

## Supplementary Information

for

### The design, synthesis and biological evaluation of novel thiamin diphosphate analog inhibitors against pyruvate dehydrogenase multienzyme complex E1 from *Escherichia coli*

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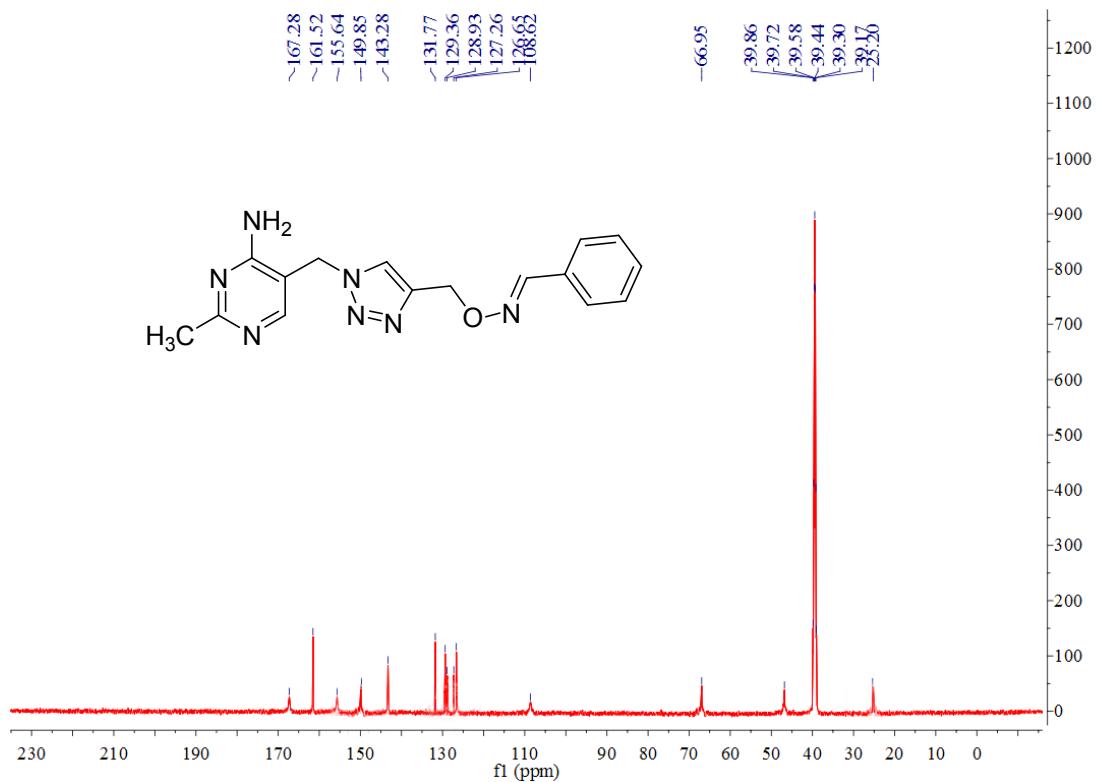
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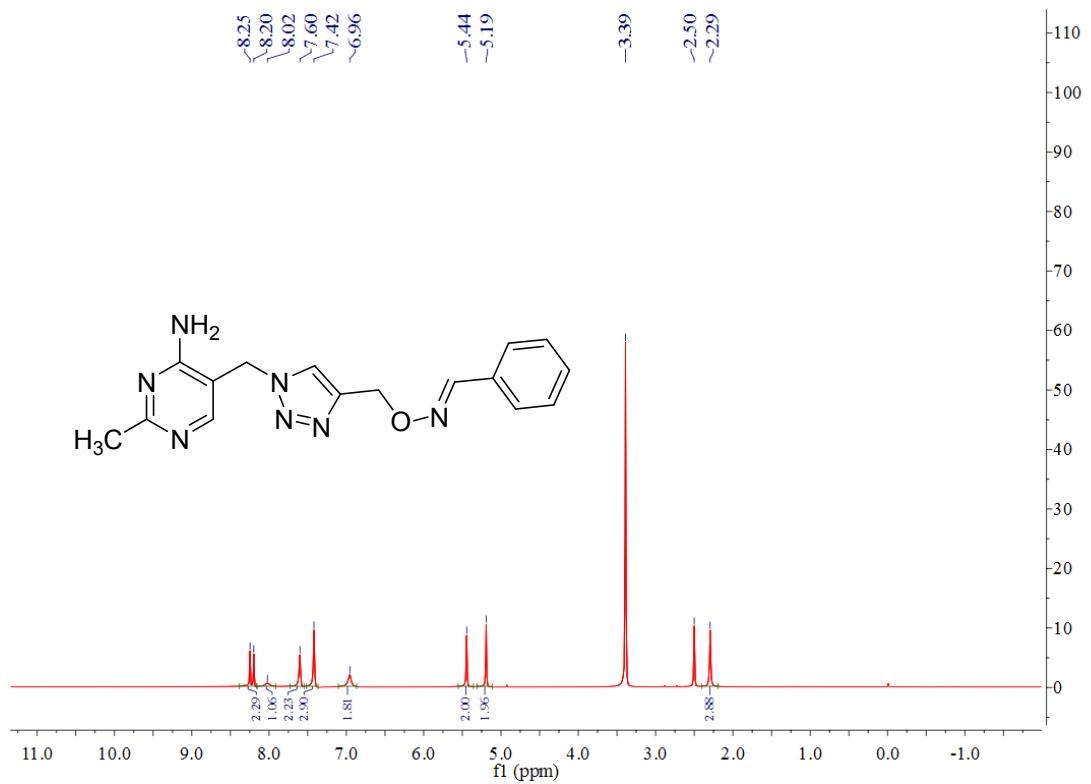
<sup>c</sup>College of life science, Central China Normal University, Wuhan 430079, China.

## 1. The copies of all NMR spectra of the compounds

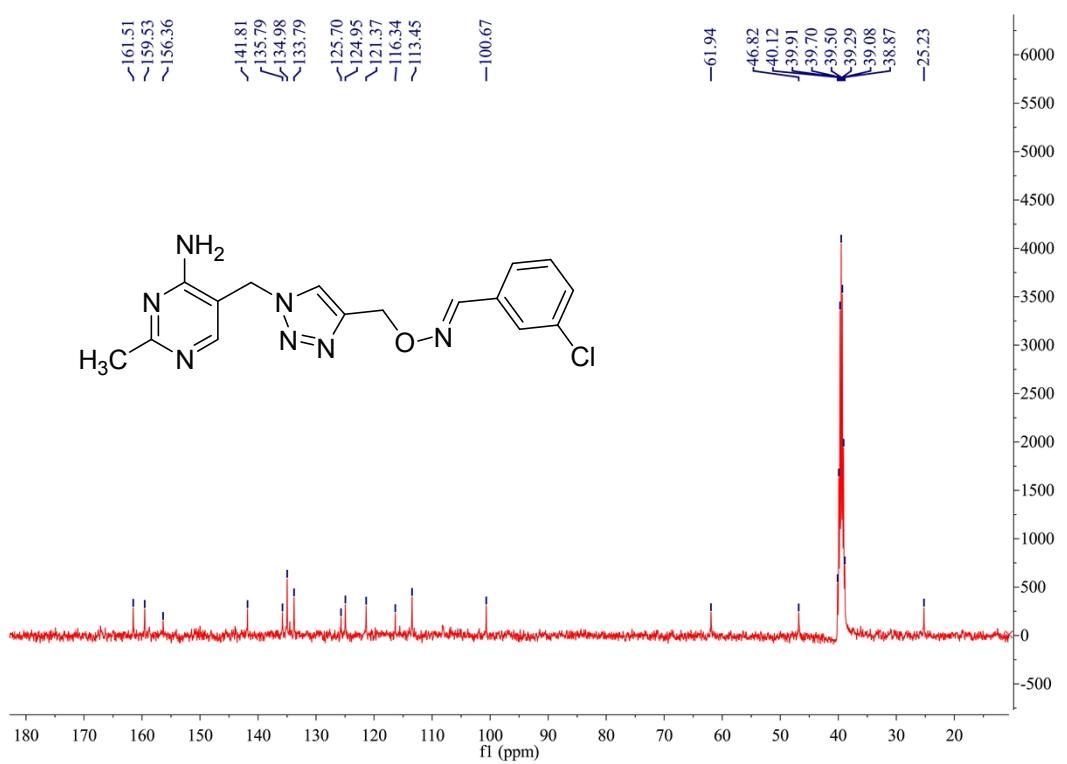
$^{13}\text{C}$  NMR of **4a** in  $\text{DMSO}-d_6$



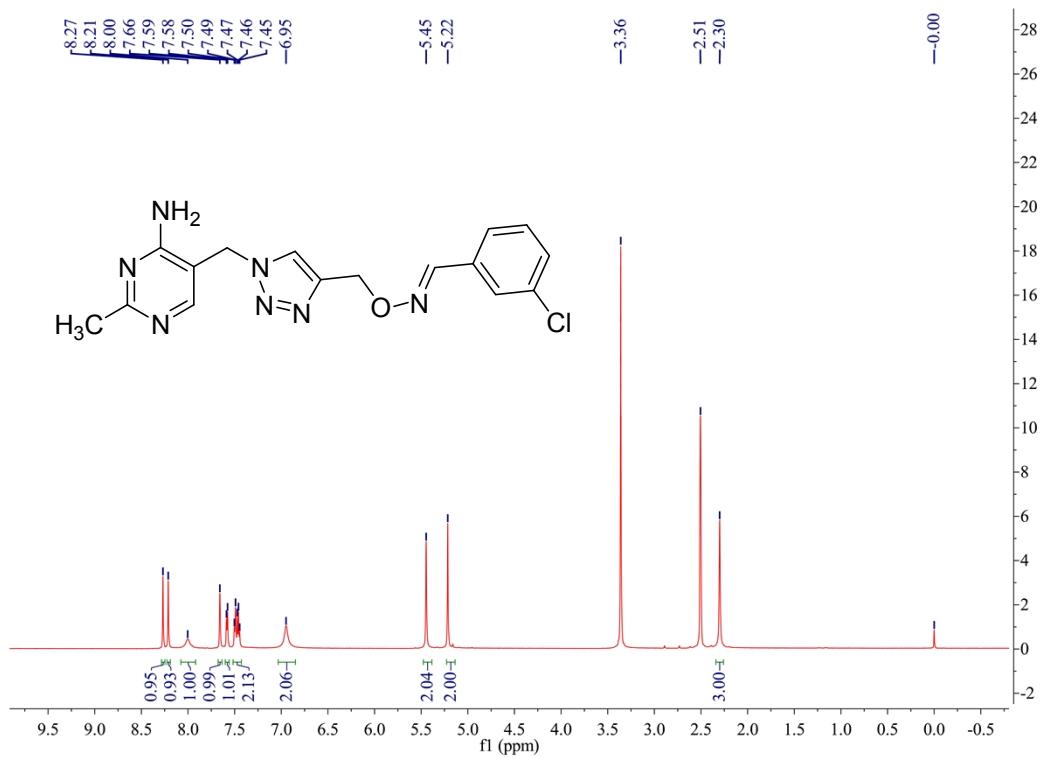
$^1\text{H}$  NMR of **4a** in  $\text{DMSO}-d_6$



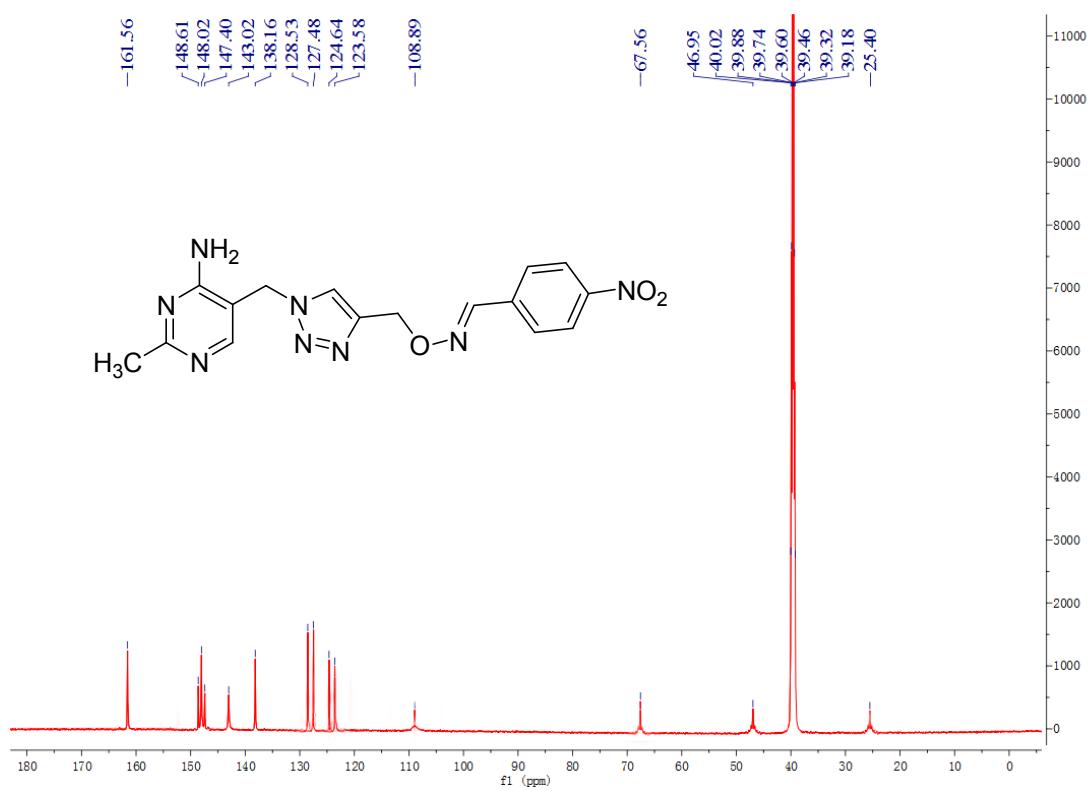
<sup>13</sup>C NMR of **4b** in DMSO-*d*6



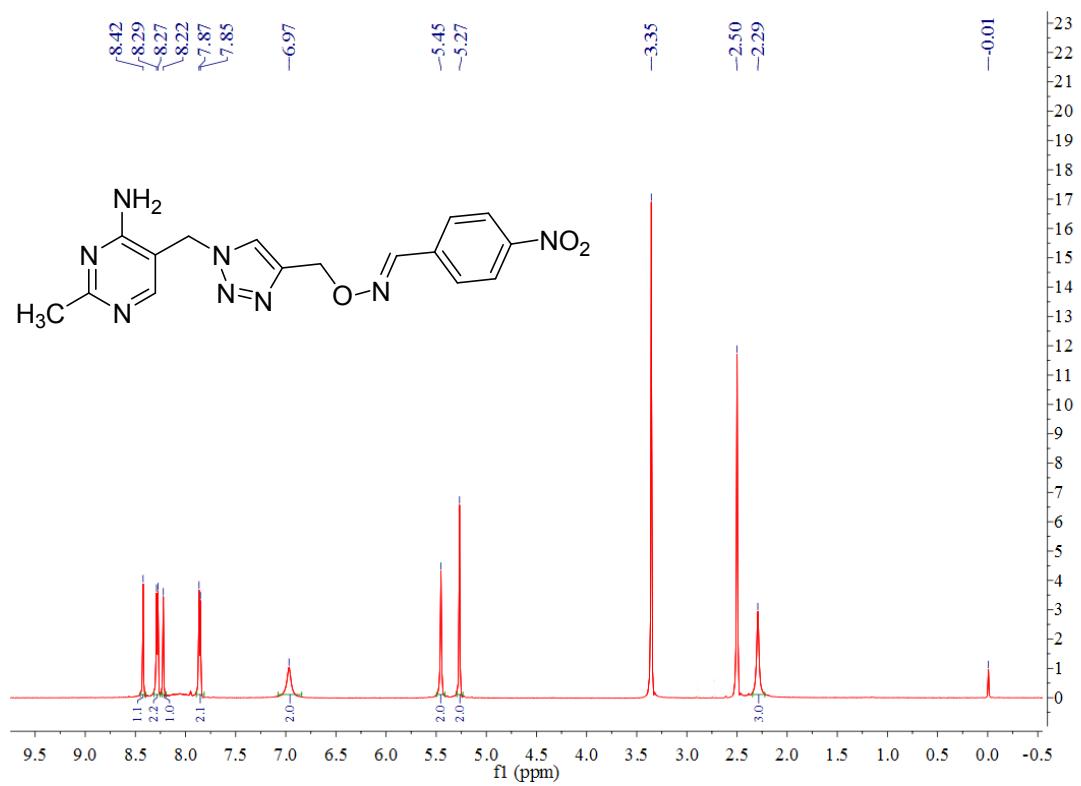
<sup>1</sup>H NMR of **4b** in DMSO-*d*6



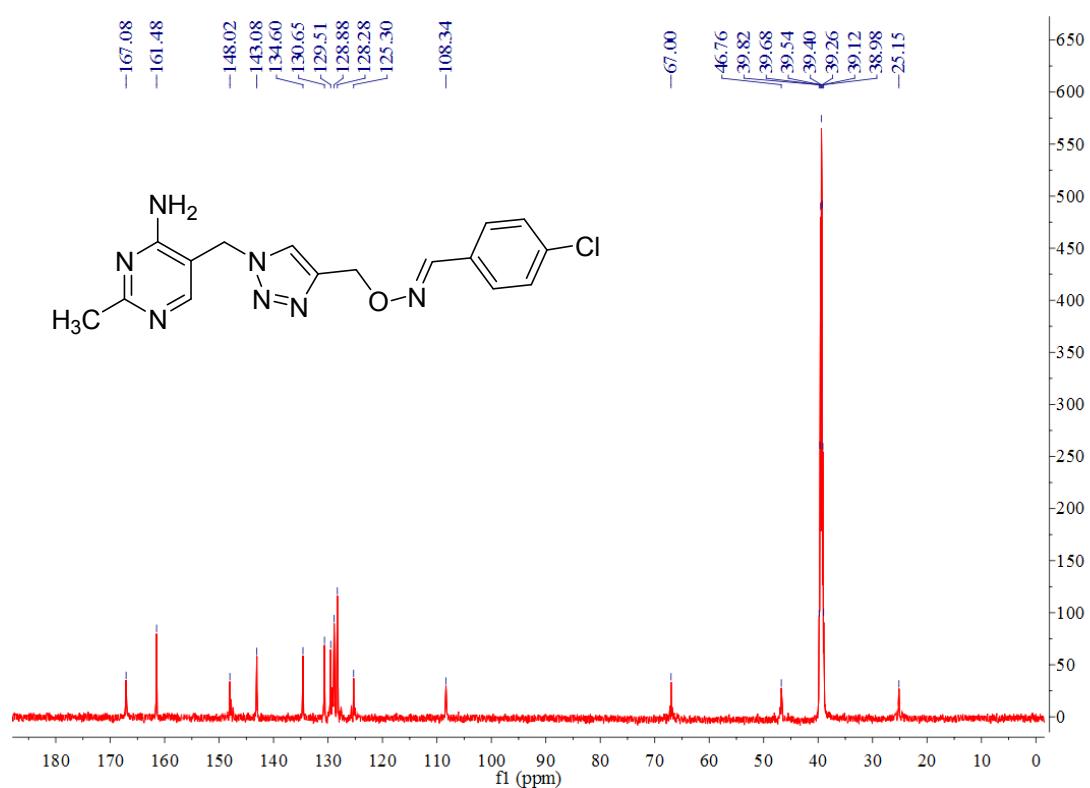
### <sup>13</sup>C NMR of **4c** in DMSO-d<sub>6</sub>



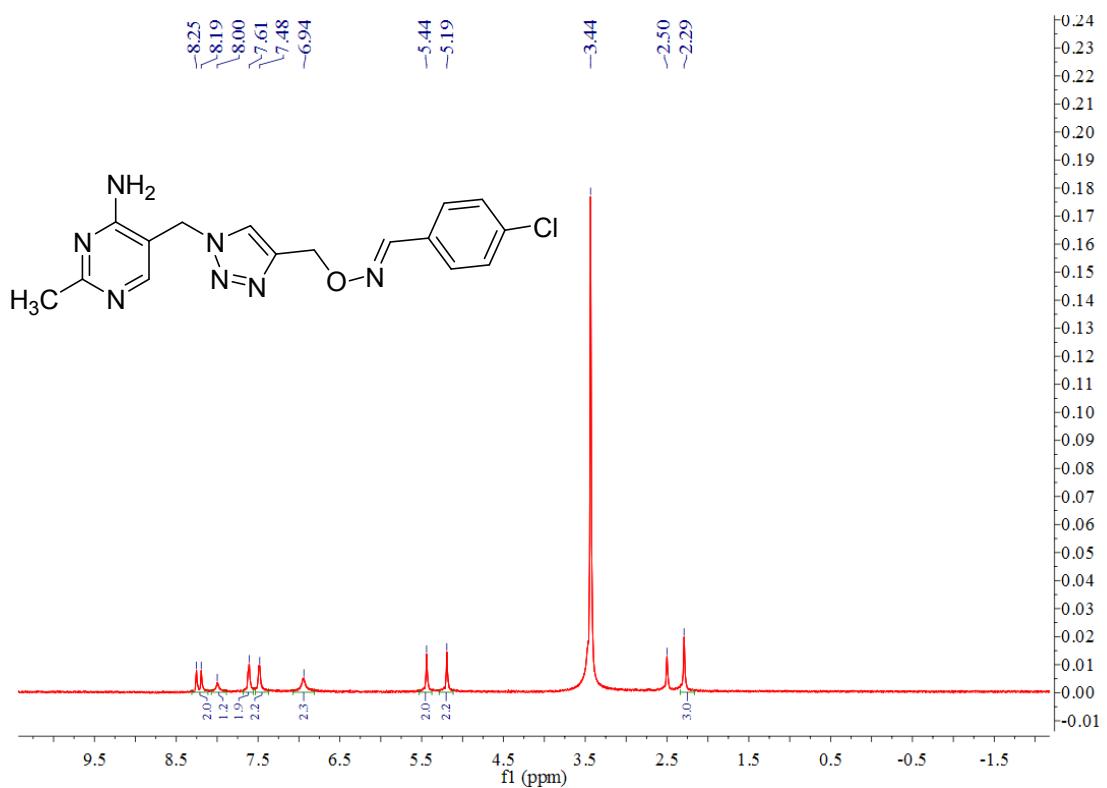
### <sup>1</sup>H NMR of **4c** in DMSO-d<sub>6</sub>



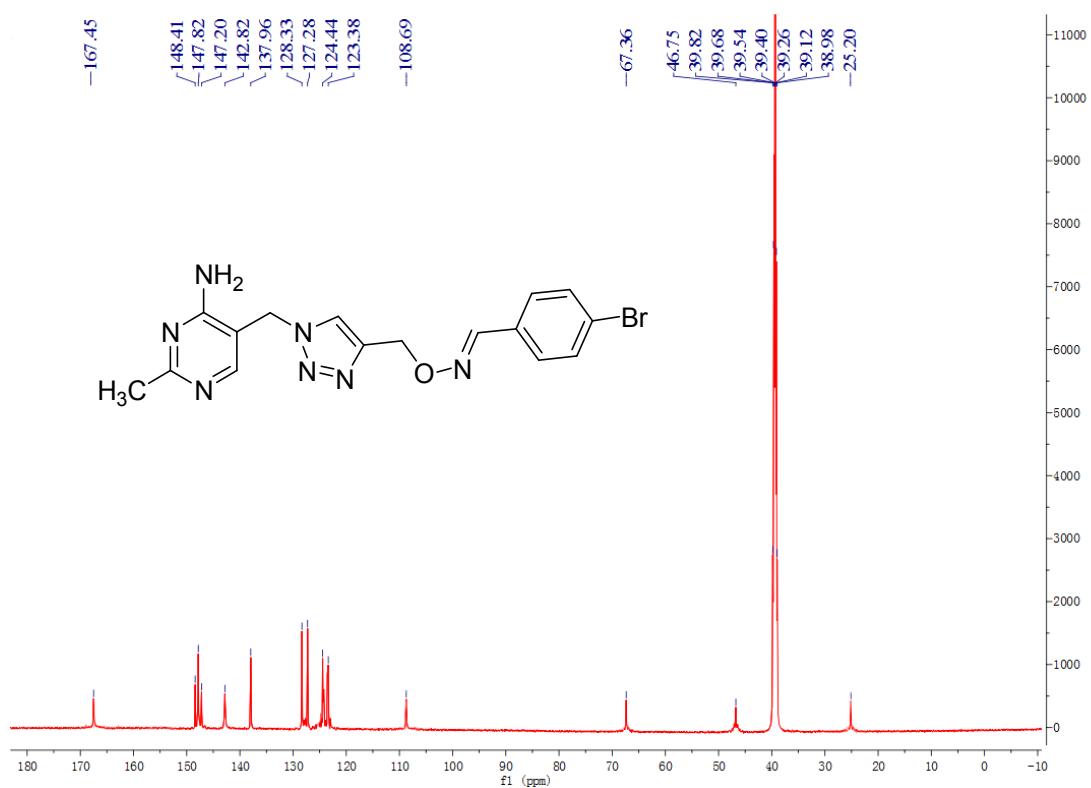
<sup>13</sup>C NMR of **4d** in DMSO-*d*6



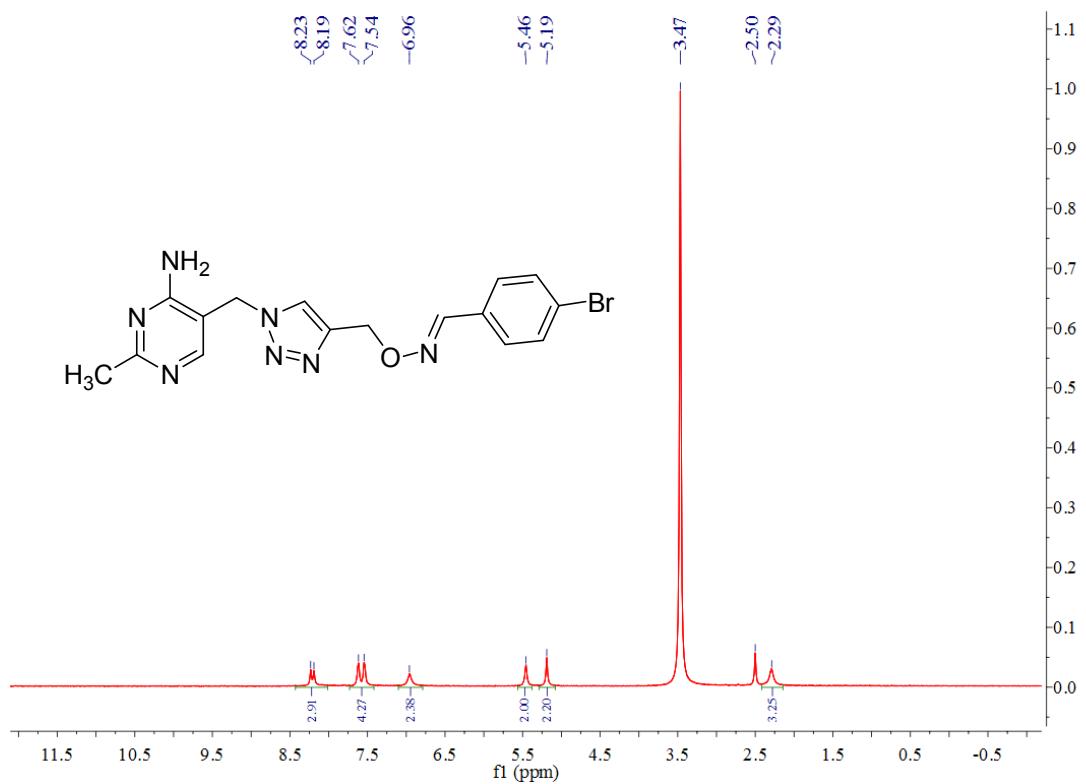
<sup>1</sup>H NMR of **4d** in DMSO-*d*6



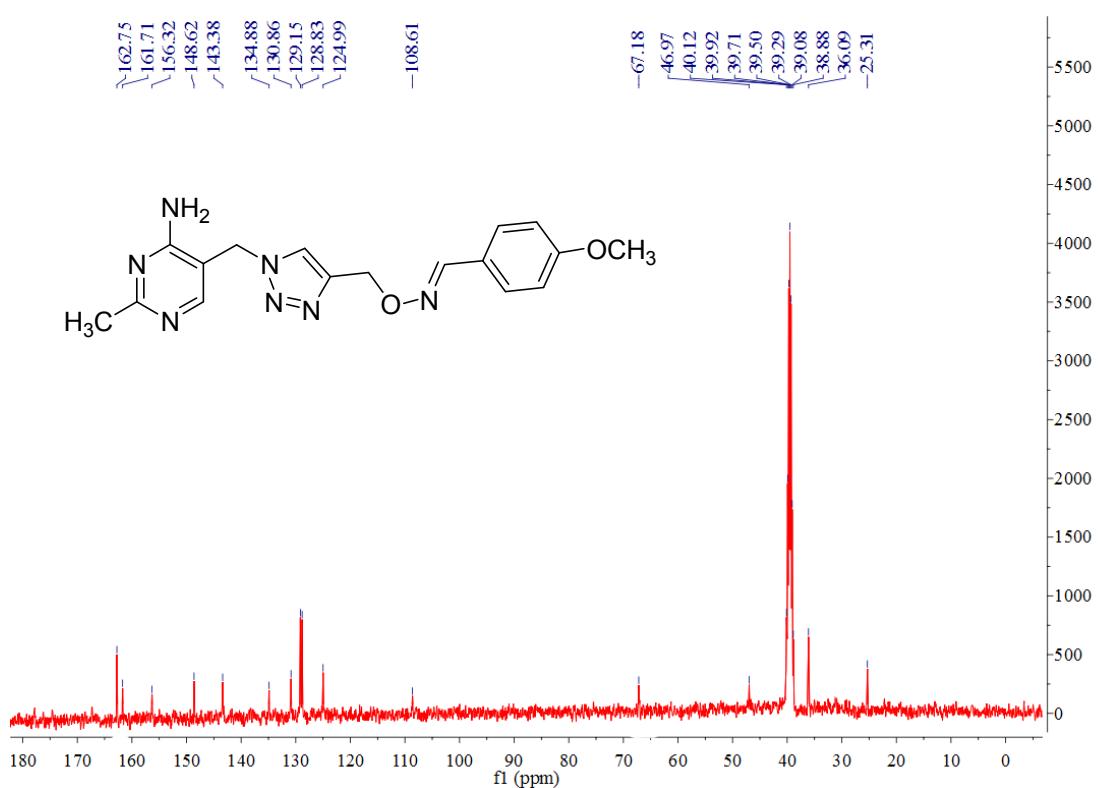
<sup>13</sup>C NMR of **4e** in DMSO-*d*6



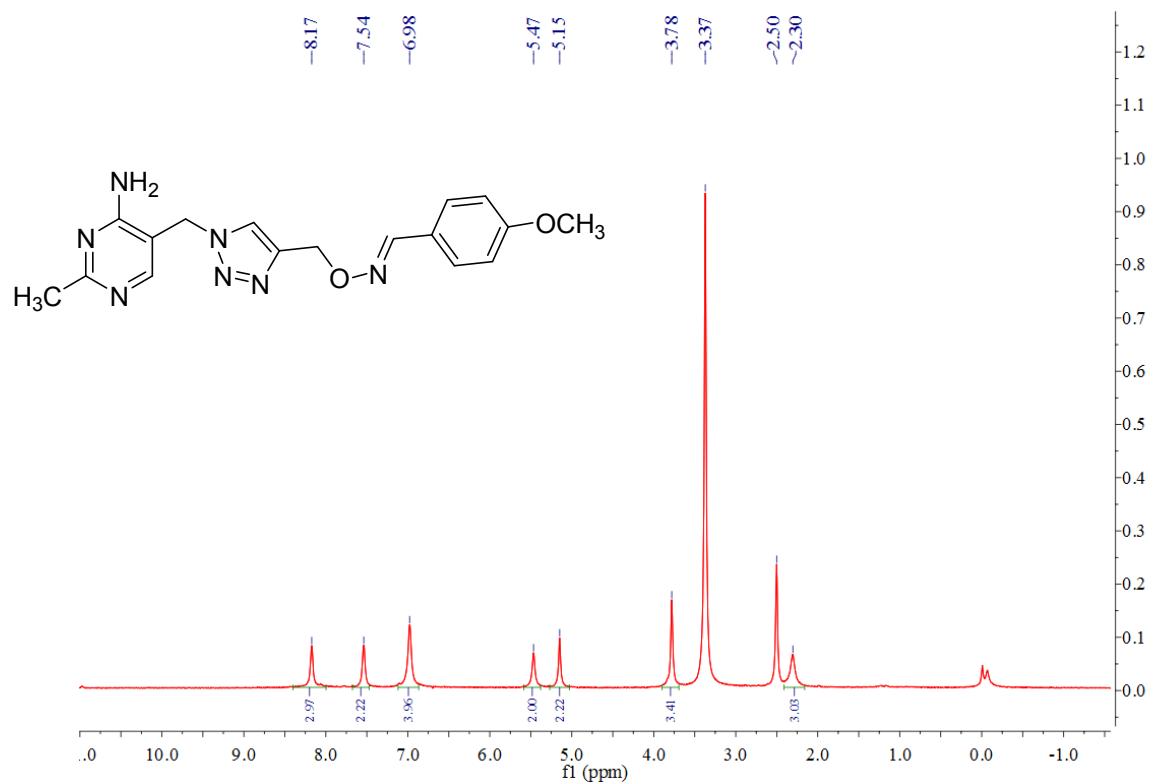
<sup>1</sup>H NMR of **4e** in DMSO-*d*6



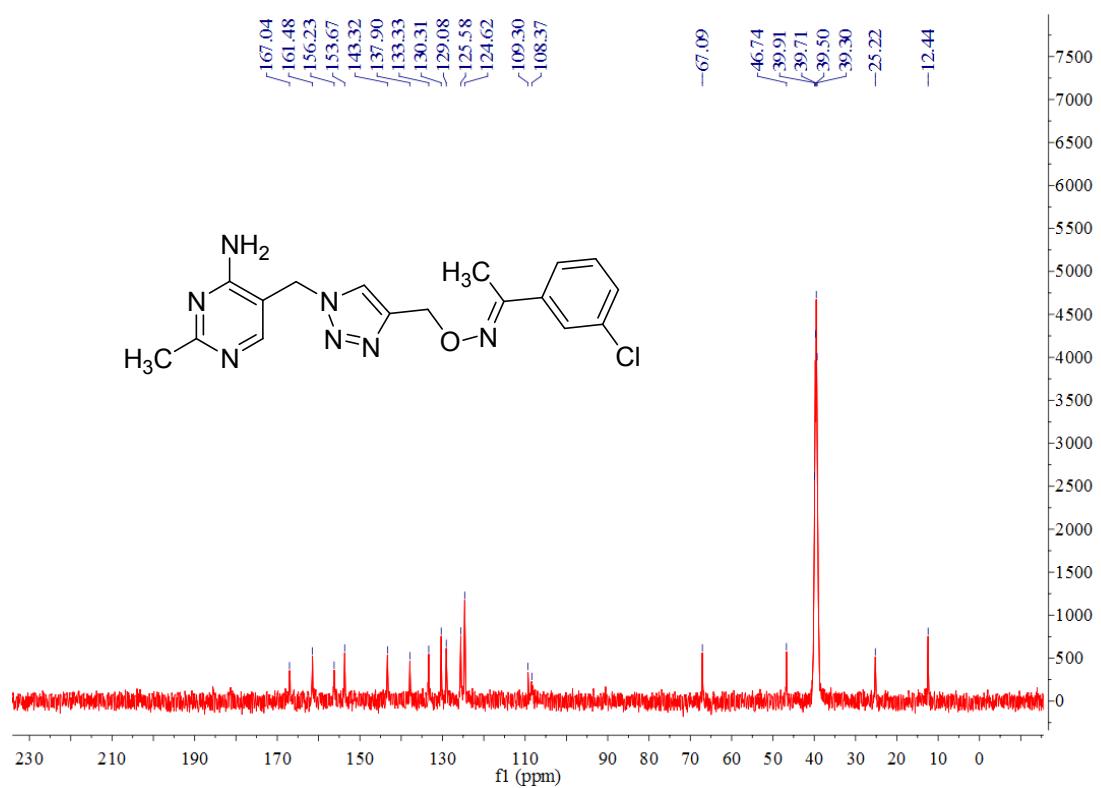
<sup>13</sup>C NMR of **4f** in DMSO-*d*6



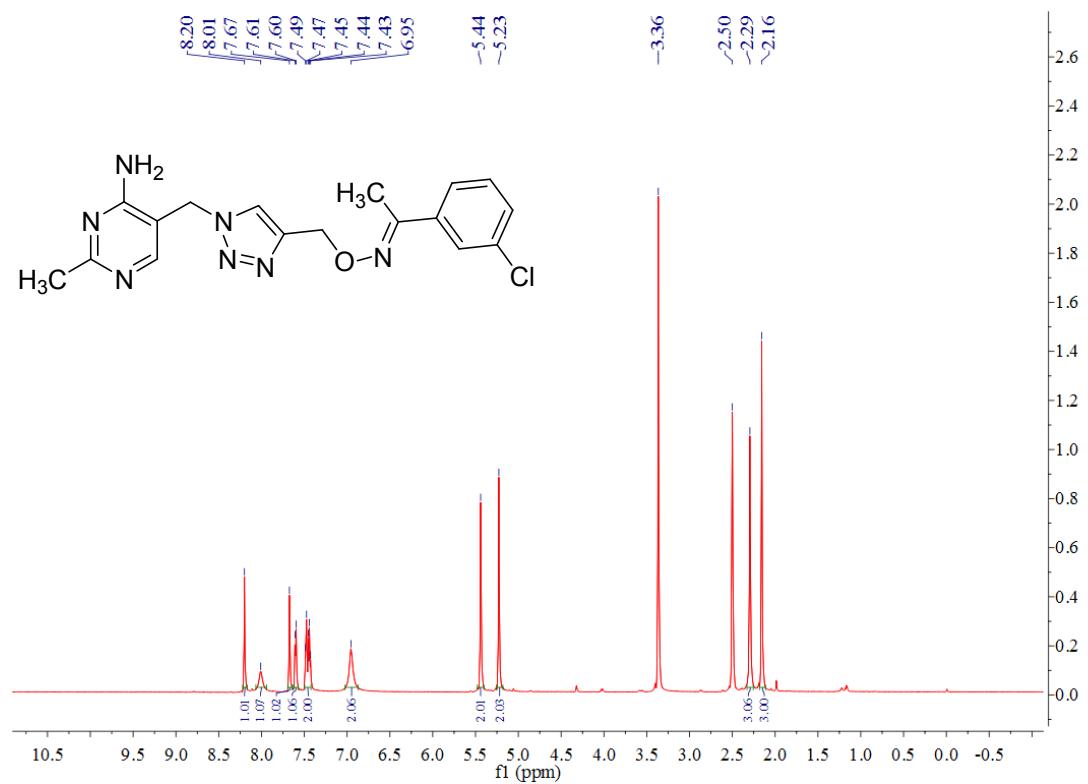
<sup>1</sup>H NMR of **4f** in DMSO-*d*6



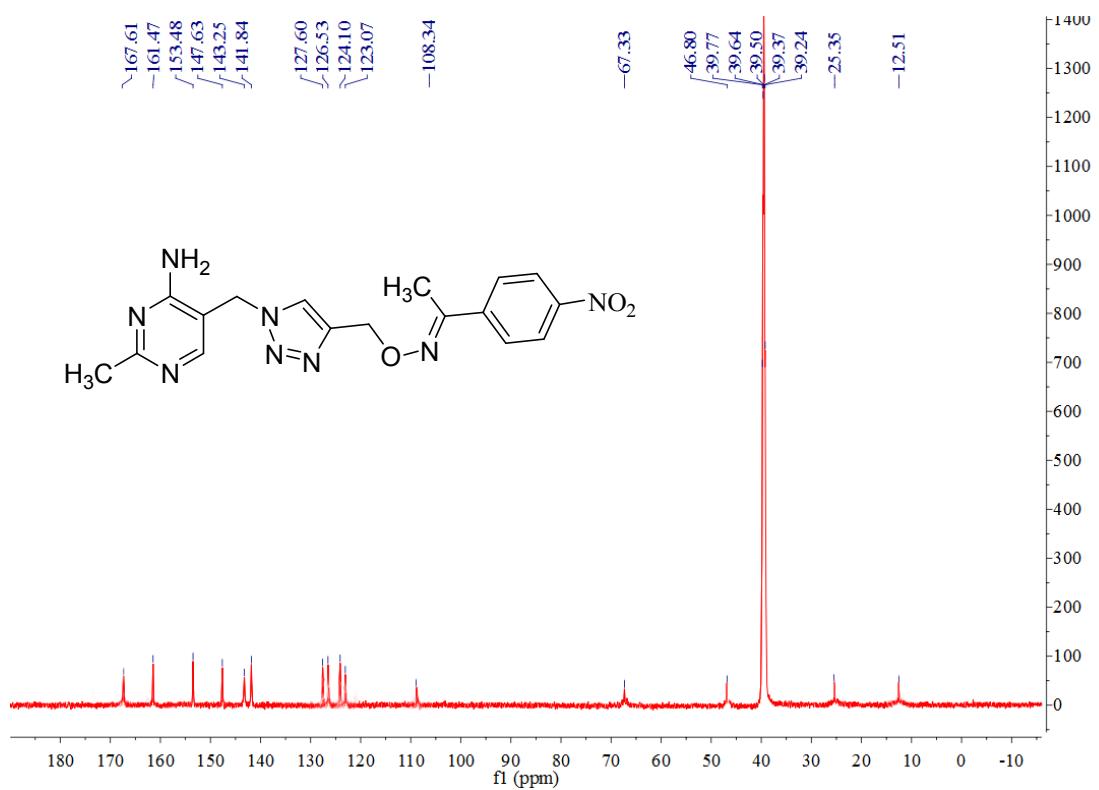
<sup>13</sup>C NMR of **4g** in DMSO-*d*6



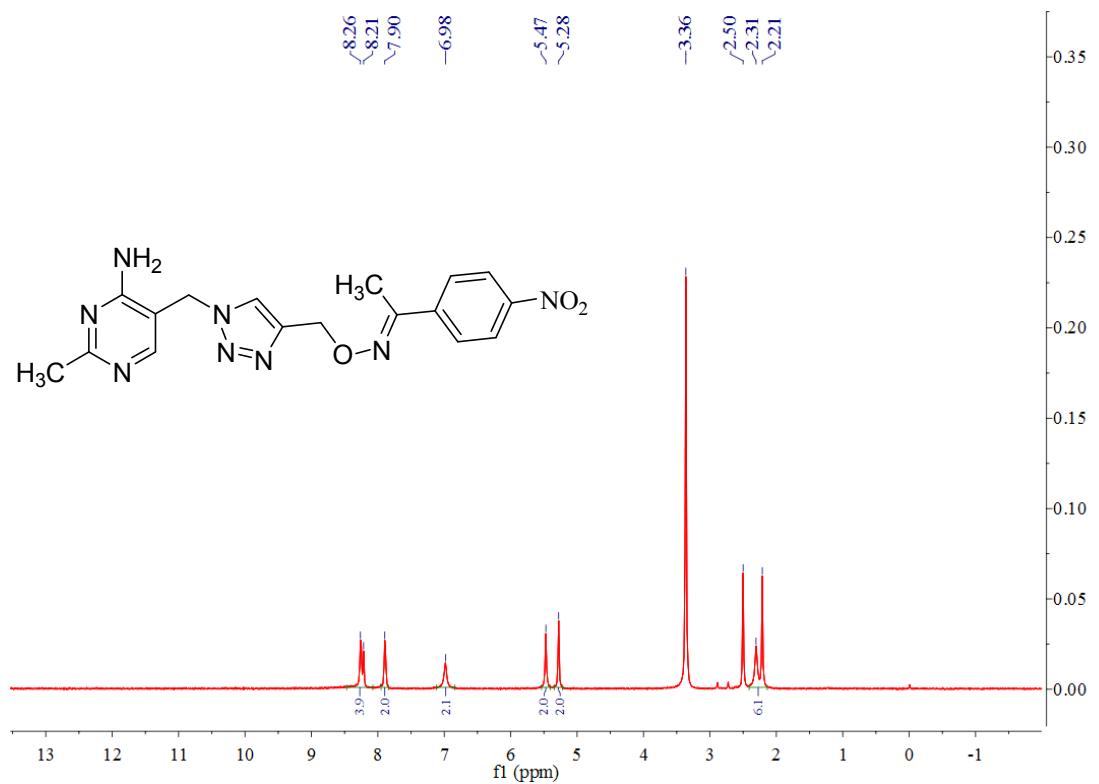
<sup>1</sup>H NMR of **4g** in DMSO-*d*6



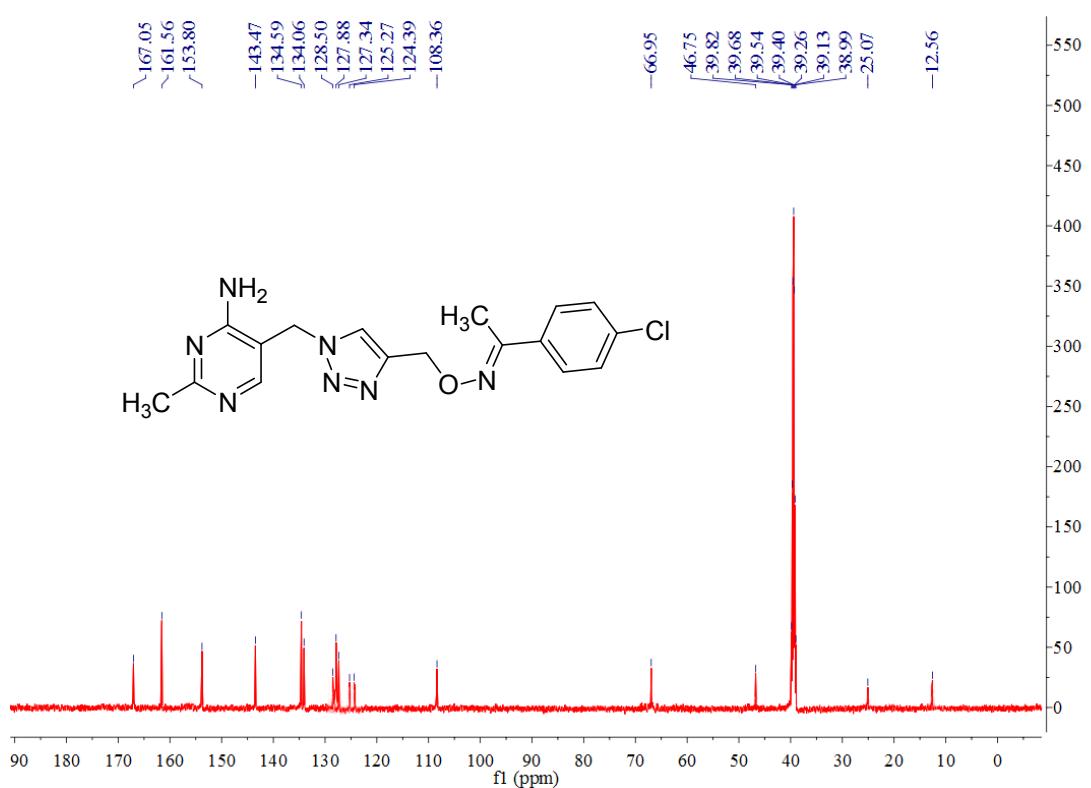
<sup>13</sup>C NMR of **4h** in DMSO-*d*6



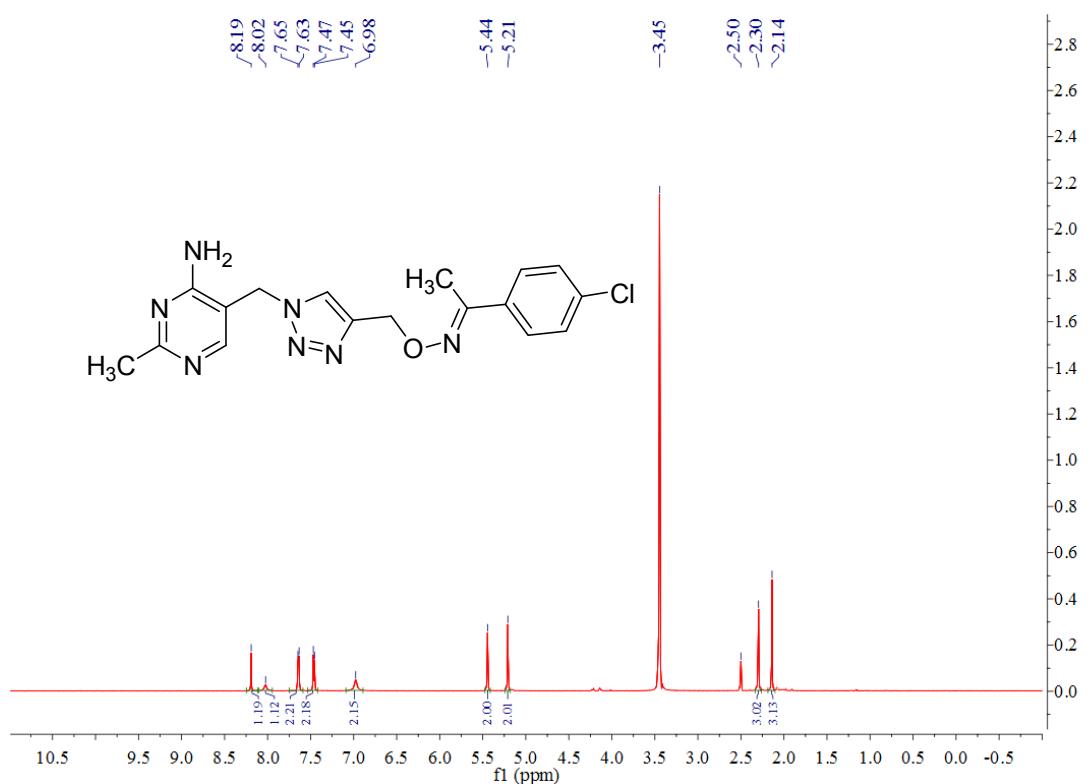
<sup>1</sup>H NMR of **4h** in DMSO-*d*6



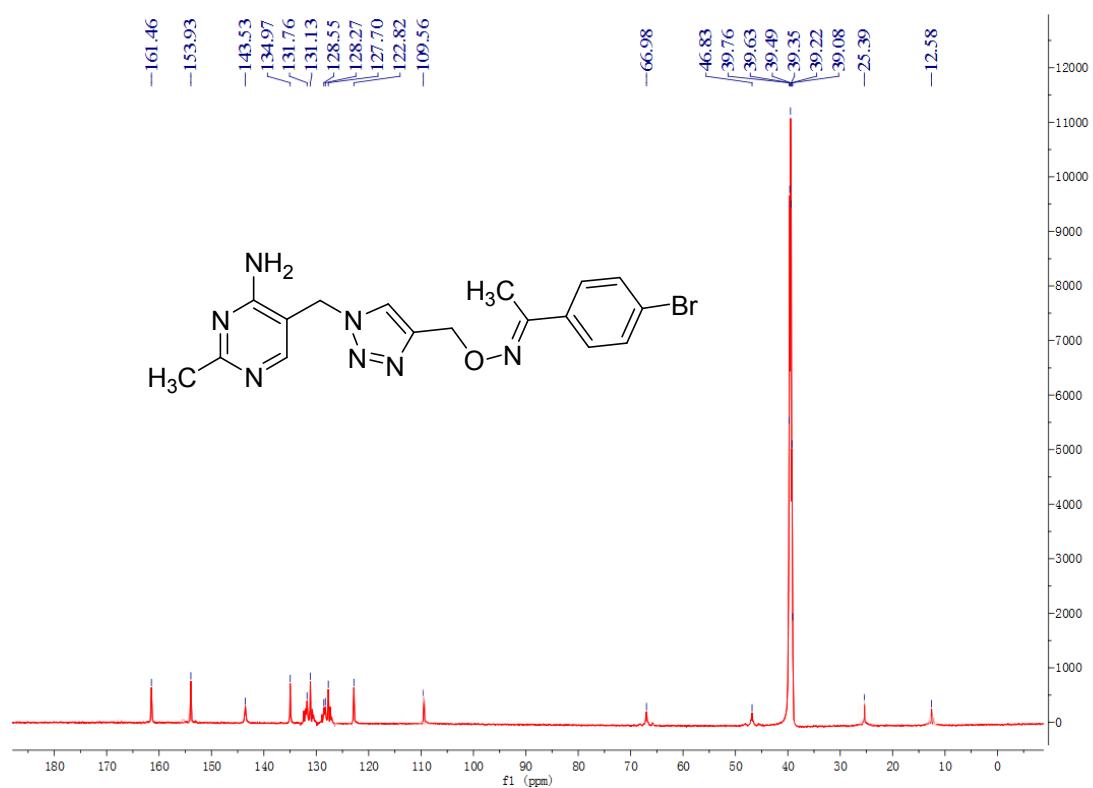
<sup>13</sup>C NMR of **4i** in DMSO-*d*6



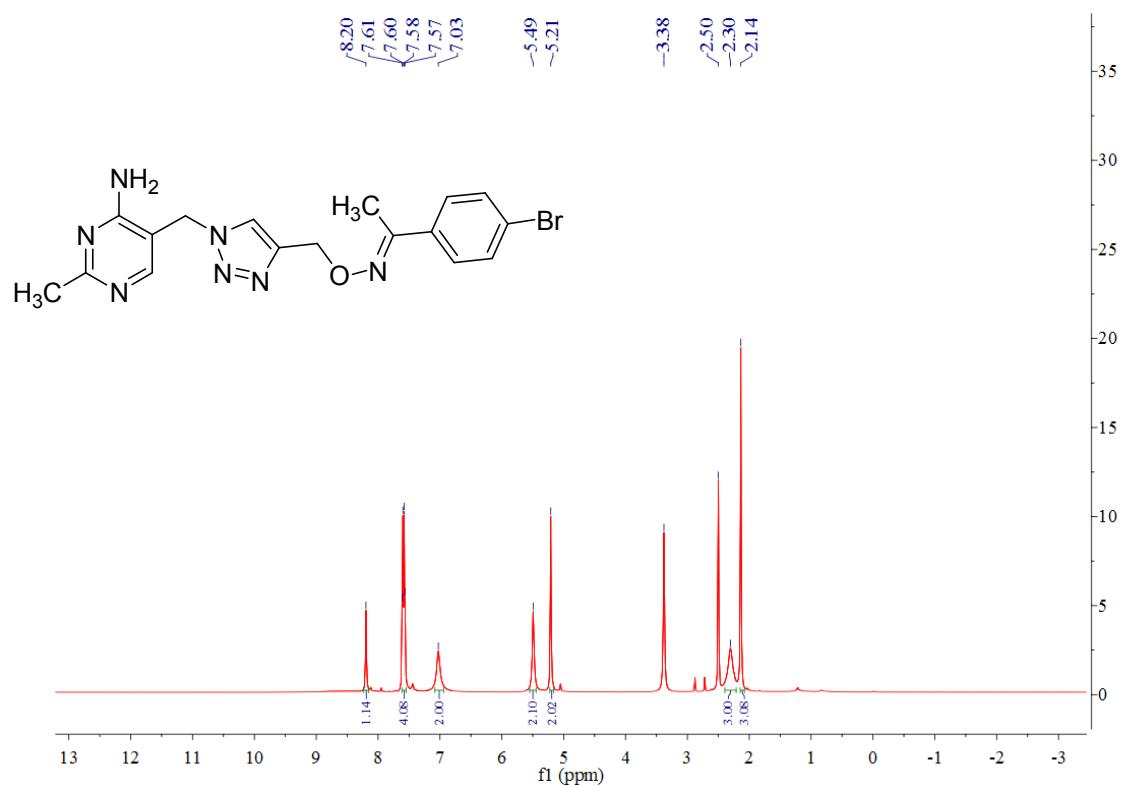
<sup>1</sup>H NMR of **4i** in DMSO-*d*6



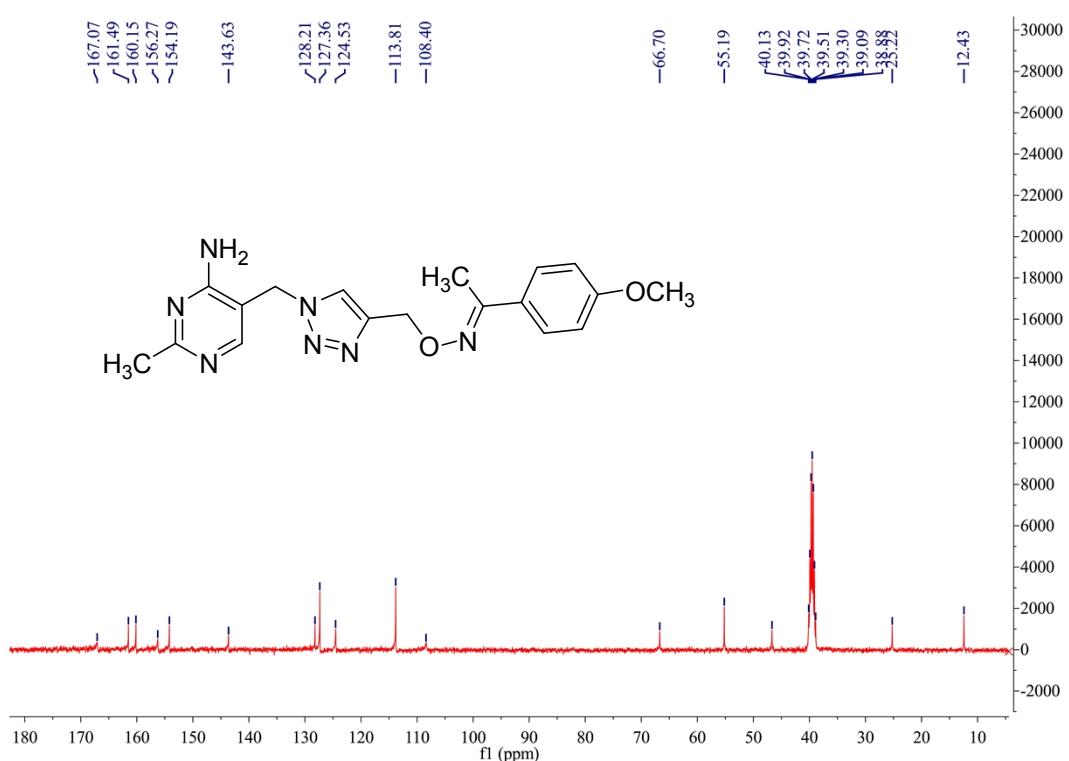
<sup>13</sup>C NMR of **4j** in DMSO-*d*6



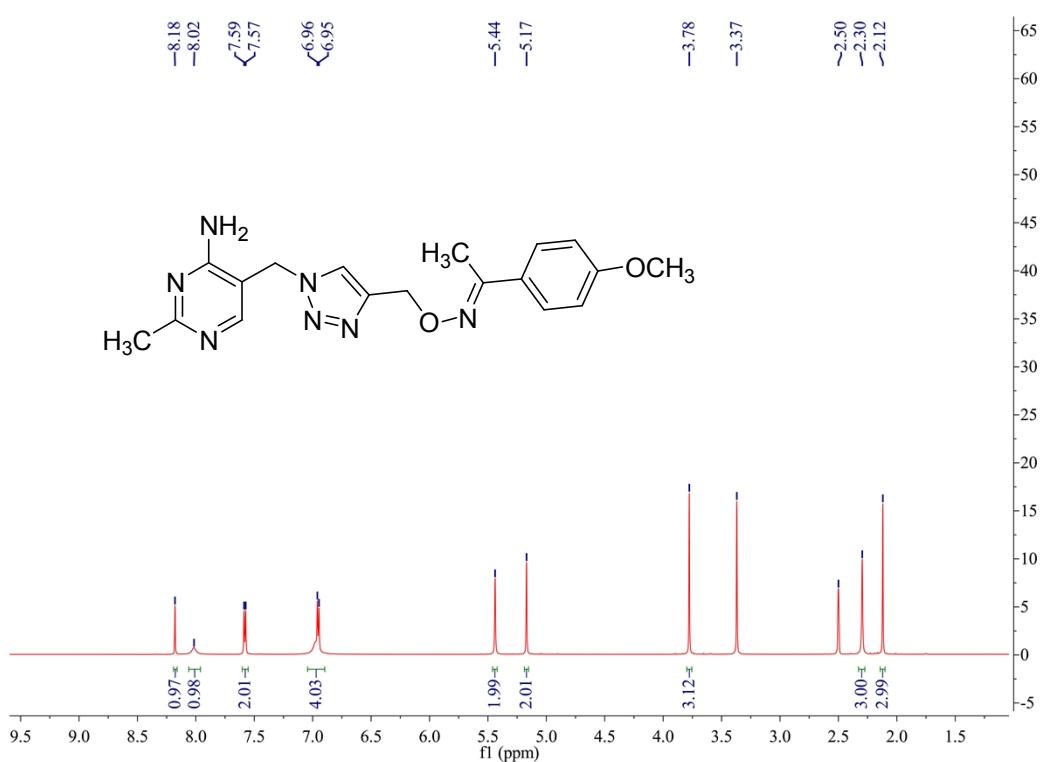
<sup>1</sup>H NMR of **4j** in DMSO-*d*6



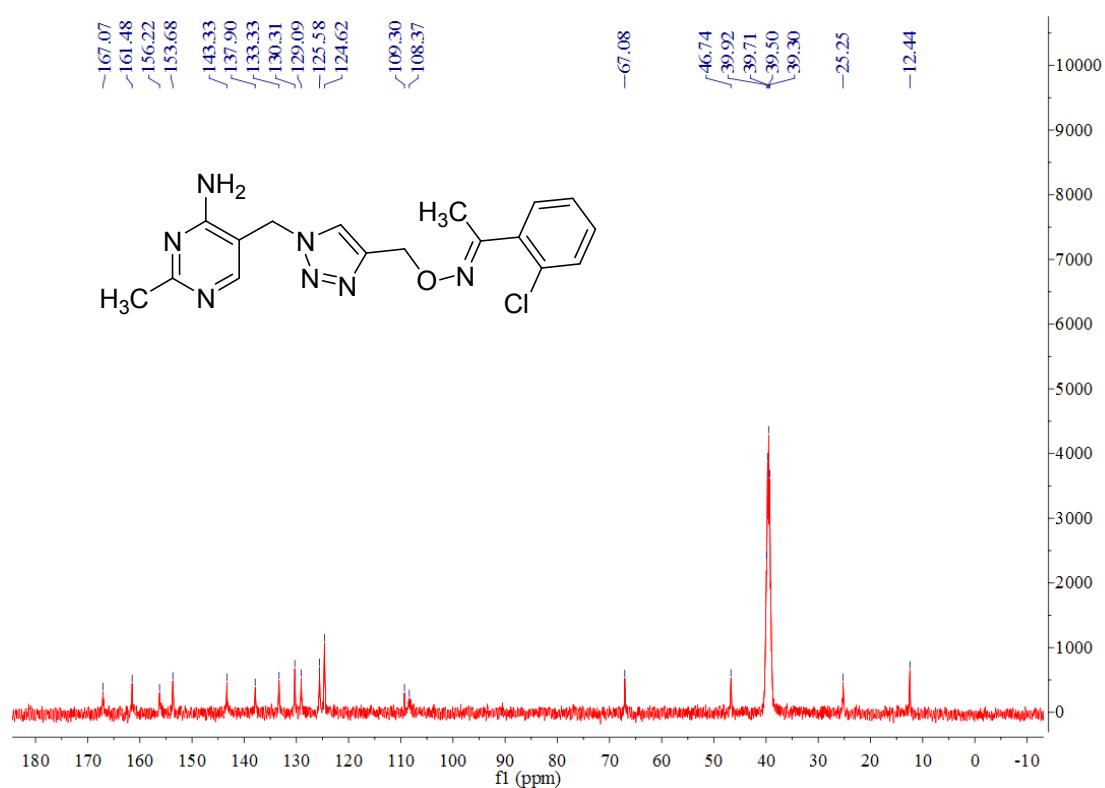
<sup>13</sup>C NMR of **4k** in DMSO-*d*6



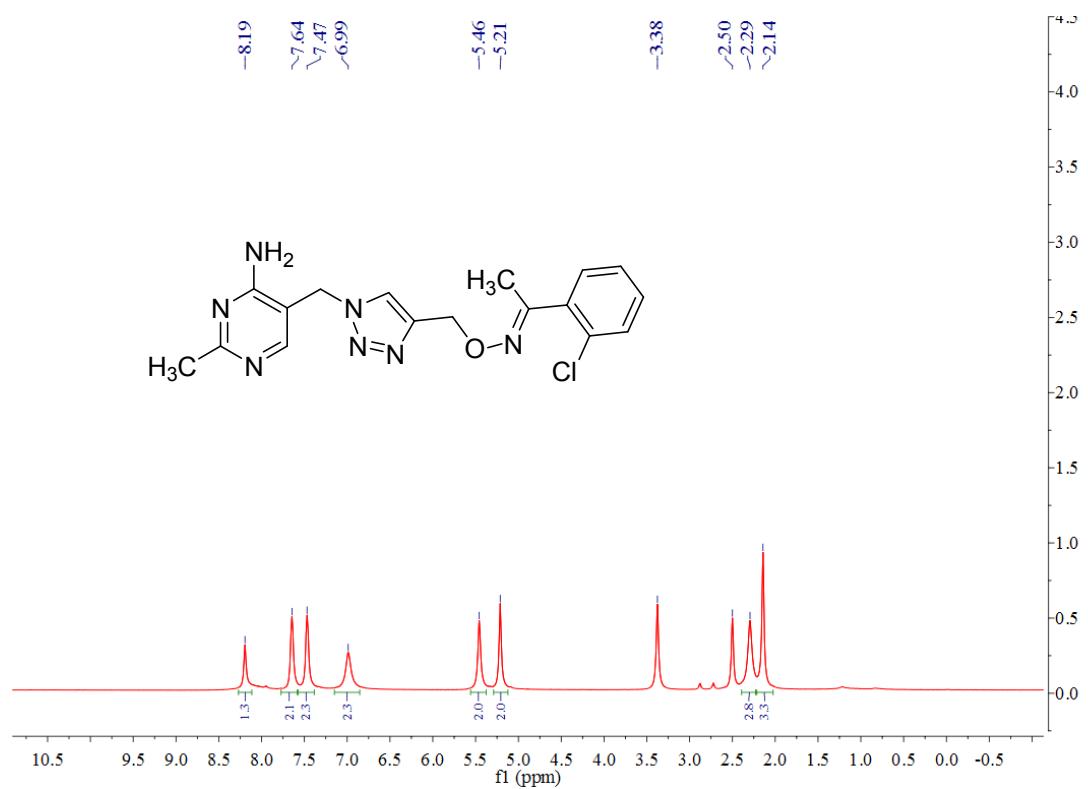
<sup>1</sup>H NMR of **4k** in DMSO-*d*6



<sup>13</sup>C NMR of **4I** in DMSO-*d*6



<sup>1</sup>H NMR of **4I** in DMSO-*d*6



## 2. The representative figures for the dose-response effect of all applicable assays

