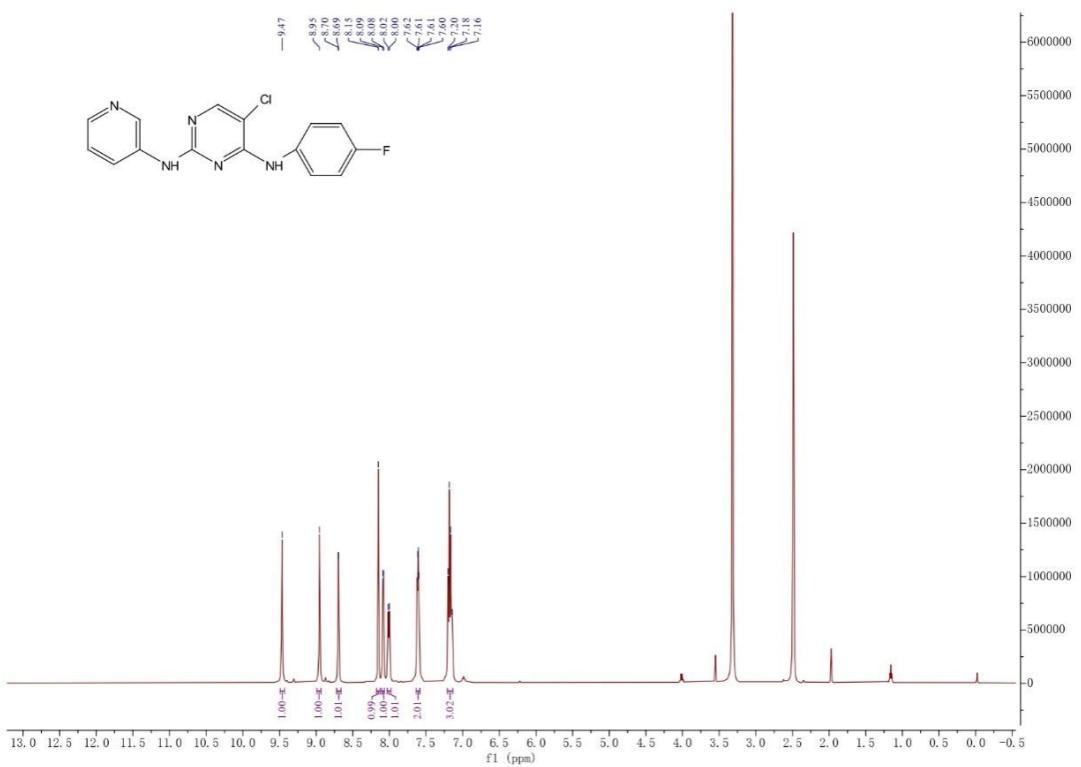


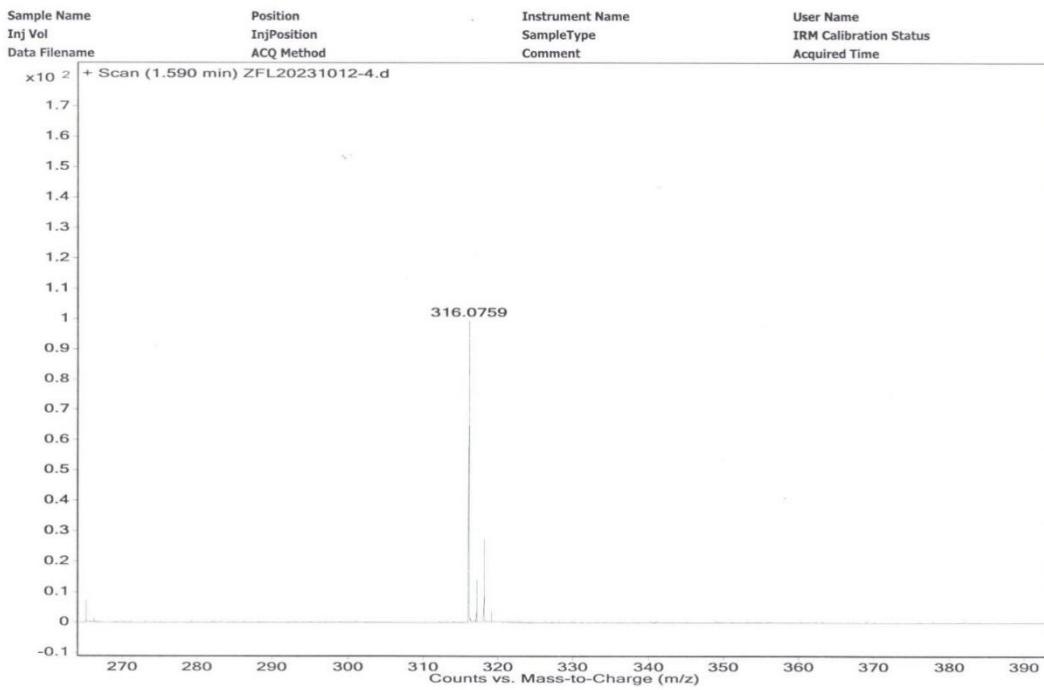
**Figure S2.** The  $^1\text{H}$  NMR,  $^{13}\text{C}$  NMR and ESI-HRMS spectra of compound 7.



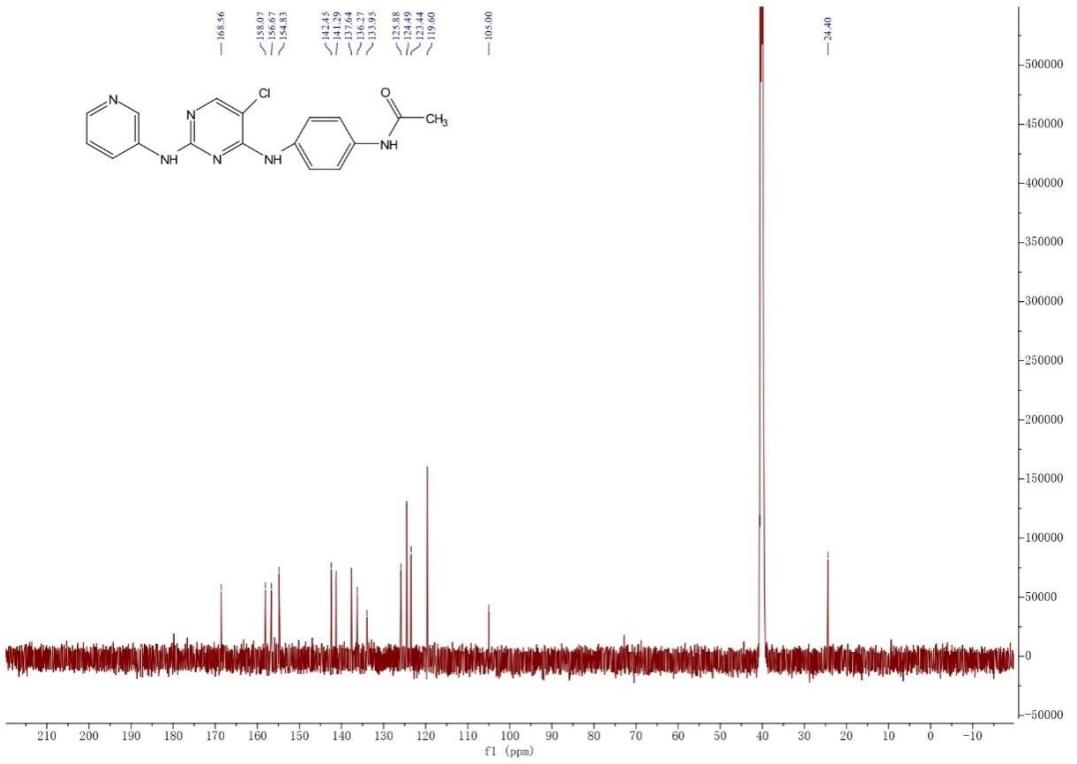
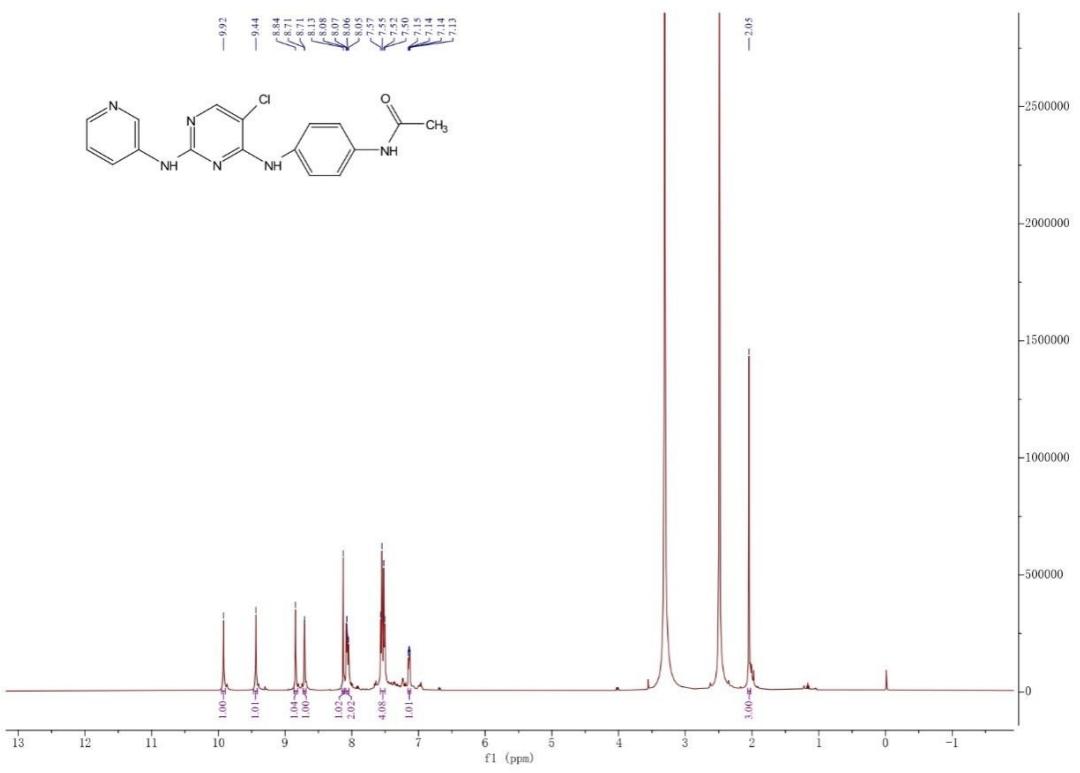


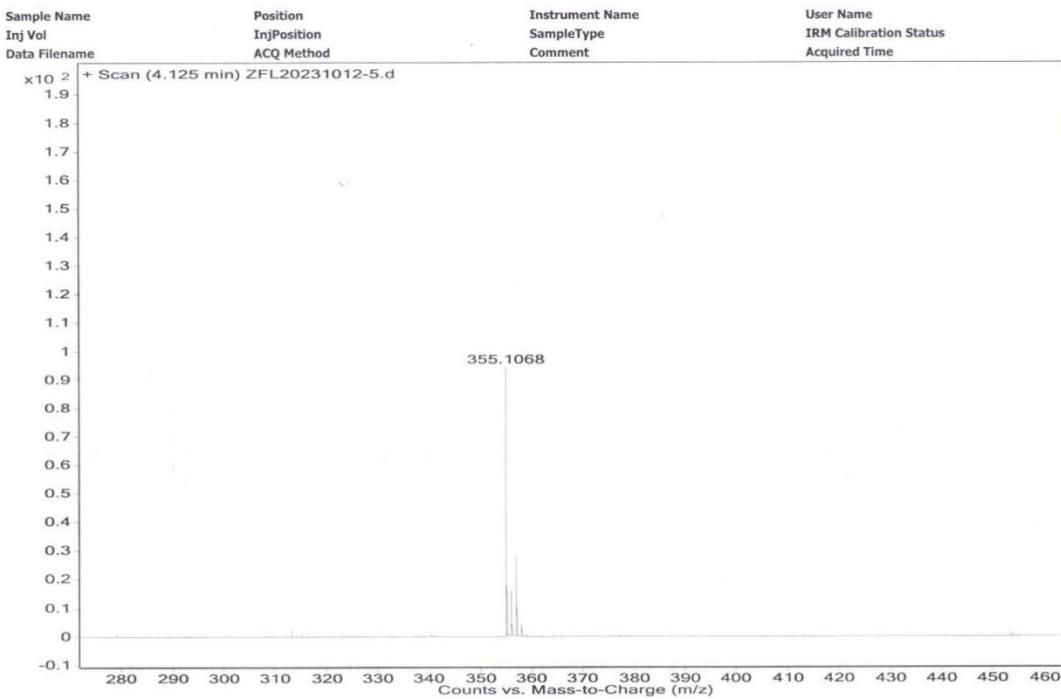
**Figure S3.** The  $^1\text{H}$  NMR,  $^{13}\text{C}$  NMR and ESI-HRMS spectra of compound **8**.



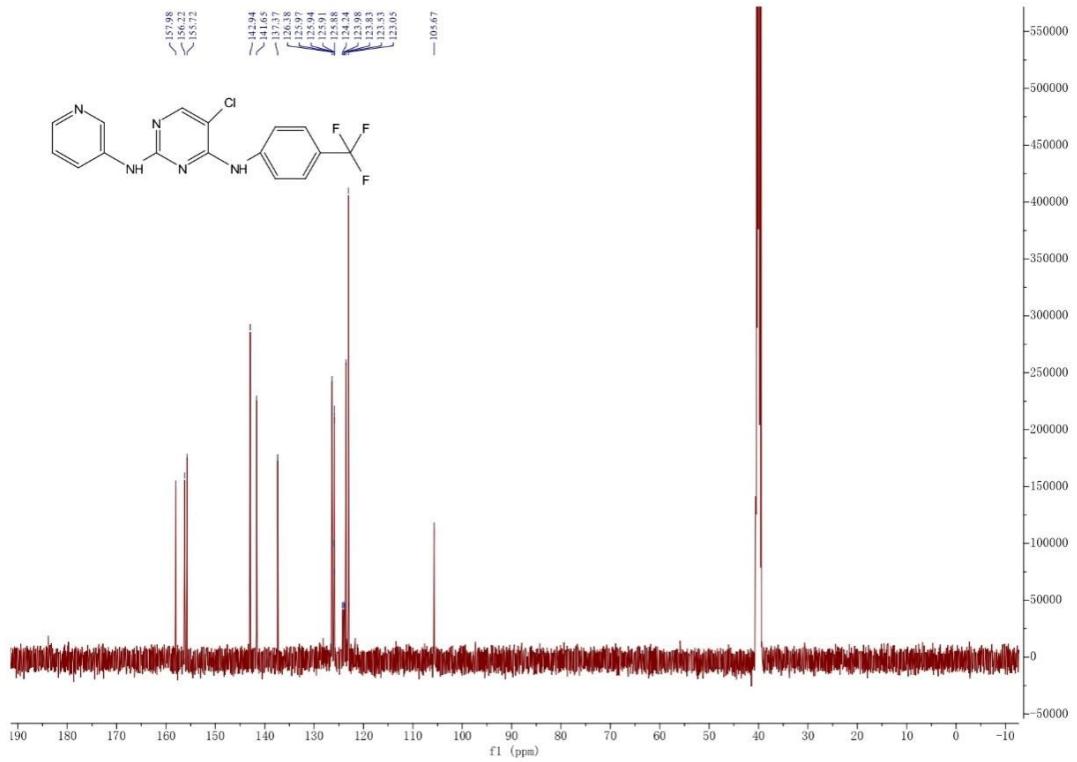
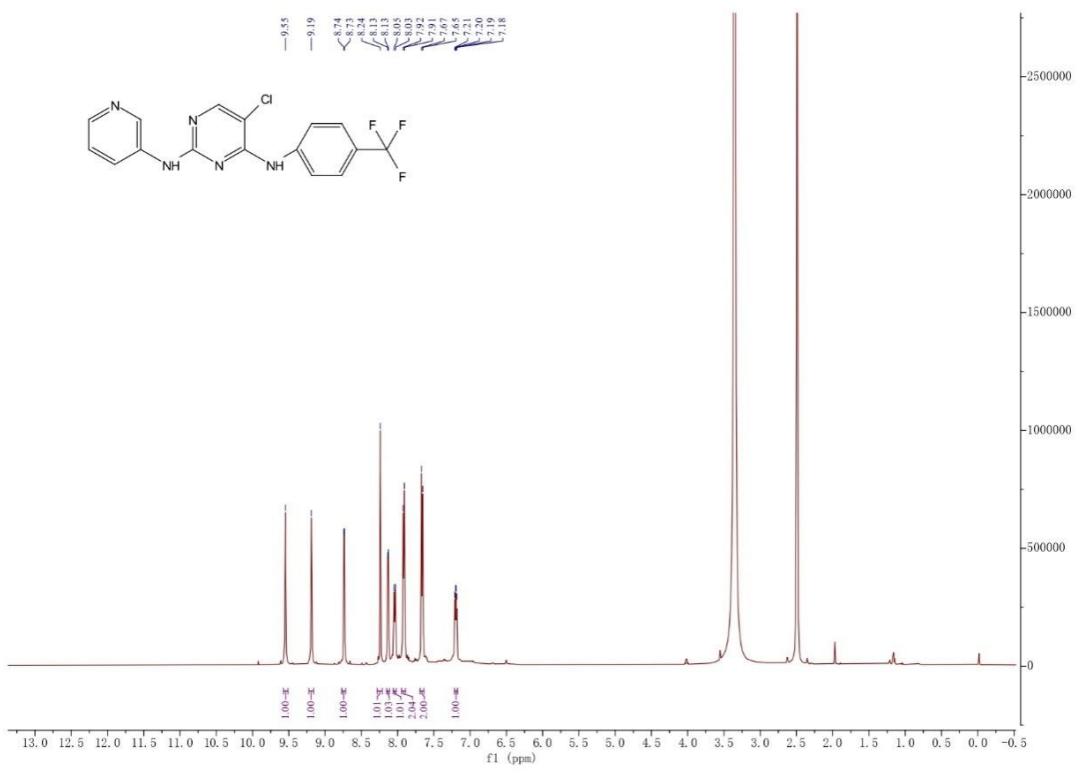


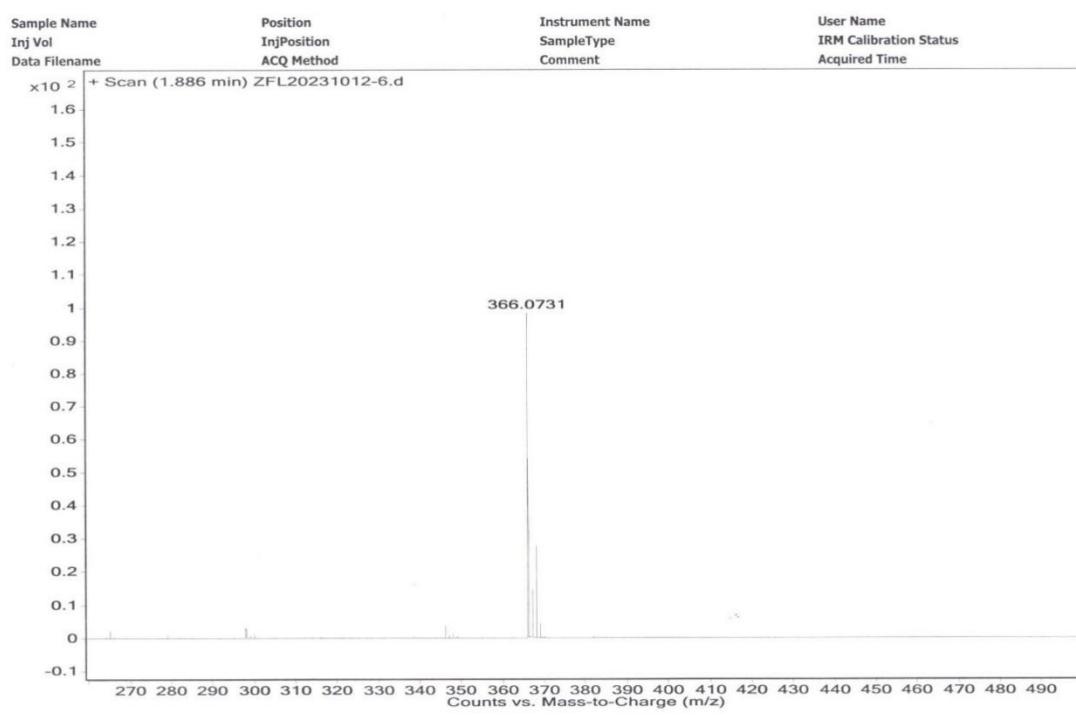
**Figure S4.** The  $^1\text{H}$  NMR,  $^{13}\text{C}$  NMR and ESI-HRMS spectra of compound **9**.



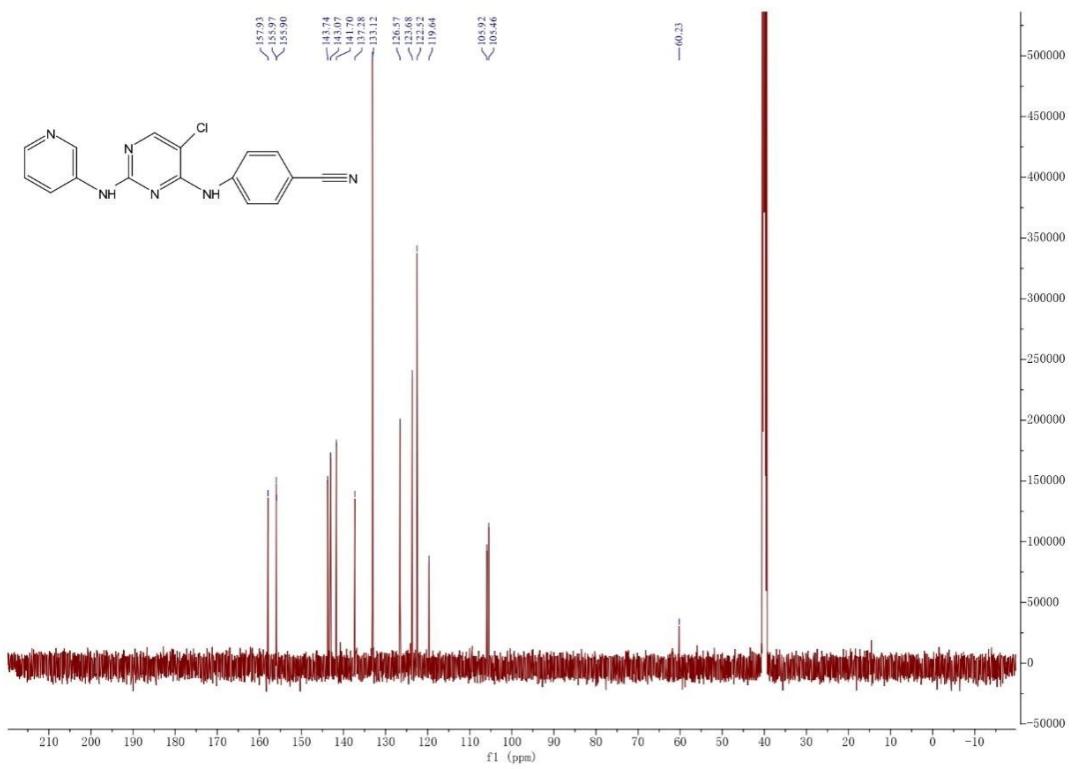
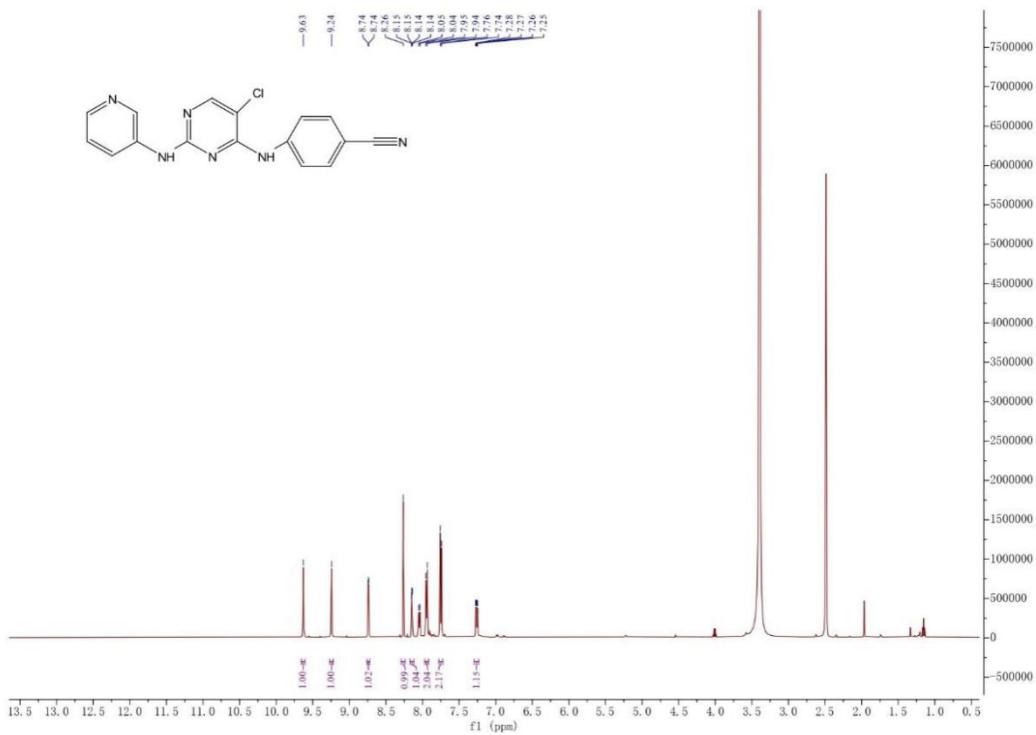


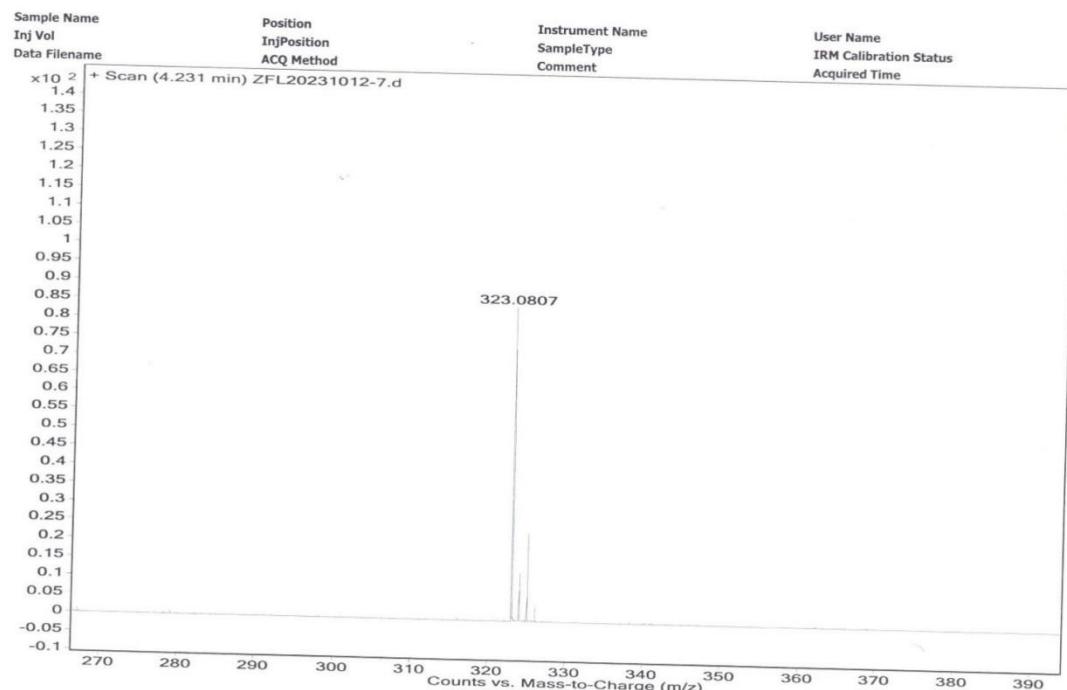
**Figure S5.** The  $^1\text{H}$  NMR,  $^{13}\text{C}$  NMR and ESI-HRMS spectra of compound **10**.



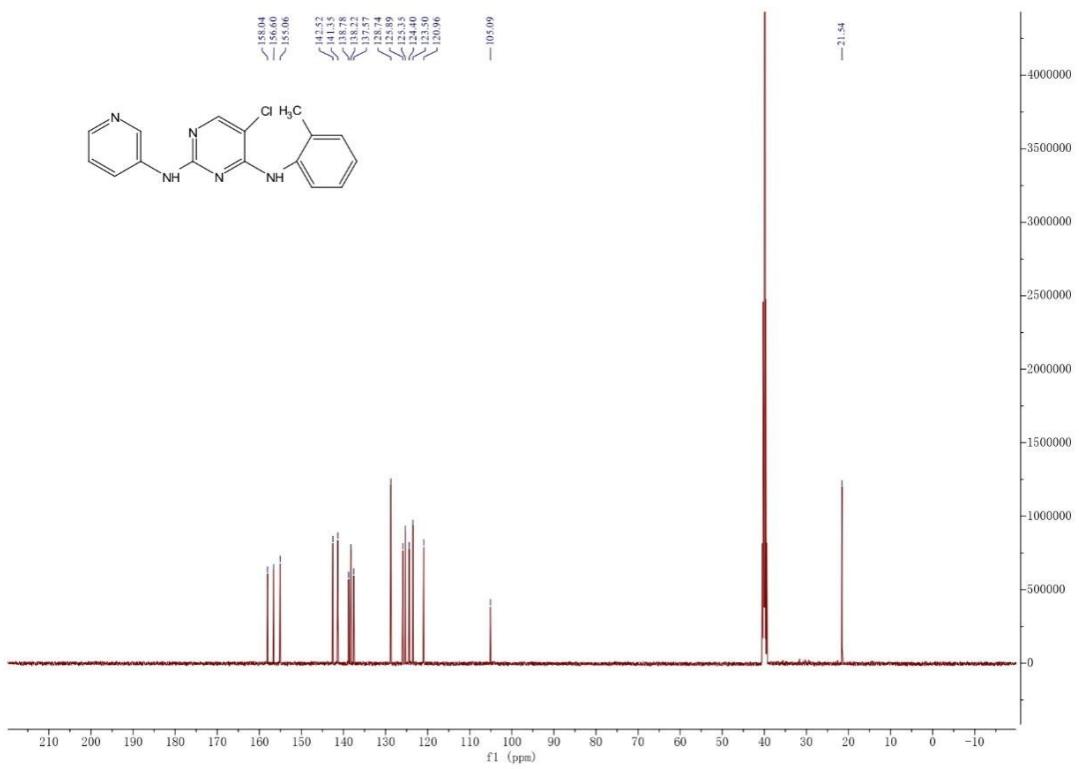
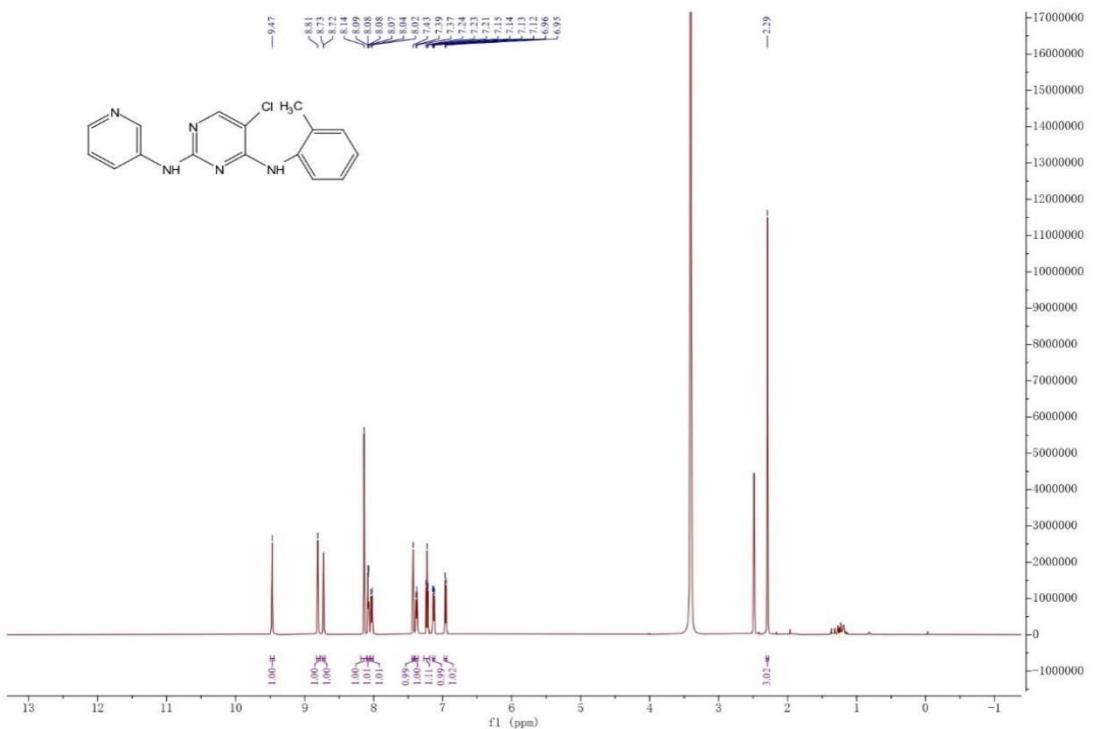


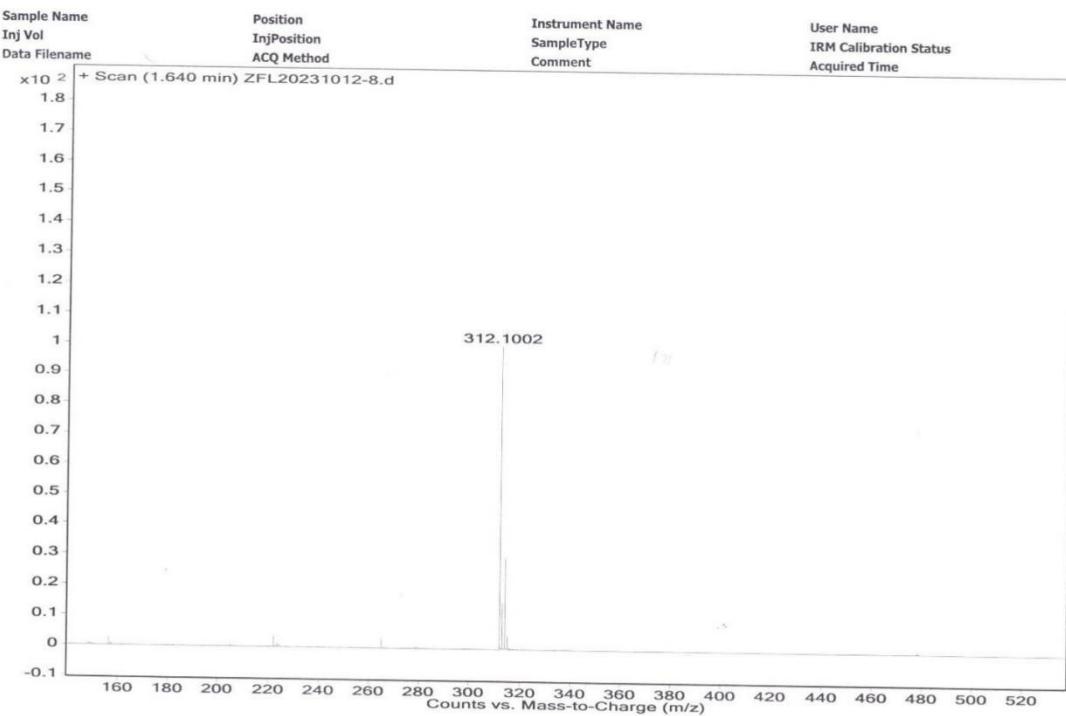
**Figure S6.** The  $^1\text{H}$  NMR,  $^{13}\text{C}$  NMR and ESI-HRMS spectra of compound **11**.



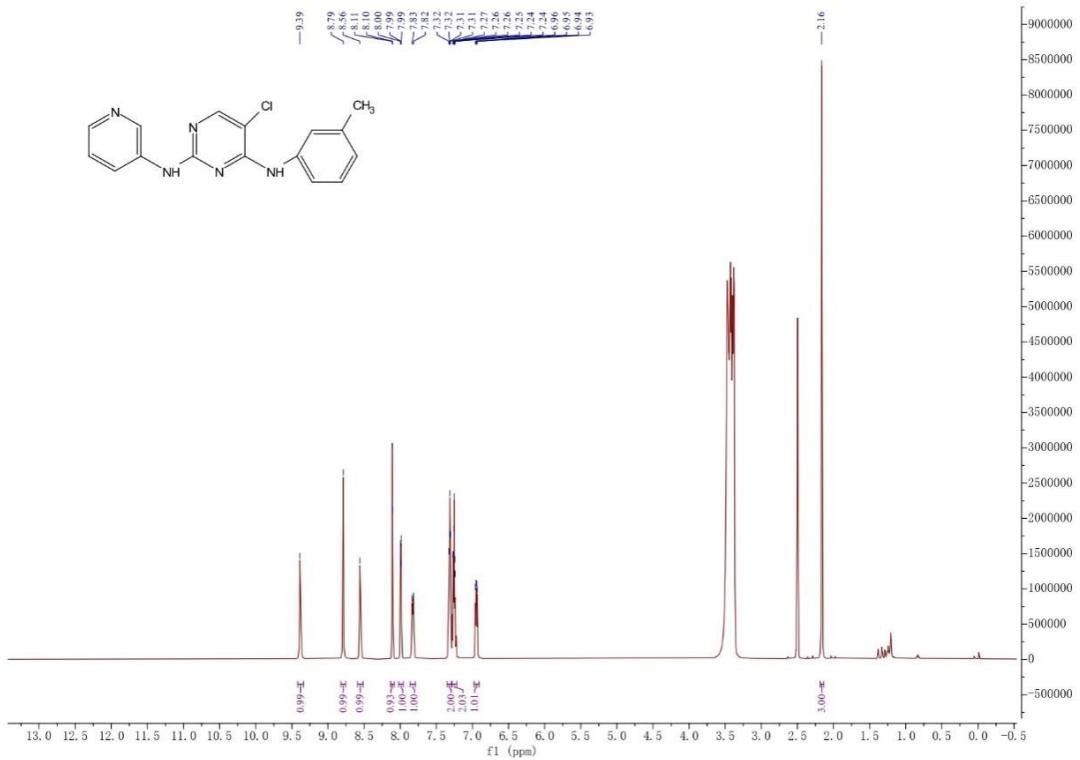


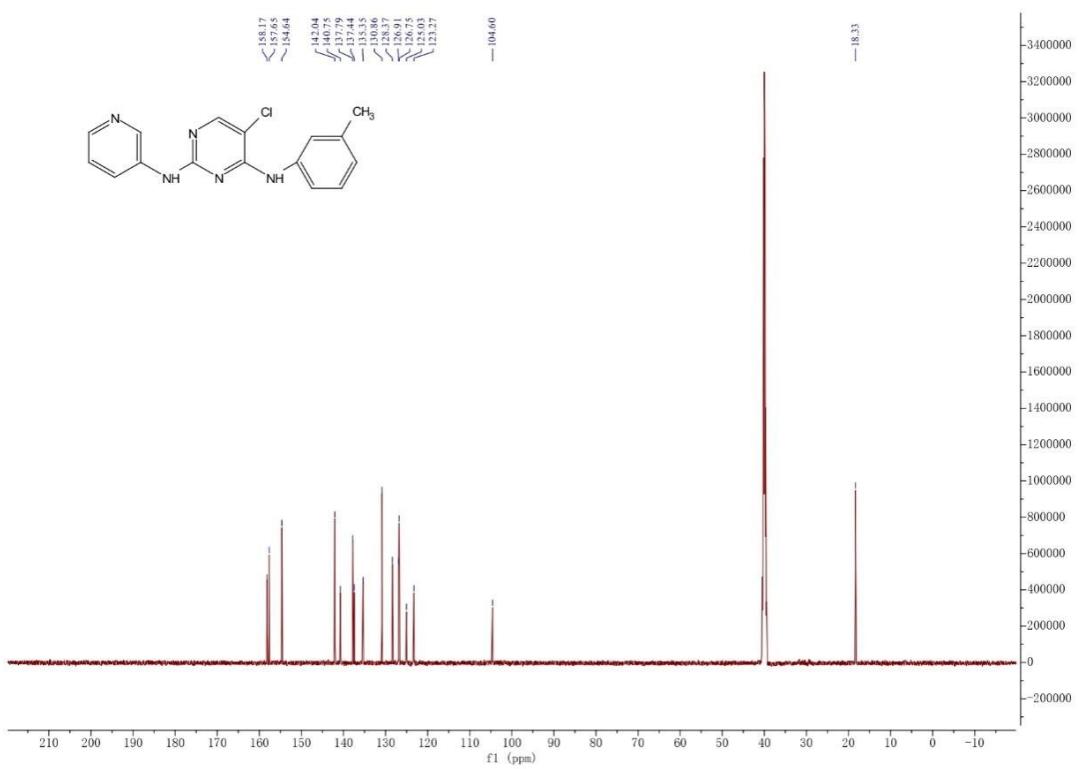
**Figure S7.** The  $^1\text{H}$  NMR,  $^{13}\text{C}$  NMR and ESI-HRMS spectra of compound **12**.

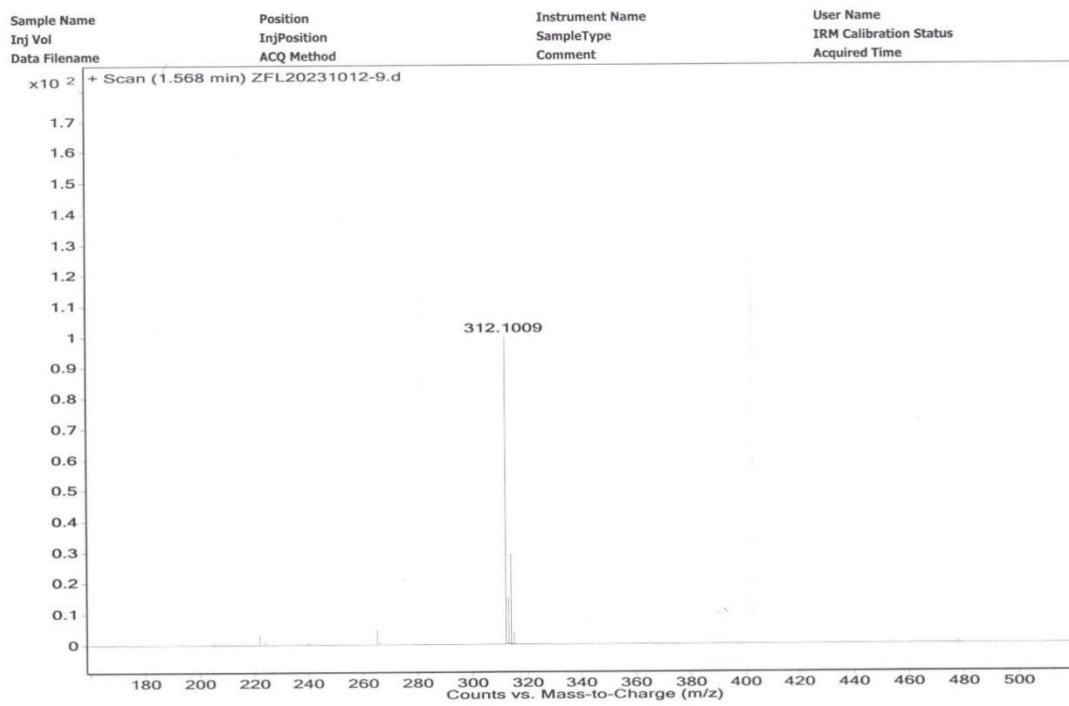




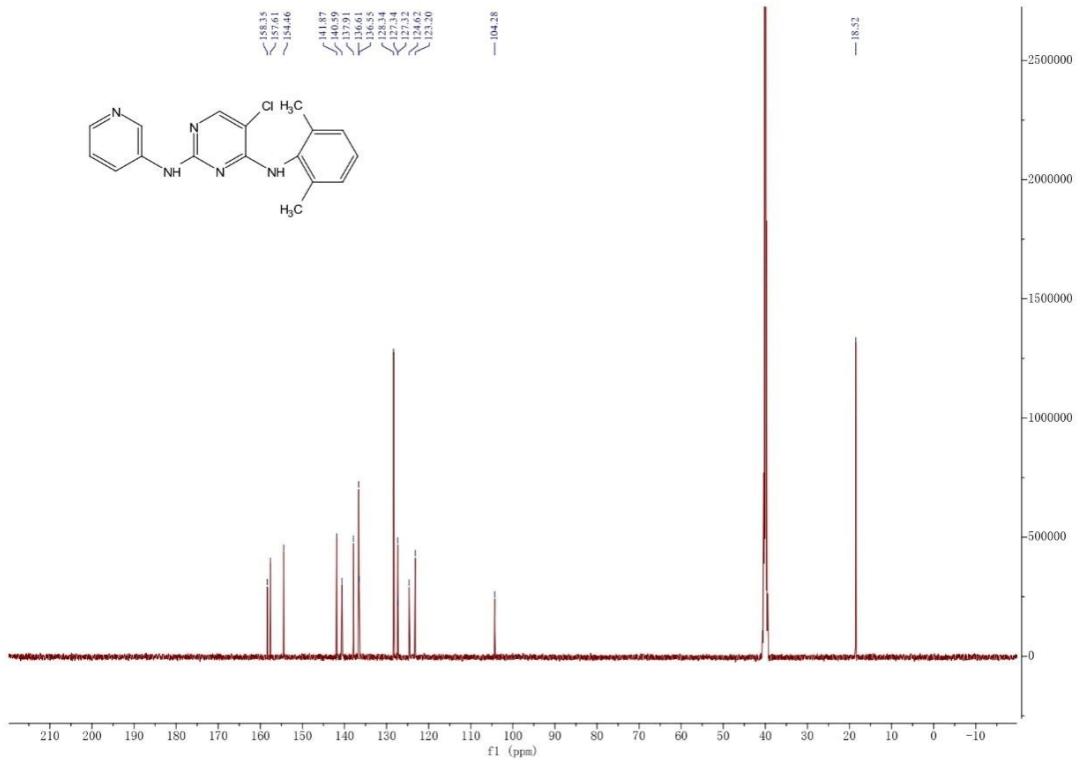
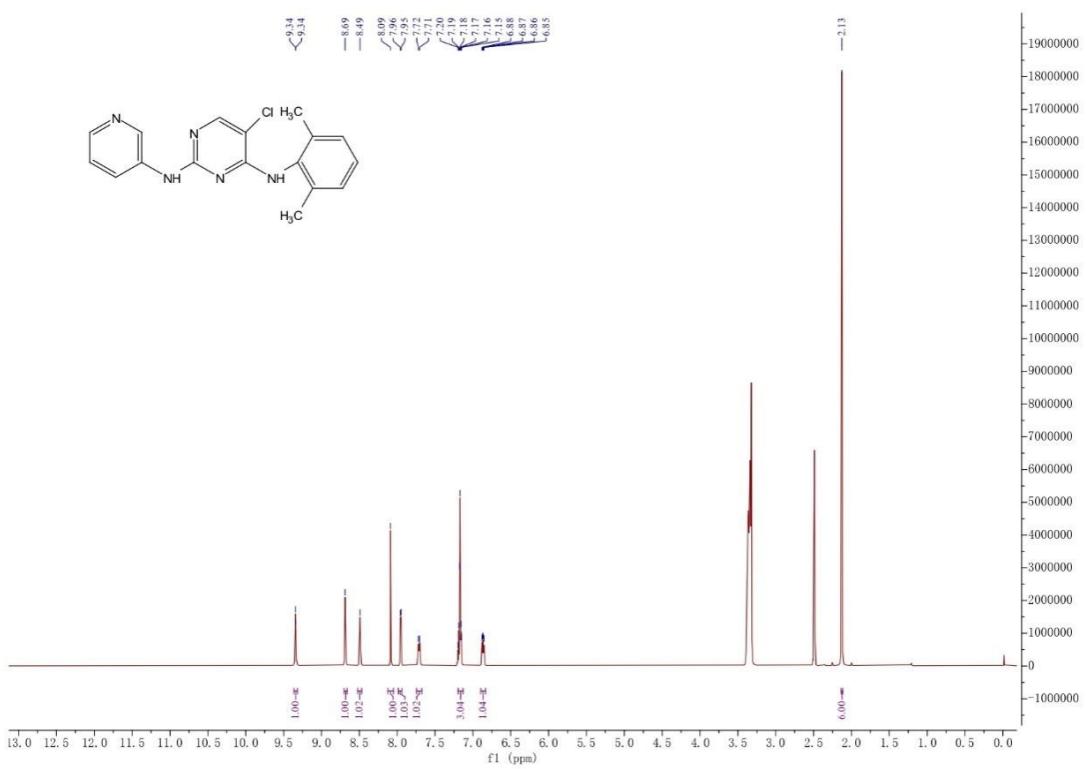
**Figure S8.** The  $^1\text{H}$  NMR,  $^{13}\text{C}$  NMR and ESI-HRMS spectra of compound **13**.

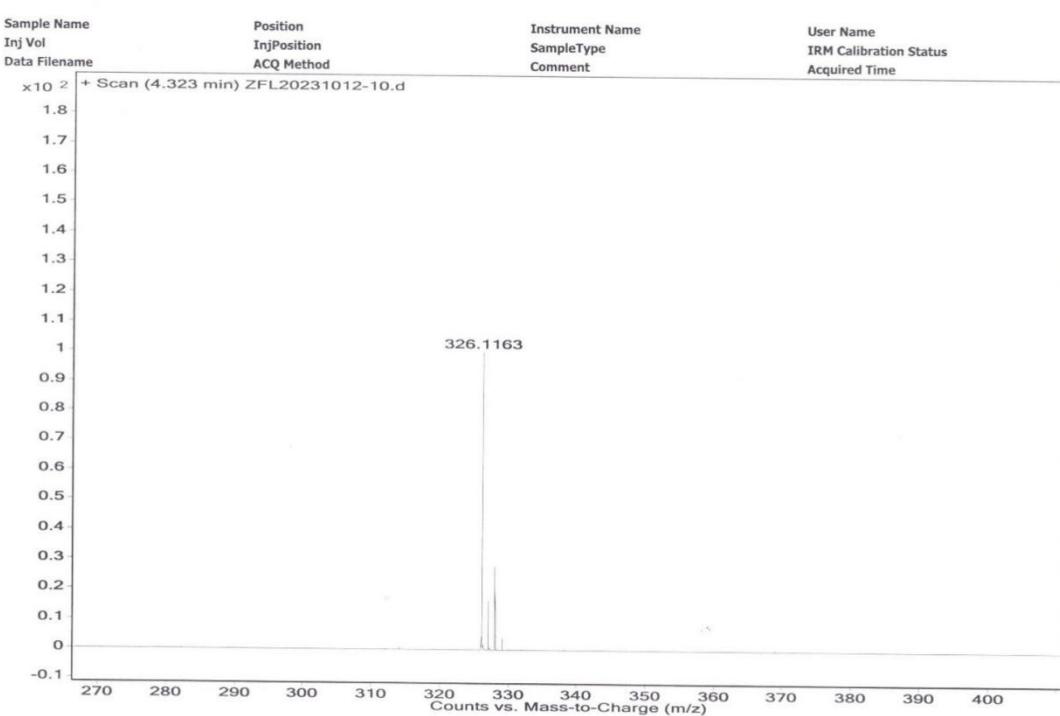




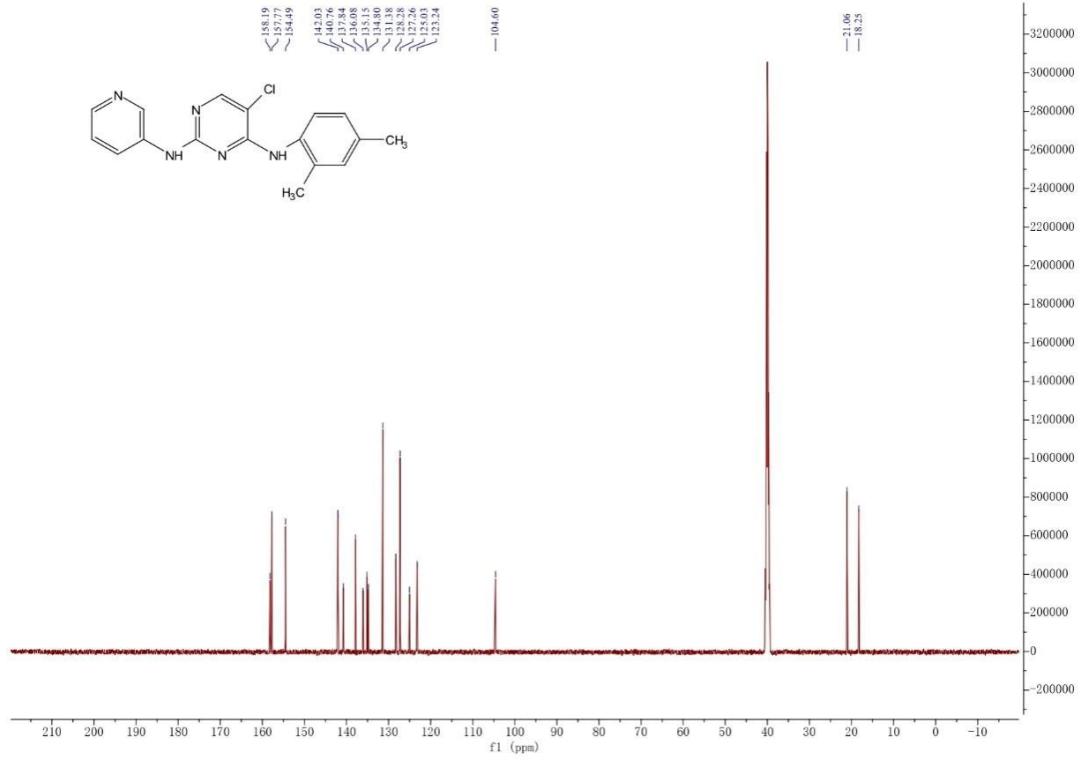
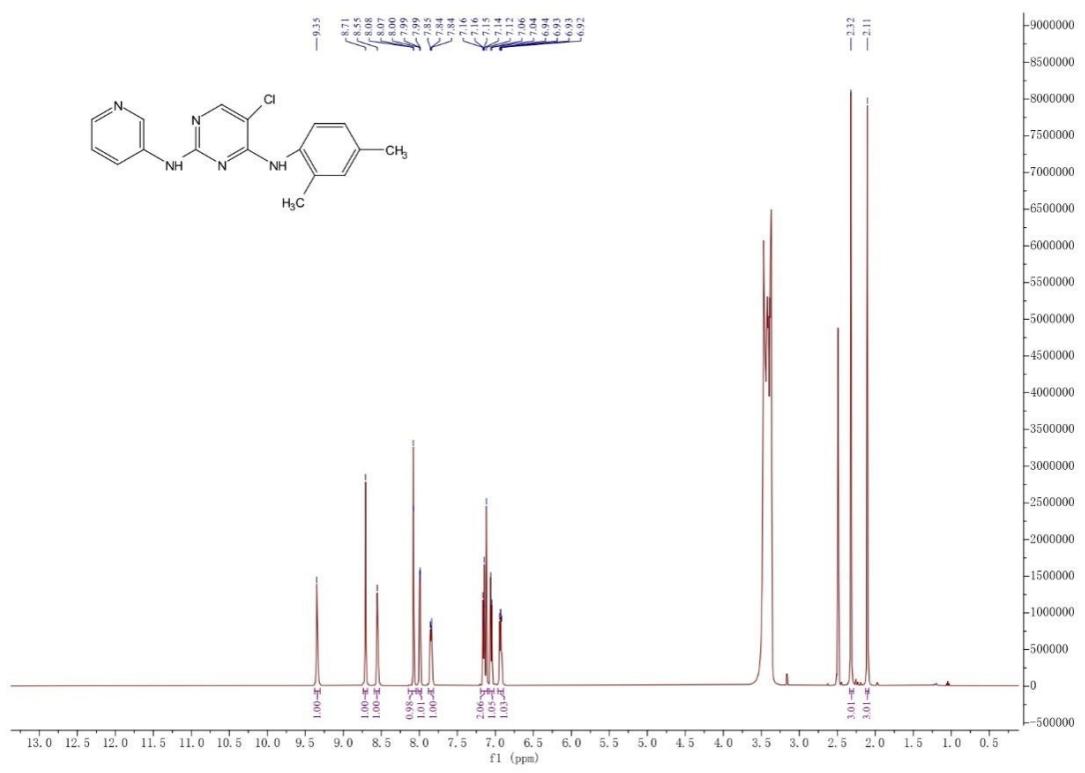


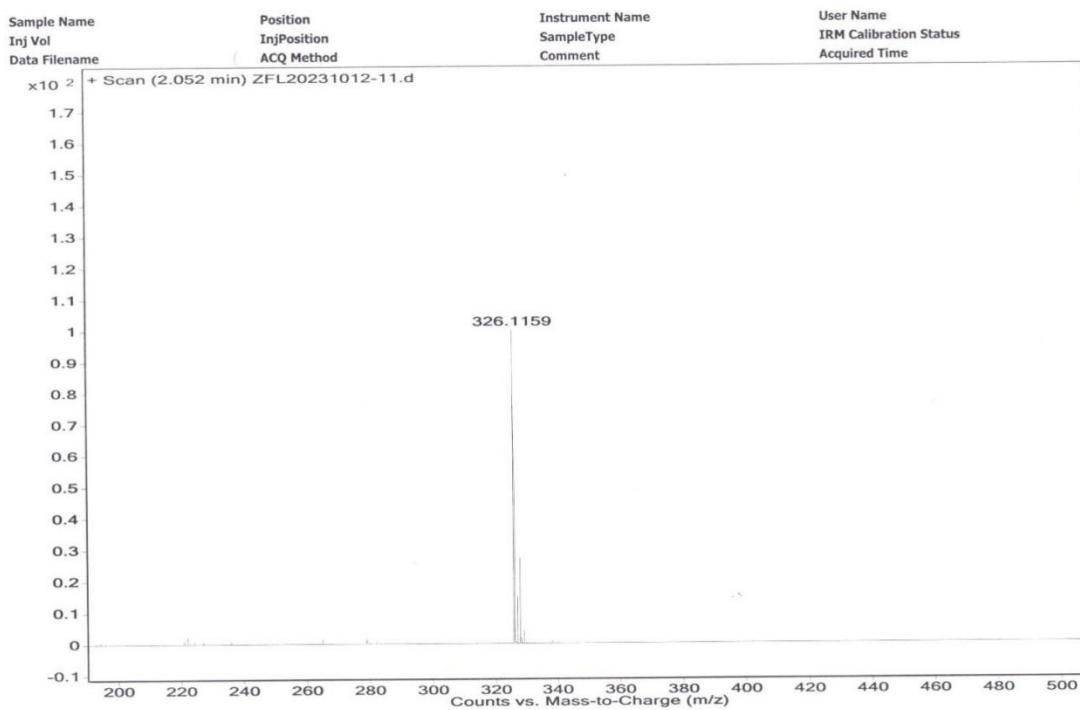
**Figure S9.** The  $^1\text{H}$  NMR,  $^{13}\text{C}$  NMR and ESI-HRMS spectra of compound **14**.



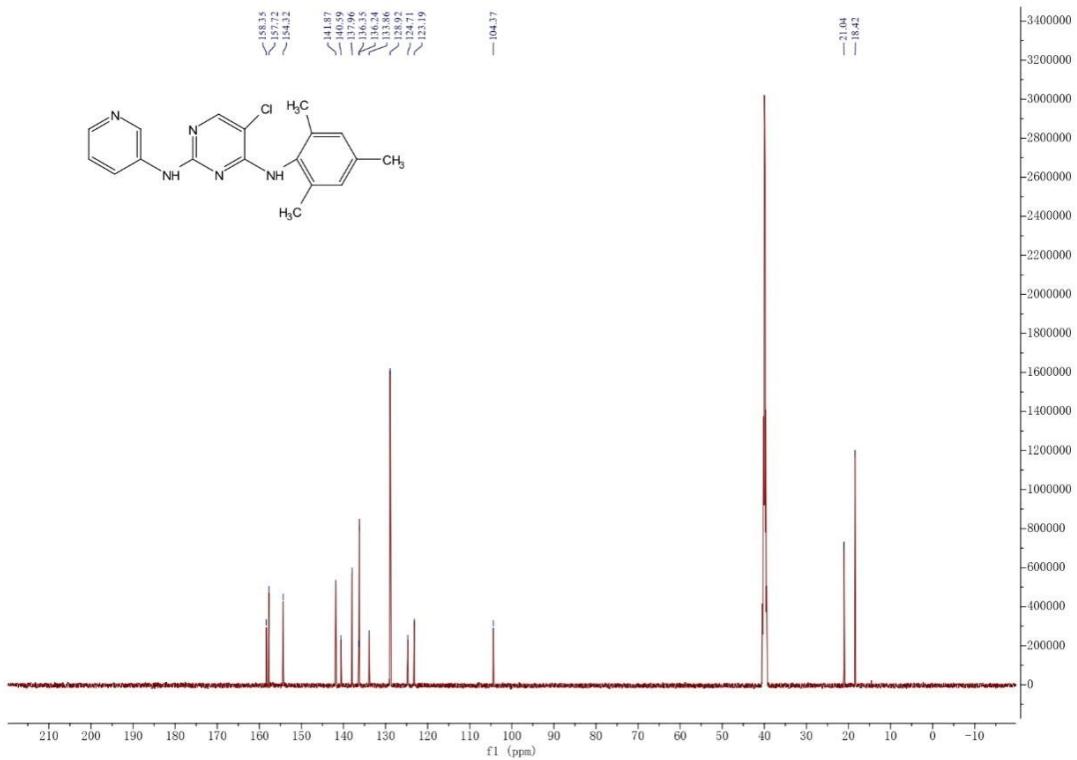
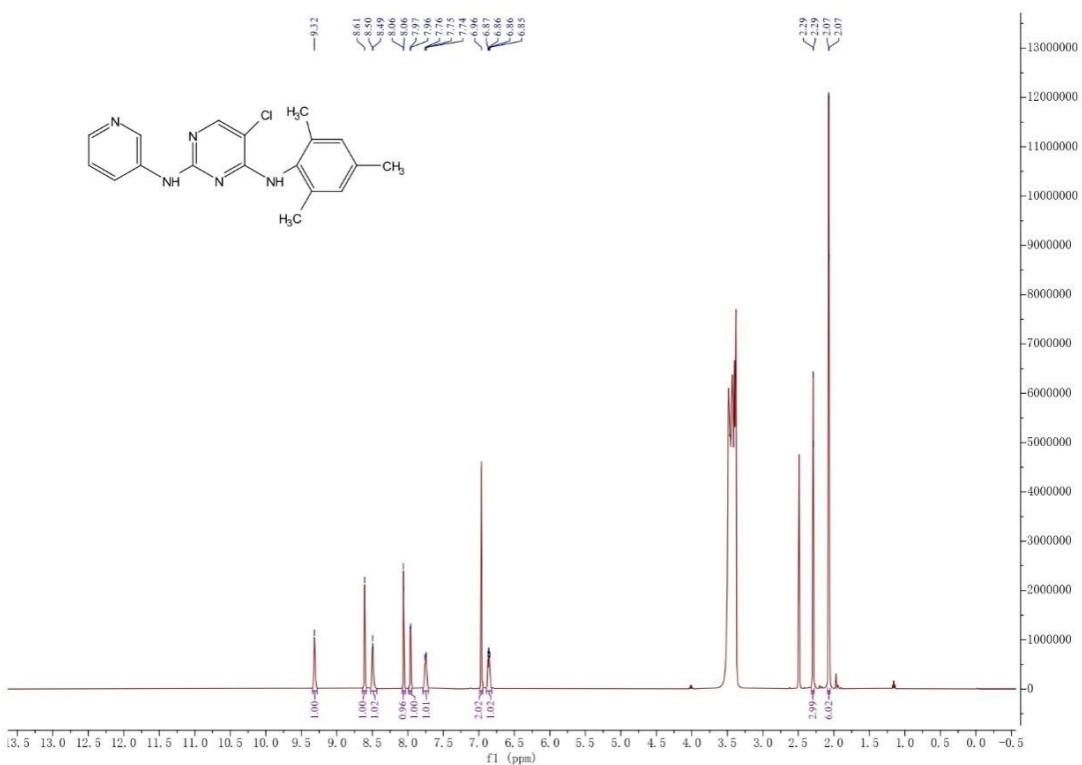


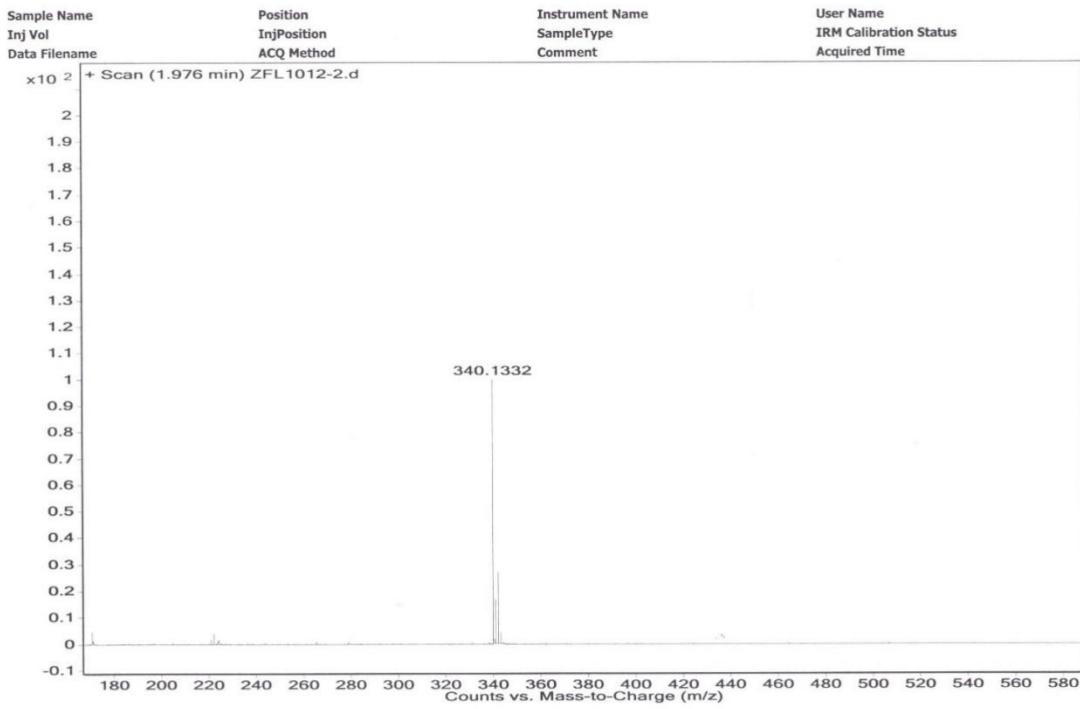
**Figure S10.** The  $^1\text{H}$  NMR,  $^{13}\text{C}$  NMR and ESI-HRMS spectra of compound **15**.



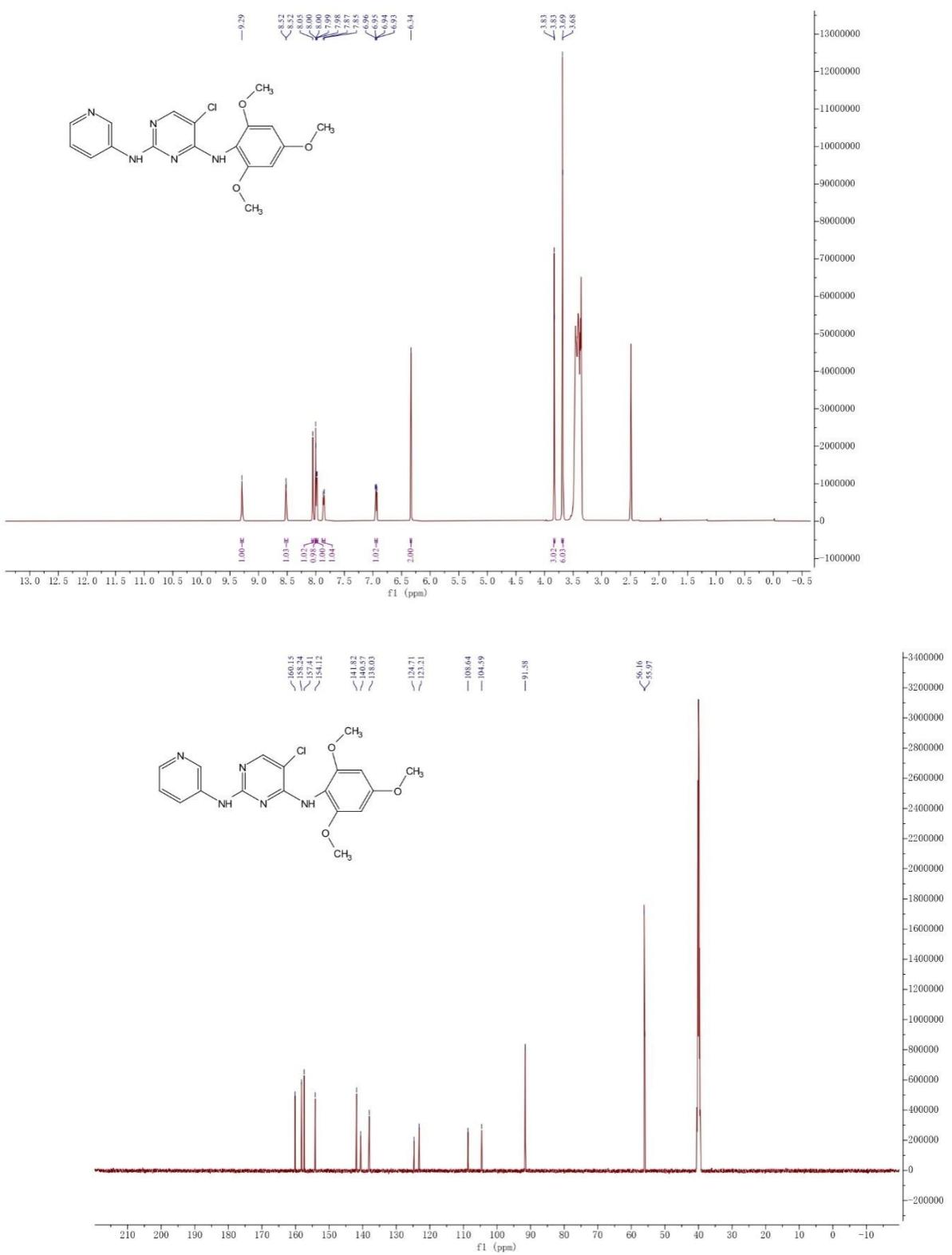


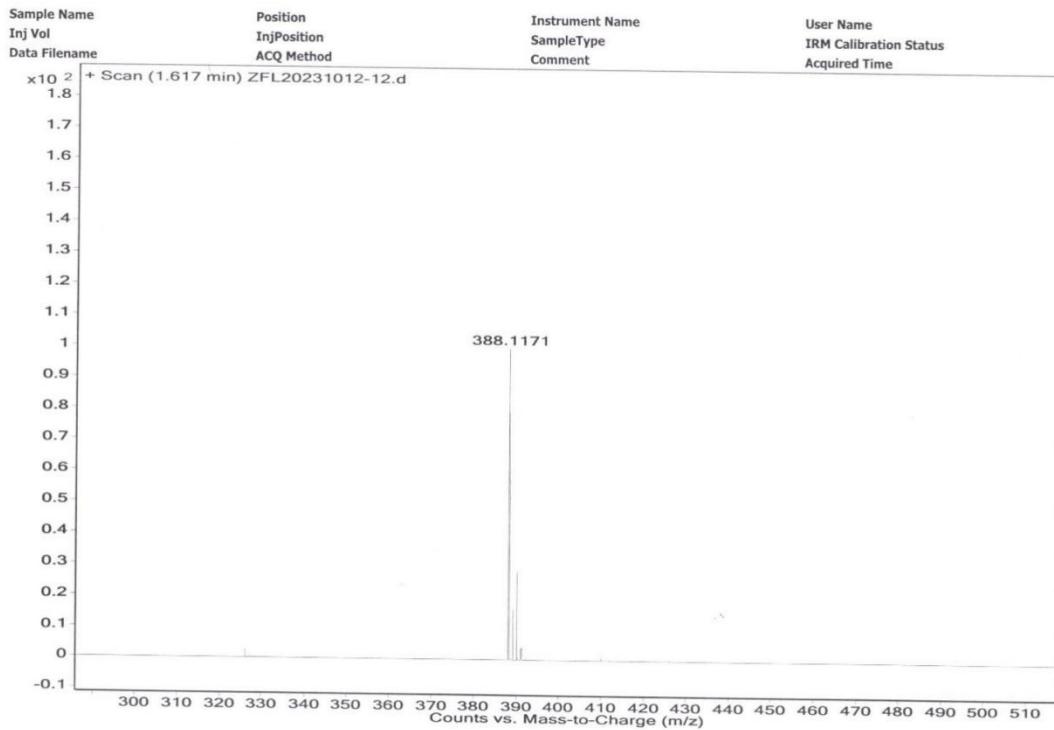
**Figure S11.** The  $^1\text{H}$  NMR,  $^{13}\text{C}$  NMR and ESI-HRMS spectra of compound **16**.



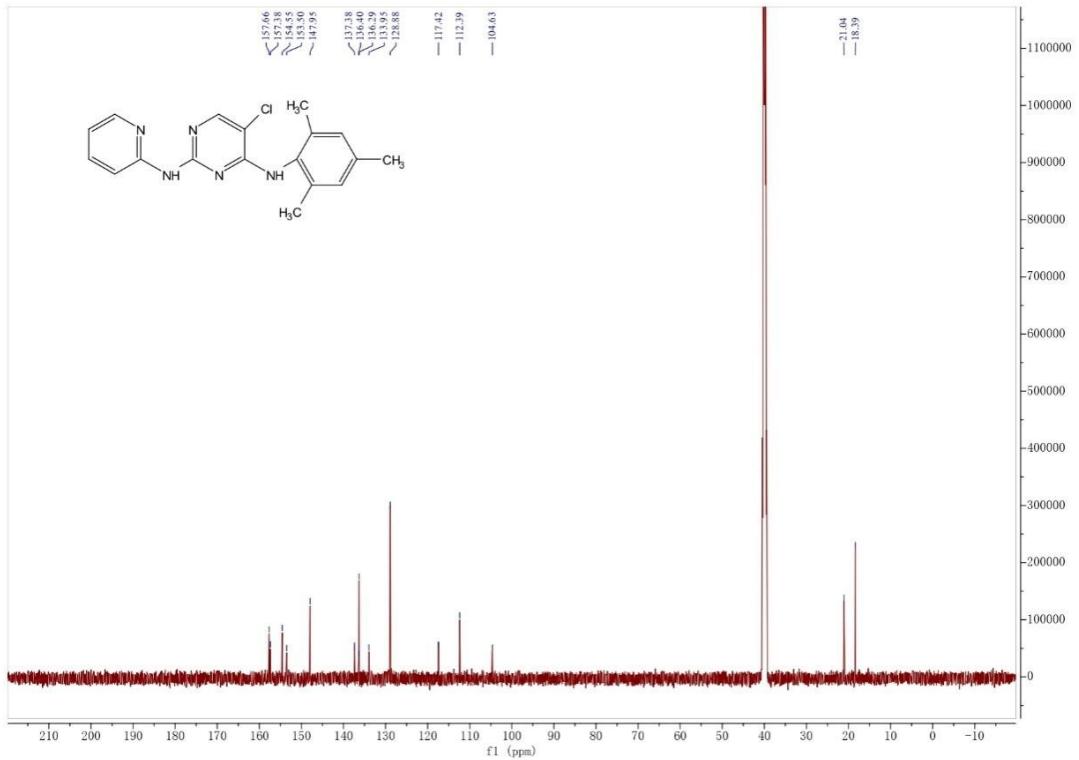
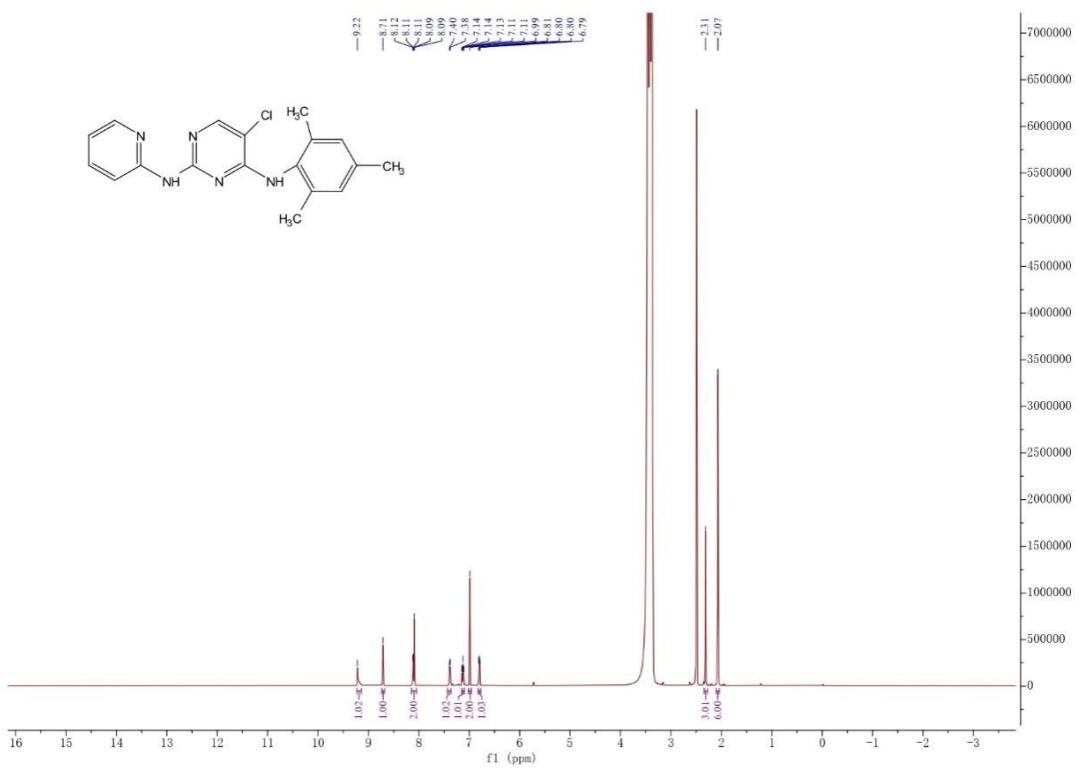


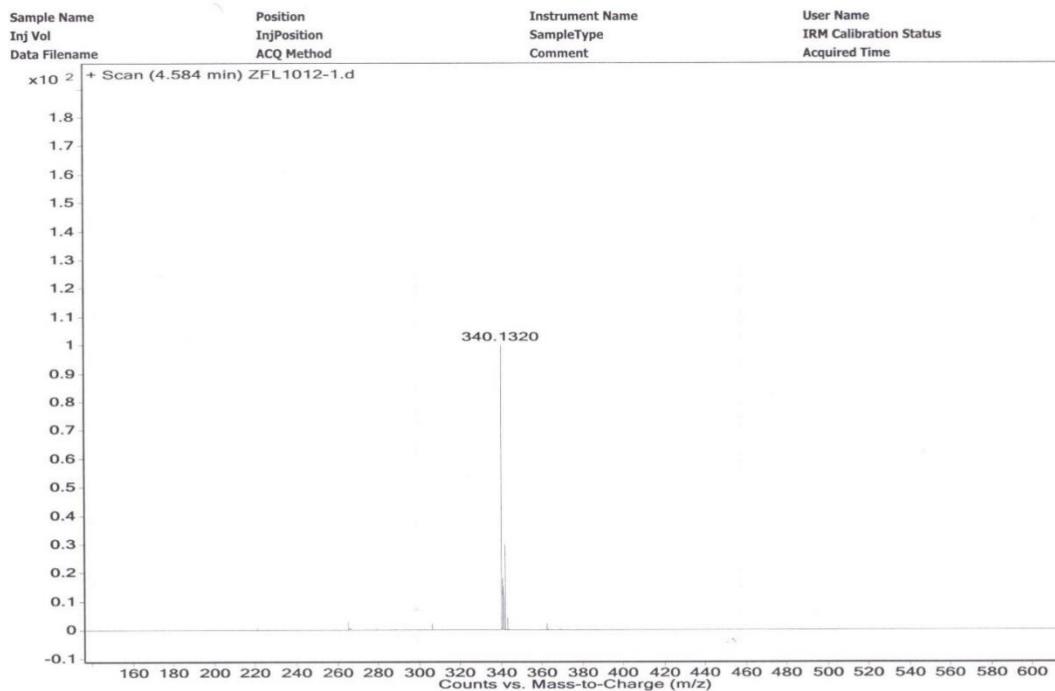
**Figure S12.** The <sup>1</sup>H NMR, <sup>13</sup>C NMR and ESI-HRMS spectra of compound 17.



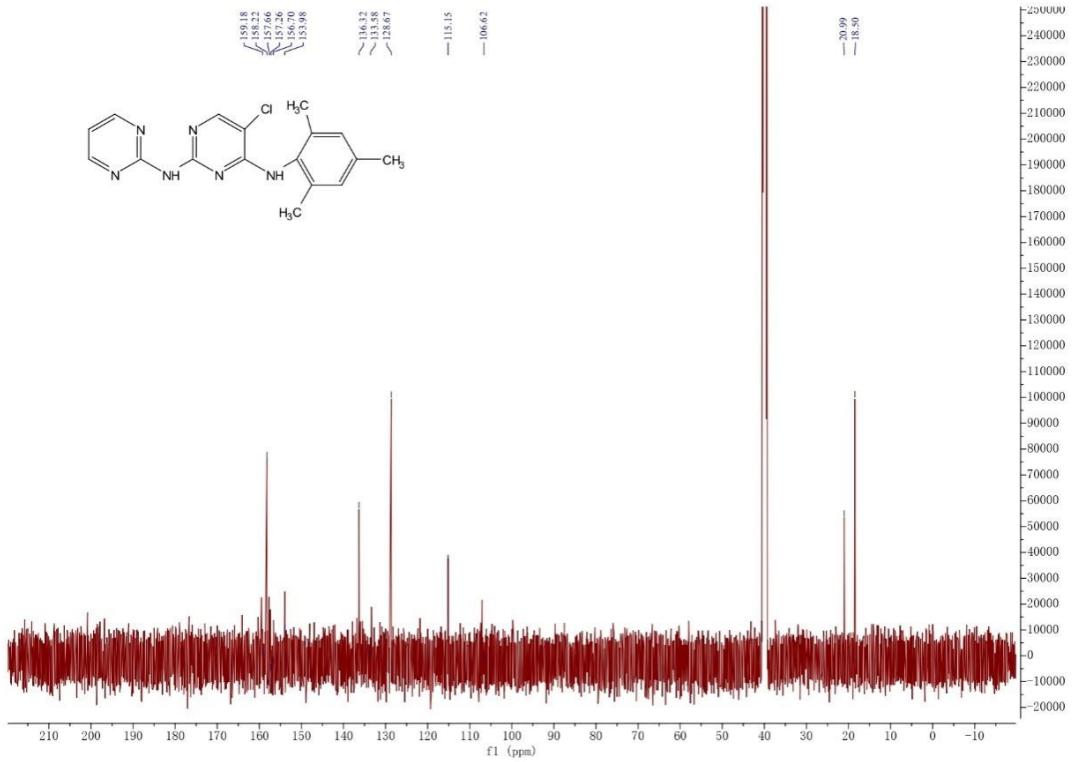
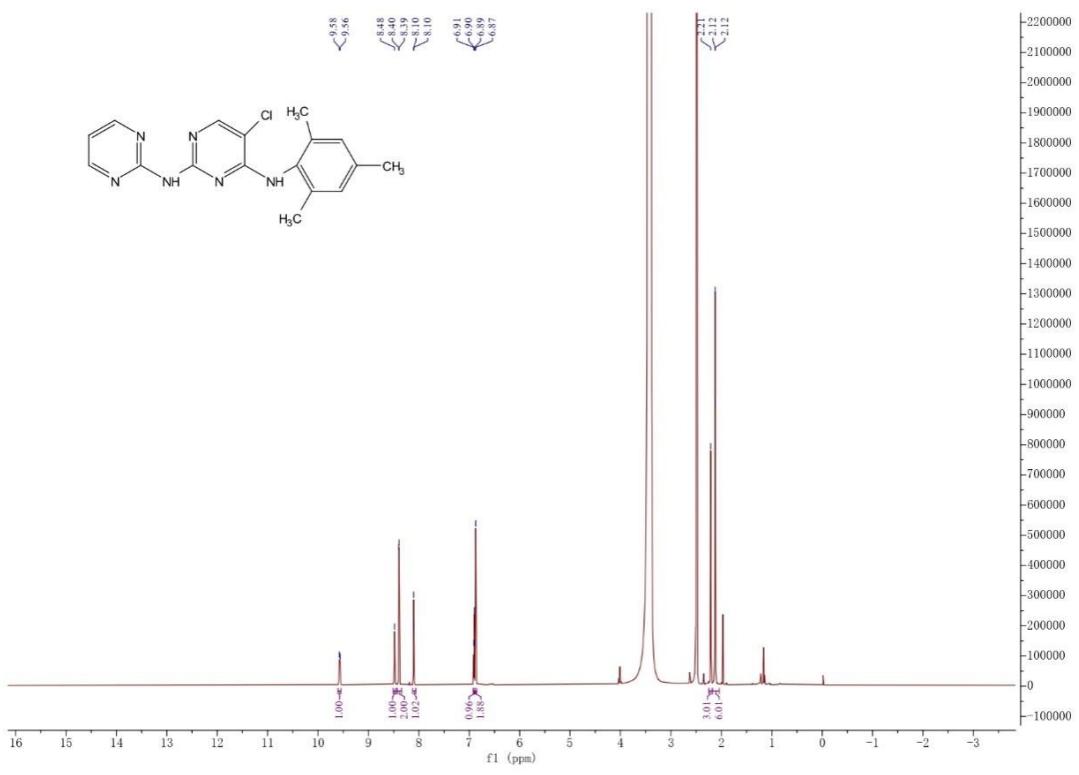


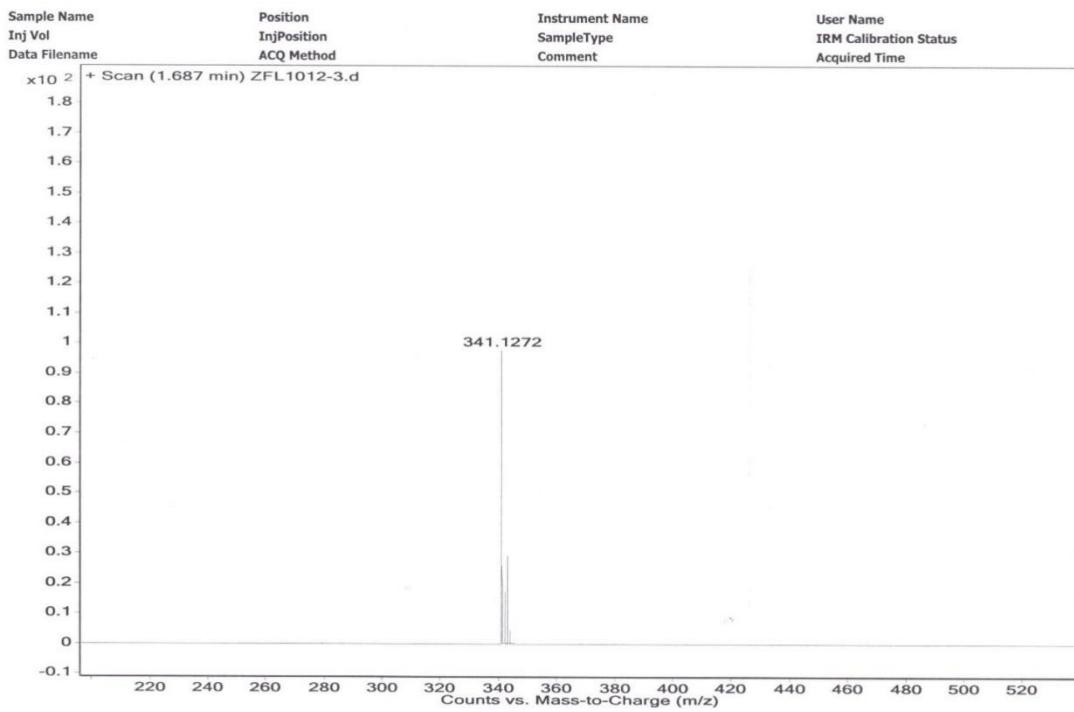
**Figure S13.** The  $^1\text{H}$  NMR,  $^{13}\text{C}$  NMR and ESI-HRMS spectra of compound **18**.



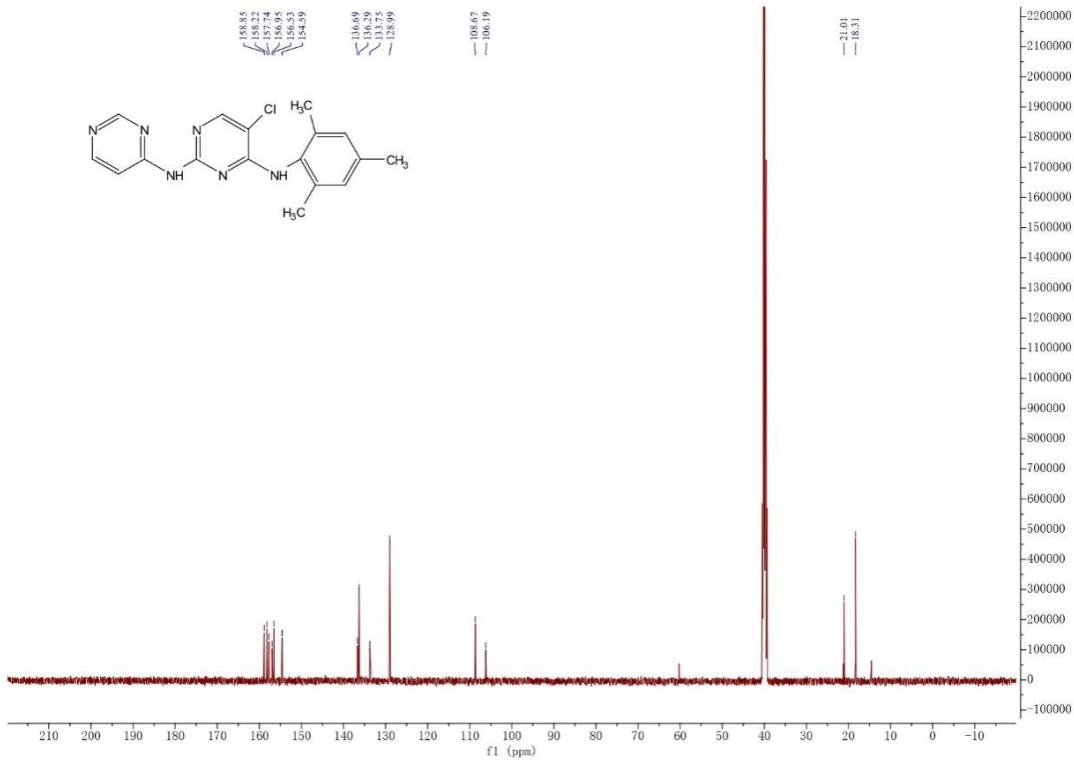
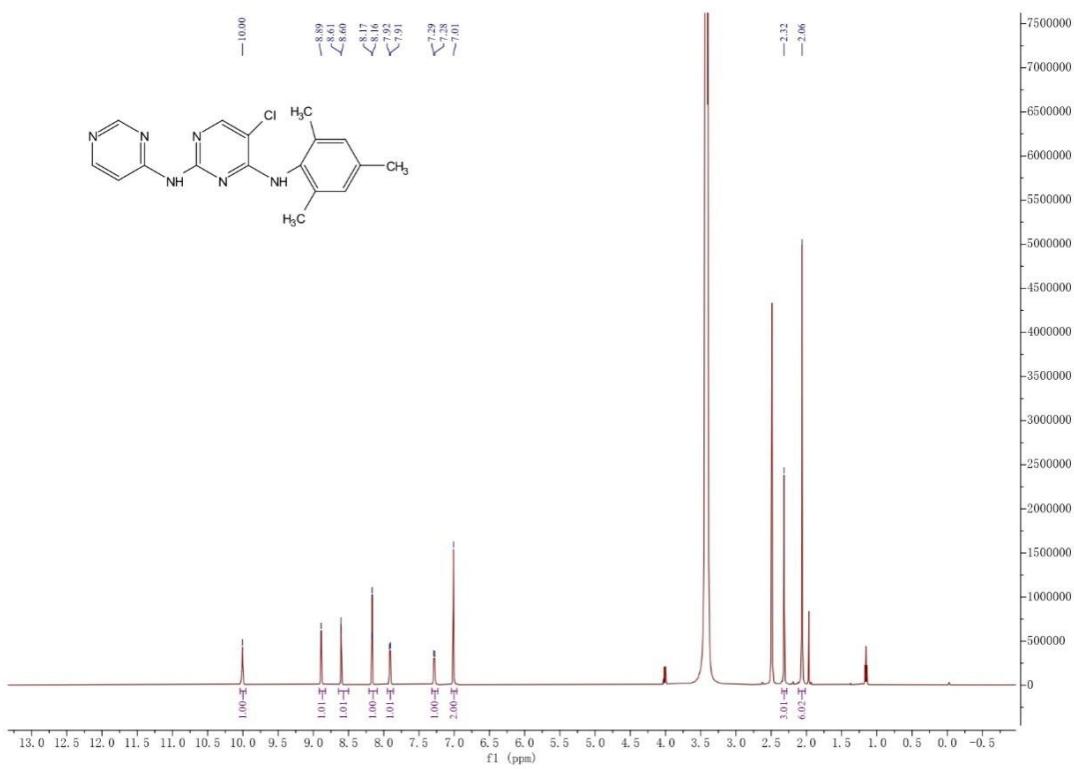


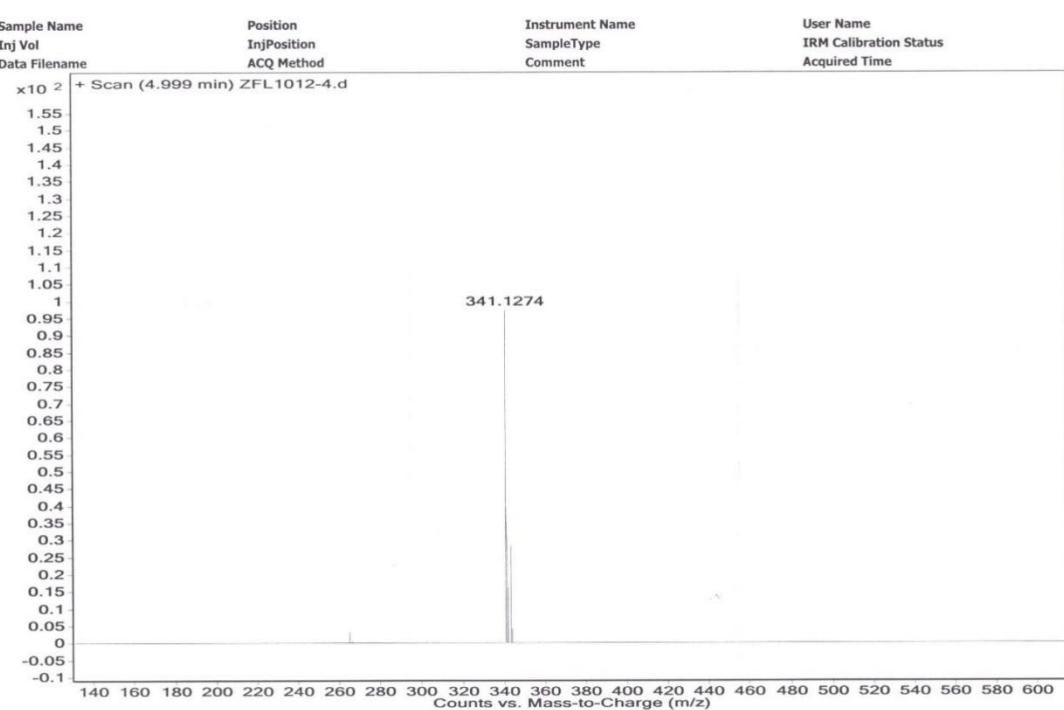
**Figure S14.** The  $^1\text{H}$  NMR,  $^{13}\text{C}$  NMR and ESI-HRMS spectra of compound **19**.



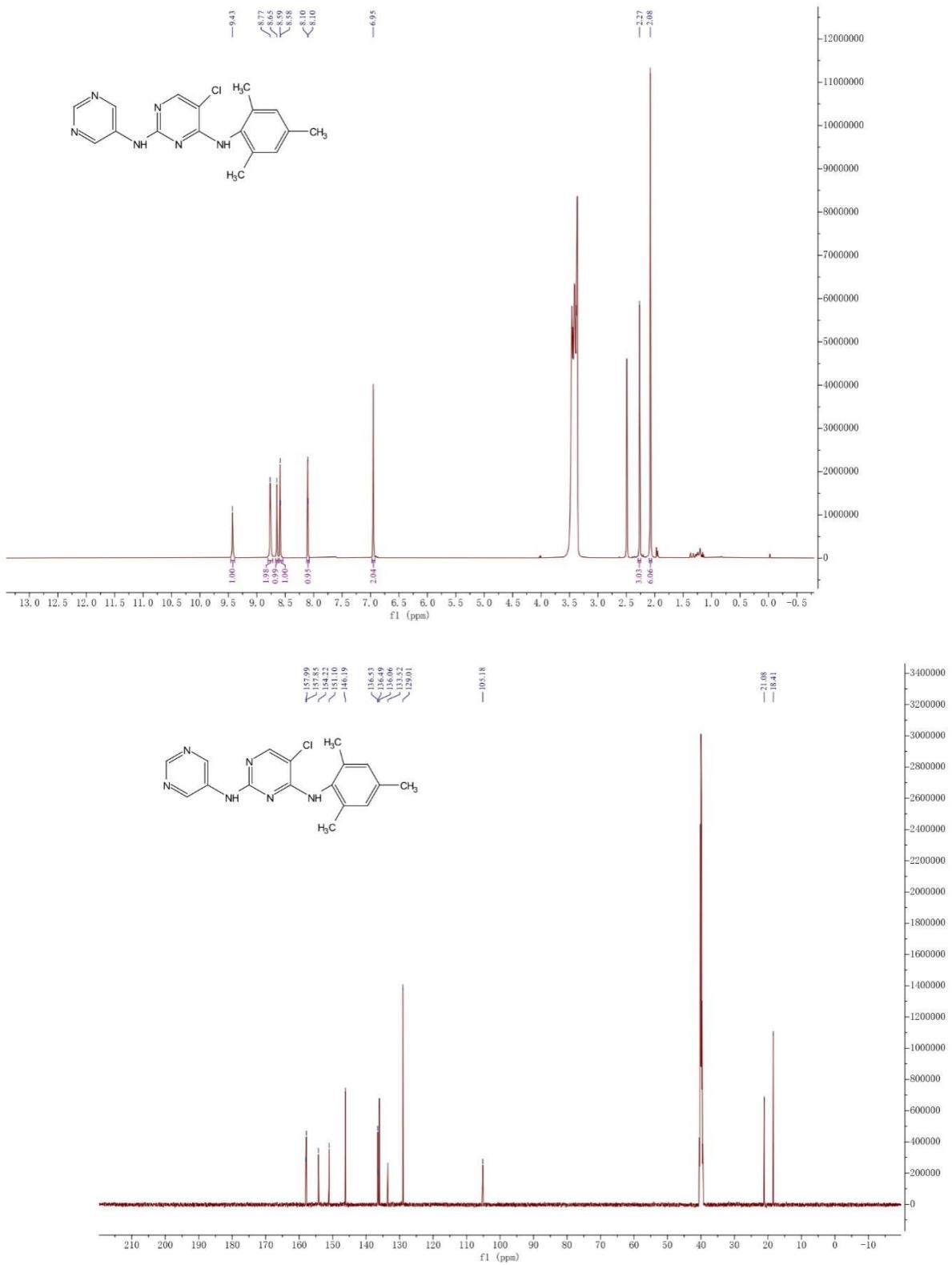


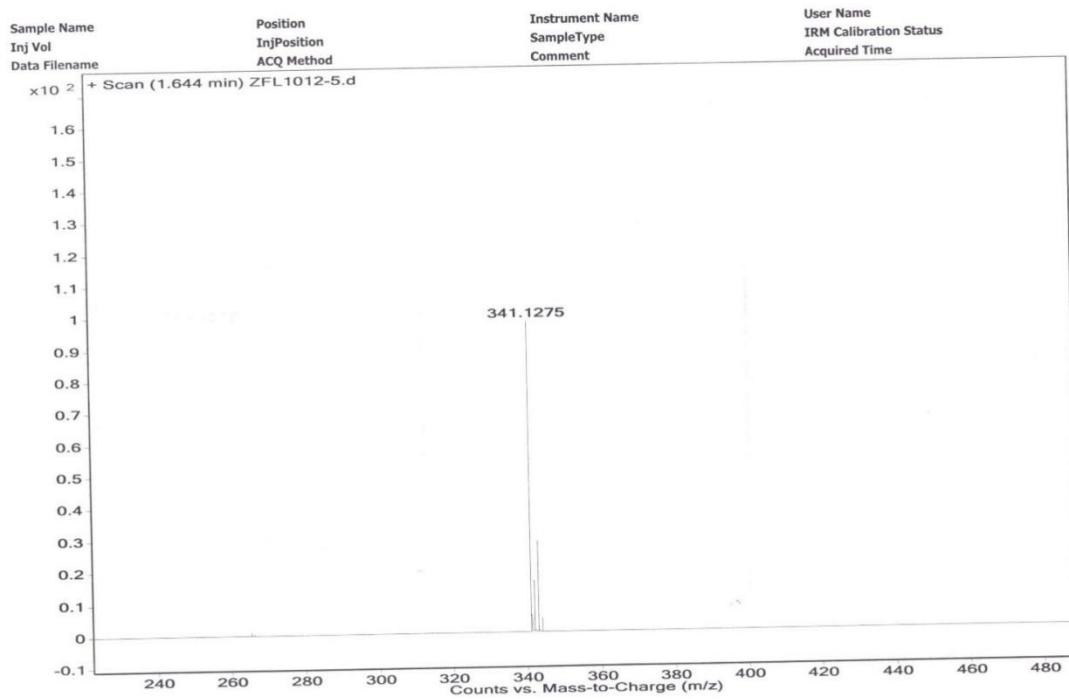
**Figure S15.** The <sup>1</sup>H NMR, <sup>13</sup>C NMR and ESI-HRMS spectra of compound **20**.



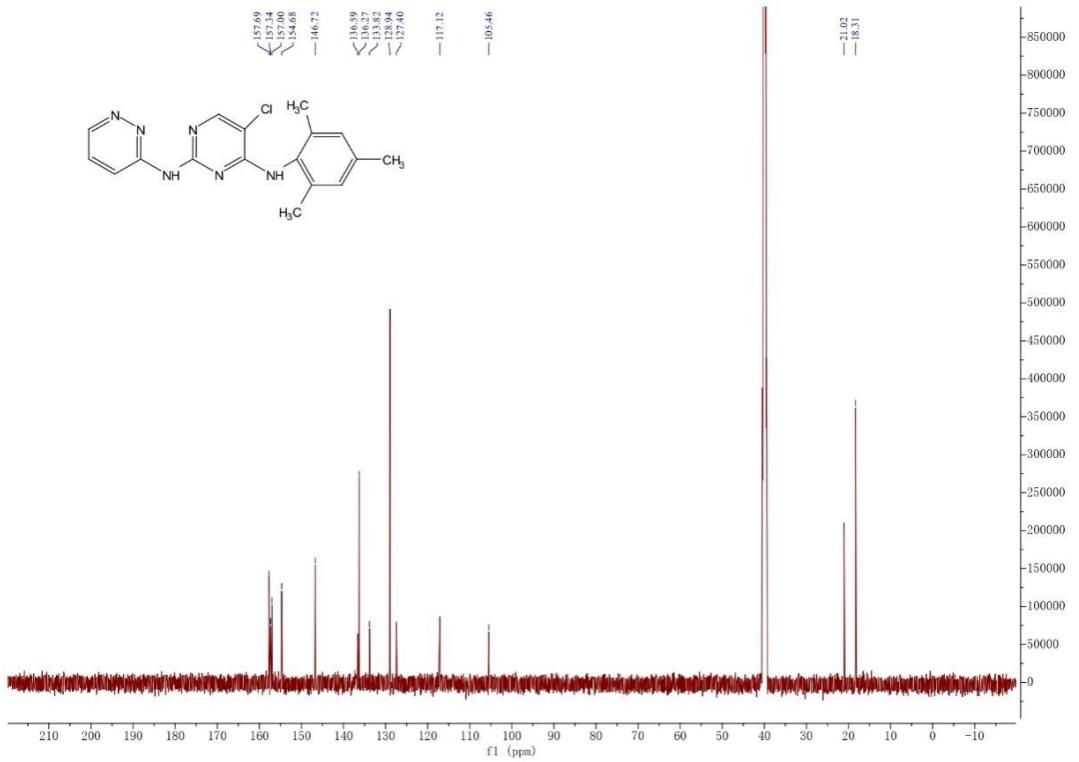
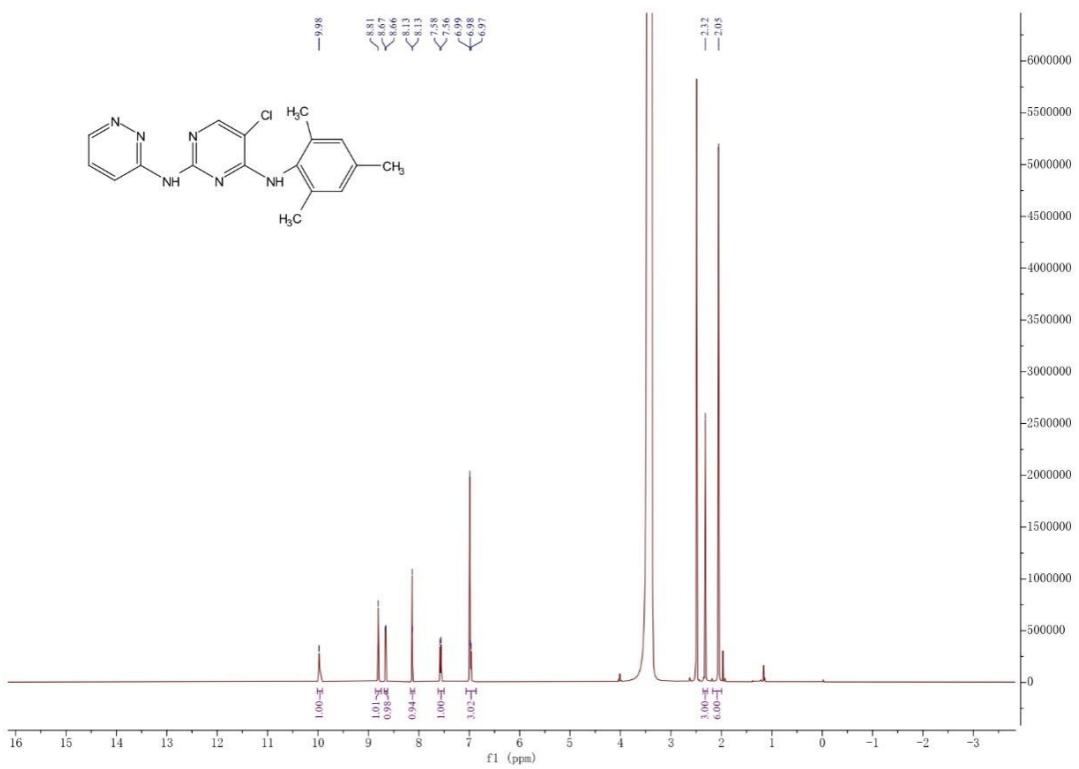


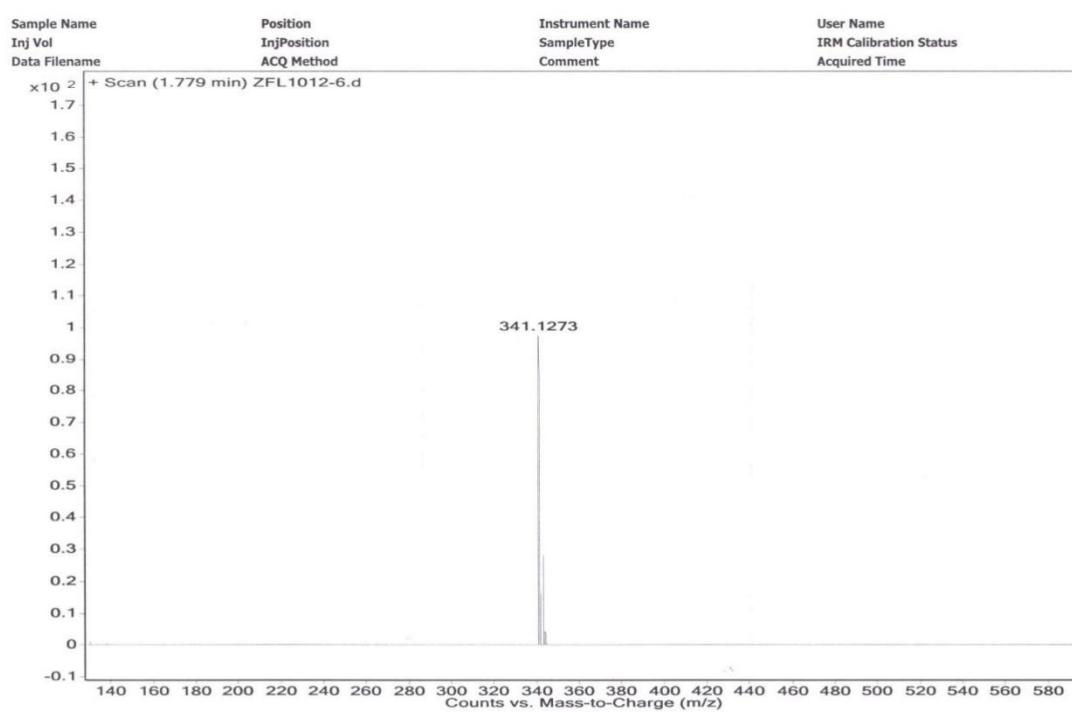
**Figure S16.** The  $^1\text{H}$  NMR,  $^{13}\text{C}$  NMR and ESI-HRMS spectra of compound **21**.



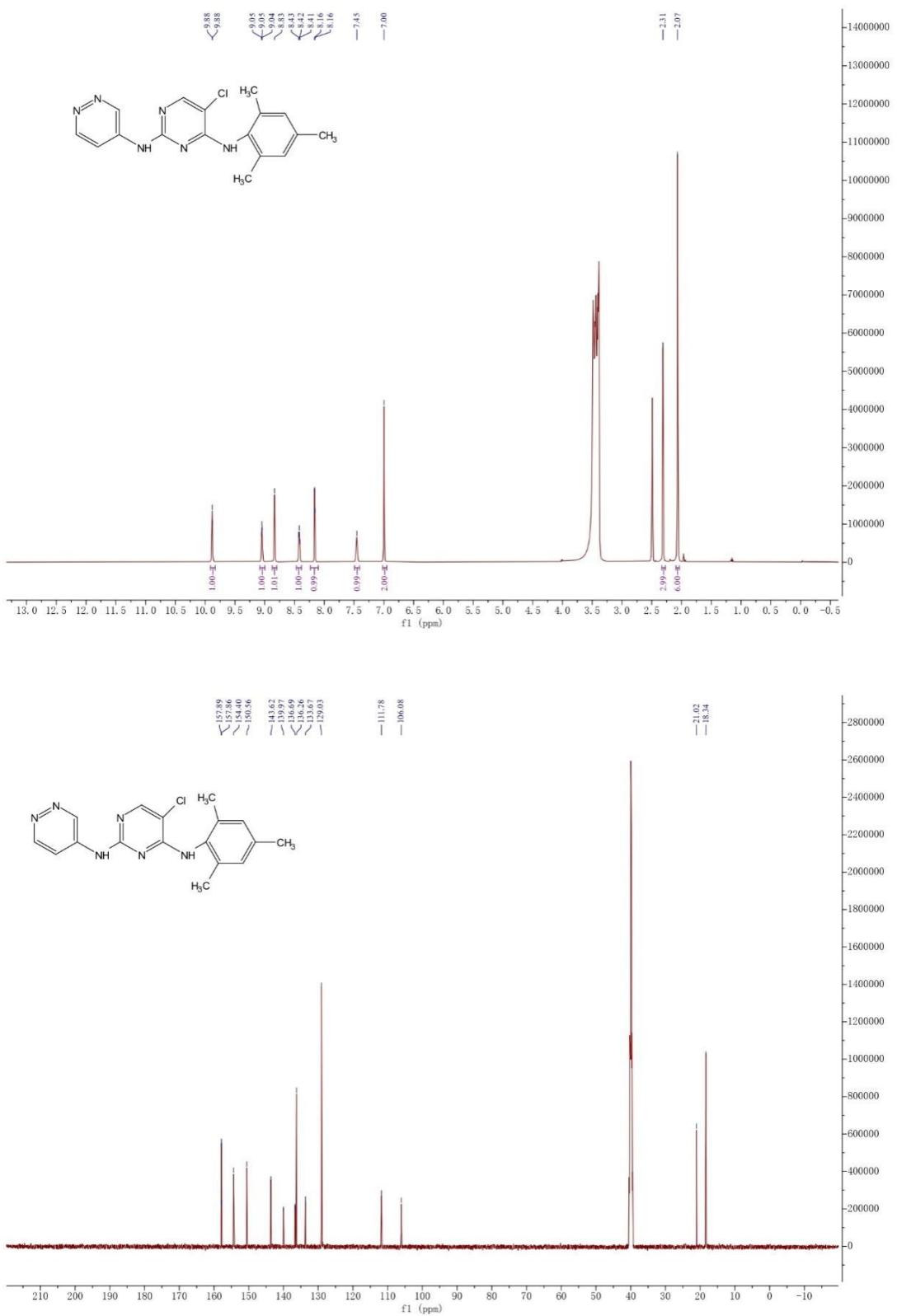


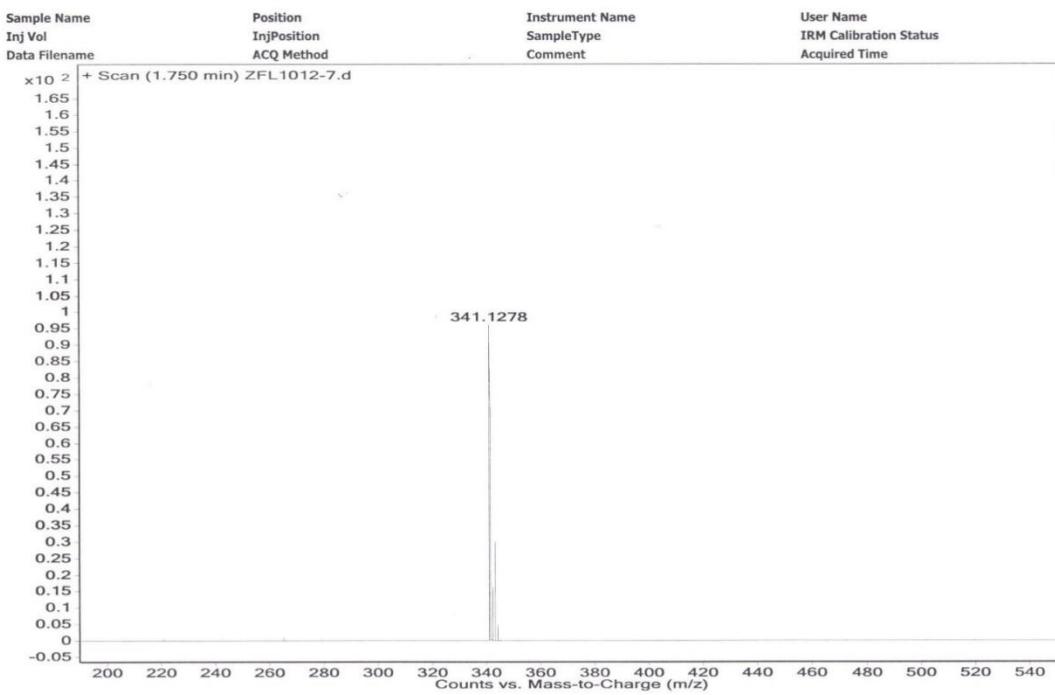
**Figure S17.** The  $^1\text{H}$  NMR,  $^{13}\text{C}$  NMR and ESI-HRMS spectra of compound 22.



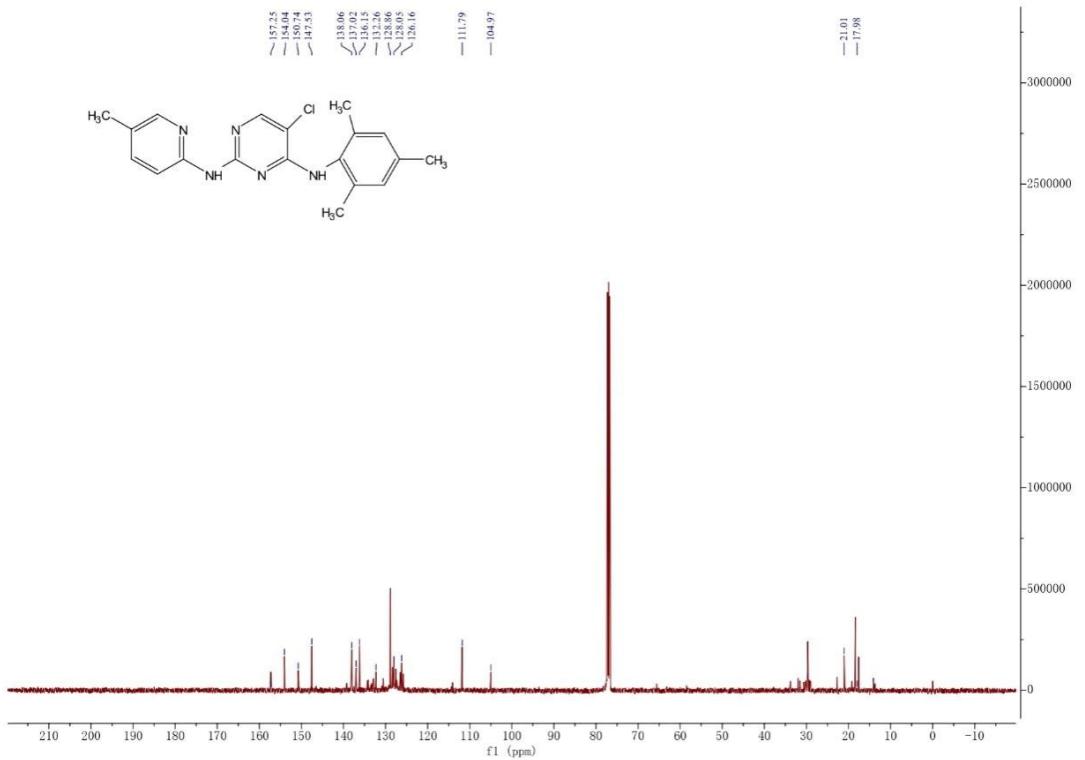
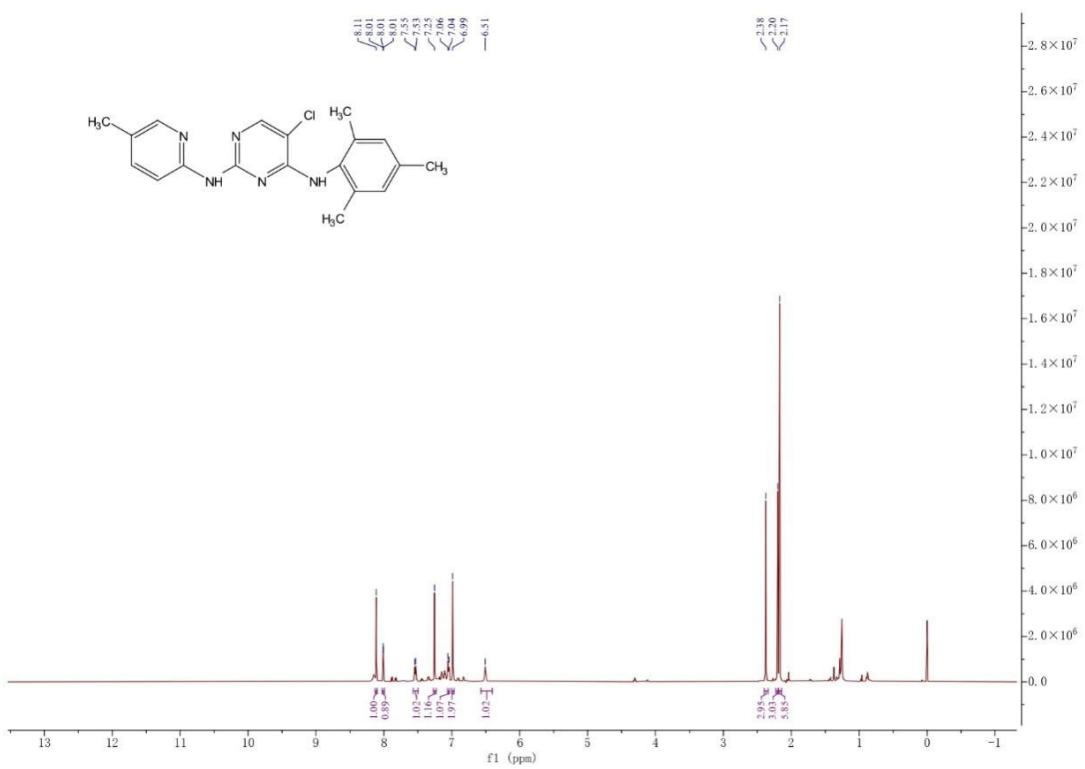


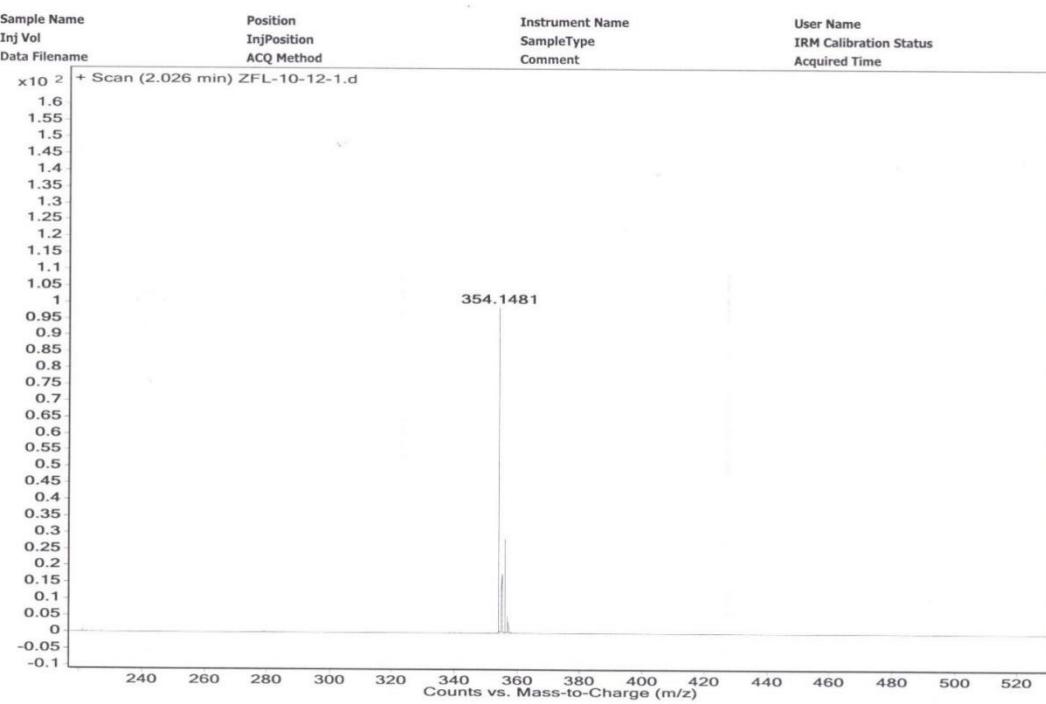
**Figure S18.** The  $^1\text{H}$  NMR,  $^{13}\text{C}$  NMR and ESI-HRMS spectra of compound **23**.



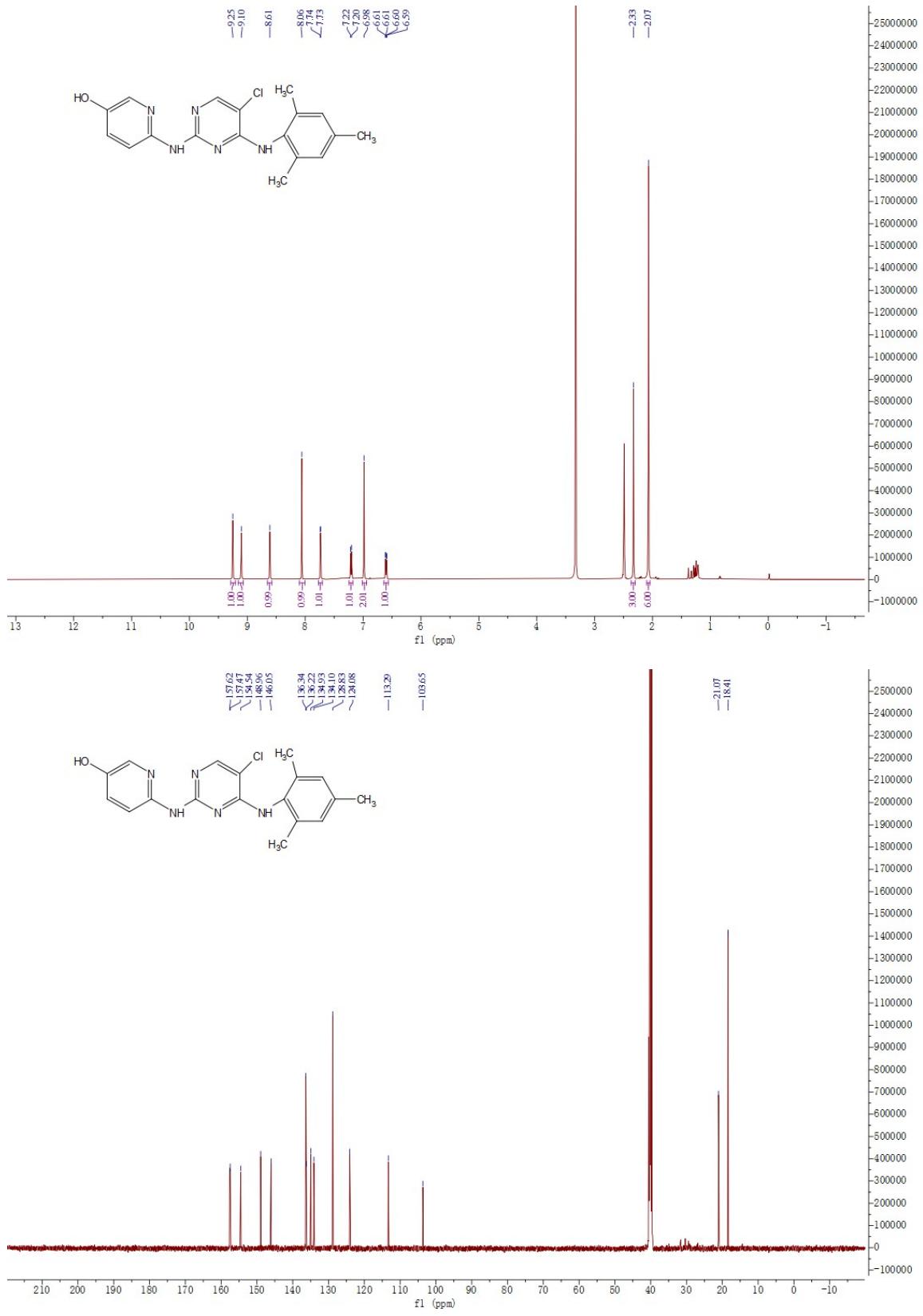


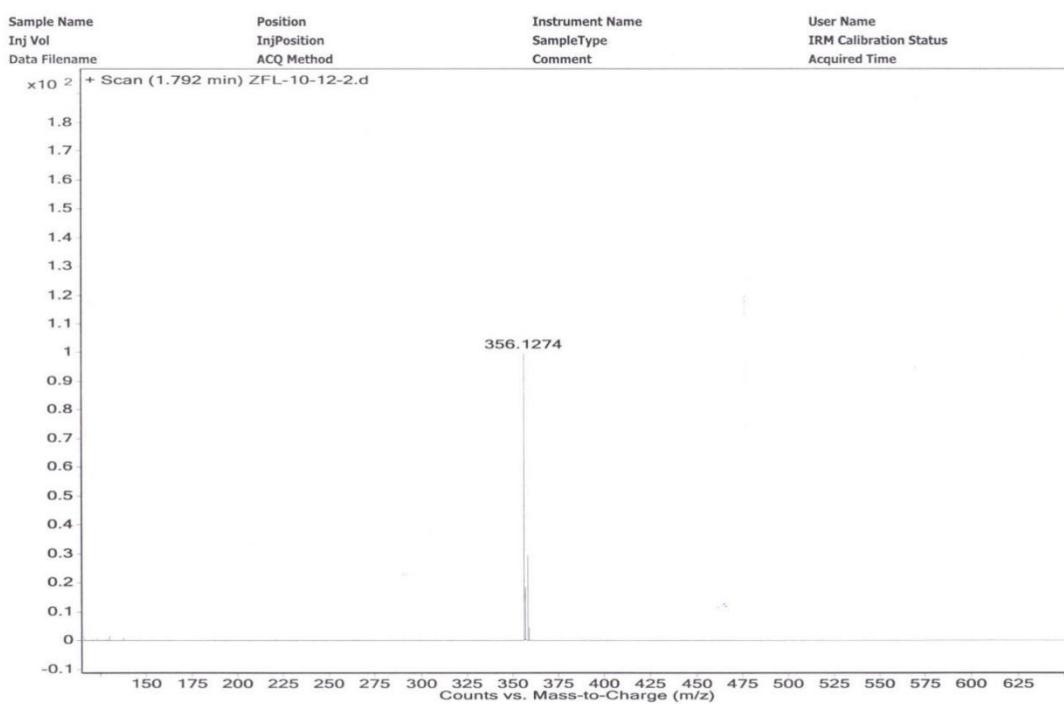
**Figure S19.** The <sup>1</sup>H NMR, <sup>13</sup>C NMR and ESI-HRMS spectra of compound 24.



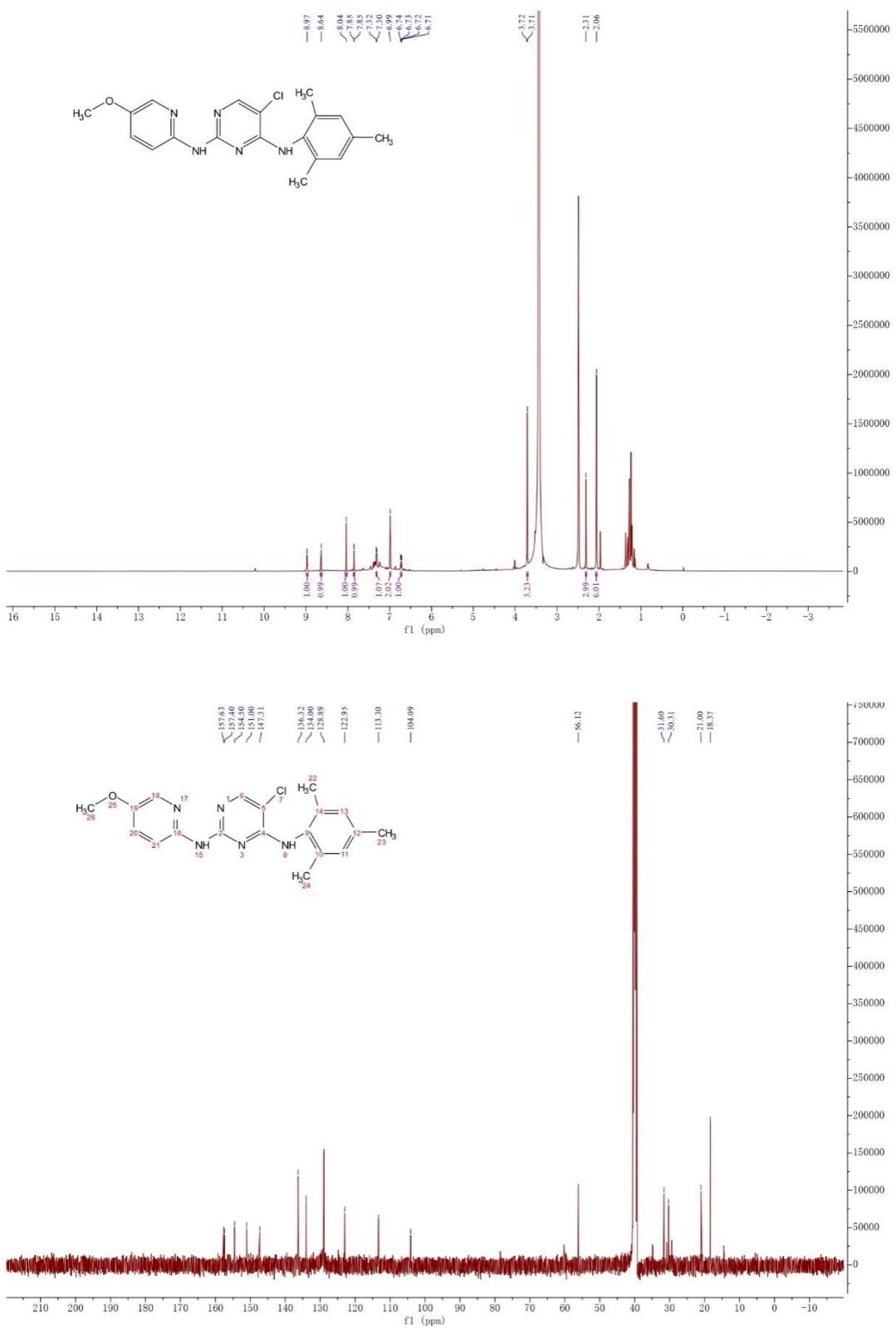


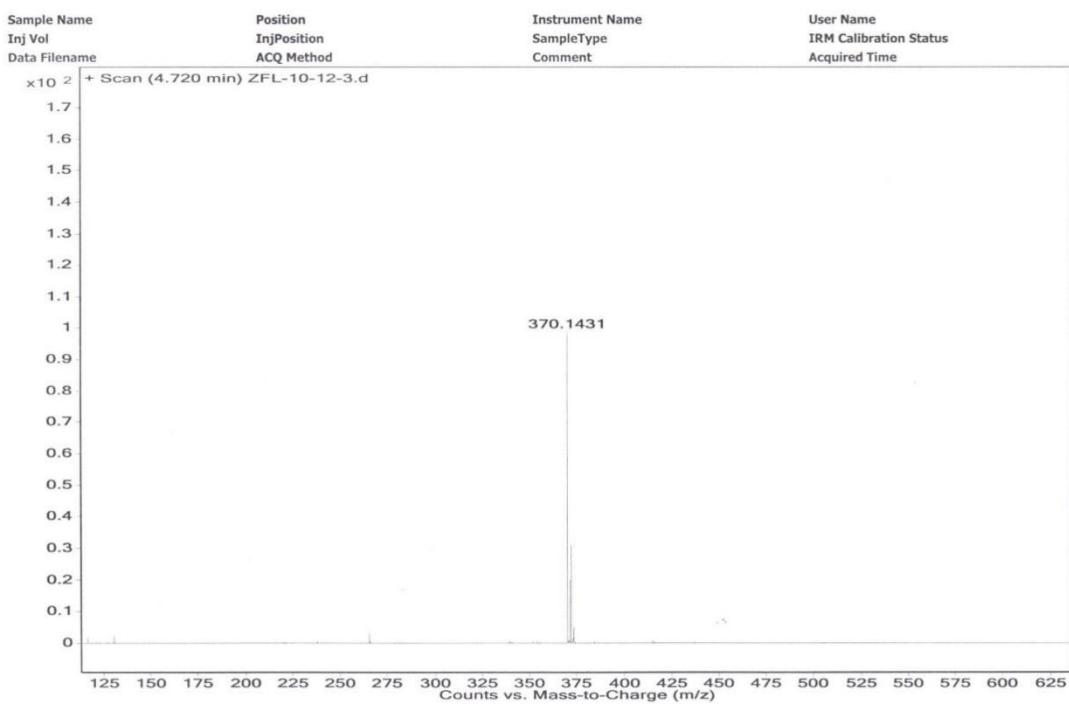
**Figure S20.** The <sup>1</sup>H NMR, <sup>13</sup>C NMR and ESI-HRMS spectra of compound **25**.



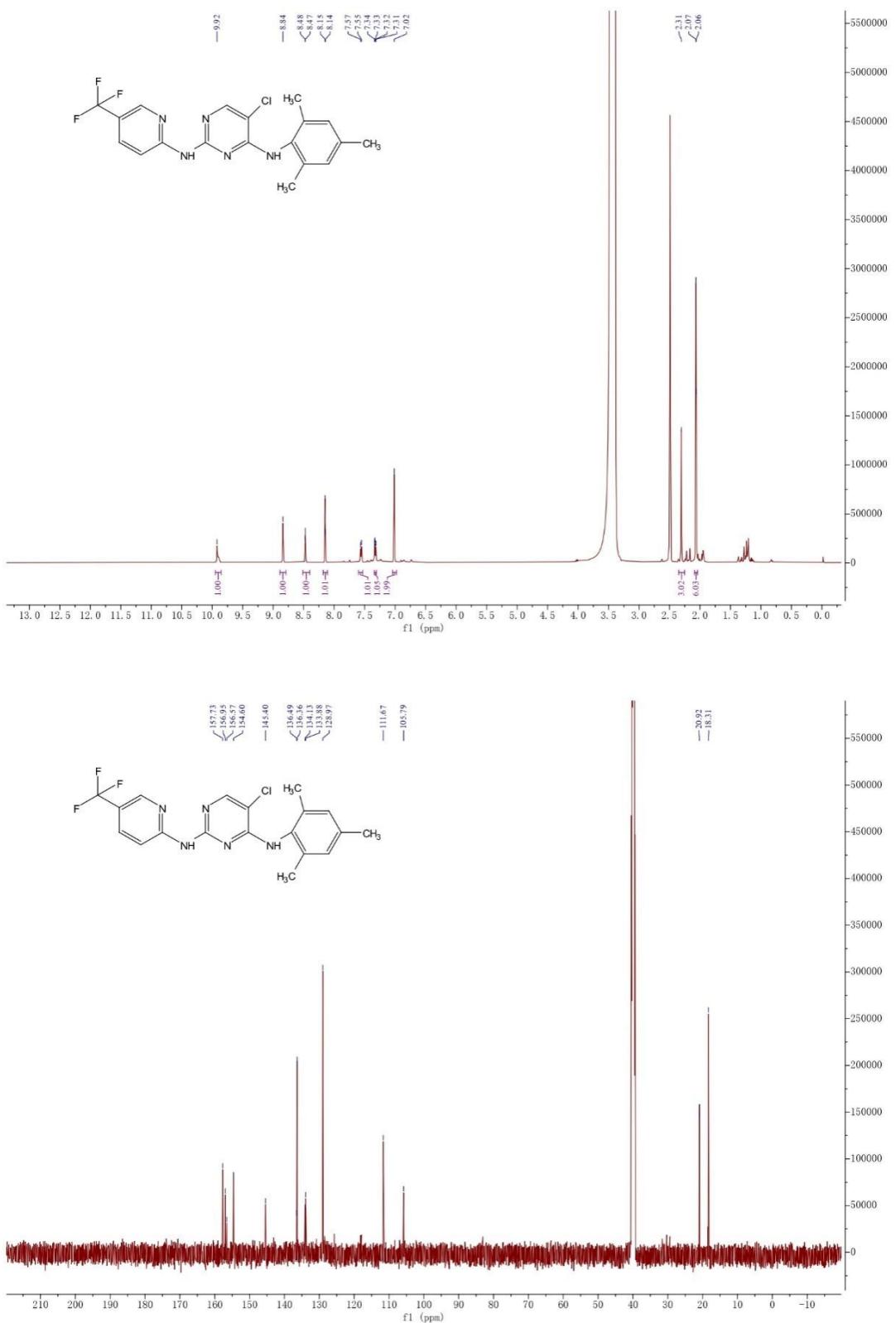


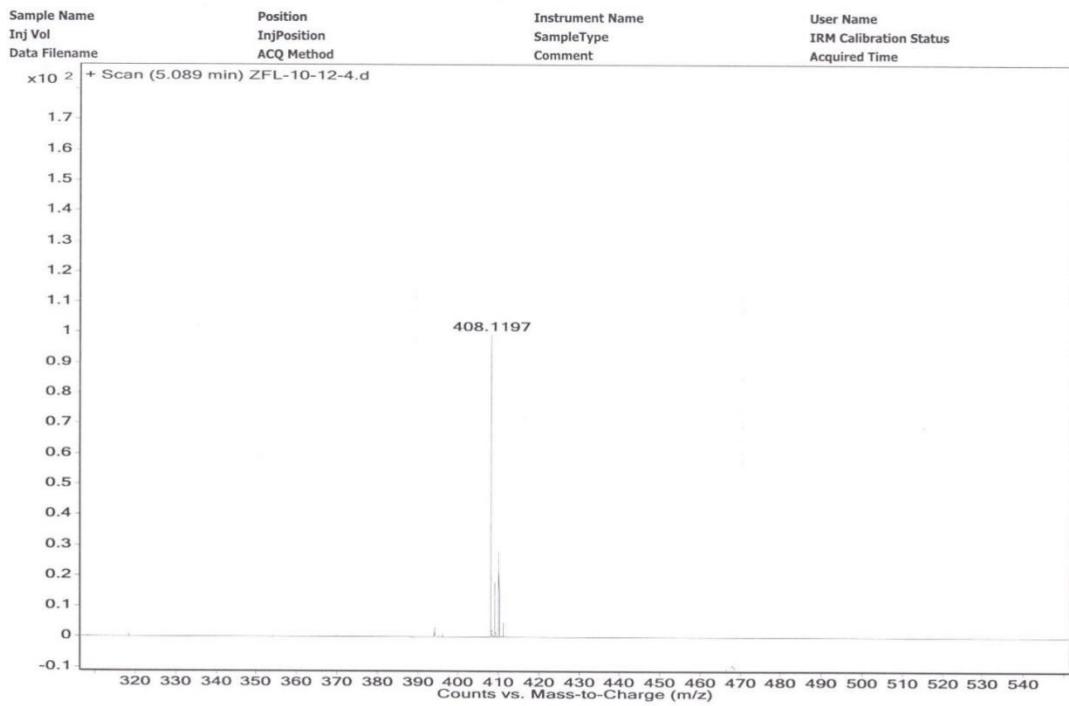
**Figure S21.** The  $^1\text{H}$  NMR,  $^{13}\text{C}$  NMR and ESI-HRMS spectra of compound **26**.



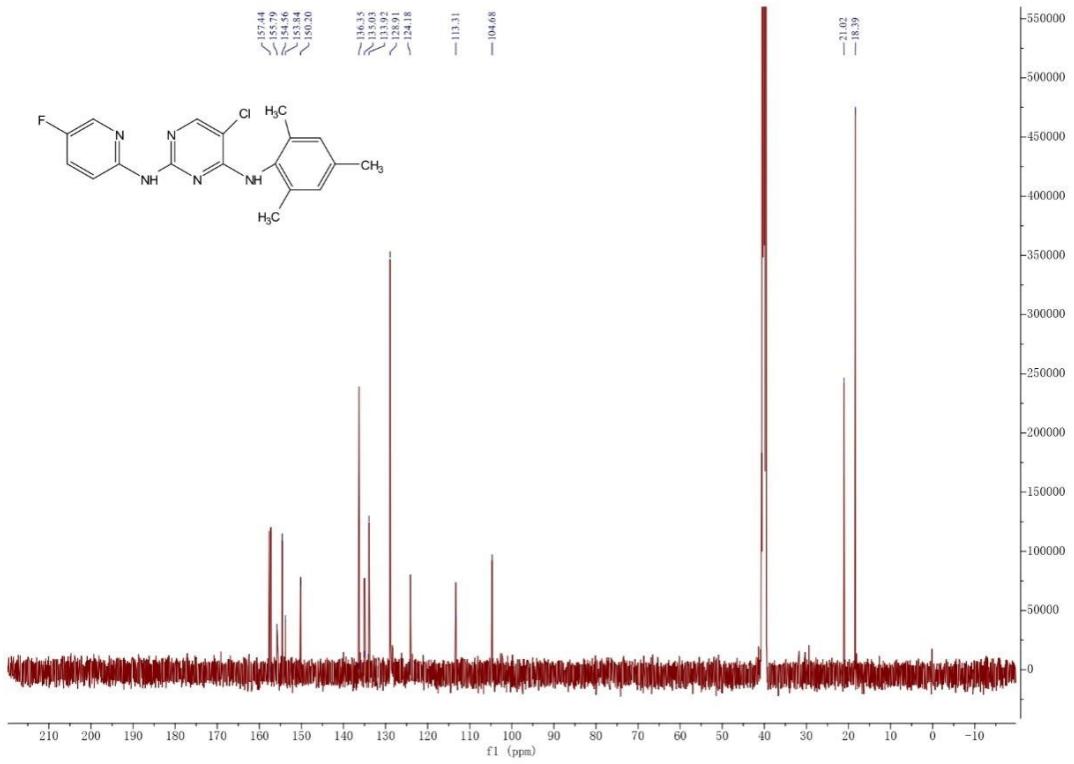
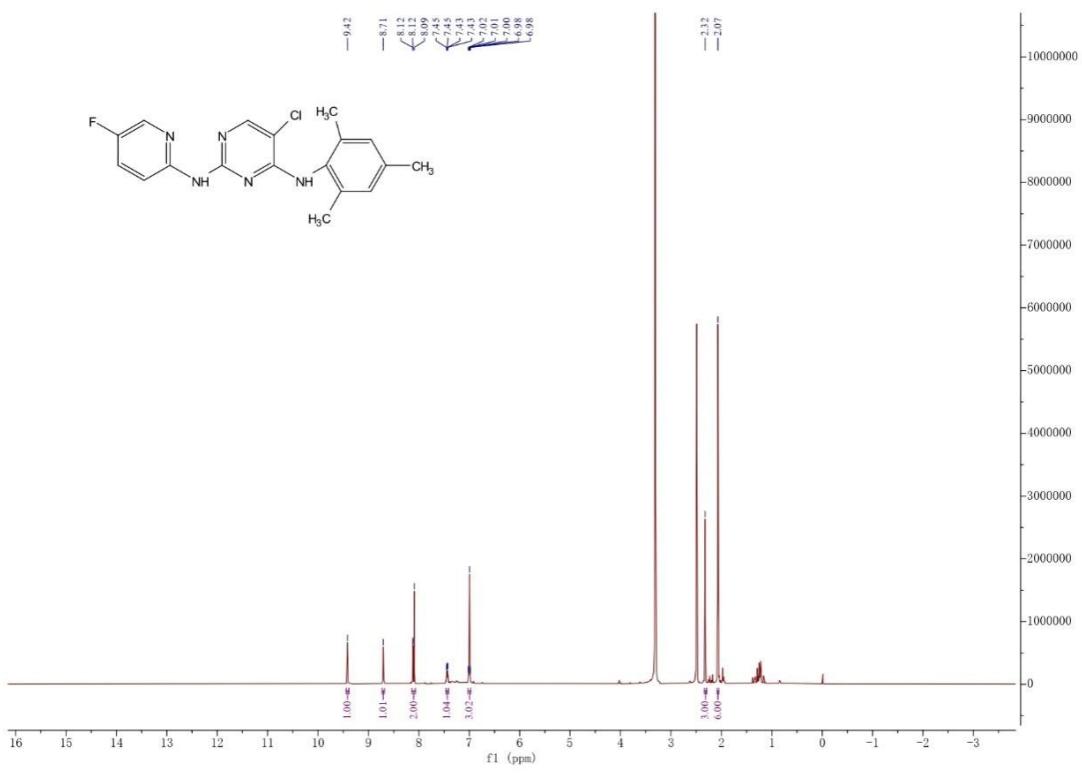


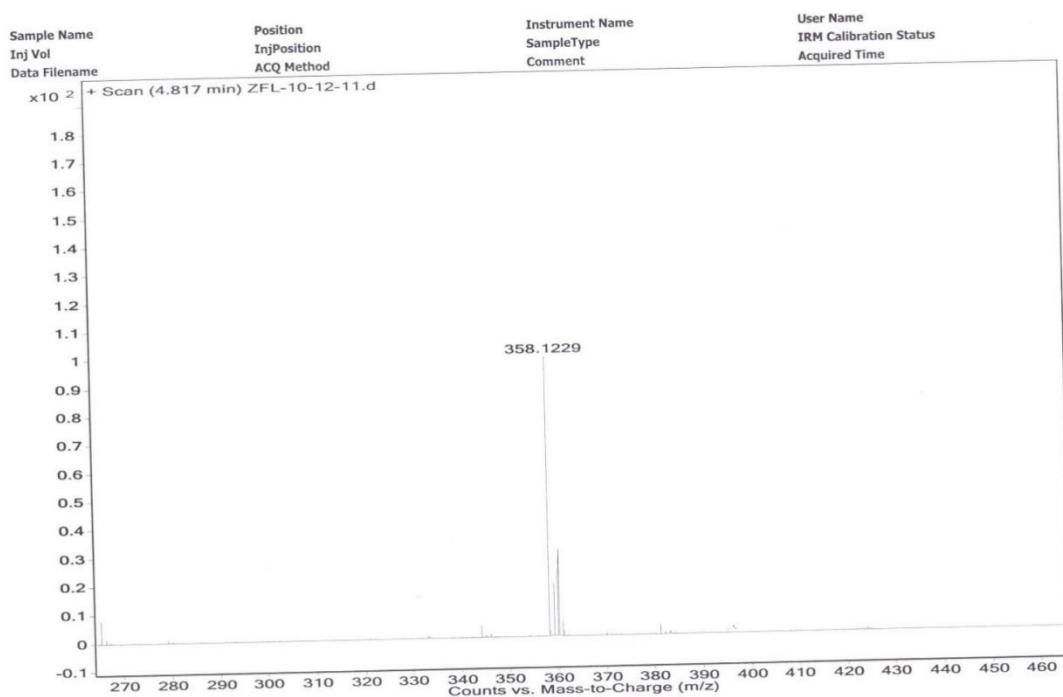
**Figure S22.** The <sup>1</sup>H NMR, <sup>13</sup>C NMR and ESI-HRMS spectra of compound 27.



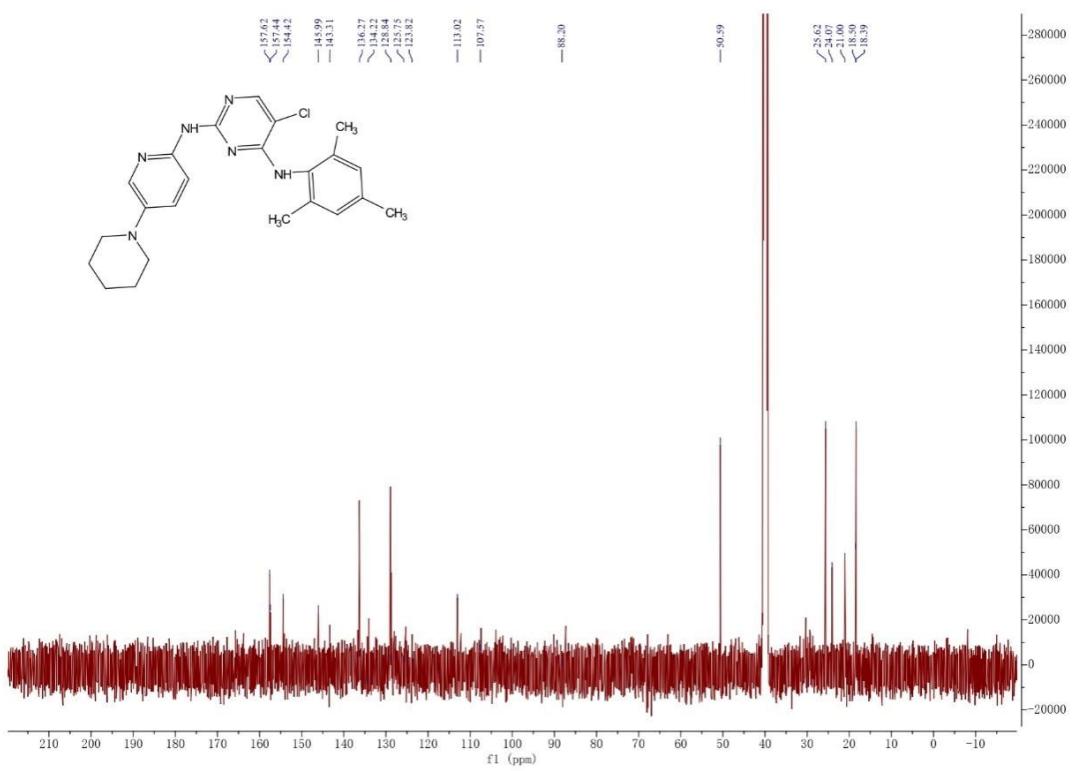
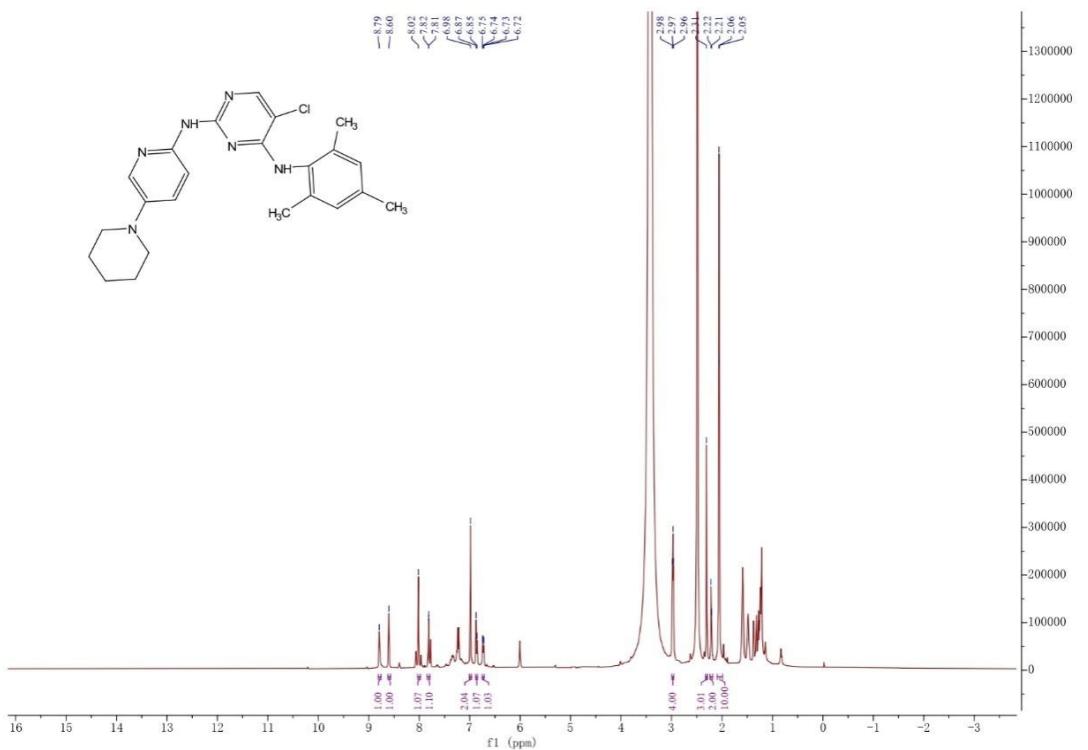


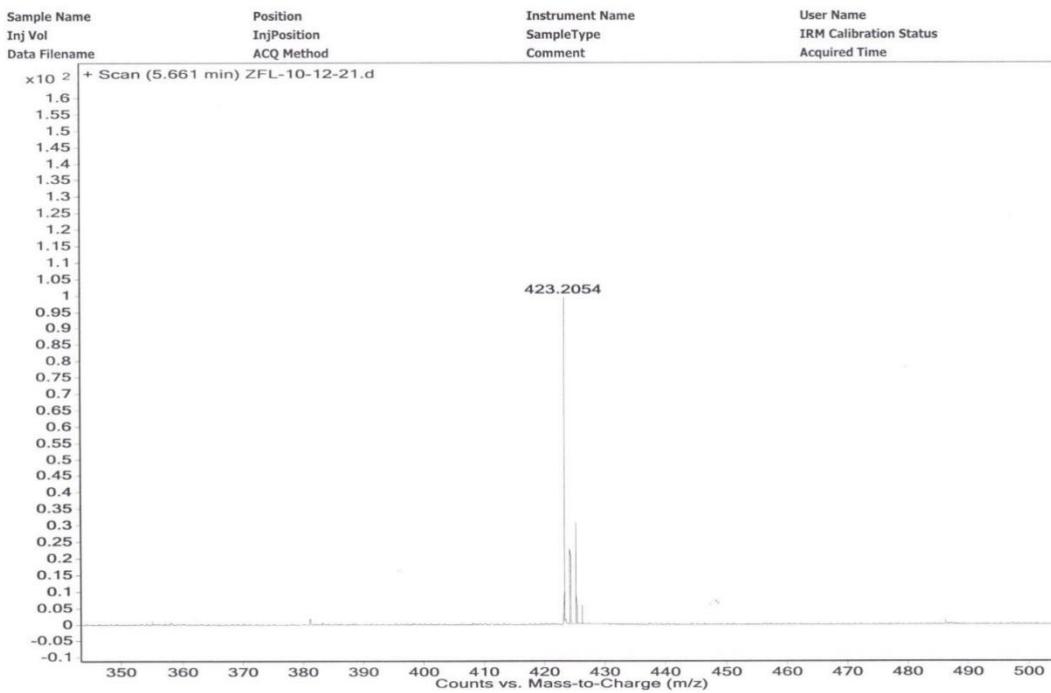
**Figure S23.** The  $^1\text{H}$  NMR,  $^{13}\text{C}$  NMR and ESI-HRMS spectra of compound **28**.



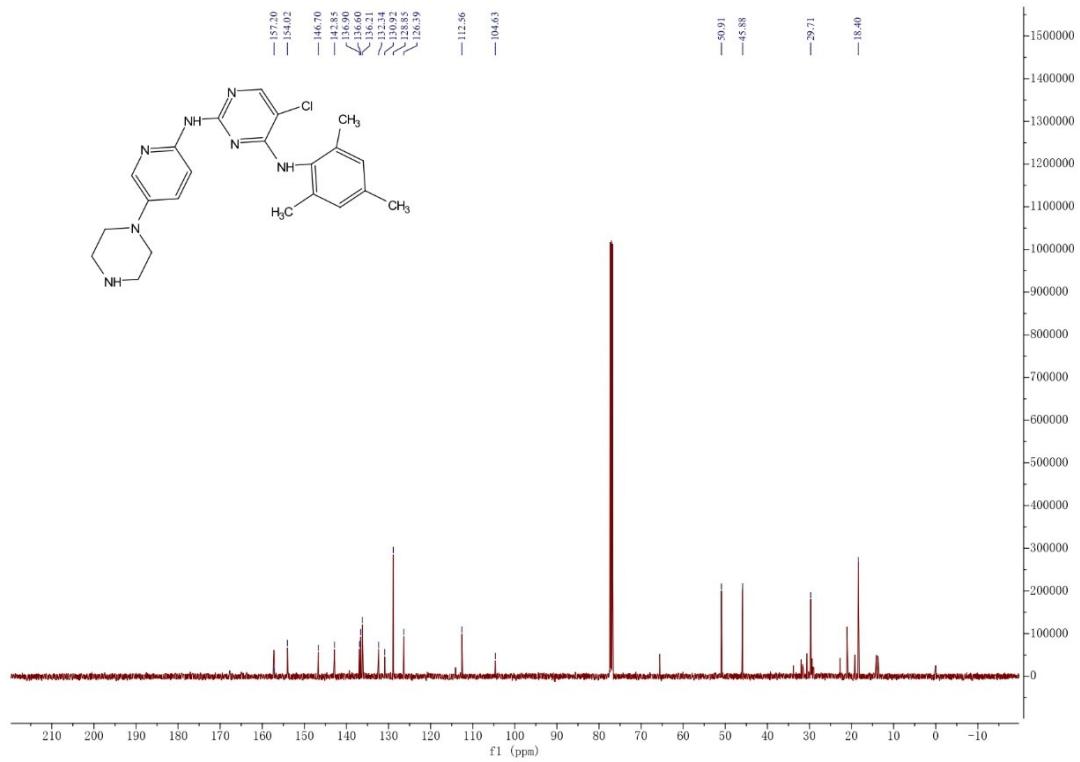
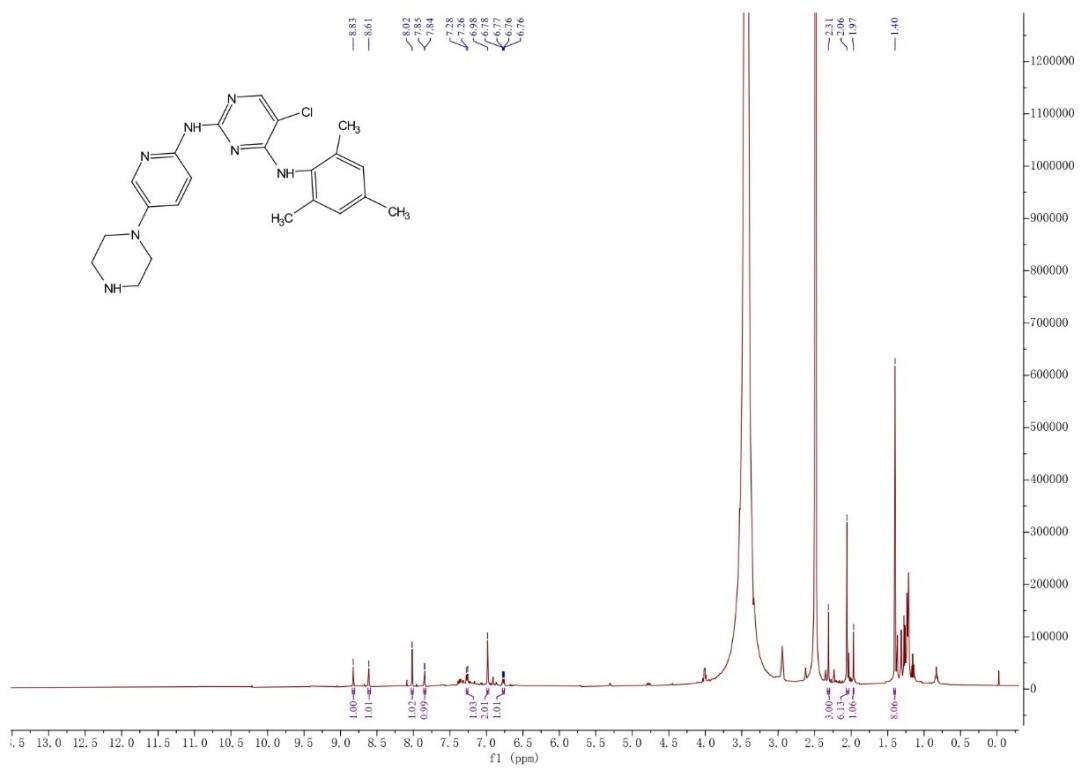


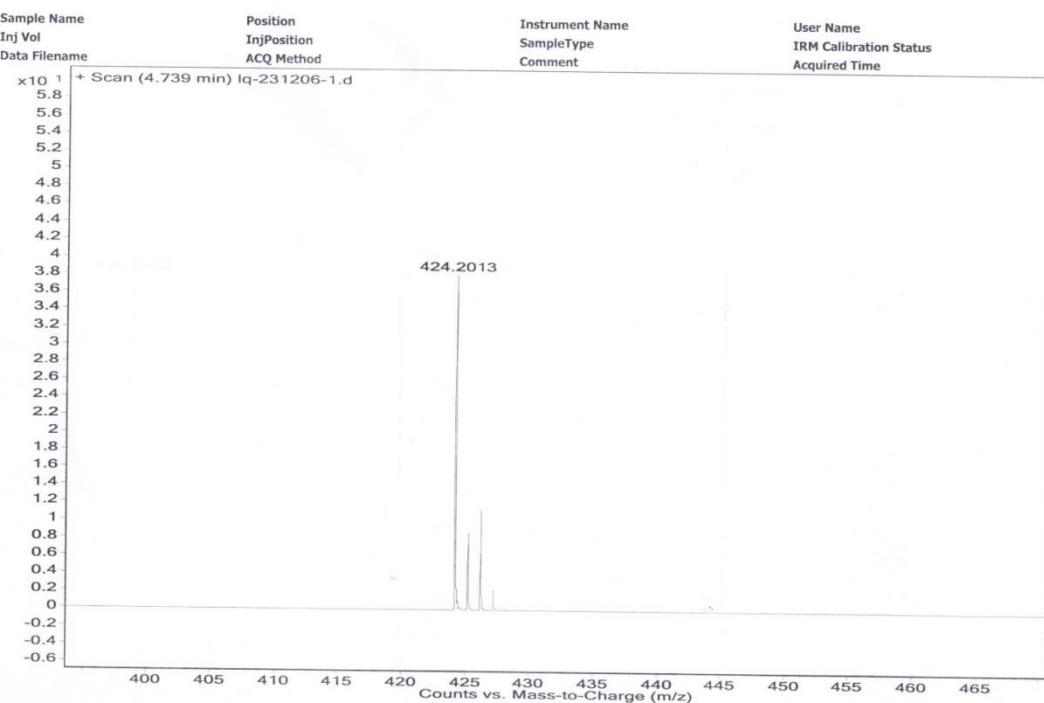
**Figure S24.** The  $^1\text{H}$  NMR,  $^{13}\text{C}$  NMR and ESI-HRMS spectra of compound **29**.



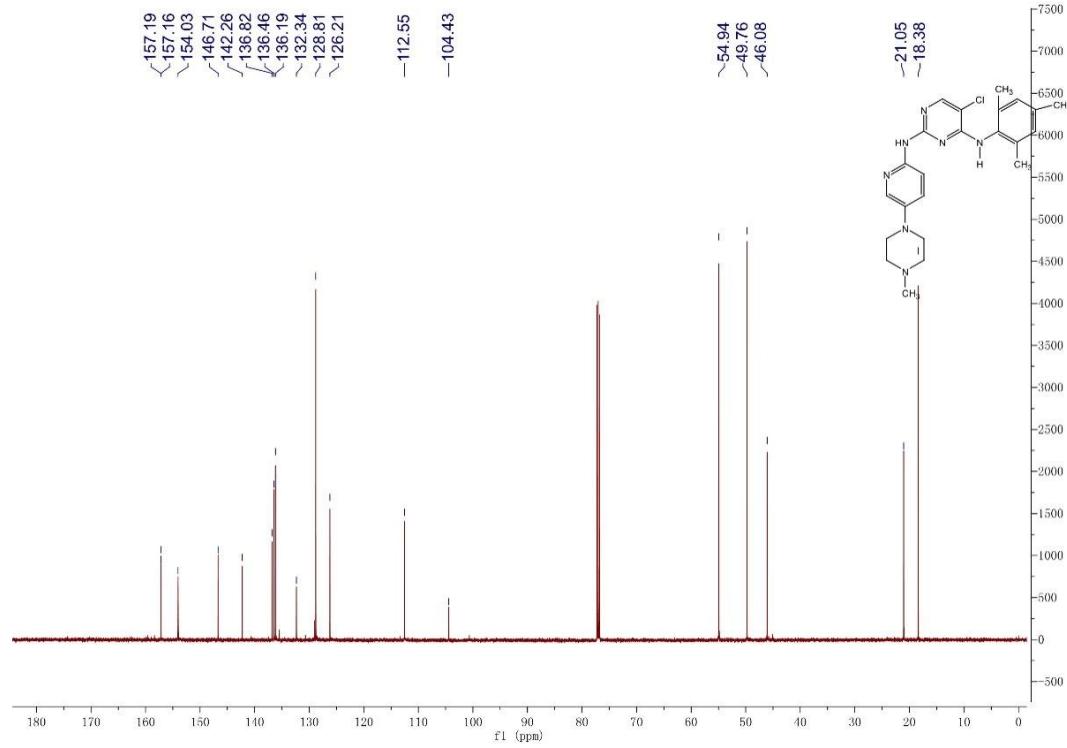
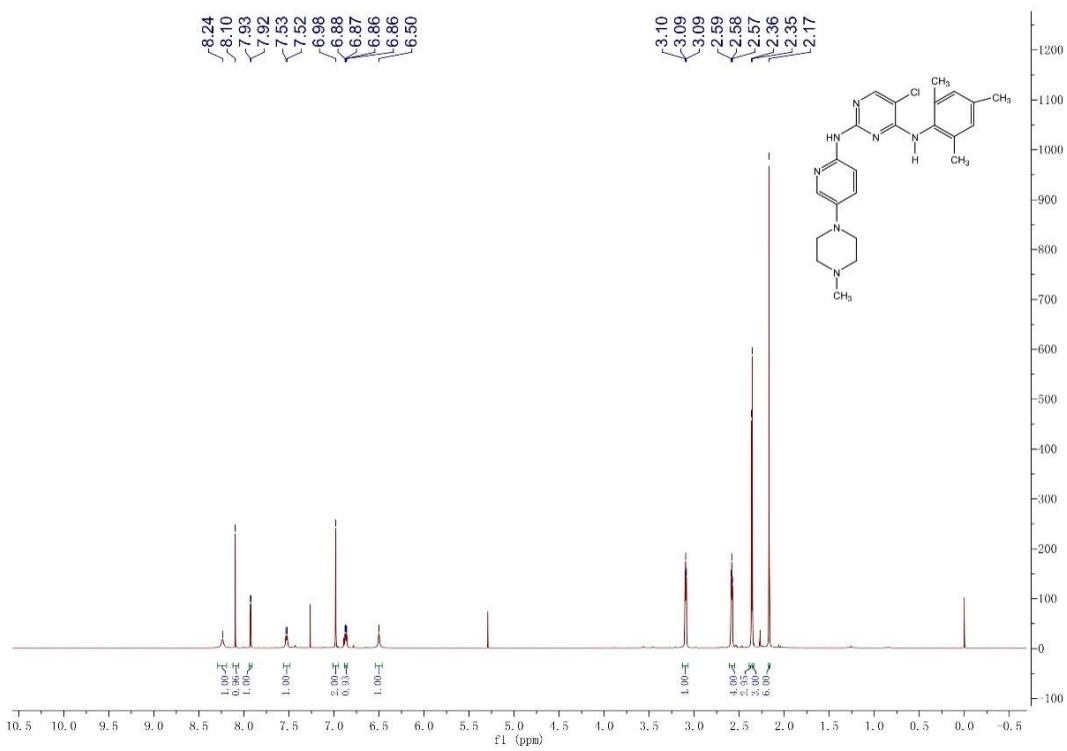


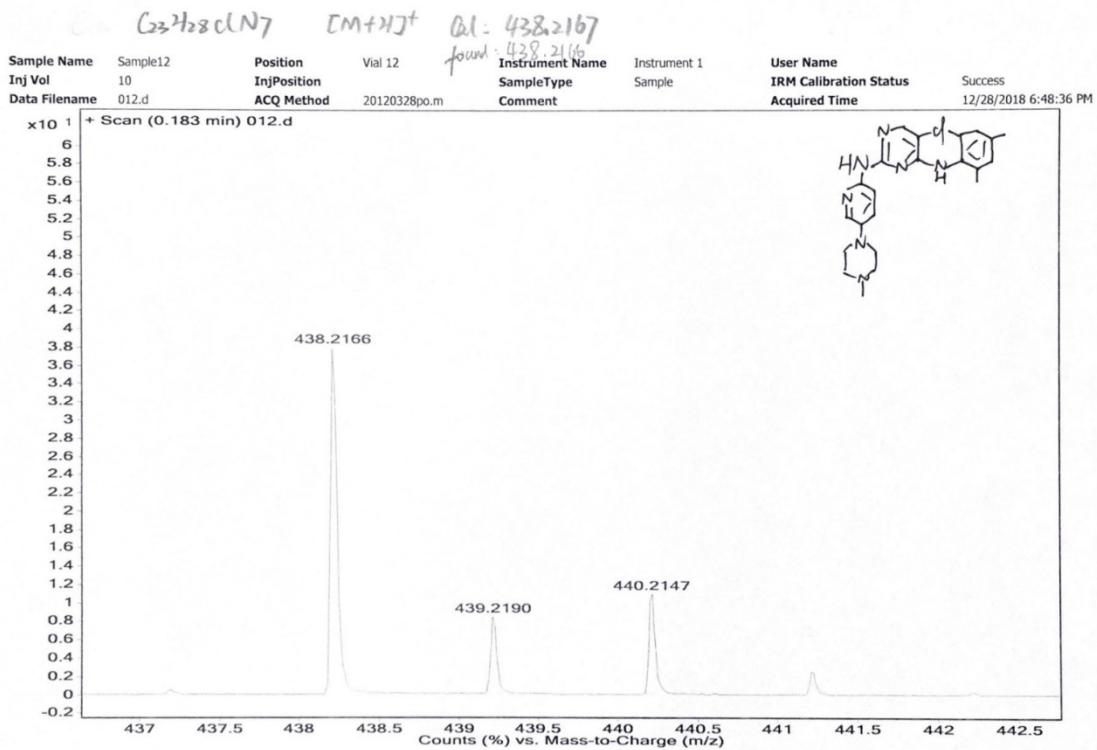
**Figure S25.** The  $^1\text{H}$  NMR,  $^{13}\text{C}$  NMR and ESI-HRMS spectra of compound **30**.



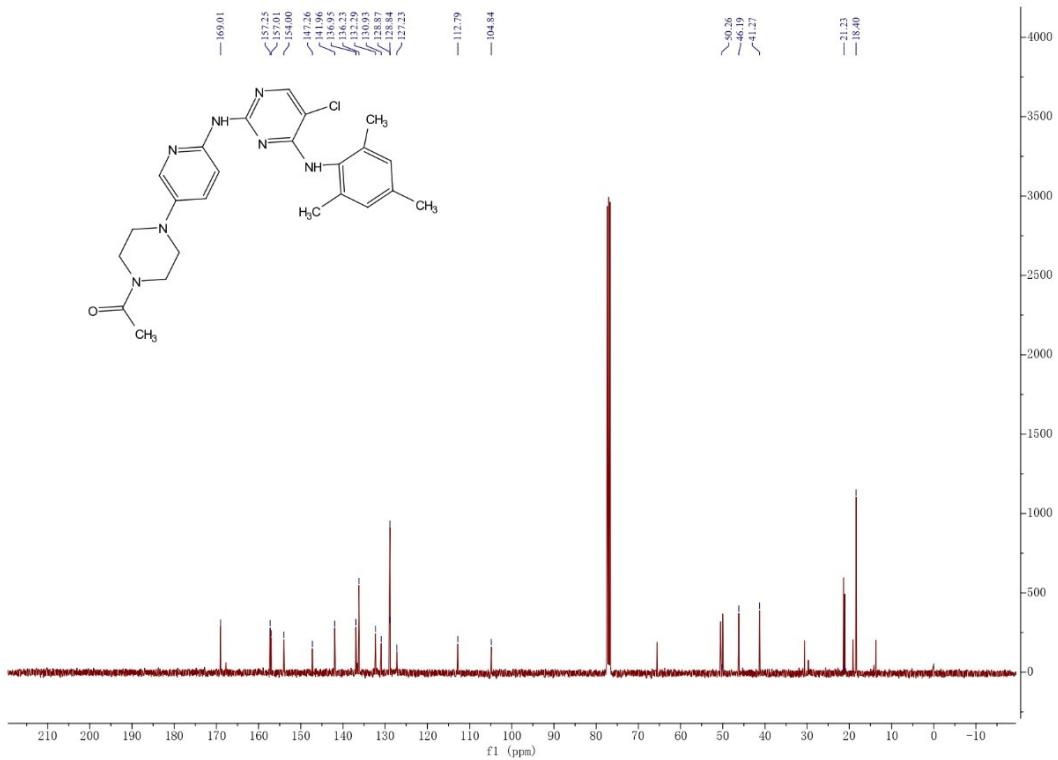
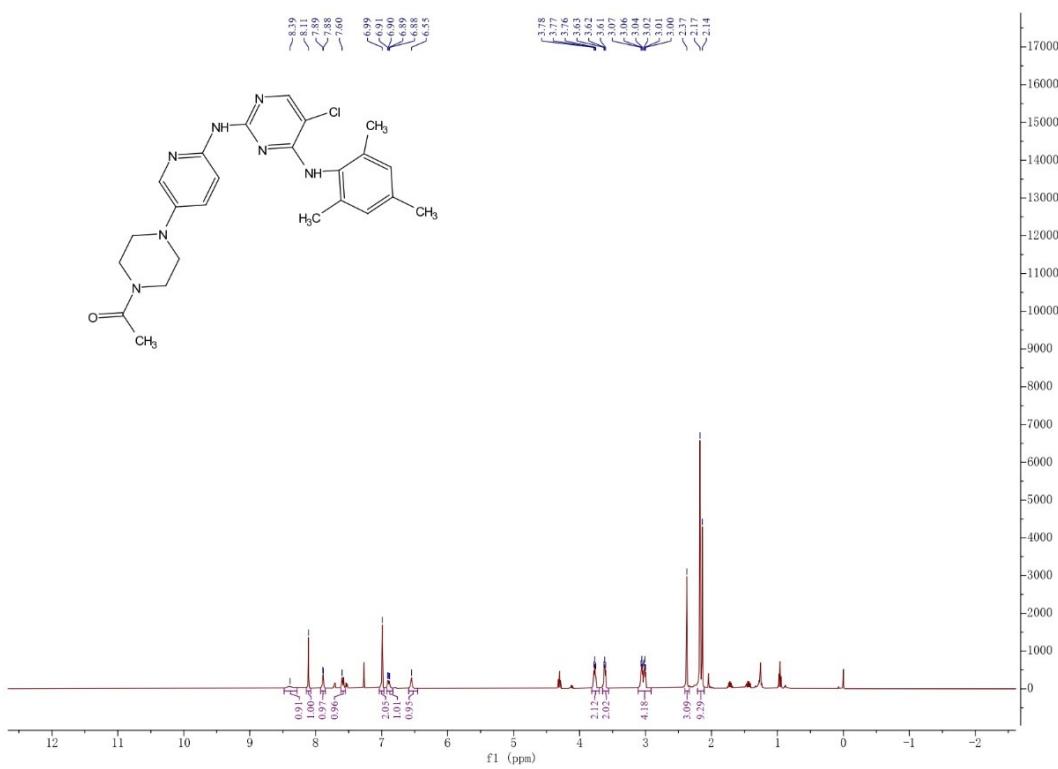


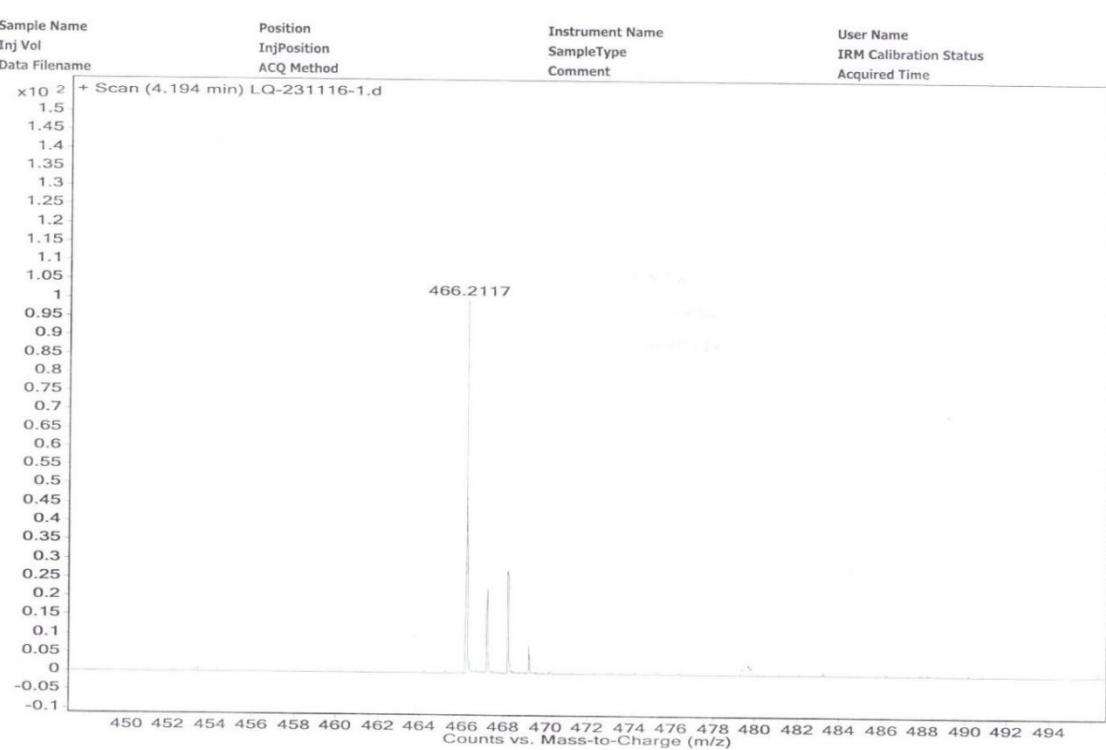
**Figure S26.** The <sup>1</sup>H NMR, <sup>13</sup>C NMR and ESI-HRMS spectra of compound **31**.





**Figure S27.** The  $^1\text{H}$  NMR,  $^{13}\text{C}$  NMR and ESI-HRMS spectra of compound 32.





**Figure S28.** The  $^1\text{H}$  NMR,  $^{13}\text{C}$  NMR and ESI-HRMS spectra of compound **33**.

## 2. Example of original western blot for three repeats

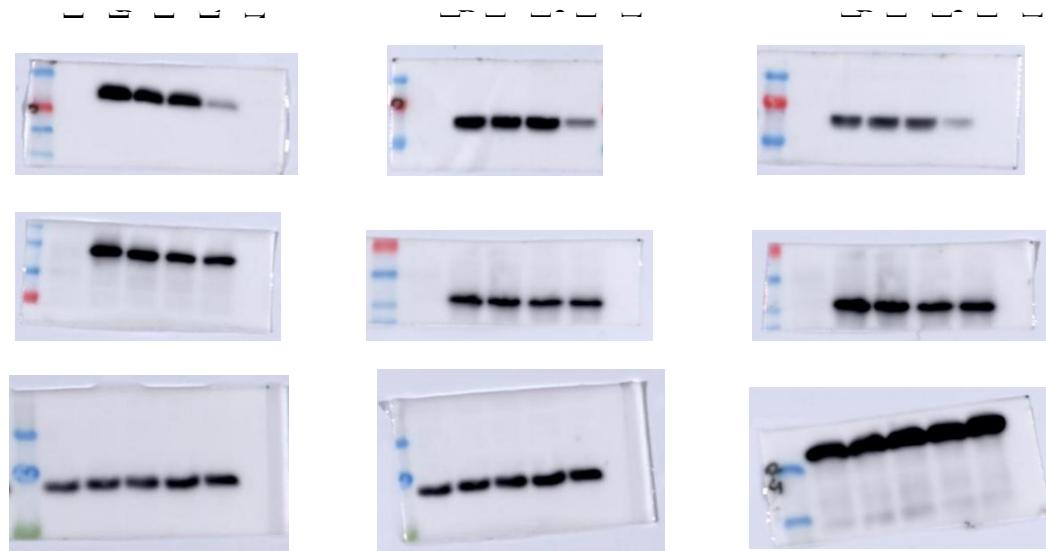
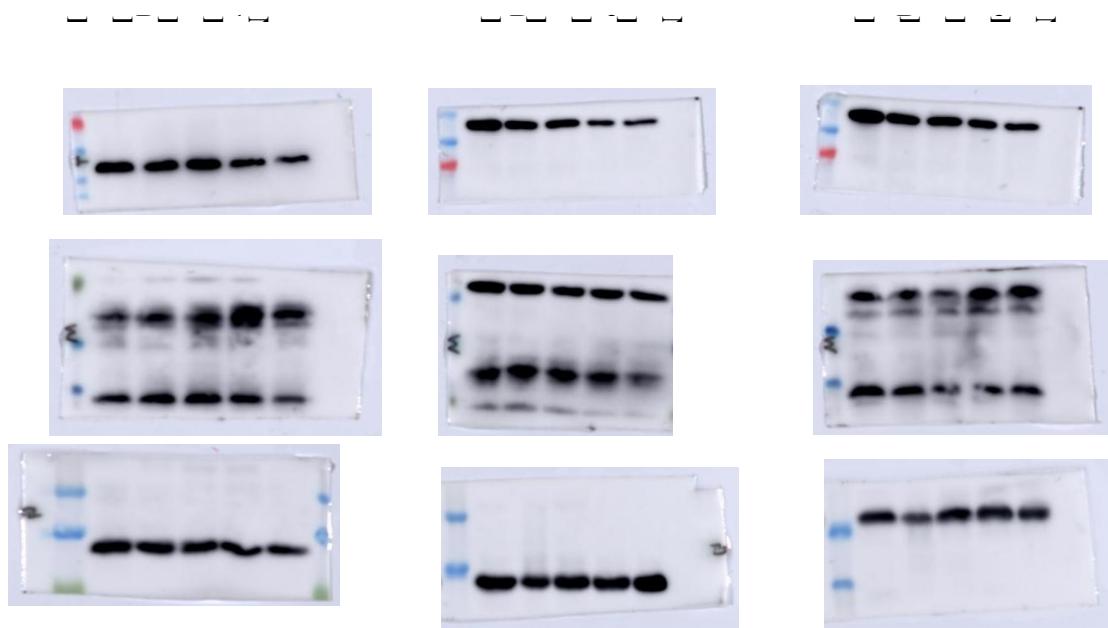
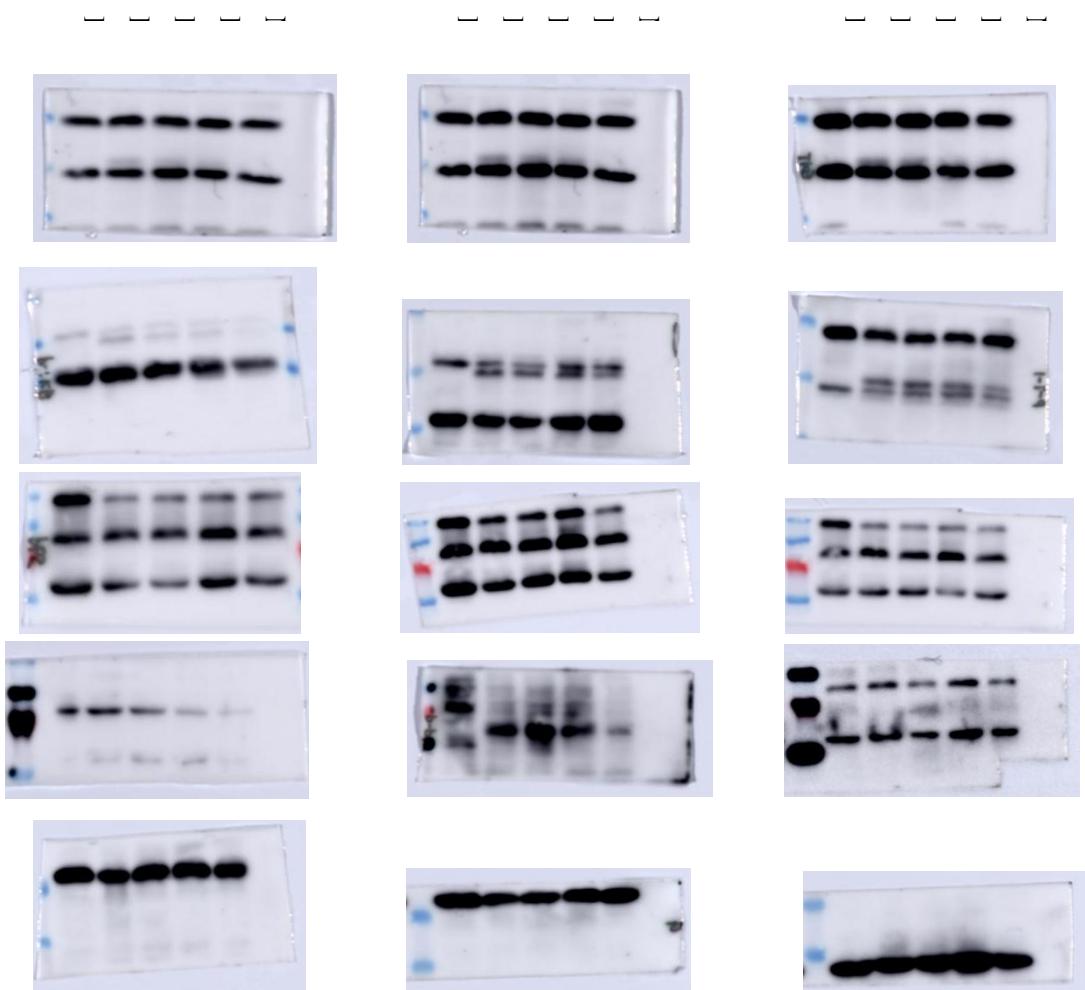


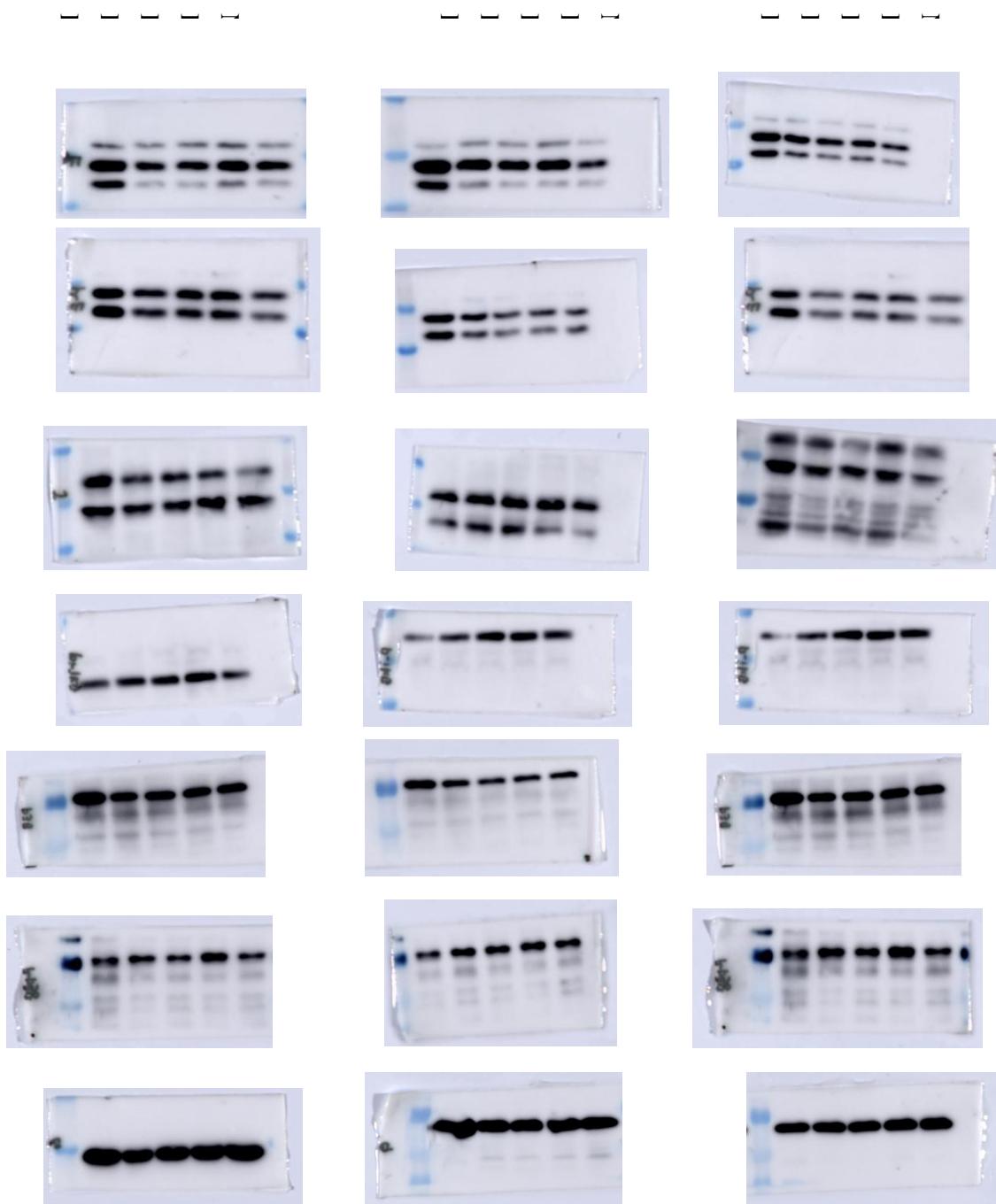
Figure S29. Example of original western blot for three repeats shown in Fig.1D.



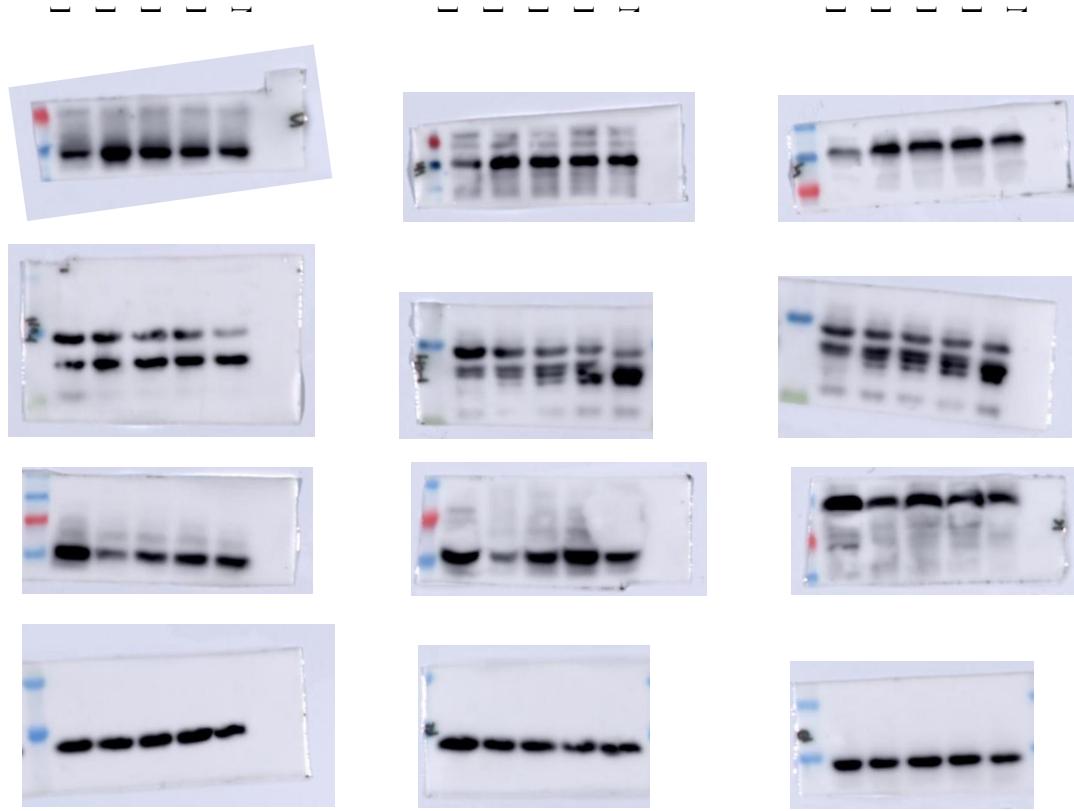
**Figure S30. Example of original western blot for three repeats shown in Fig.2A.**



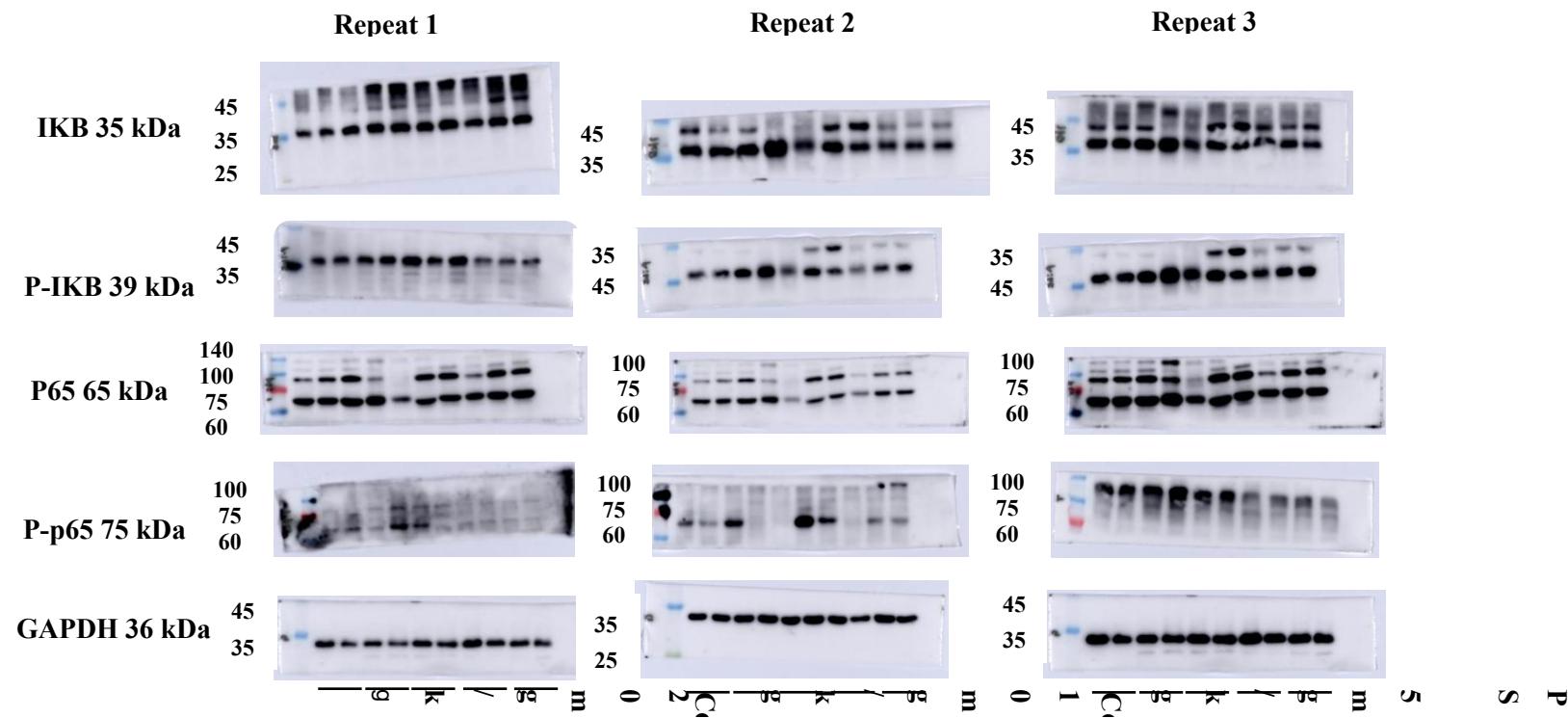
**Figure S31. Example of original western blot for three repeats shown in Fig.2D.**



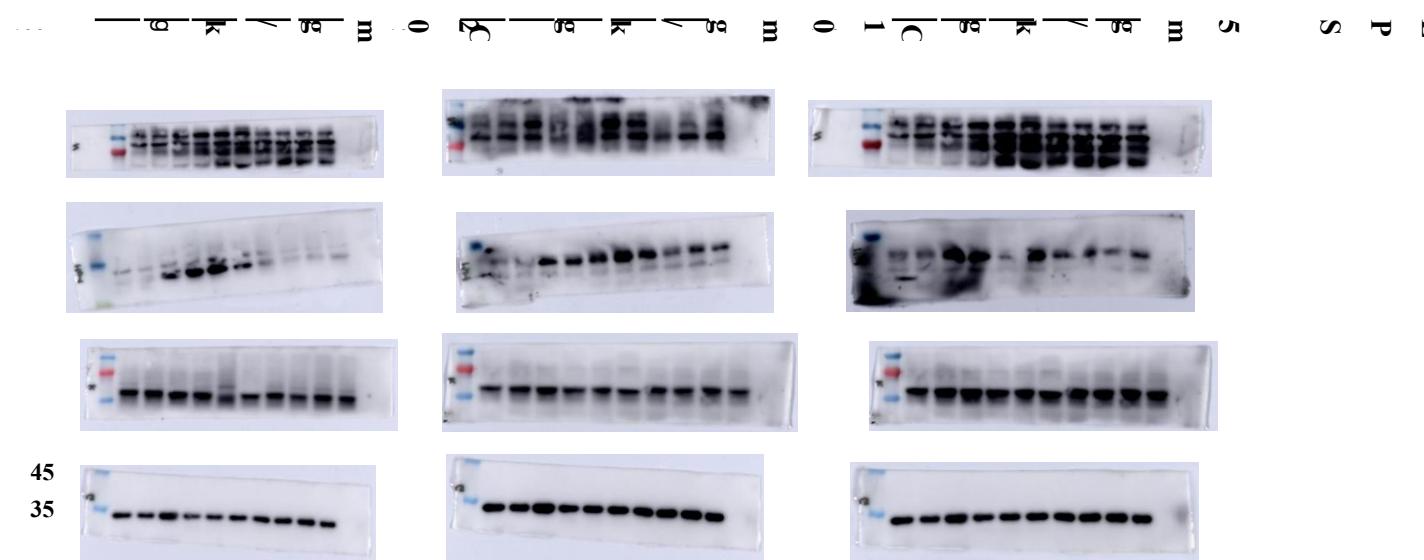
**Figure S32. Example of original western blot for three repeats shown in Fig.3.**



**Figure S33.** Example of original western blot for three repeats shown in Fig.4.



**Figure S34.** Example of original western blot for three repeats shown in Fig.8A.



**Figure S35.** Example of original western blot for three repeats shown in Fig.8D.