

# Design, Synthesis and Bioactivity Evaluation of 4,6-disubstituted pyrido[3,2-*d*]pyrimidine Derivatives as Mnk and HDAC inhibitors

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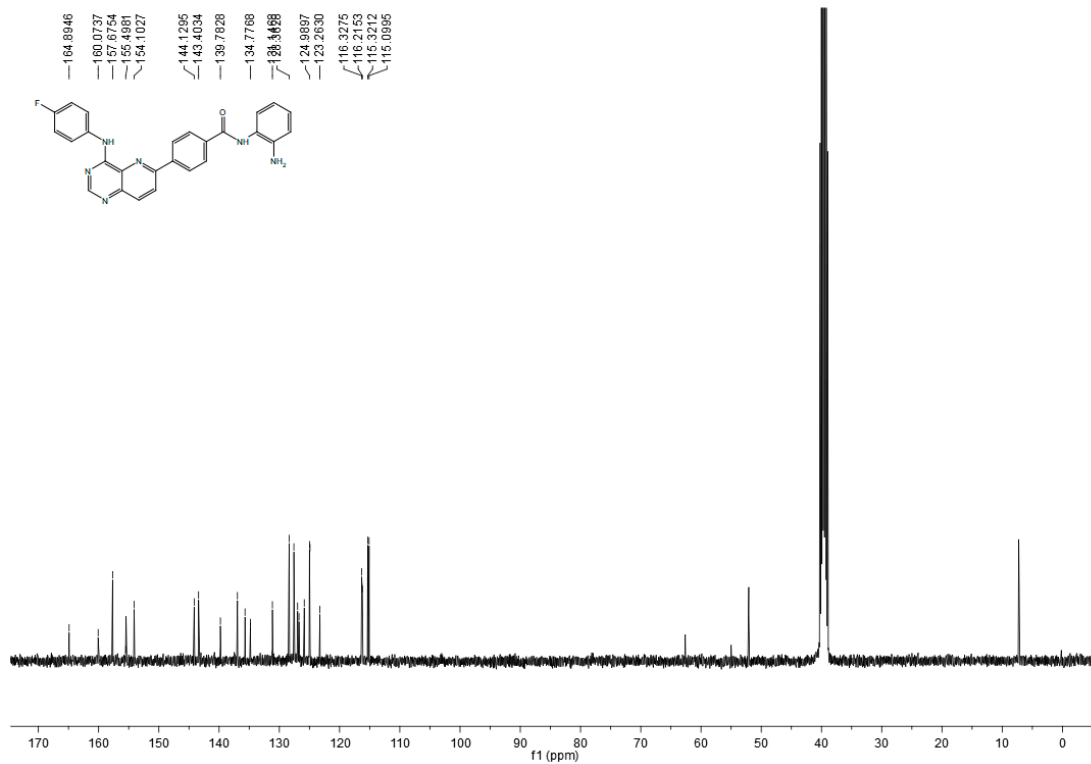
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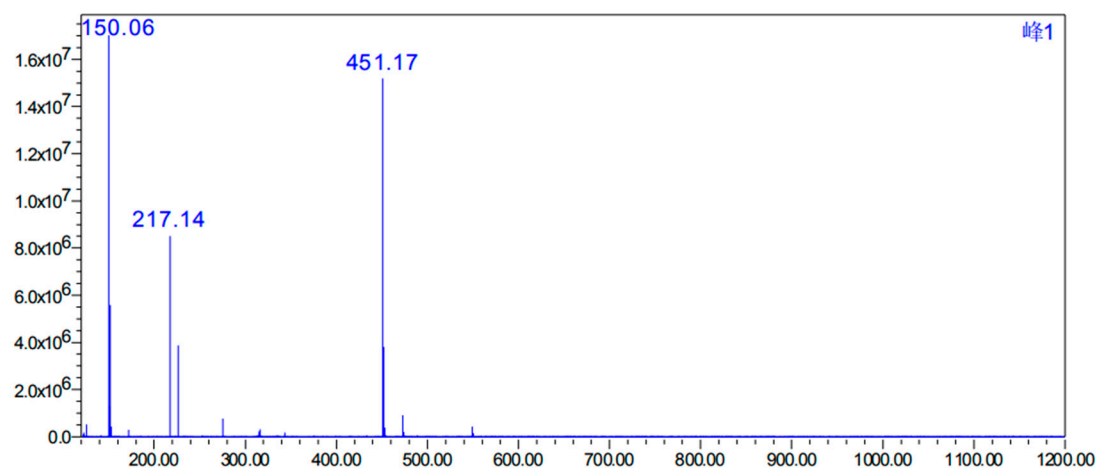
## 1. Spectrum of target compounds



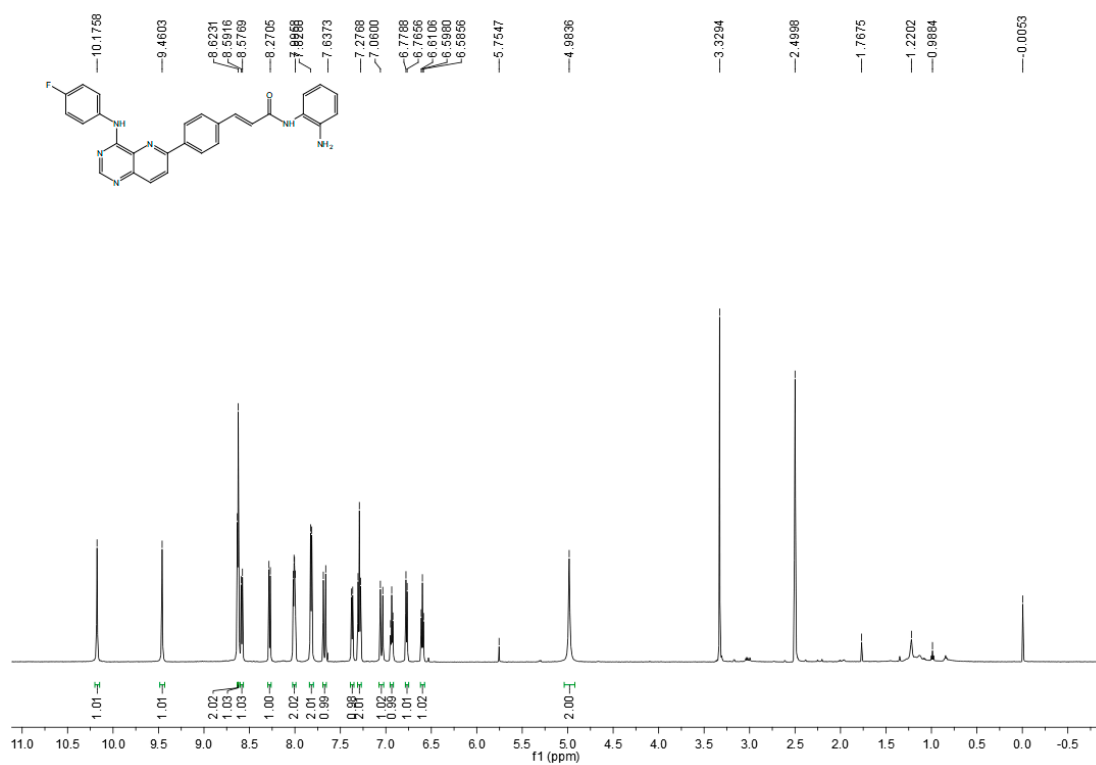
$^1\text{H}$ -NMR spectra of compound A01

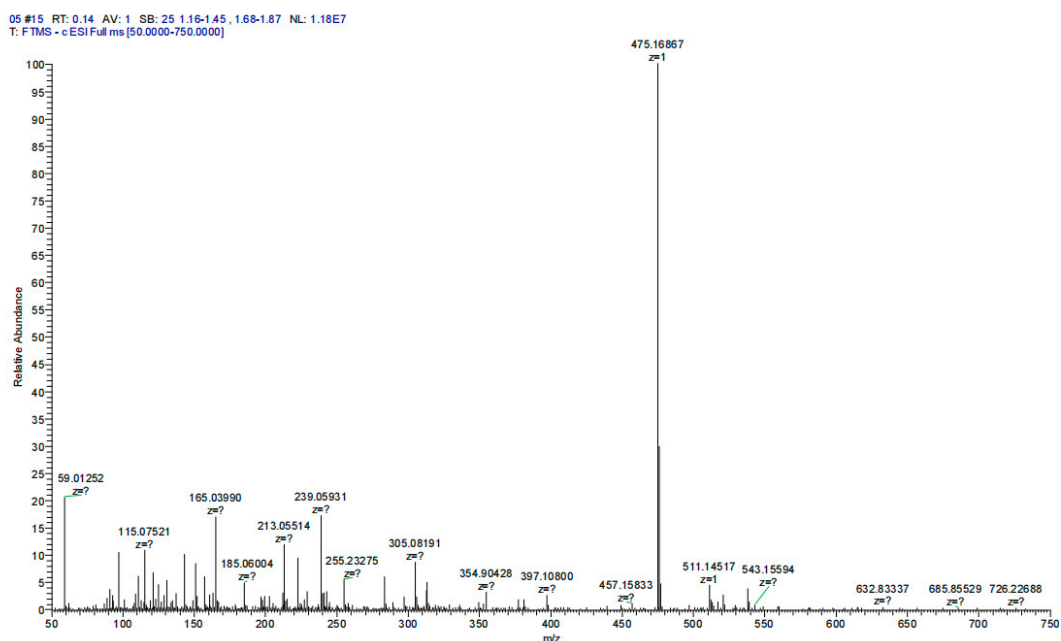
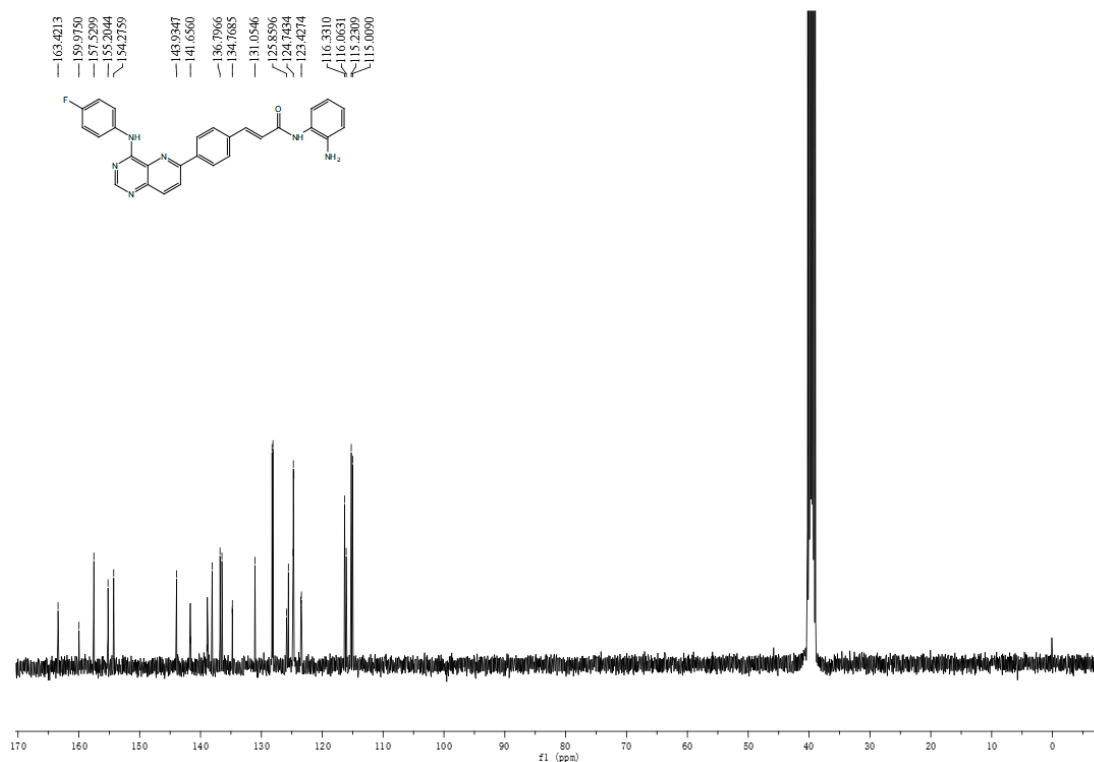


$^{13}\text{C}$ -NMR spectra of compound A01

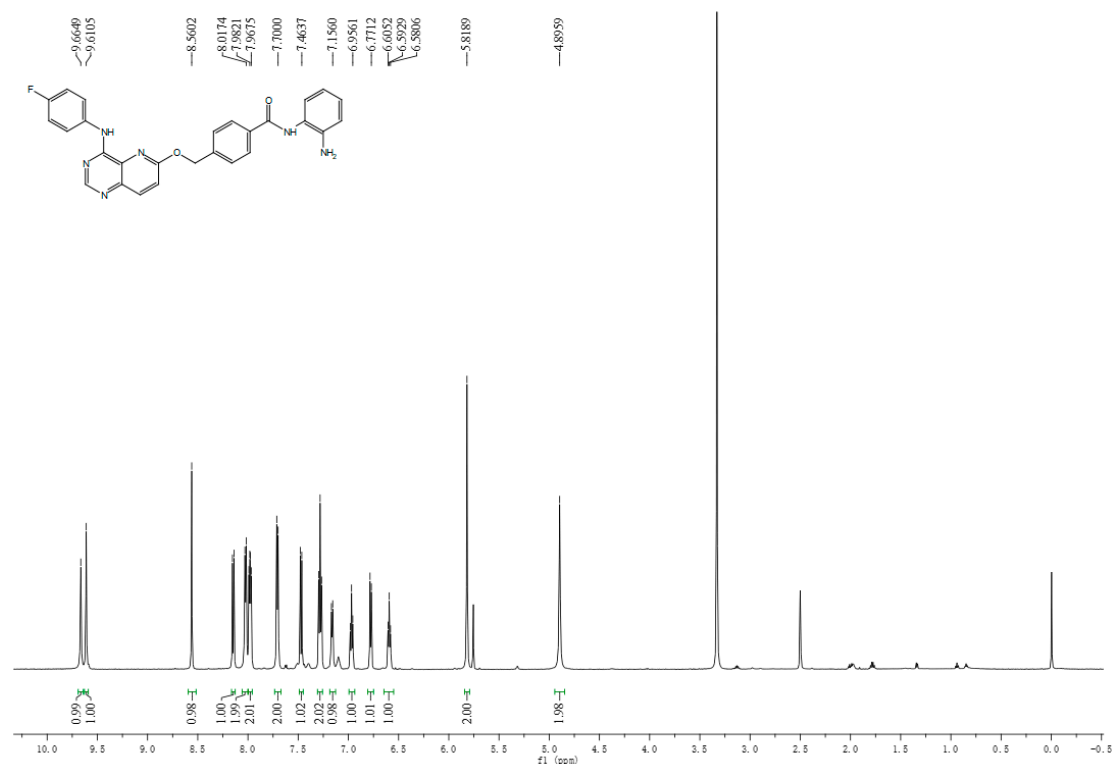


### Ms spectra of compound A01

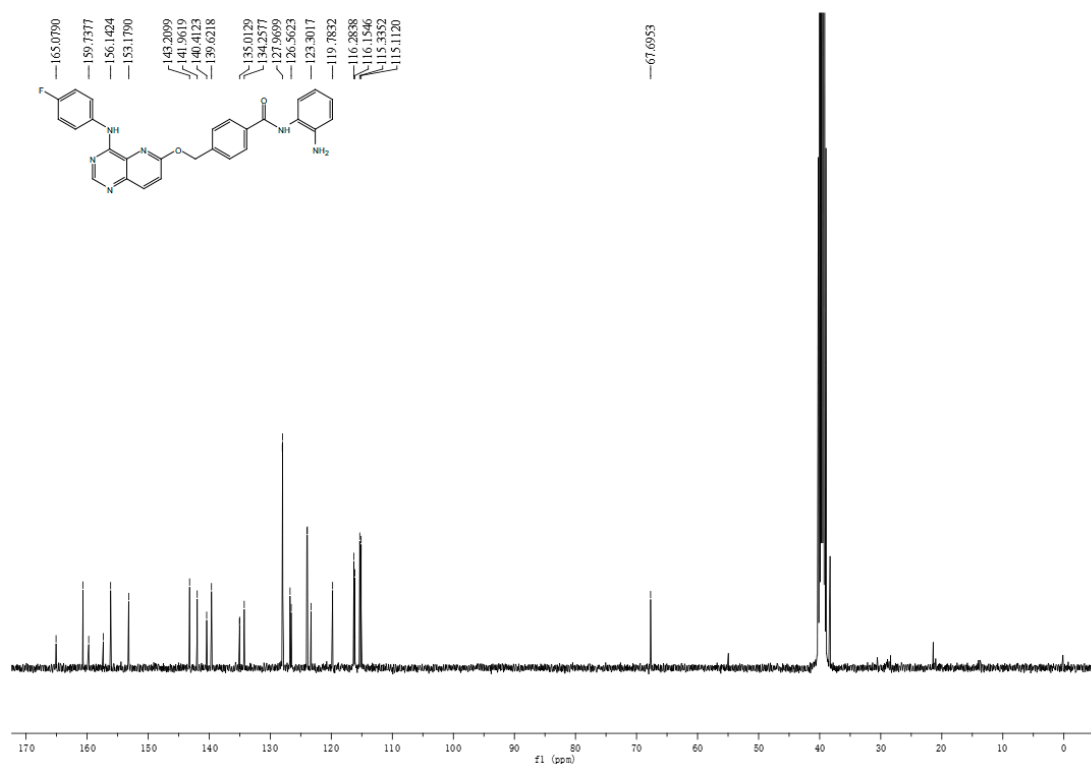




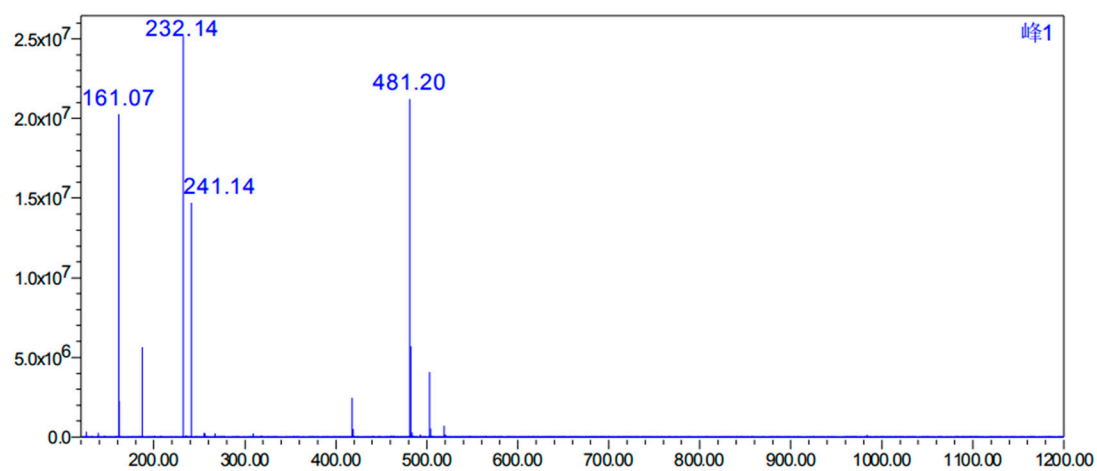
### Ms spectra of compound A02



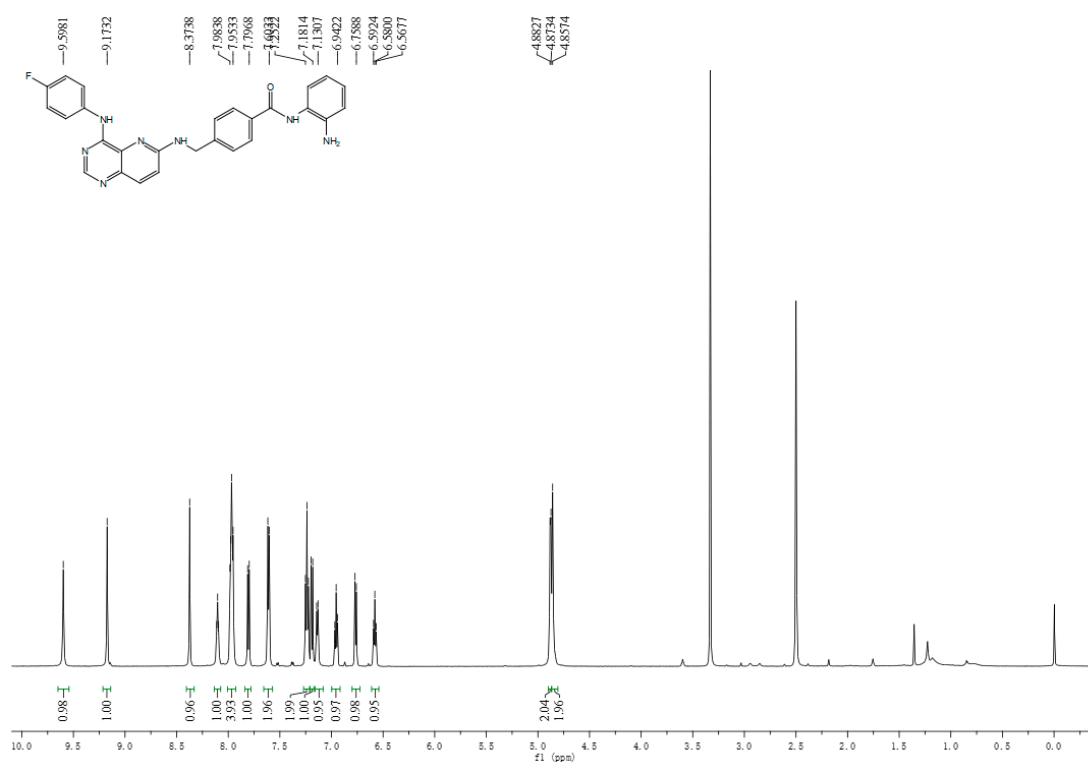
**<sup>1</sup>H-NMR spectra of compound A03**

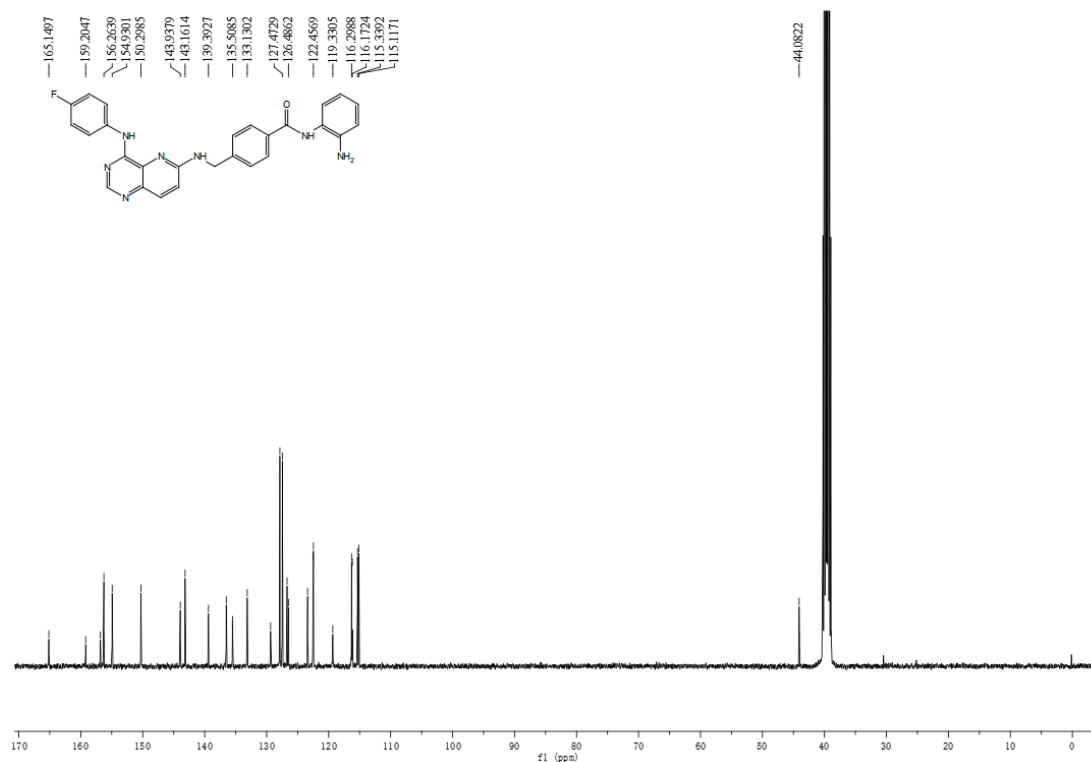
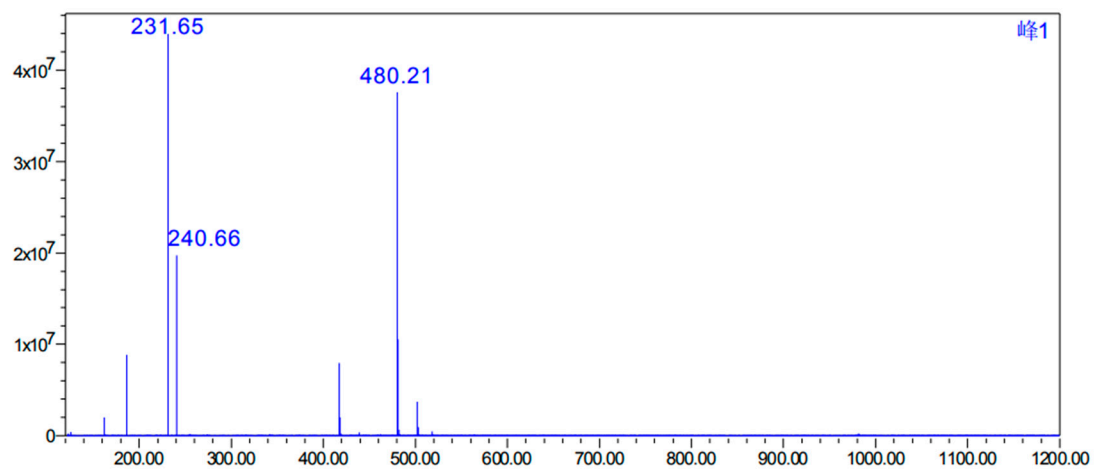


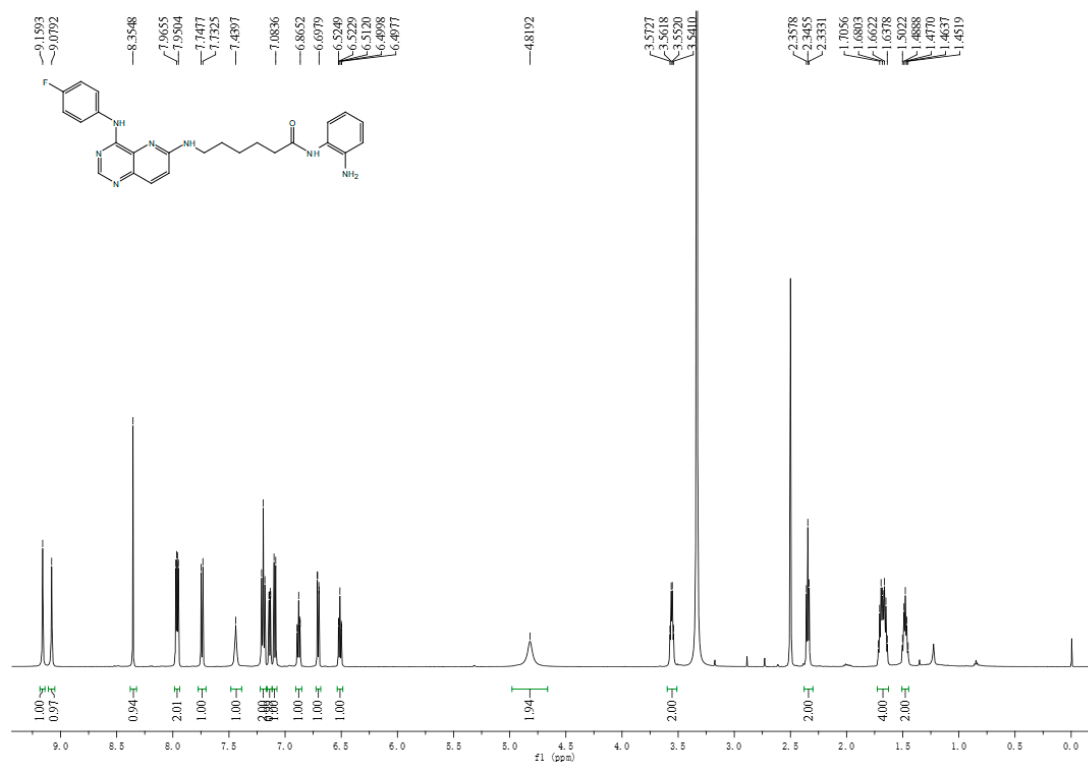
**<sup>13</sup>C-NMR spectra of compound A03**



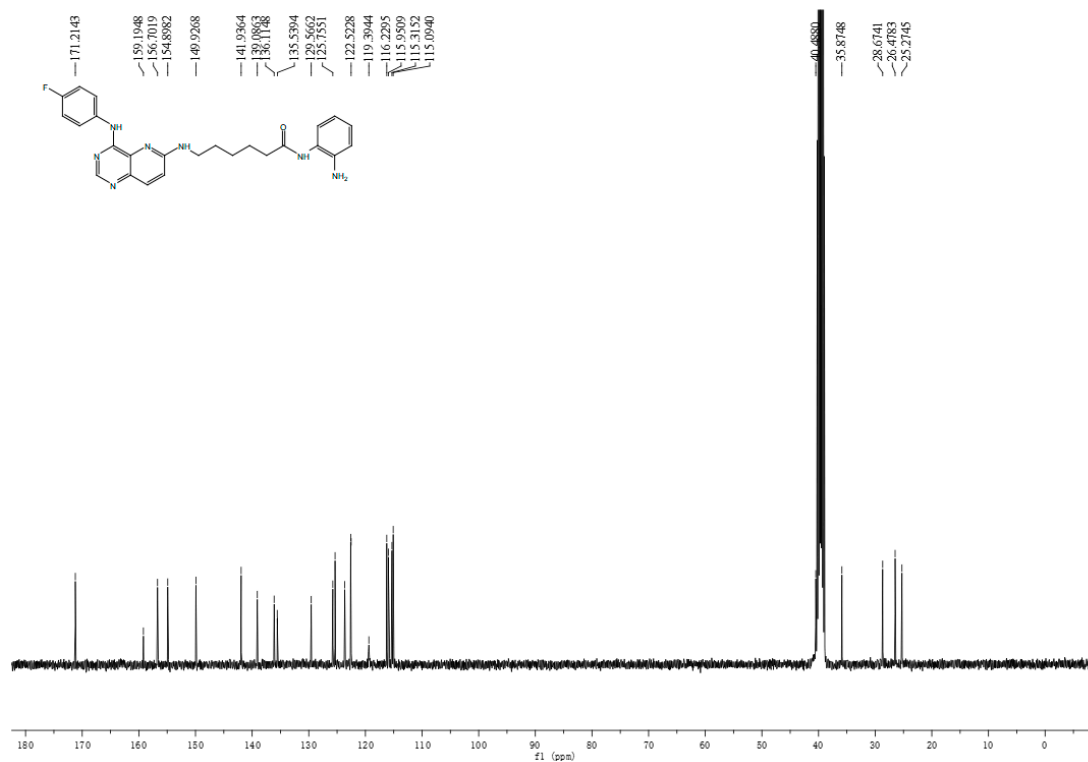
Ms spectra of compound A03



**<sup>1</sup>H-NMR spectra of compound A04****<sup>13</sup>C-NMR spectra of compound A04****Ms spectra of compound A04**

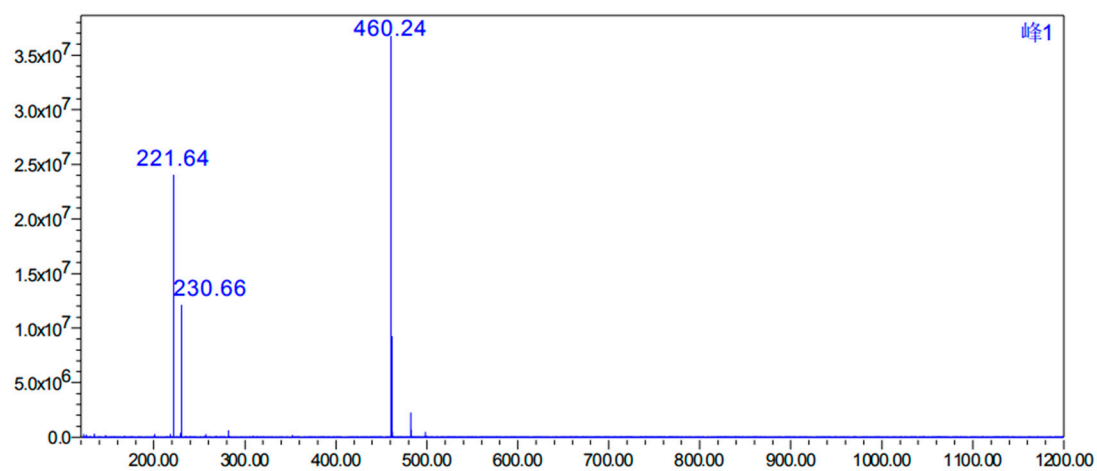


<sup>1</sup>H-NMR spectra of compound A05

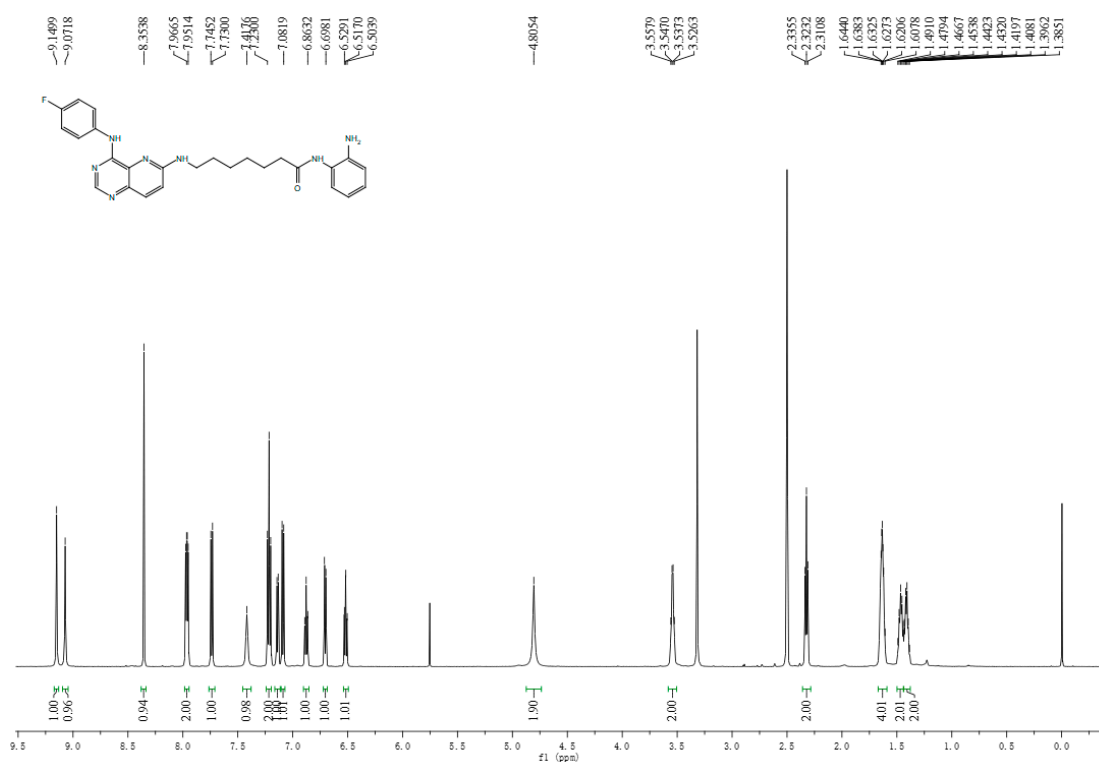


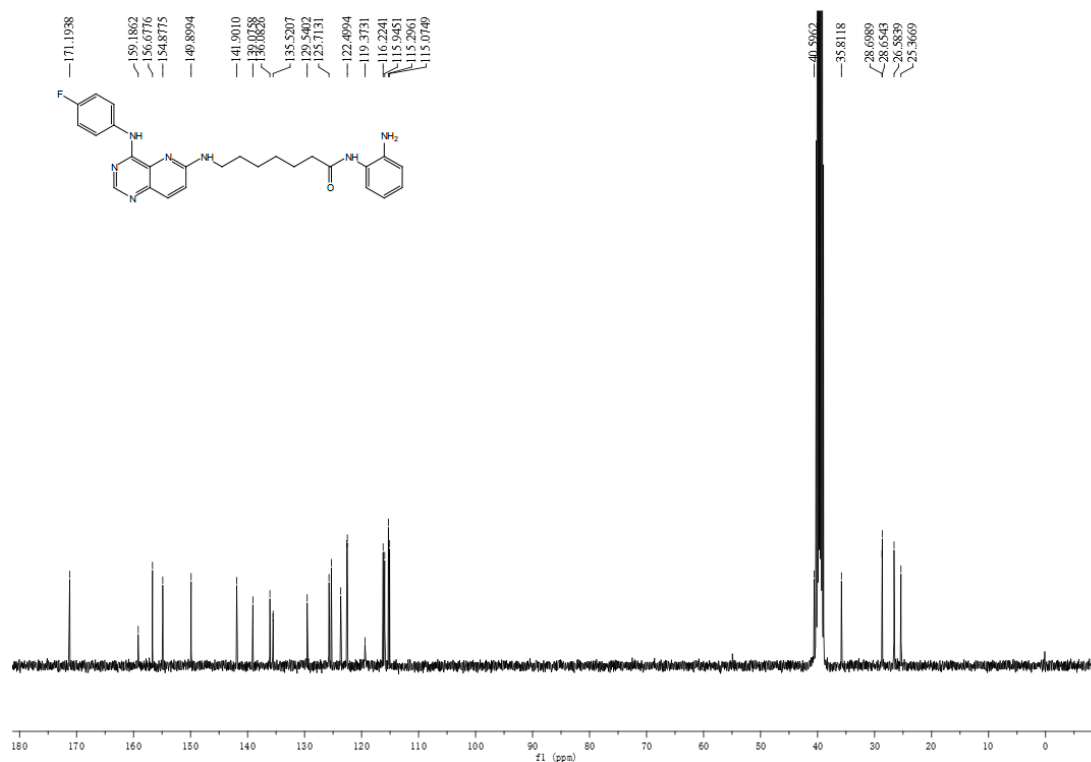
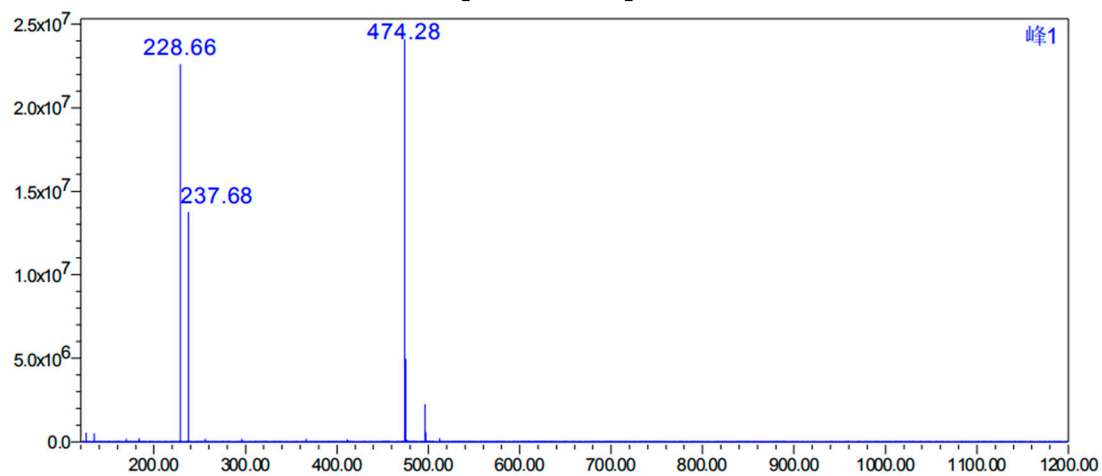
<sup>13</sup>C-NMR spectra of compound A05

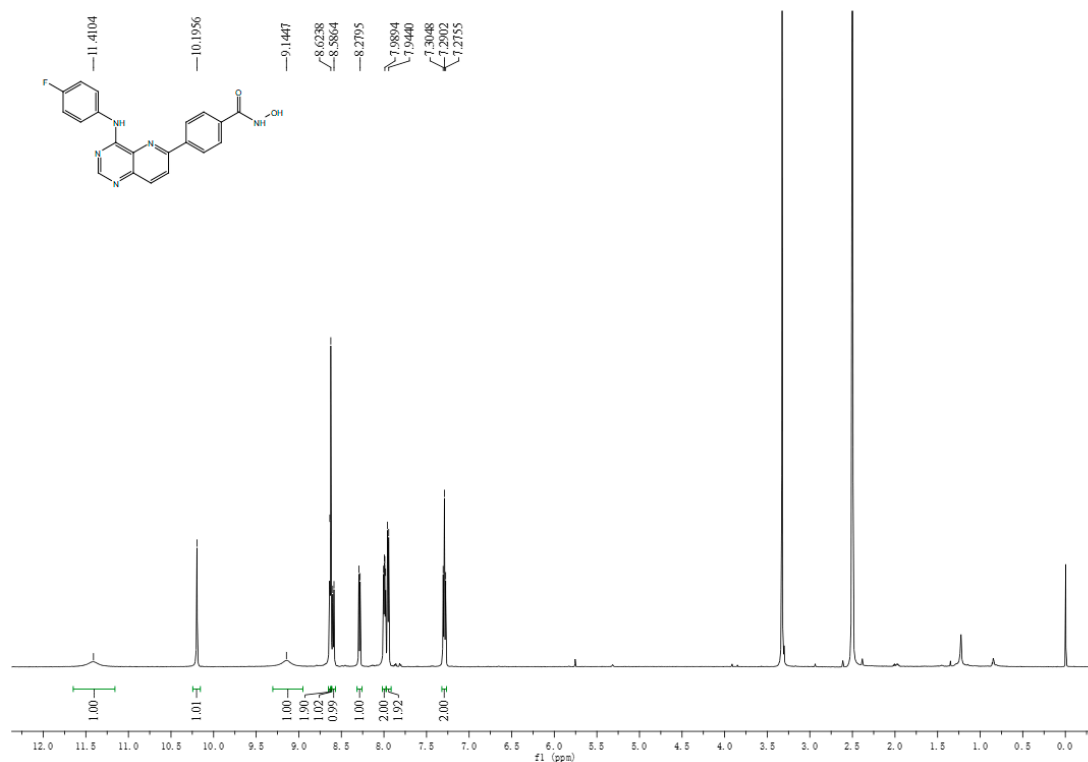
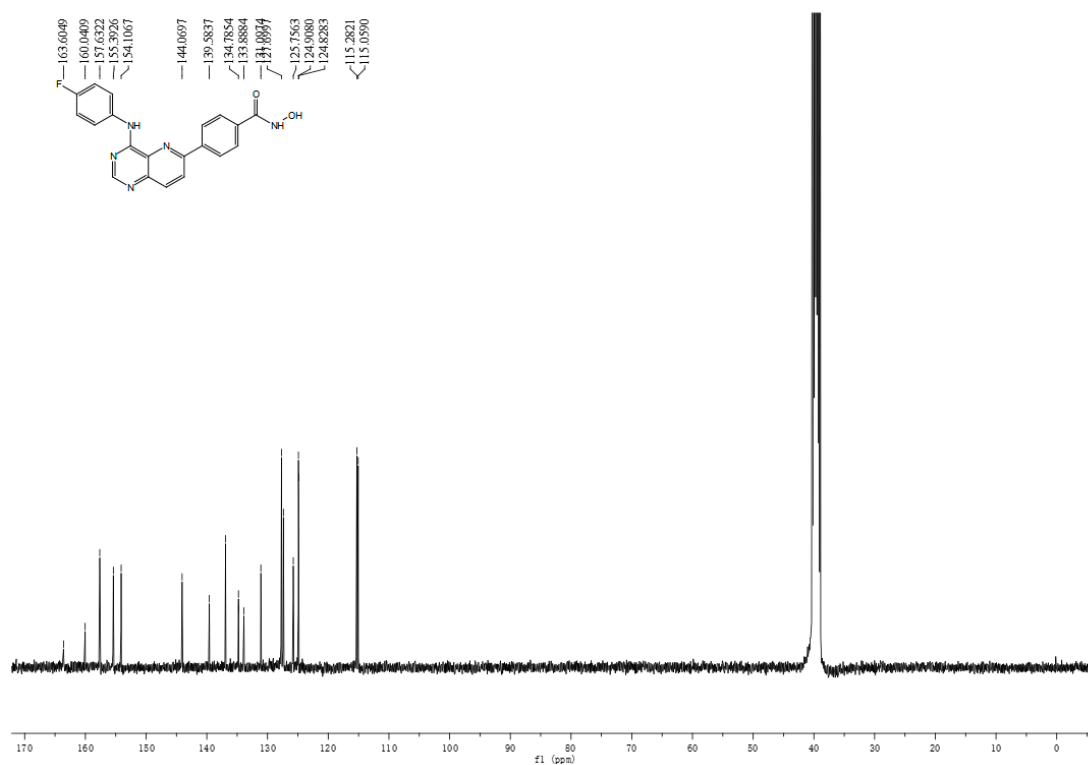


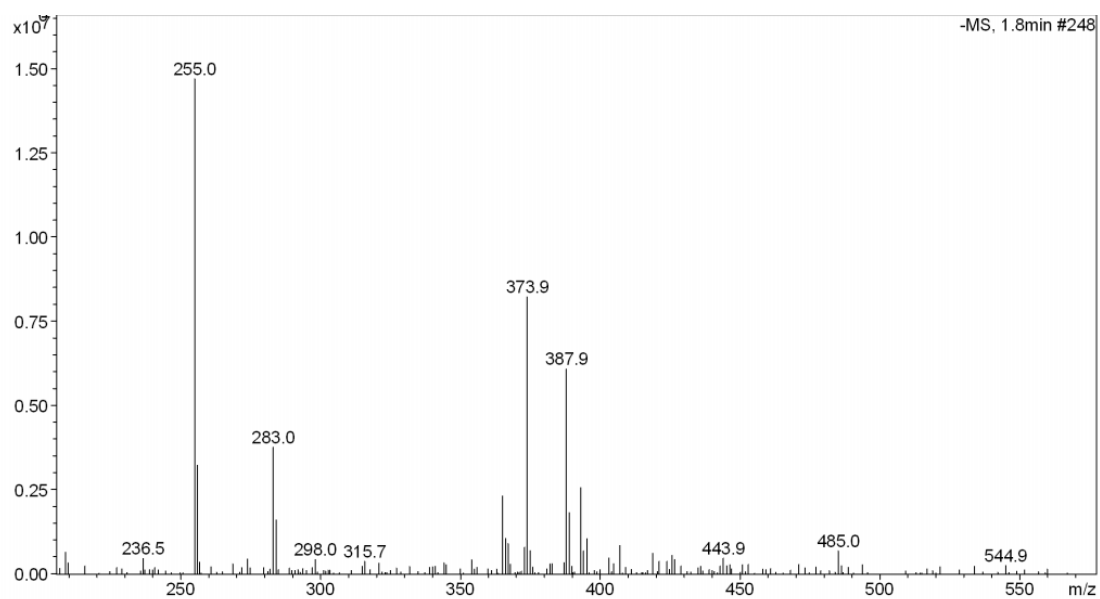


Ms spectra of compound A05

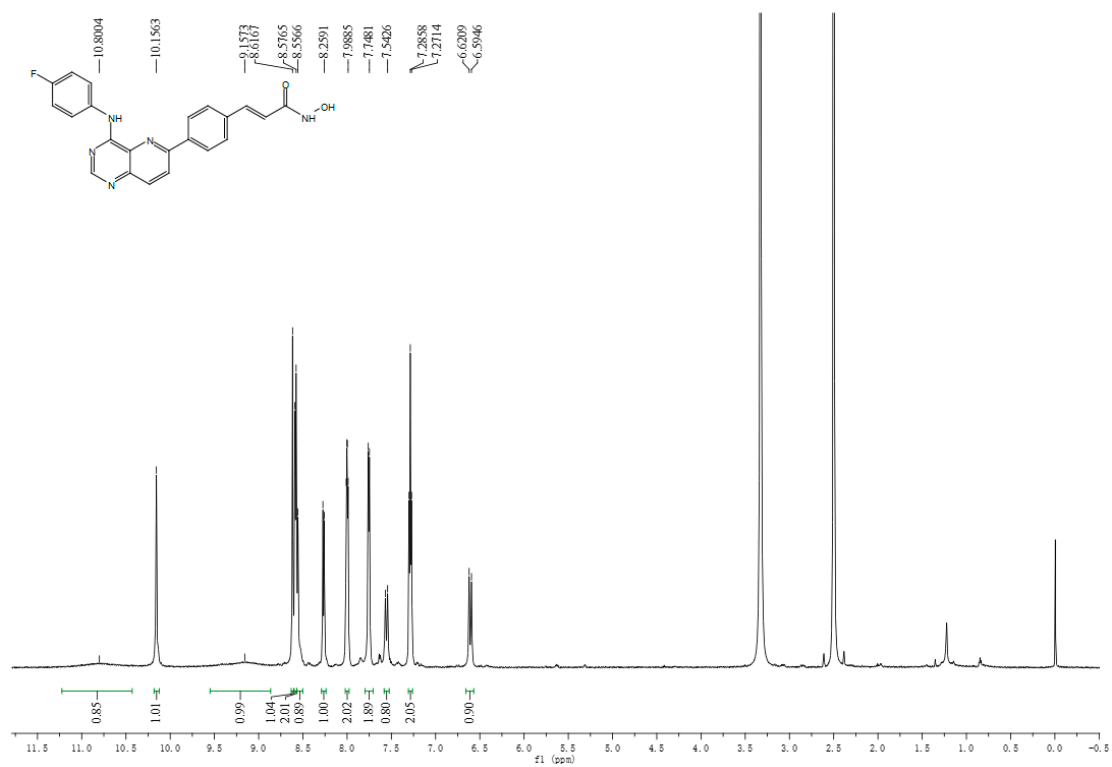


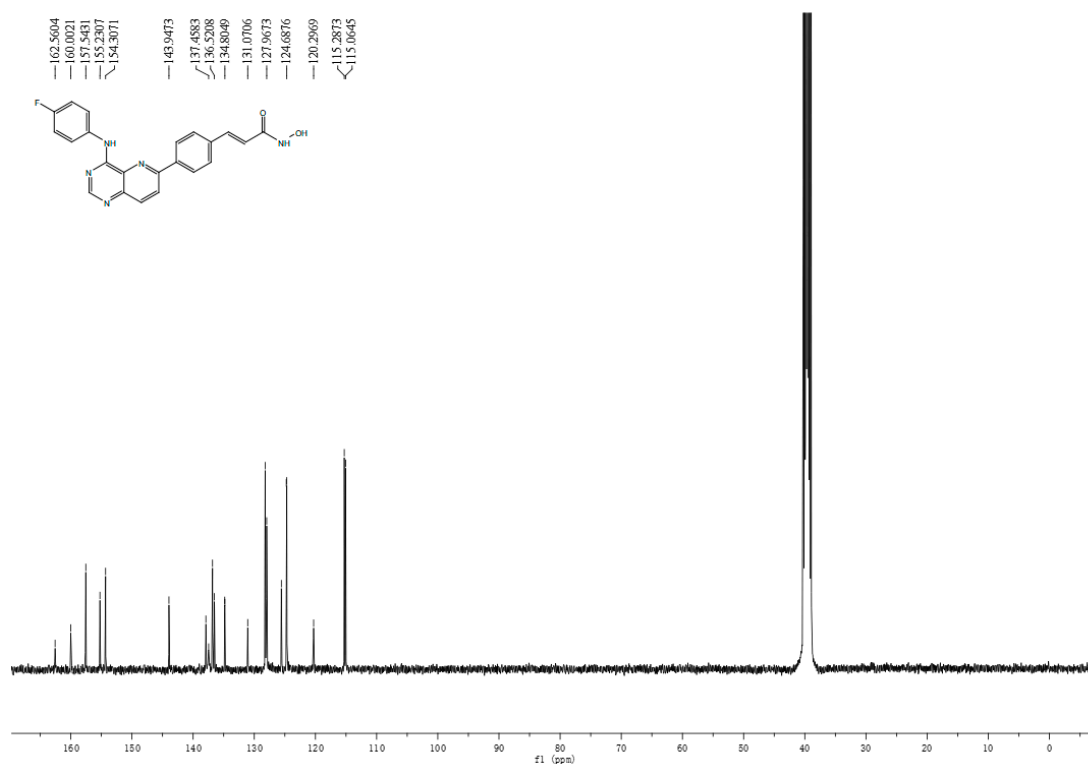
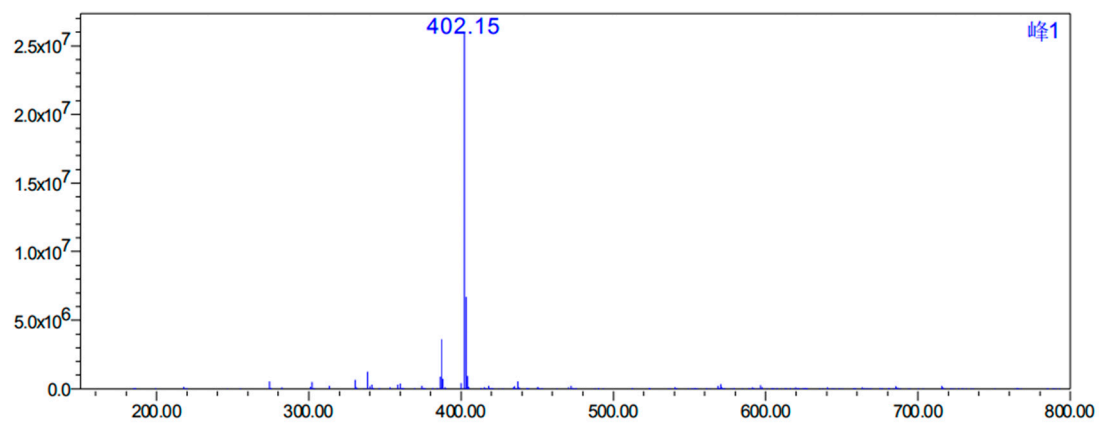
**<sup>1</sup>H-NMR spectra of compound A06****<sup>13</sup>C-NMR spectra of compound A06****Ms spectra of compound A06**

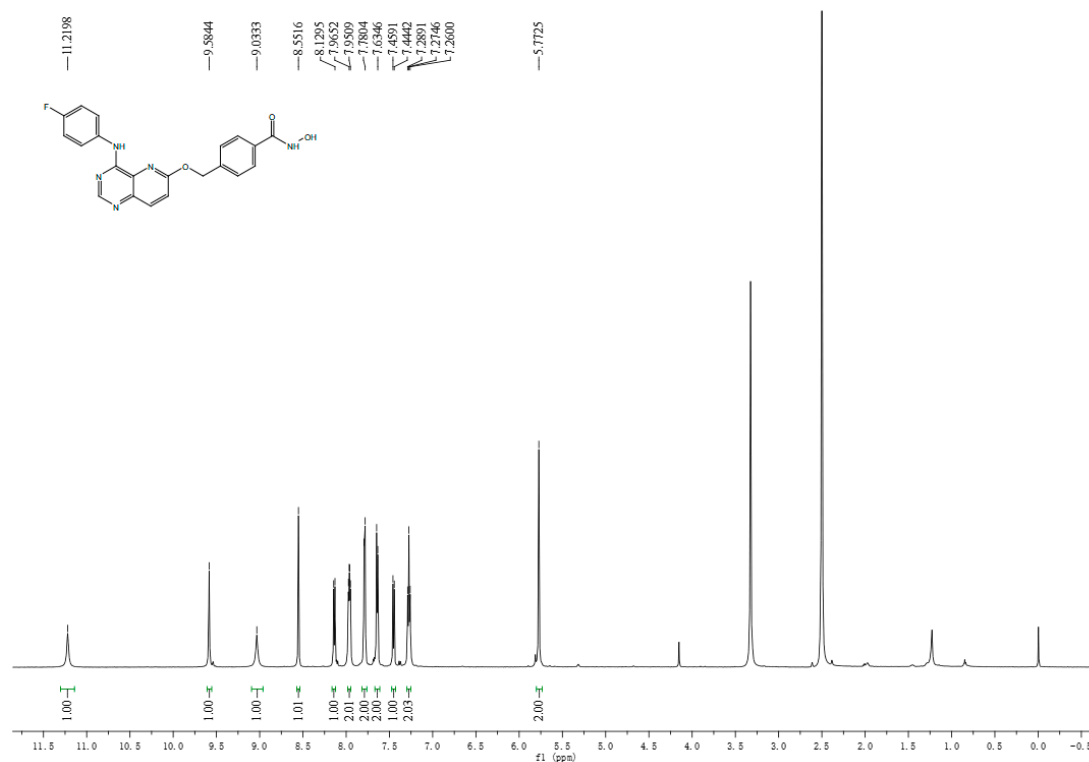
**<sup>1</sup>H-NMR spectra of compound A07****<sup>13</sup>C-NMR spectra of compound A07**



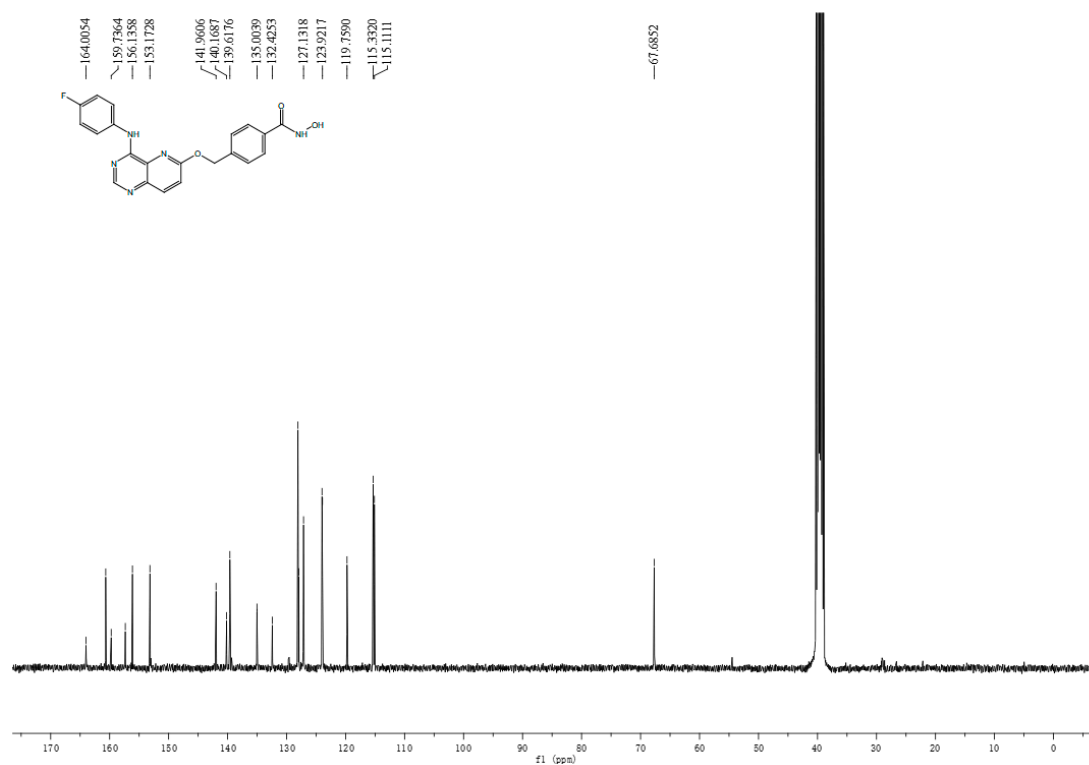
Ms spectra of compound A07



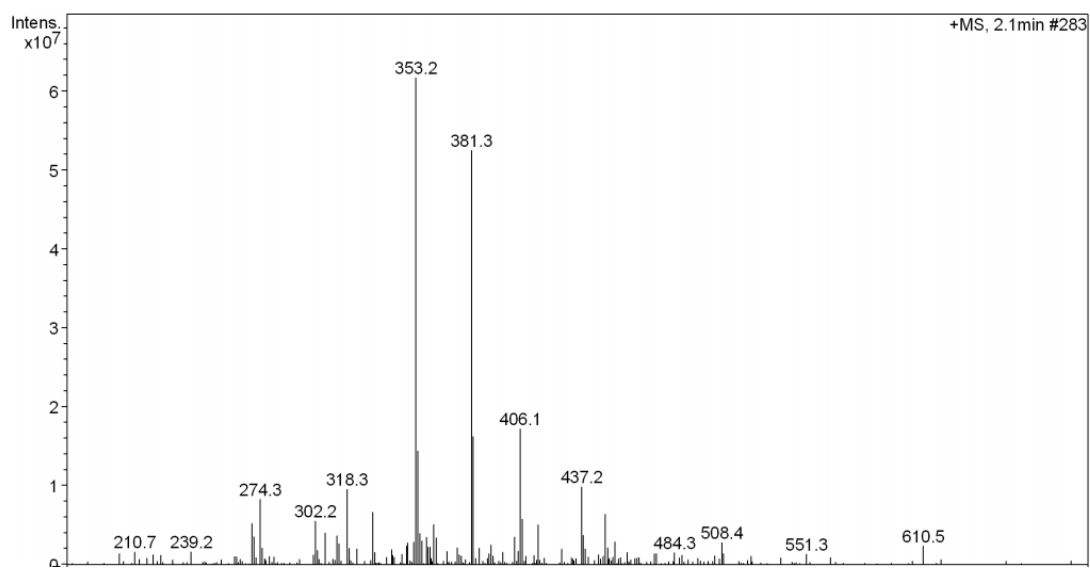
**<sup>1</sup>H-NMR spectra of compound A08****<sup>13</sup>C-NMR spectra of compound A08****Ms spectra of compound A08**



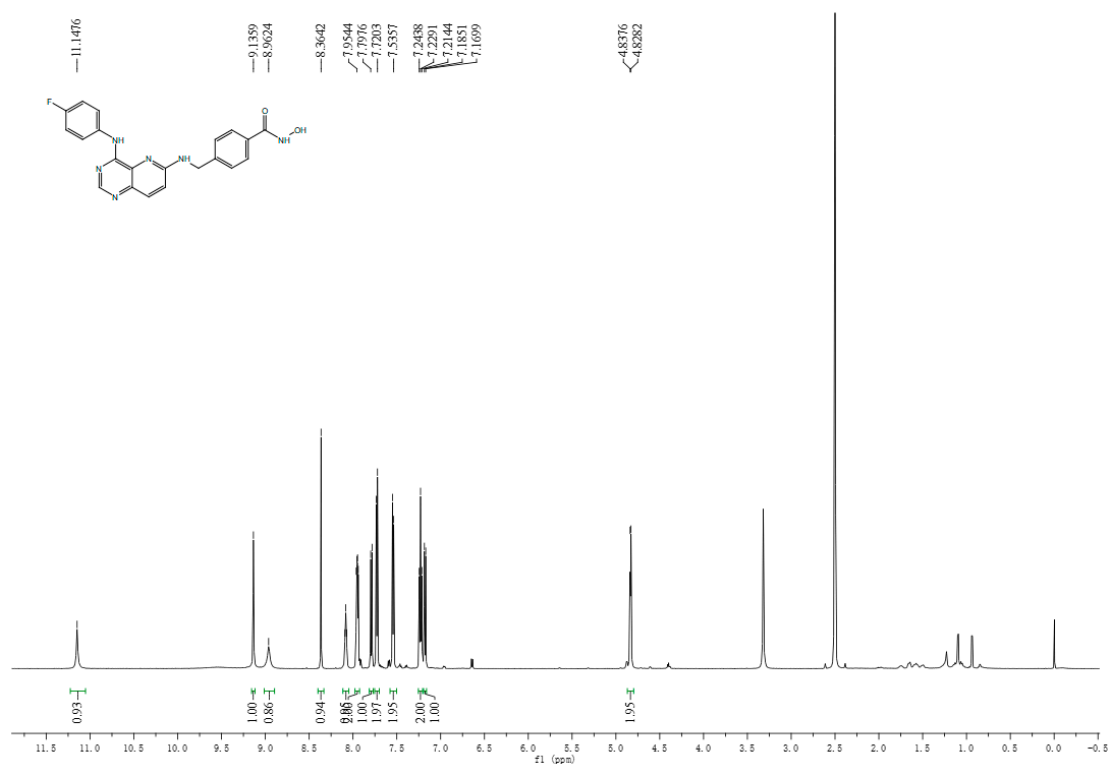
**<sup>1</sup>H-NMR spectra of compound A09**

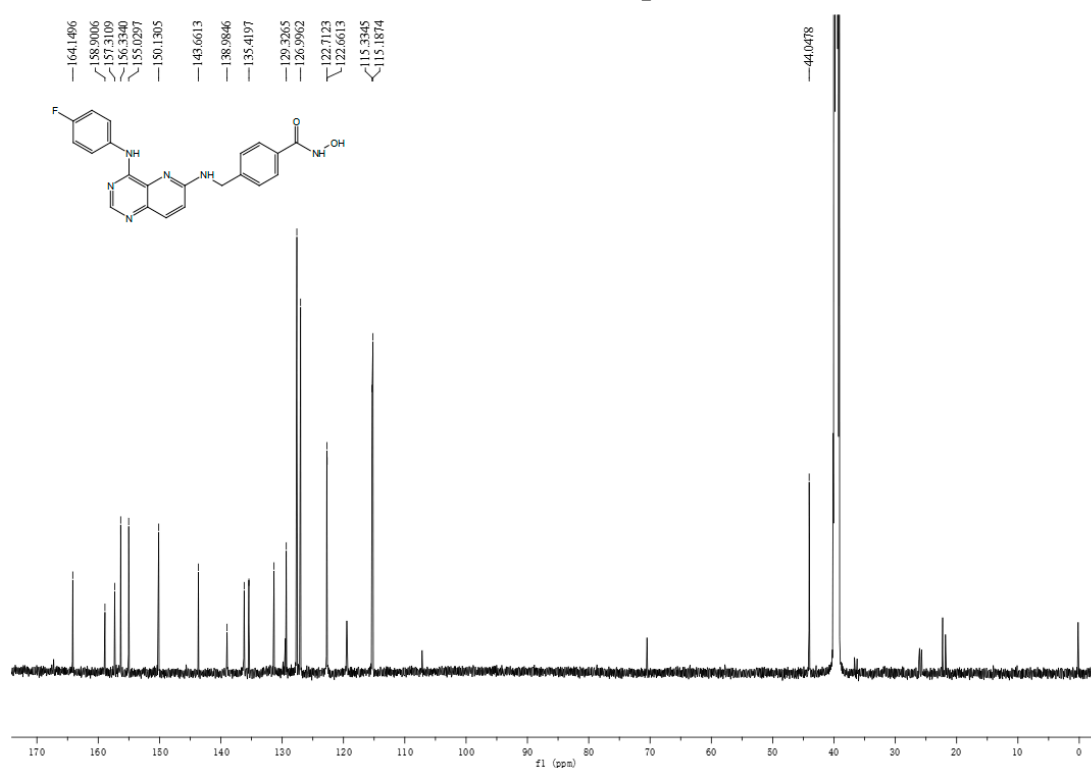
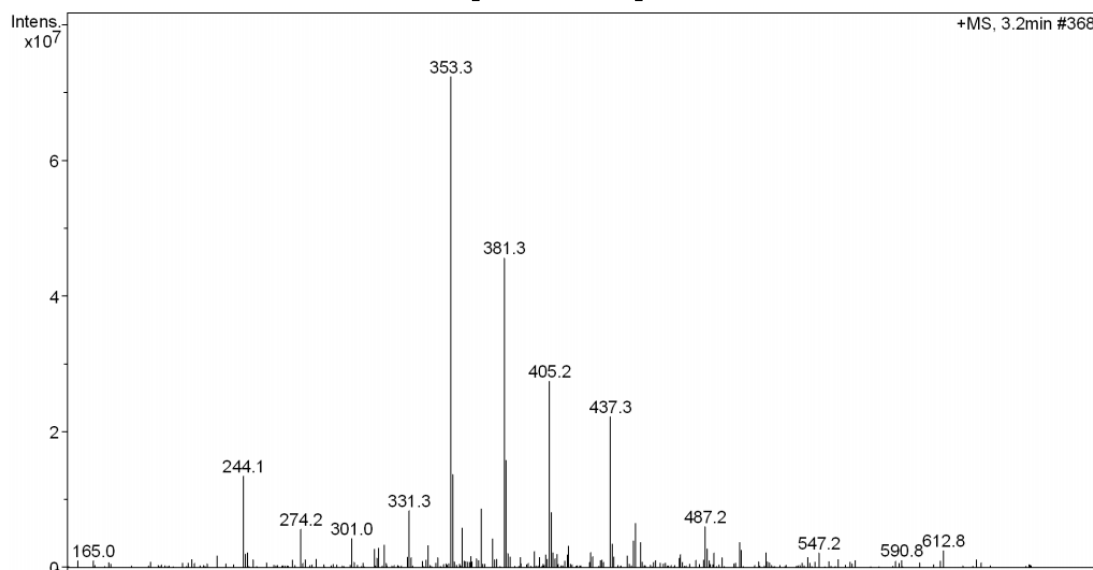


**<sup>13</sup>C-NMR spectra of compound A09**

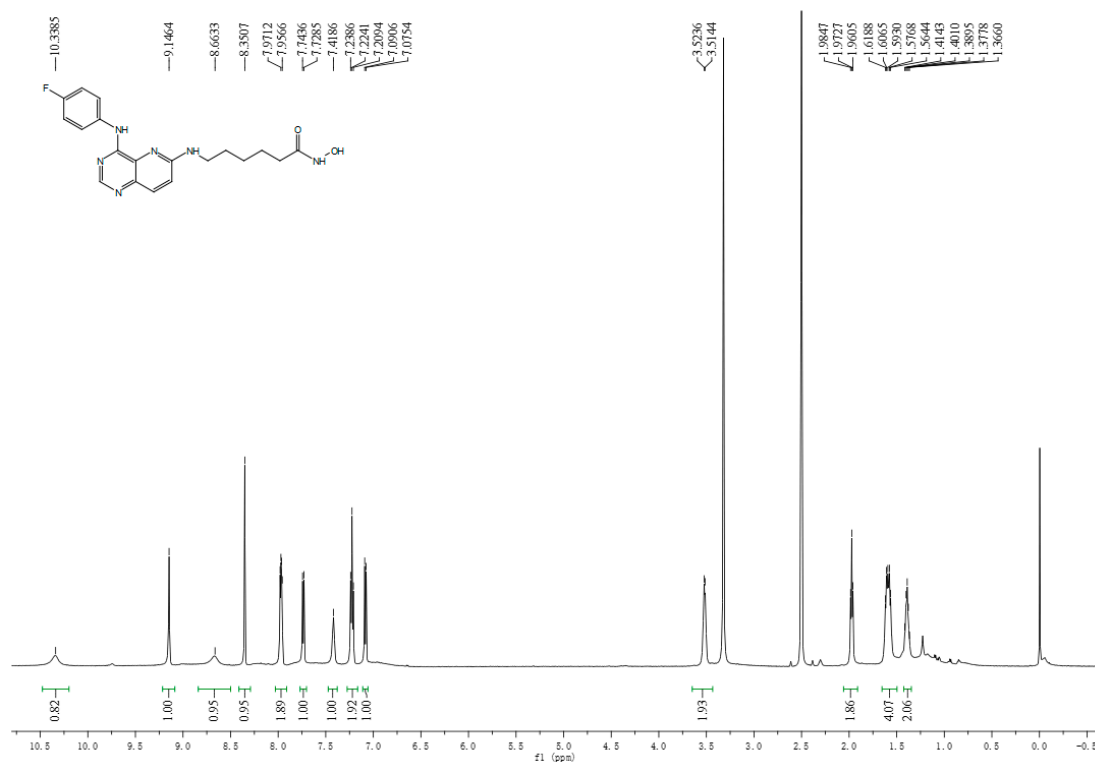


Ms spectra of compound A09

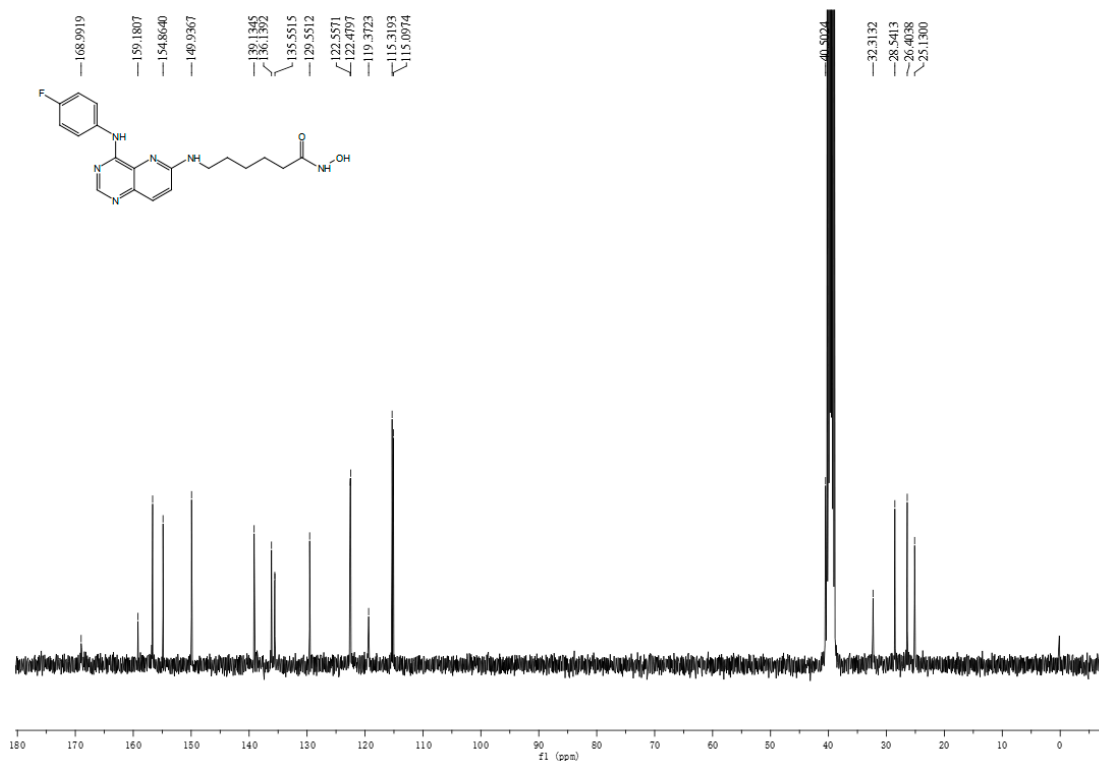


**<sup>1</sup>H-NMR spectra of compound A10****<sup>13</sup>C-NMR spectra of compound A10****Ms spectra of compound A10**

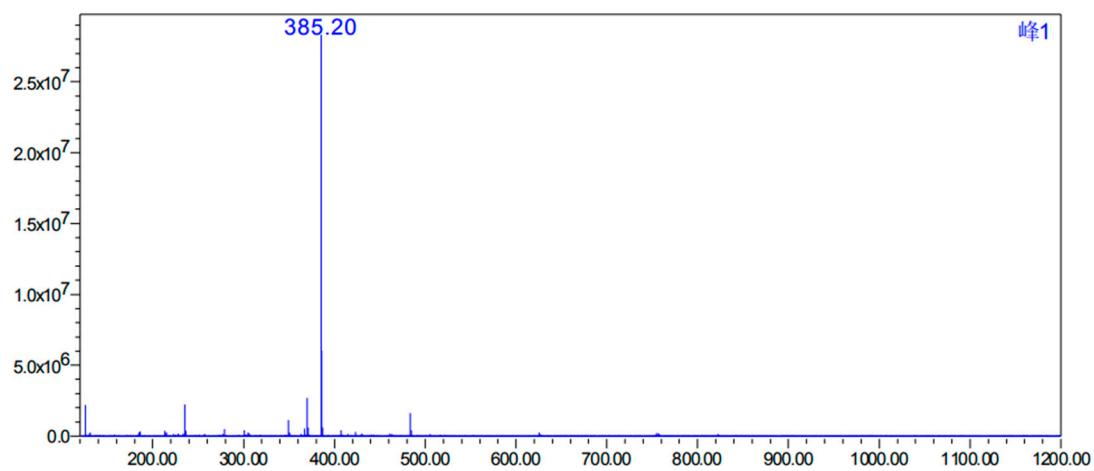




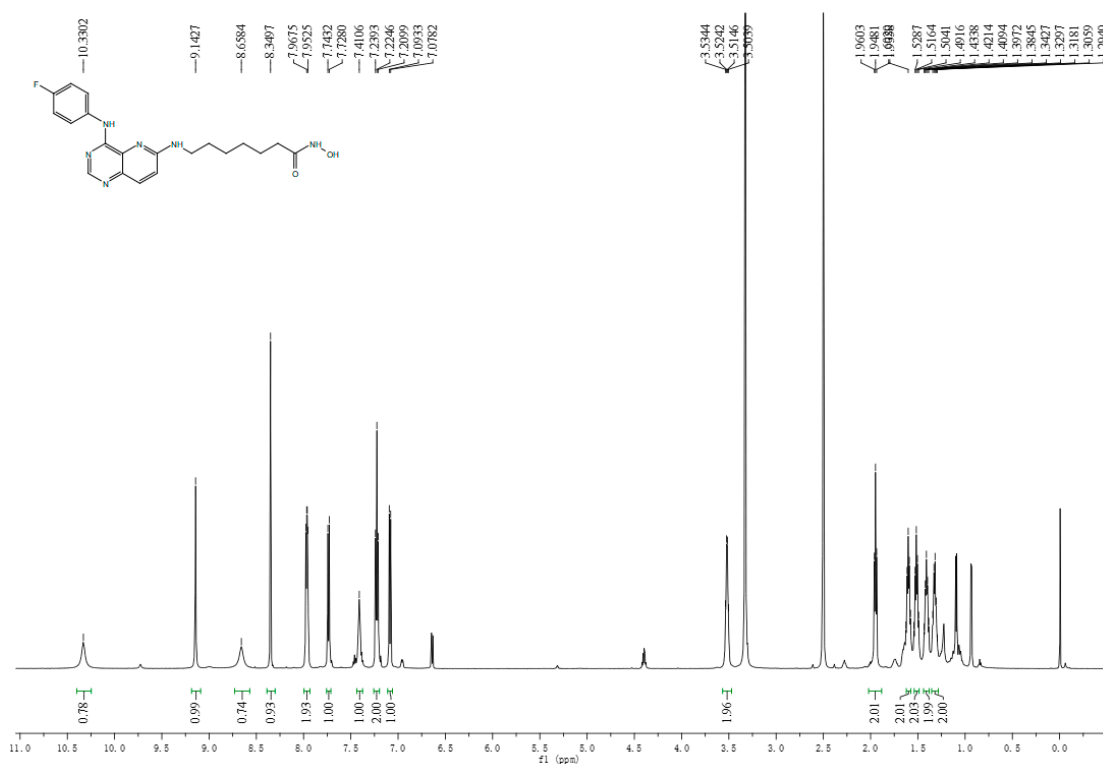
<sup>1</sup>H-NMR spectra of compound A11

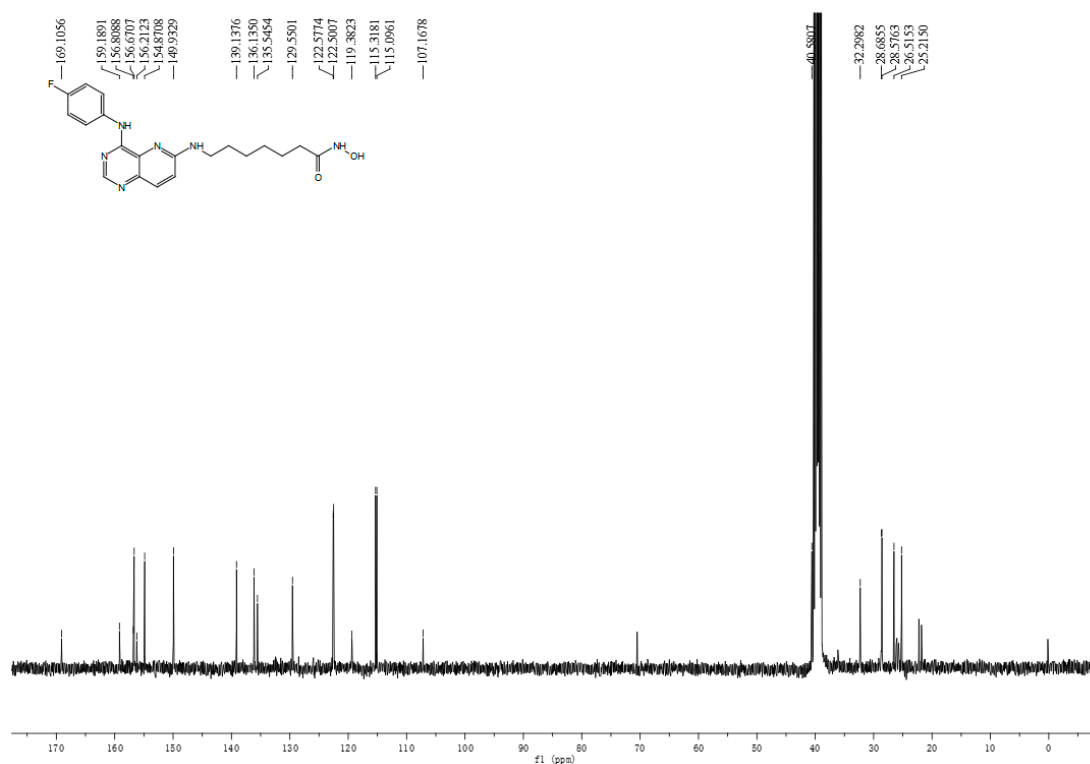
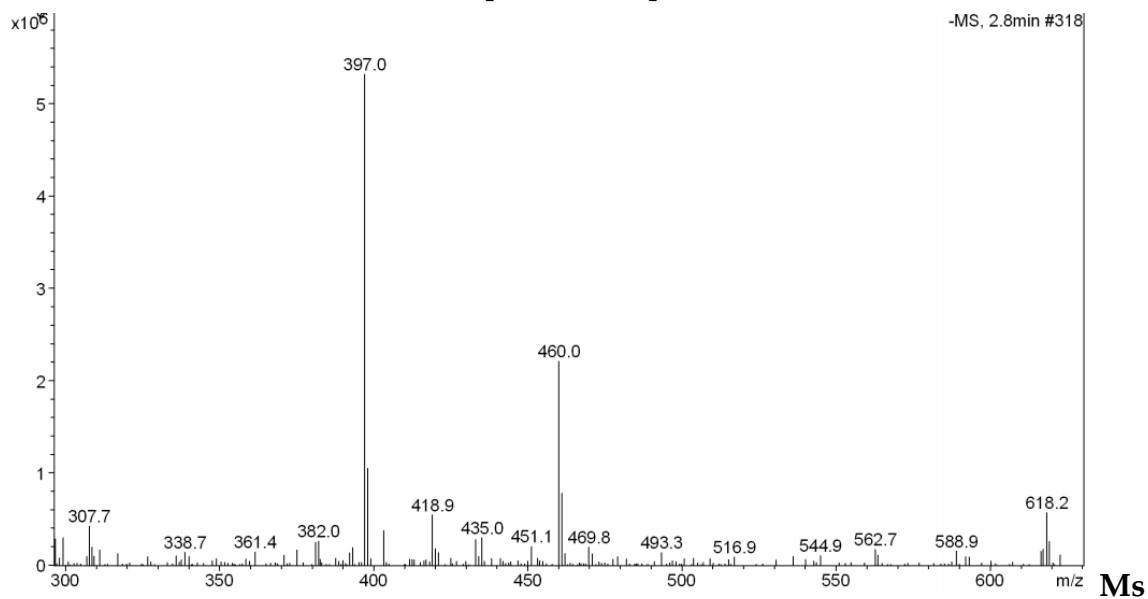


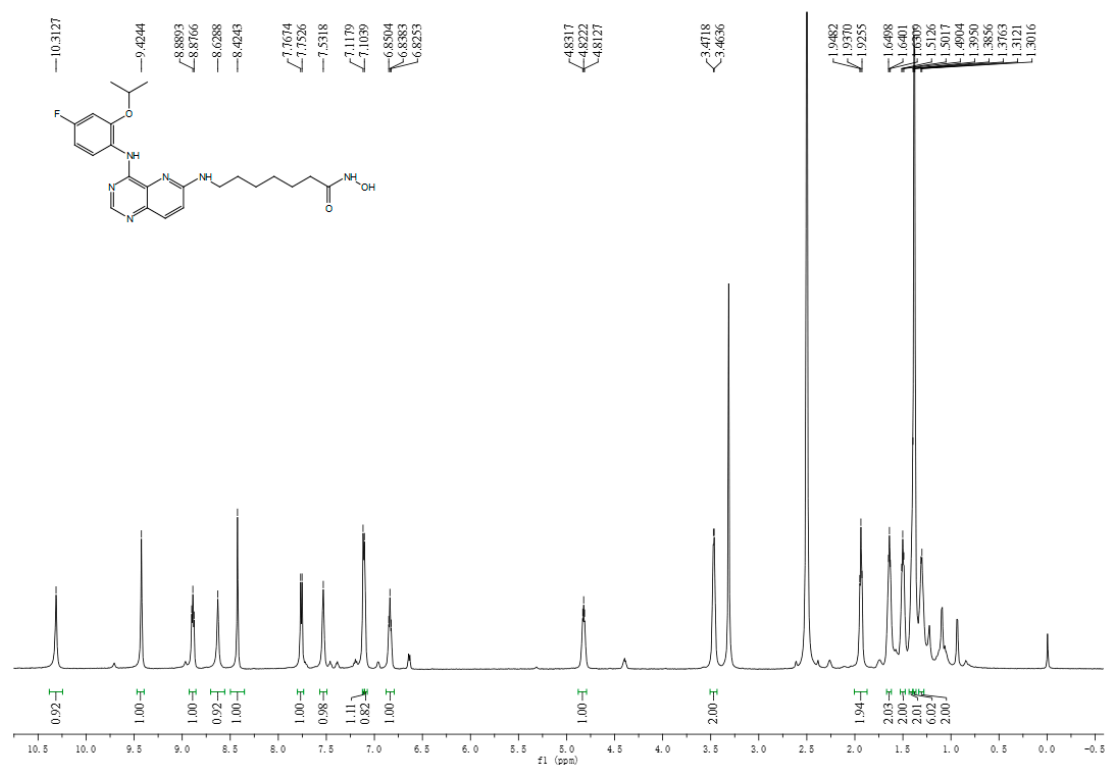
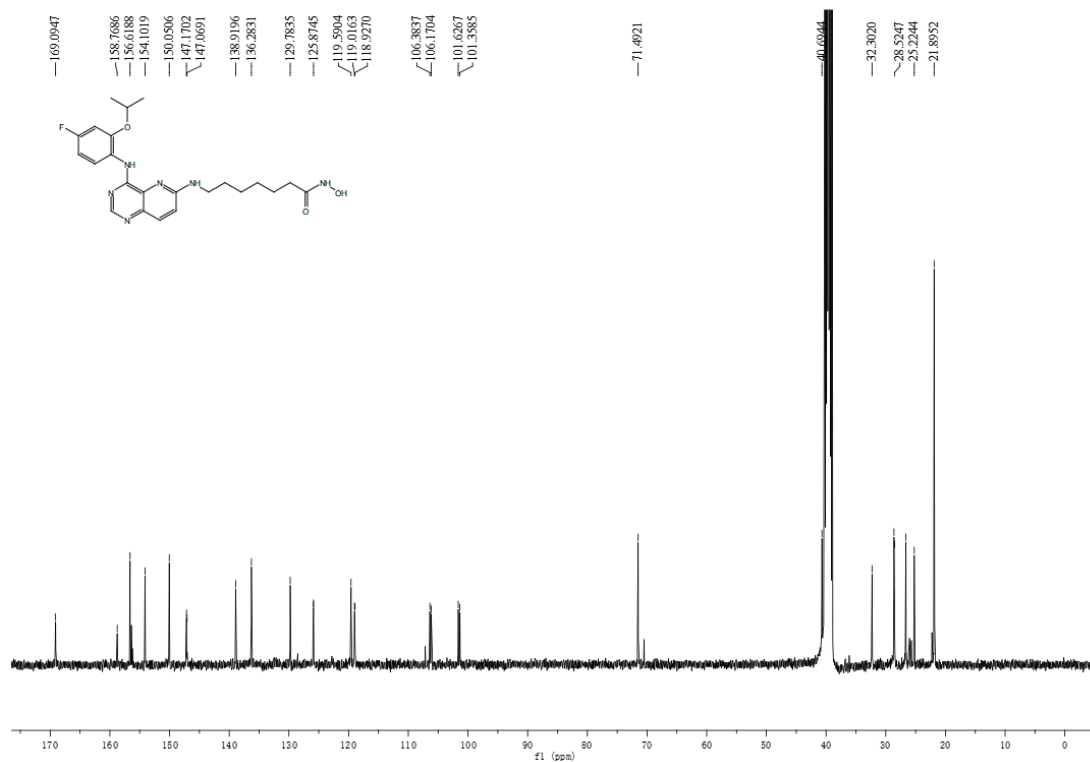
<sup>13</sup>C-NMR spectra of compound A11

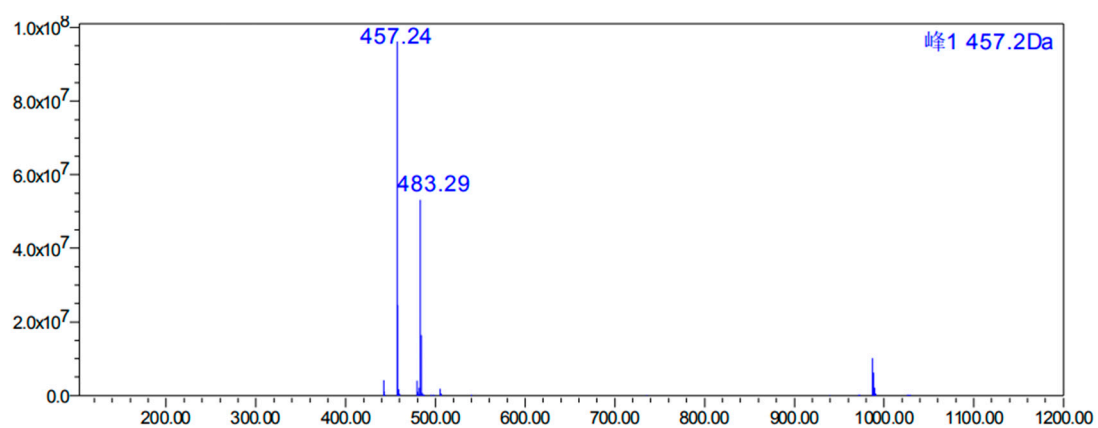


Ms spectra of compound A11

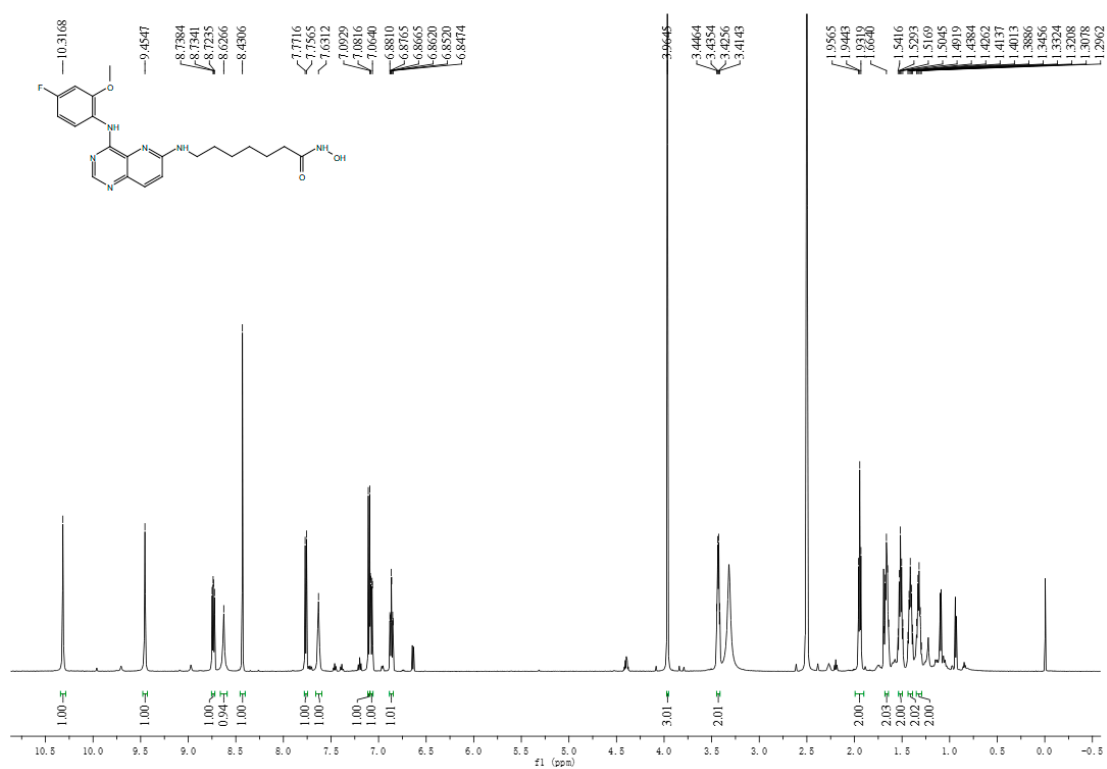


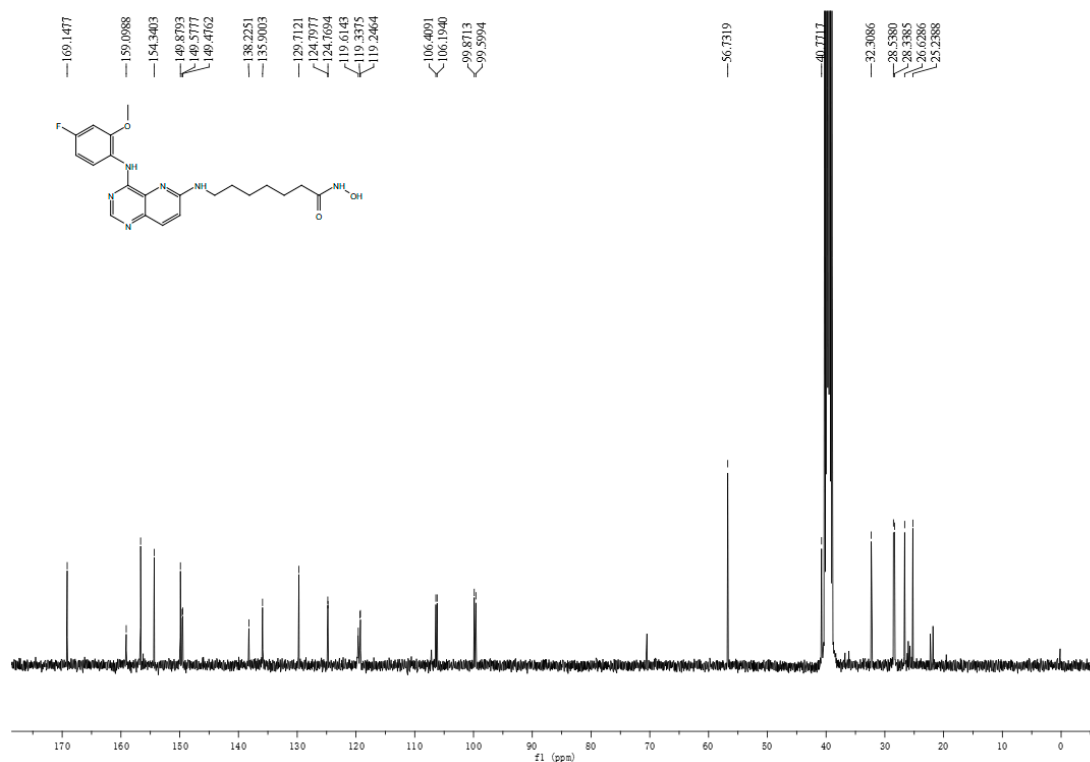
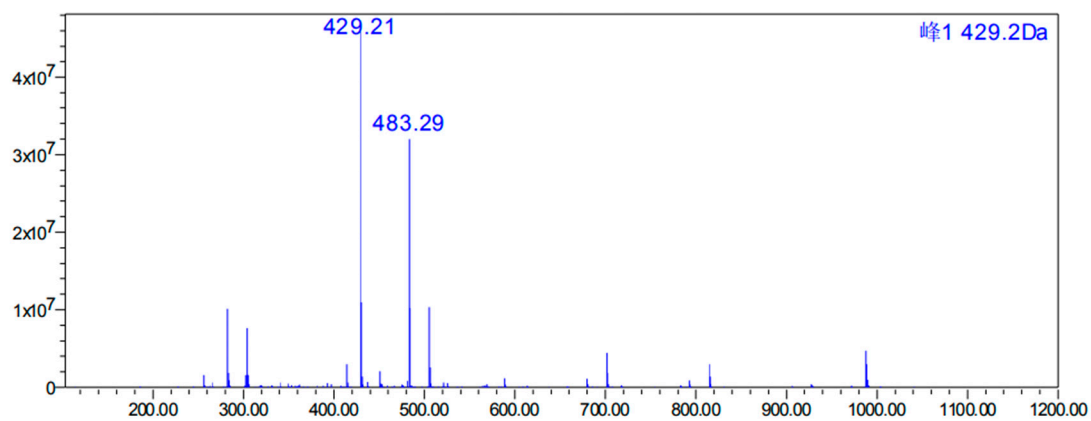
**<sup>1</sup>H-NMR spectra of compound A12****<sup>13</sup>C-NMR spectra of compound A12****spectra of compound A12**

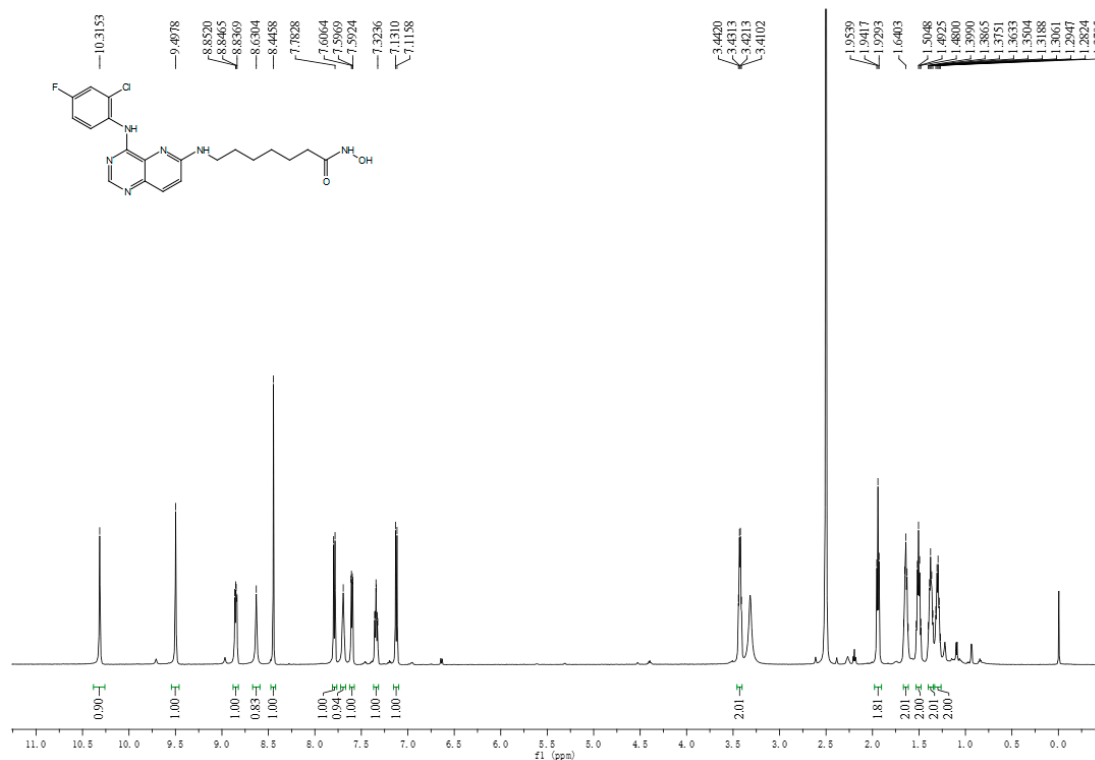
**<sup>1</sup>H-NMR spectra of compound A13****<sup>13</sup>C-NMR spectra of compound A13**



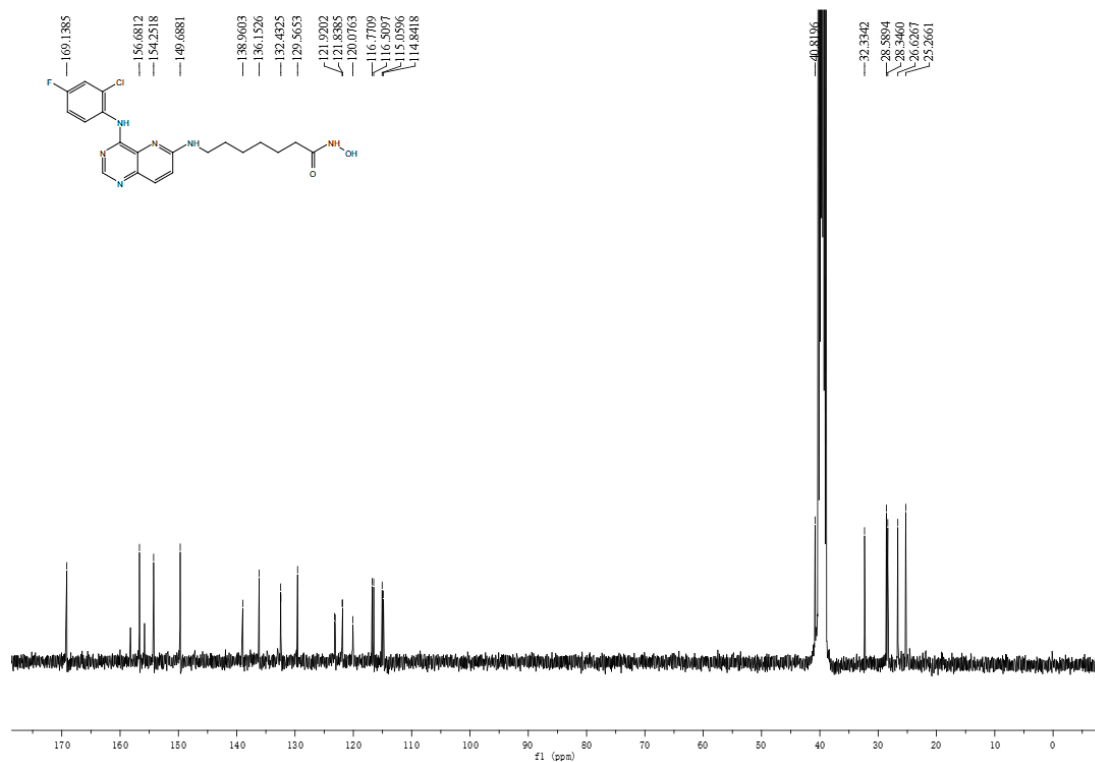
Ms spectra of compound A13



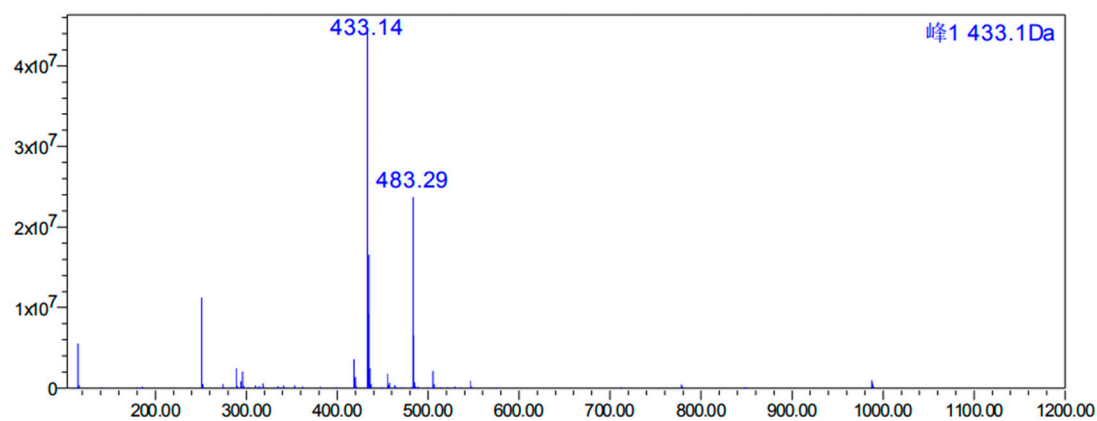
**<sup>1</sup>H-NMR spectra of compound A14****<sup>13</sup>C-NMR spectra of compound A14****Ms spectra of compound A14**



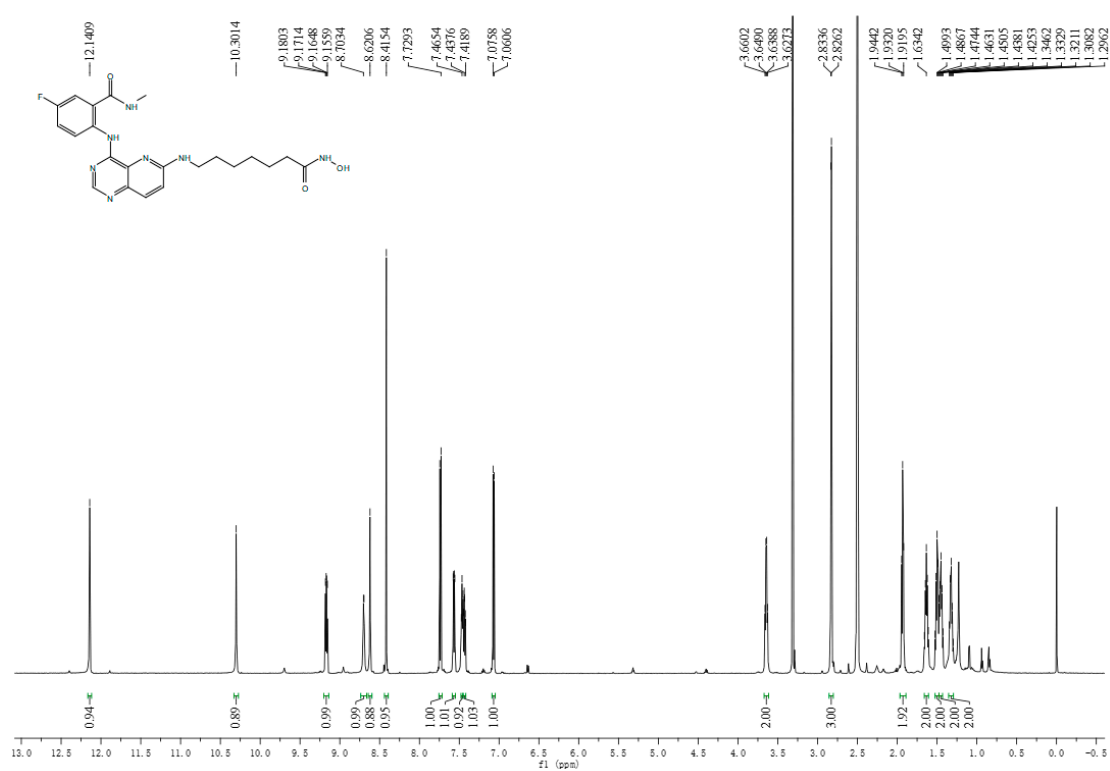
<sup>1</sup>H-NMR spectra of compound A15



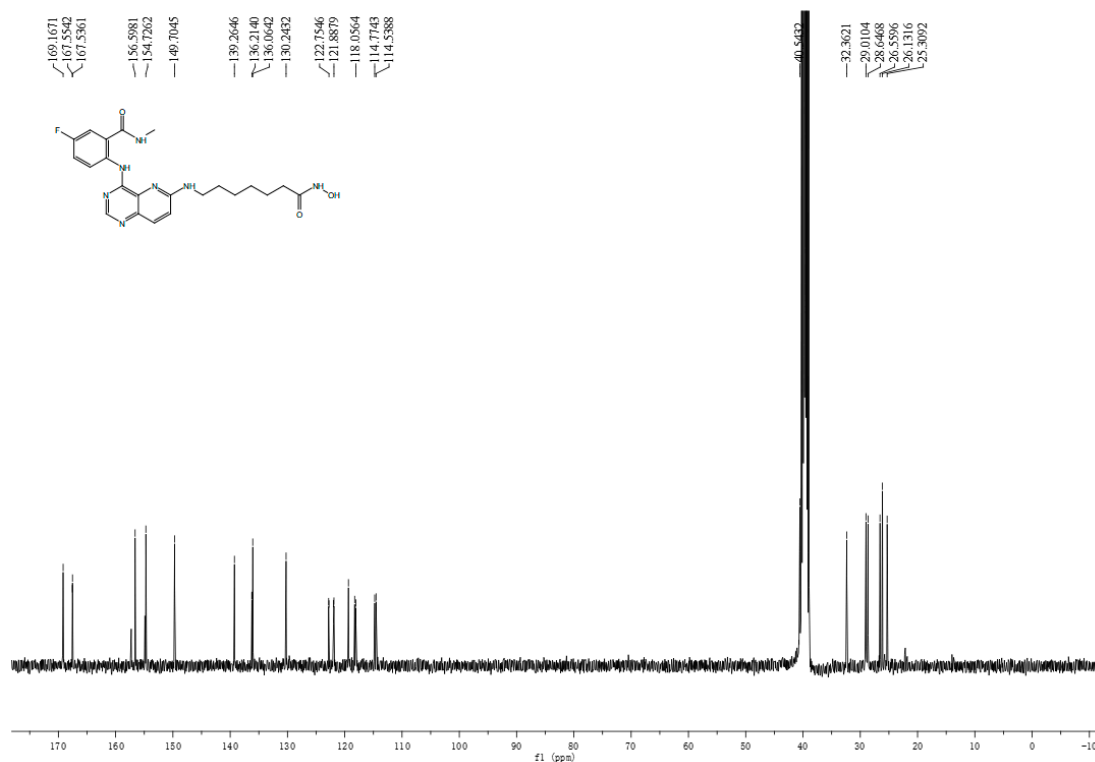
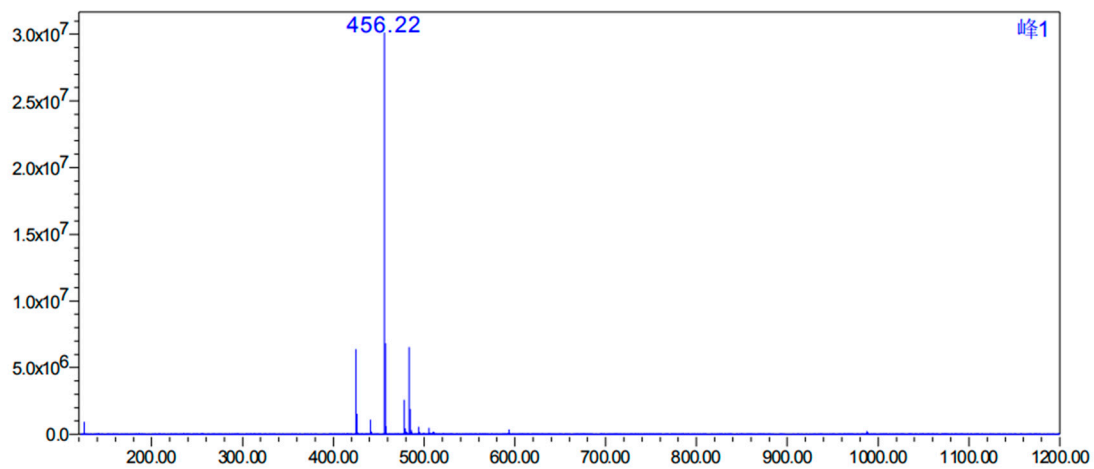
<sup>13</sup>C-NMR spectra of compound A15

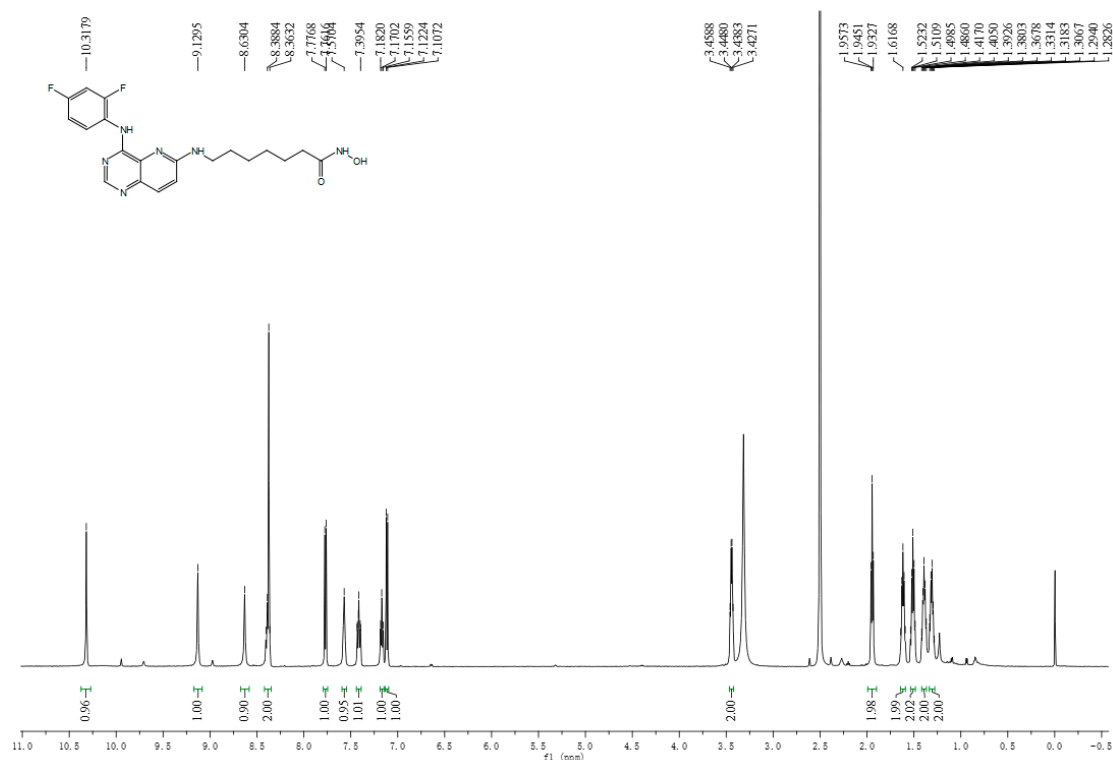
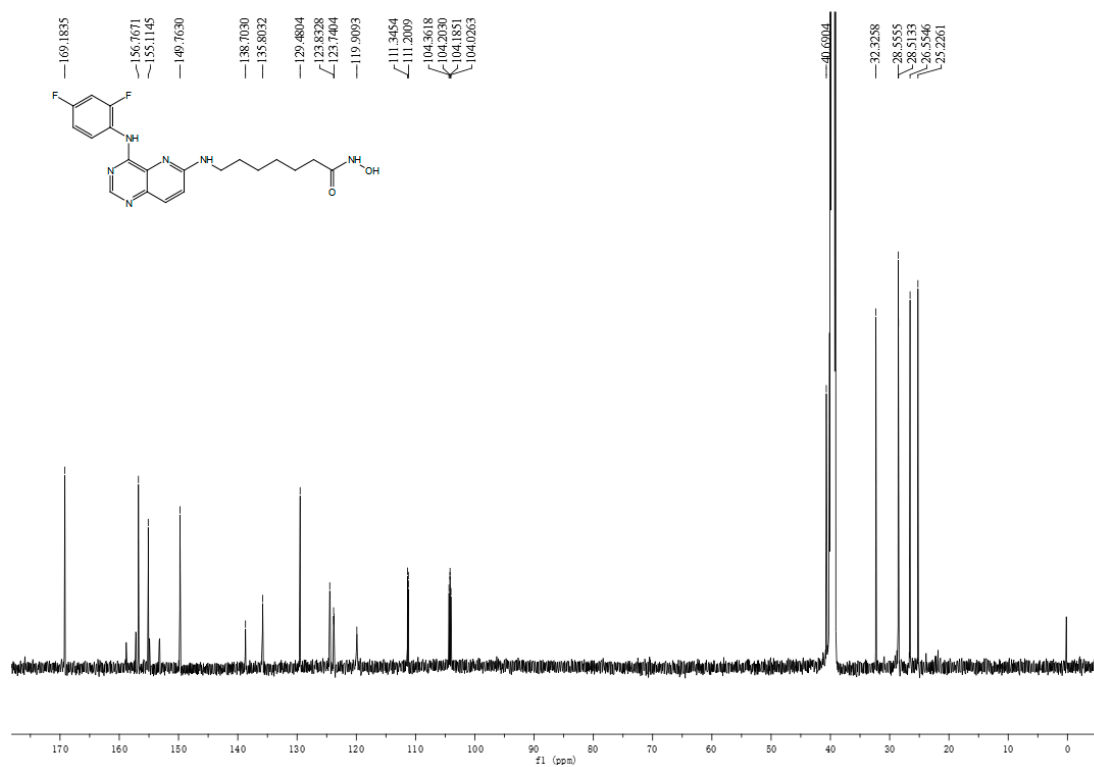


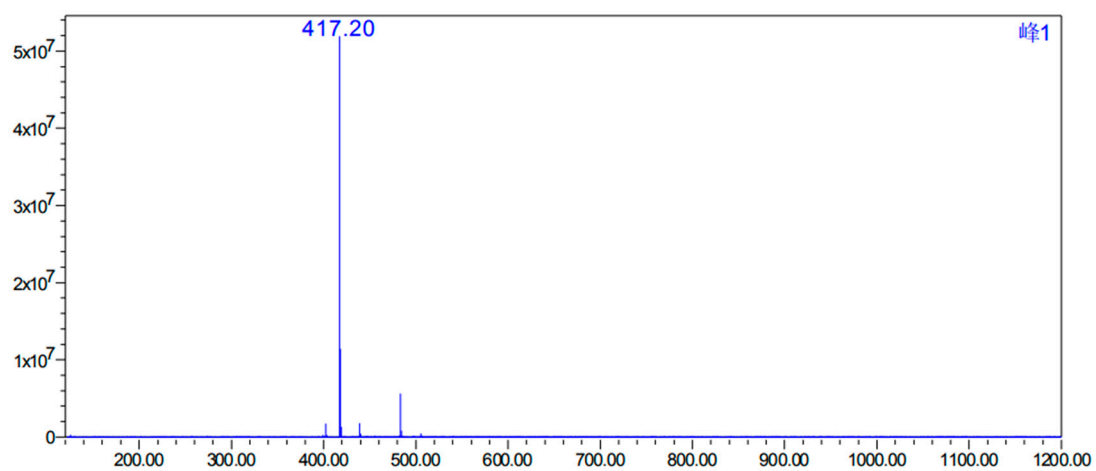
Ms spectra of compound A15



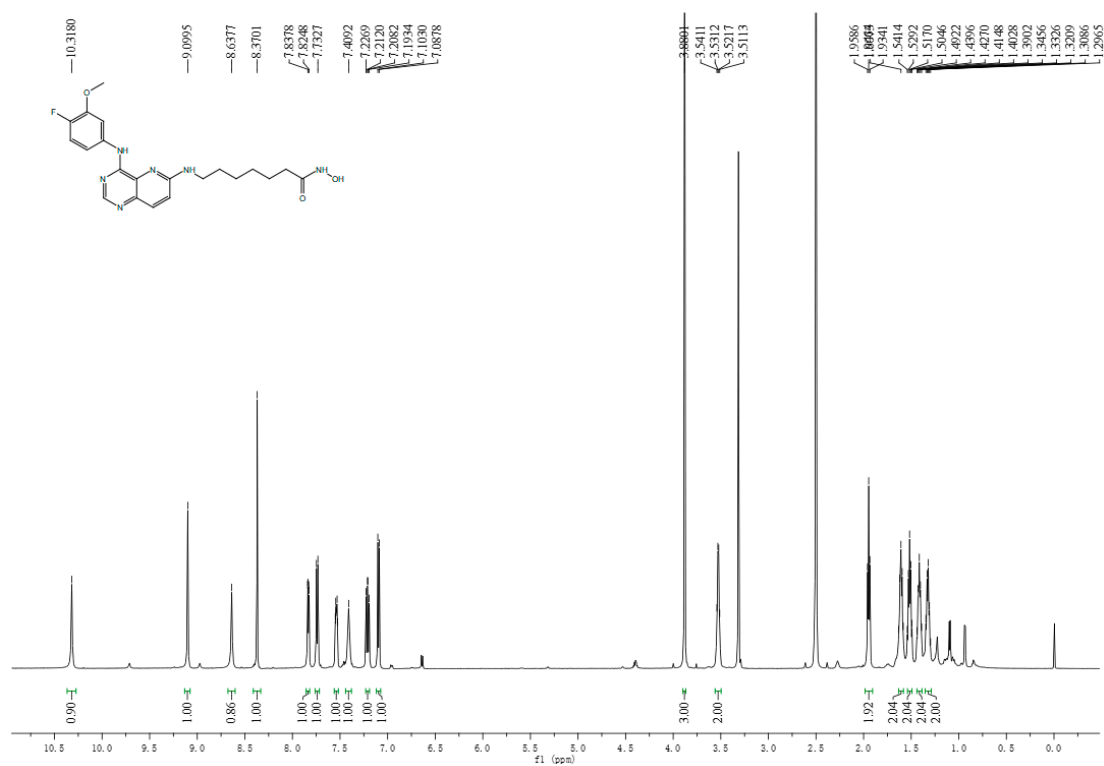


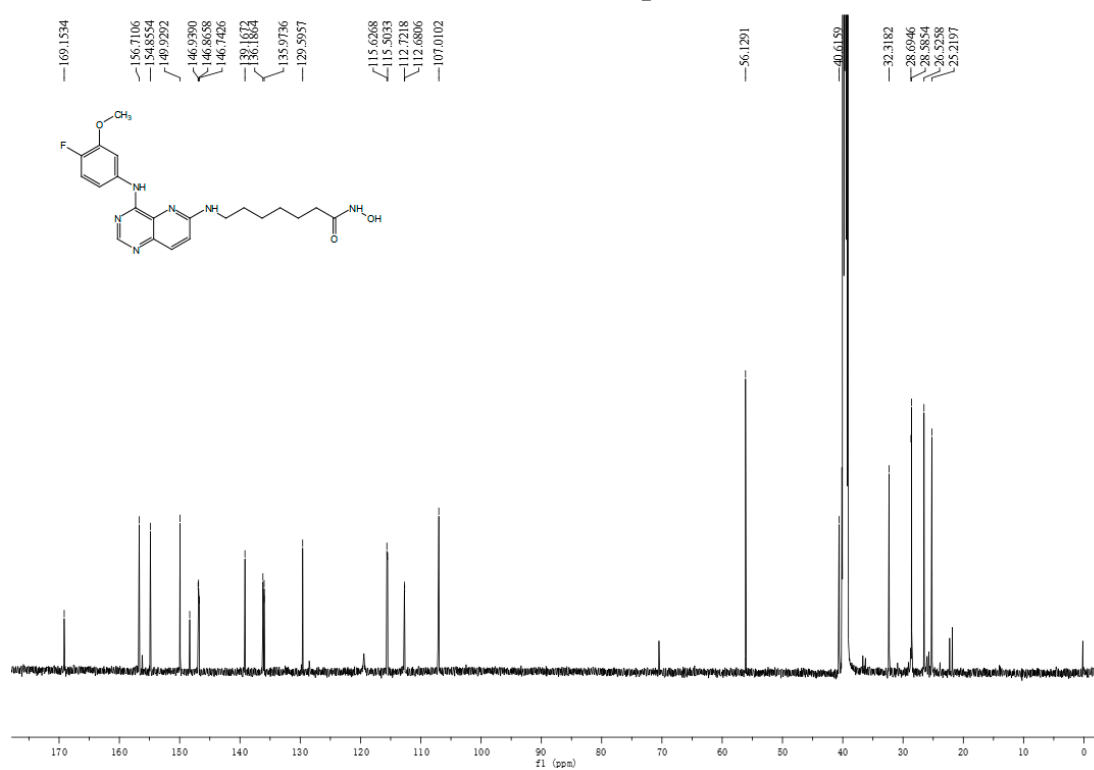
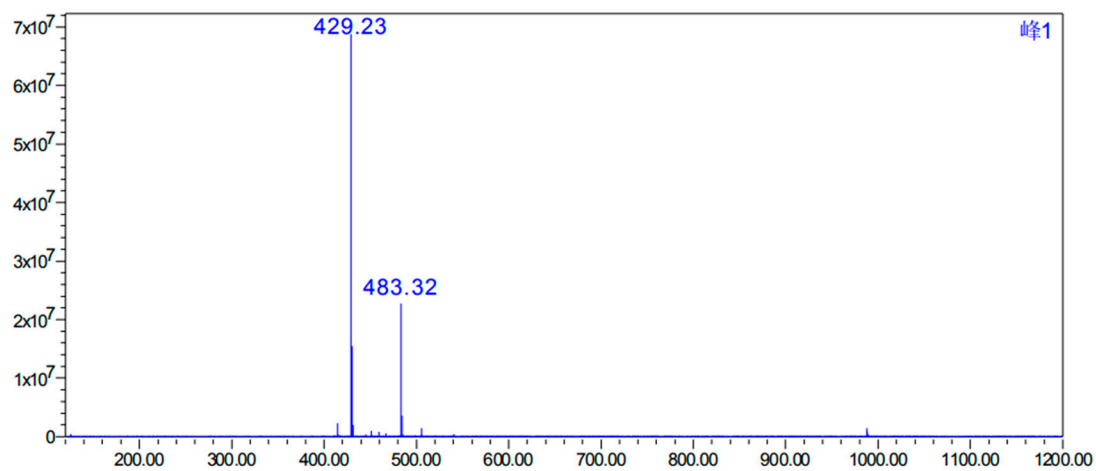
**<sup>1</sup>H-NMR spectra of compound A16****<sup>13</sup>C-NMR spectra of compound A16****Ms spectra of compound A16**

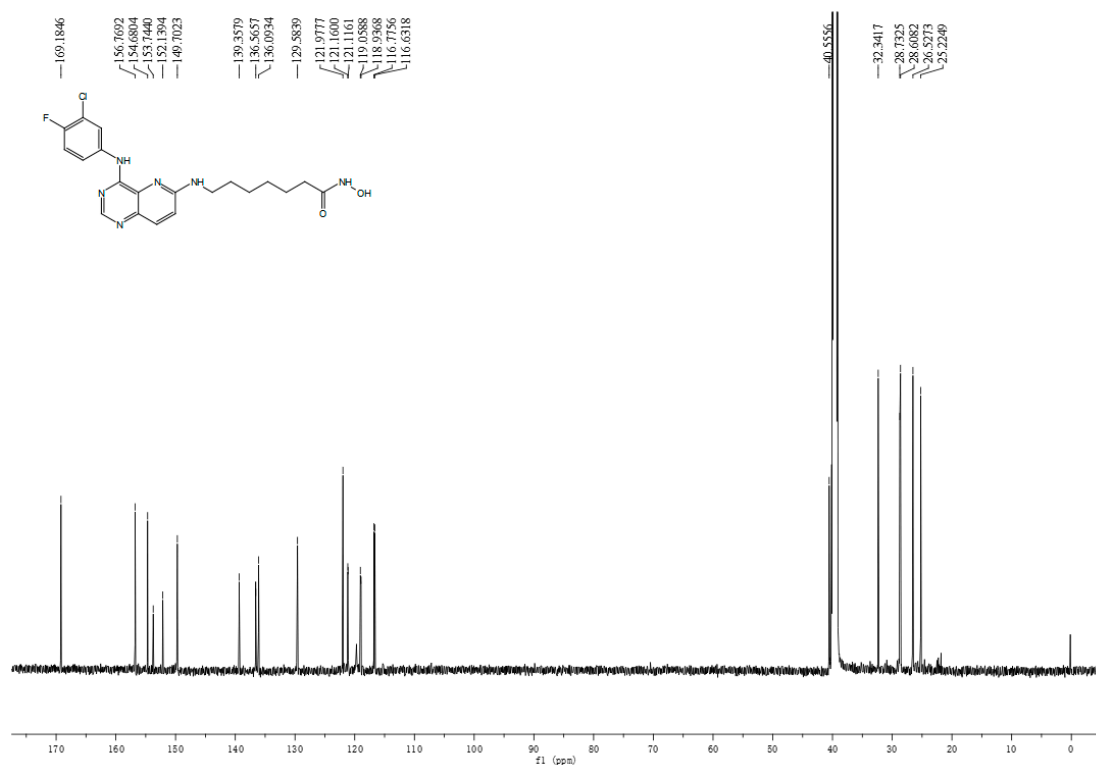
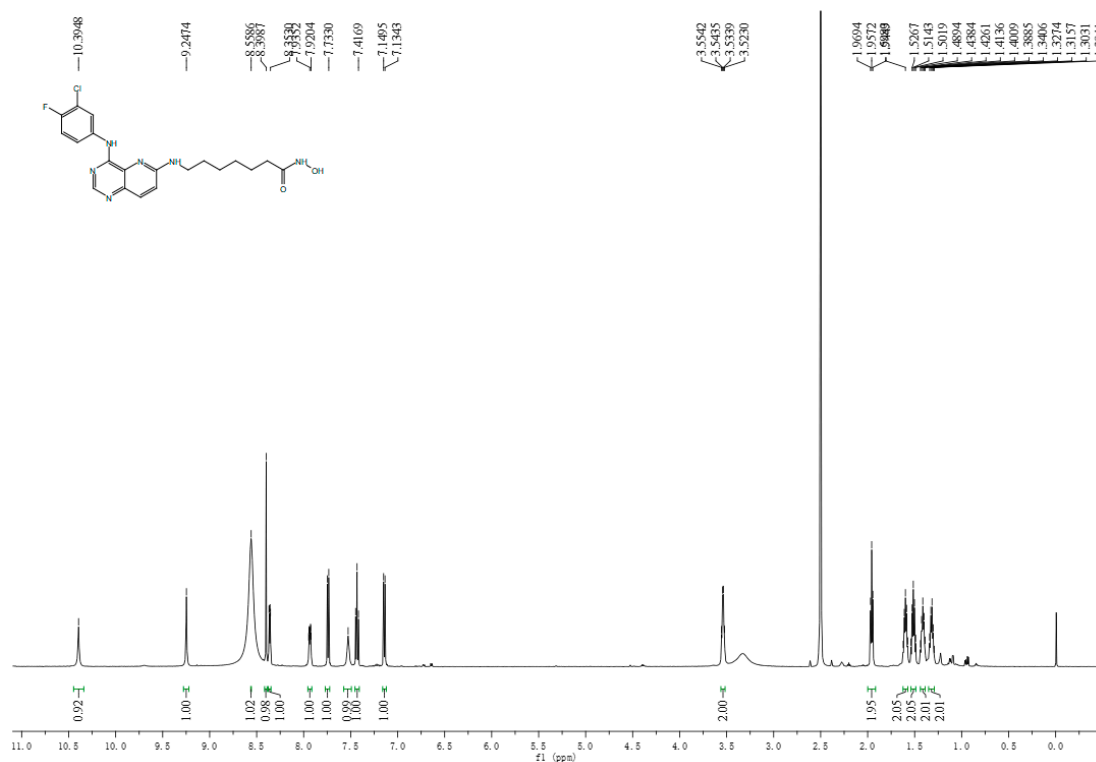
**<sup>1</sup>H-NMR spectra of compound A17****<sup>13</sup>C-NMR spectra of compound A17**

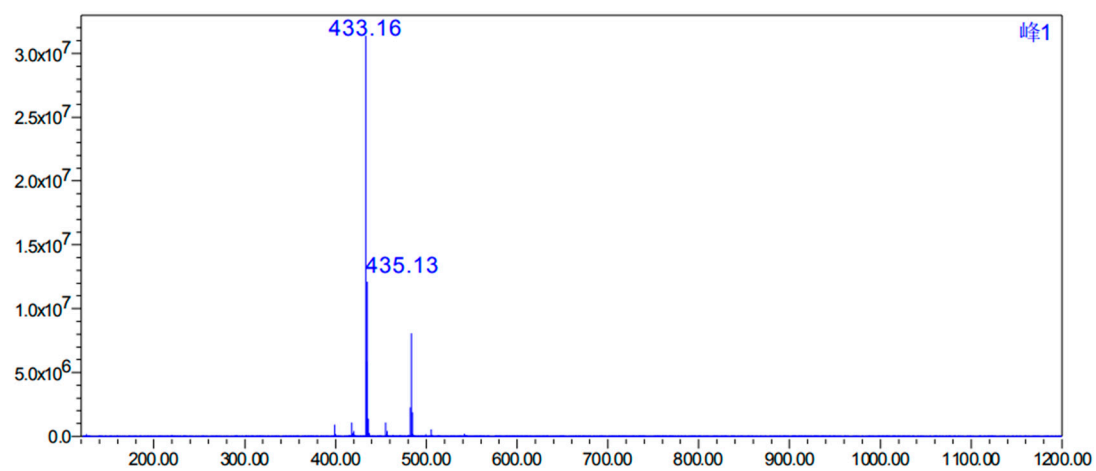


Ms spectra of compound A17



**<sup>1</sup>H-NMR spectra of compound A18****<sup>13</sup>C-NMR spectra of compound A18****Ms spectra of compound A18**





Ms spectra of compound A19