*Supplementary Material*

# Design, Synthesis of Novel Tetrandrine-14-L-Amino Acid and Tetrandrine-14-L-Amino Acid-Urea Derivatives as Potential Anti-cancer Agents

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† These authors contributed equally to this work.

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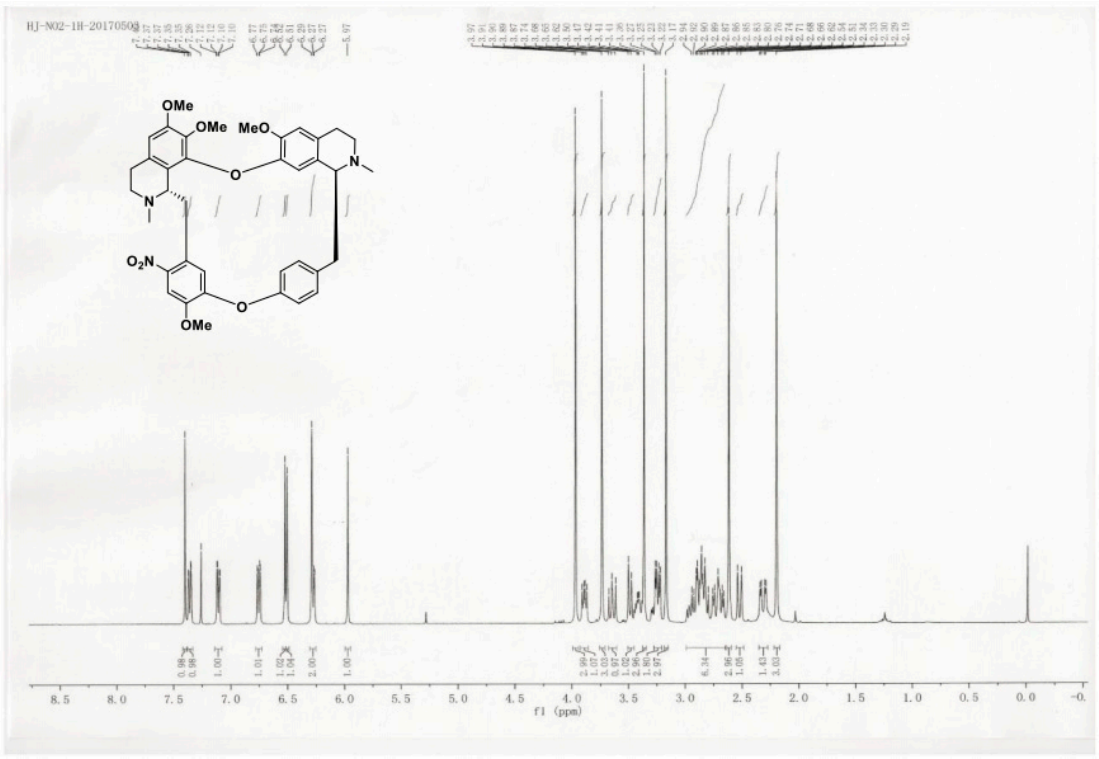



**Figure S1.** $^1$H-NMR Spectra of **Tet-NO$_2$** in $CDCl_3$.

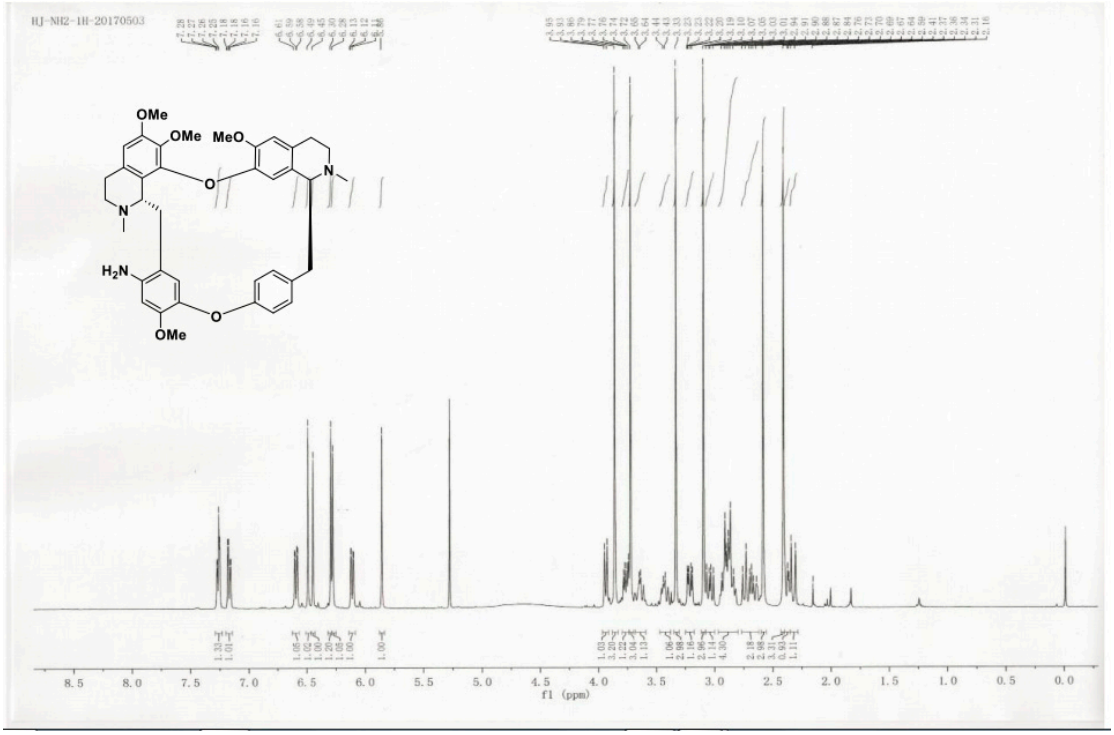



**Figure S2.** $^1$H-NMR Spectra of **Tet-NH$_2$** in $CDCl_3$.

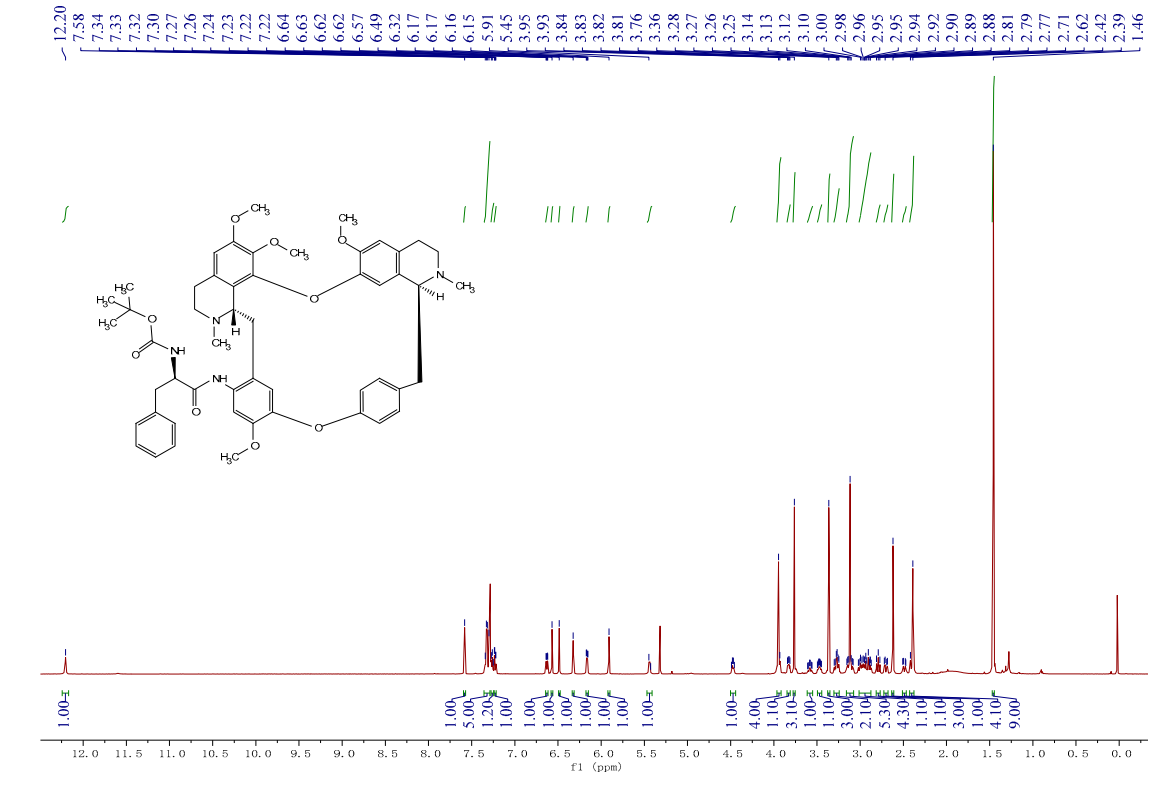


**Figure S3.** $^{1}$H-NMR Spectra of **1a** in $CDCl_3$.

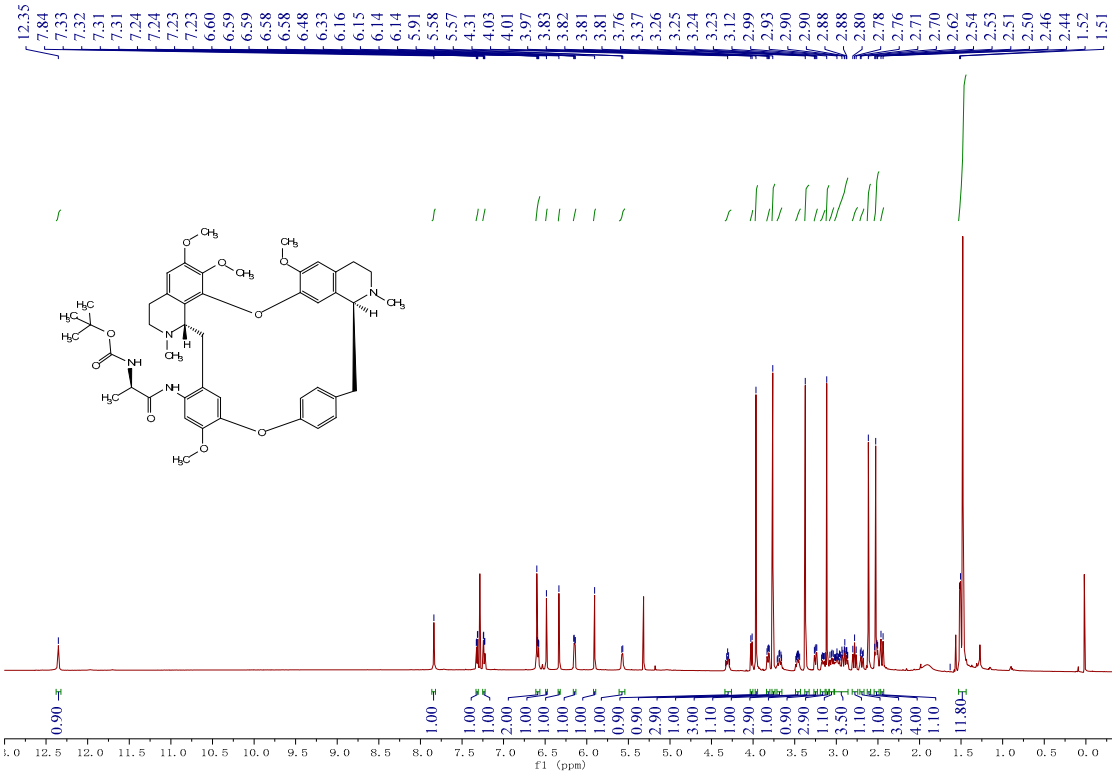
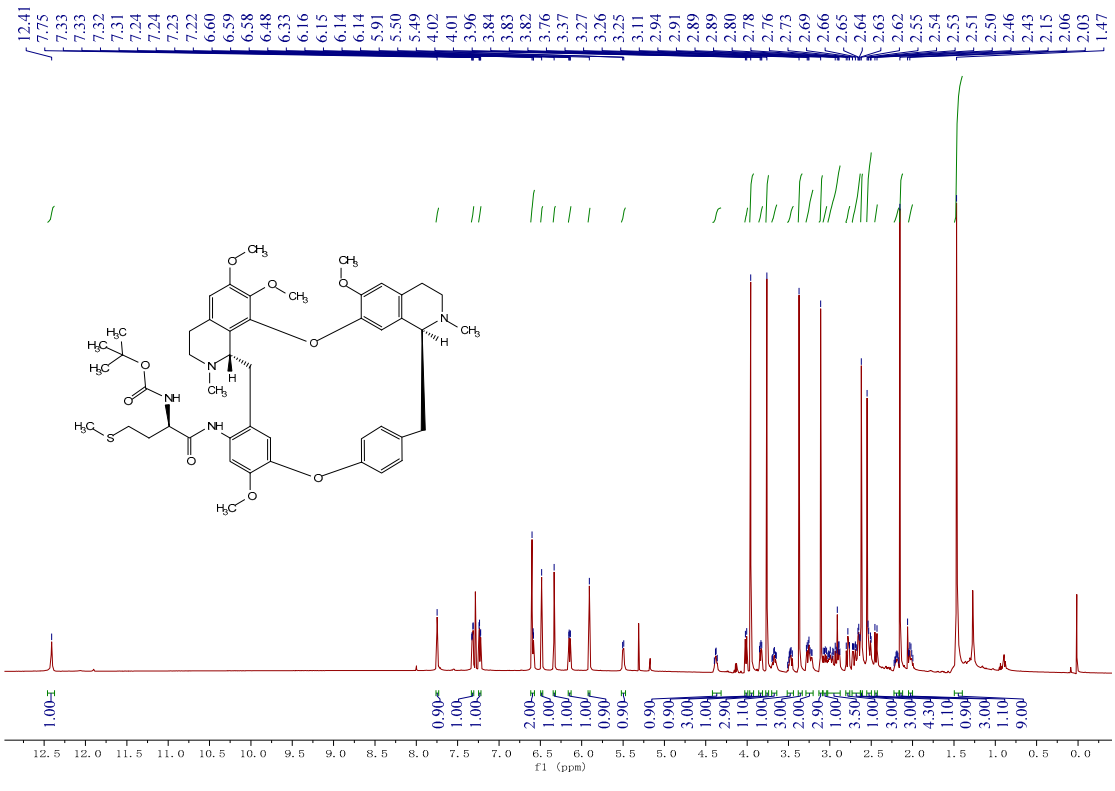


**Figure S4.** $^{1}$H-NMR Spectra of **1b** in $CDCl_3$.



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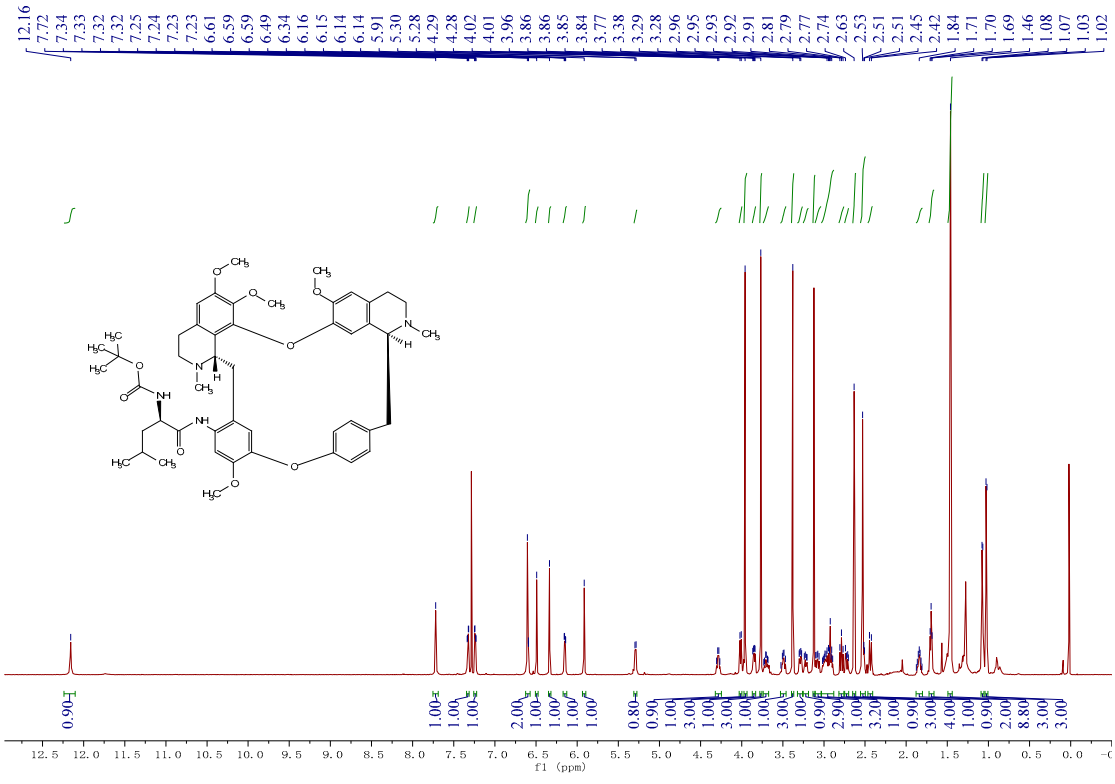


**Figure S6.** $^{1}$H-NMR Spectra of **1d** in $CDCl_3$.

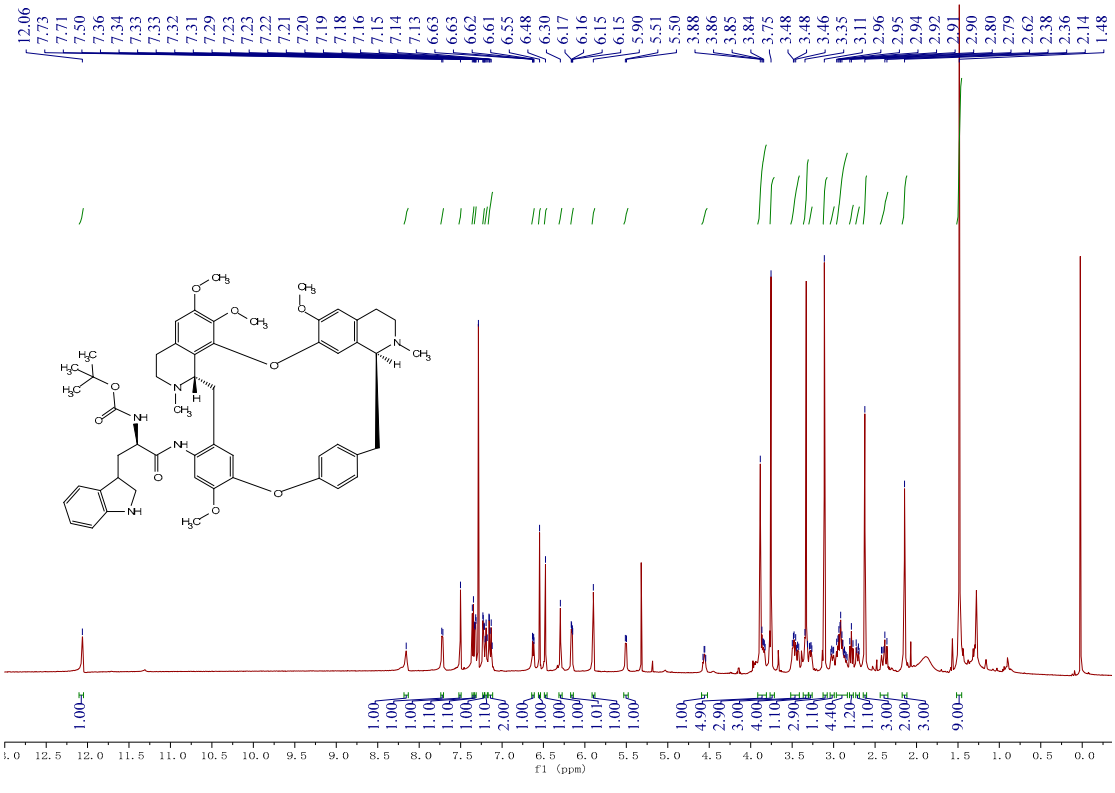
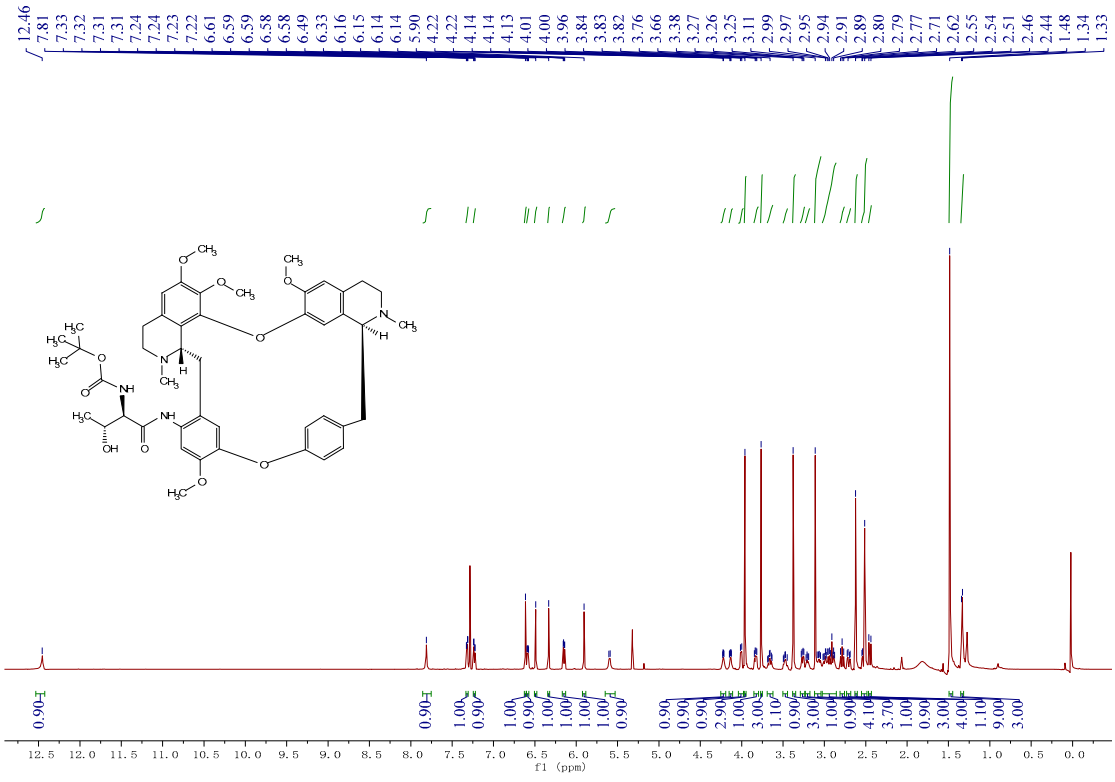


**Figure S7.** $^{1}$H-NMR Spectra of **1e** in $CDCl_3$.



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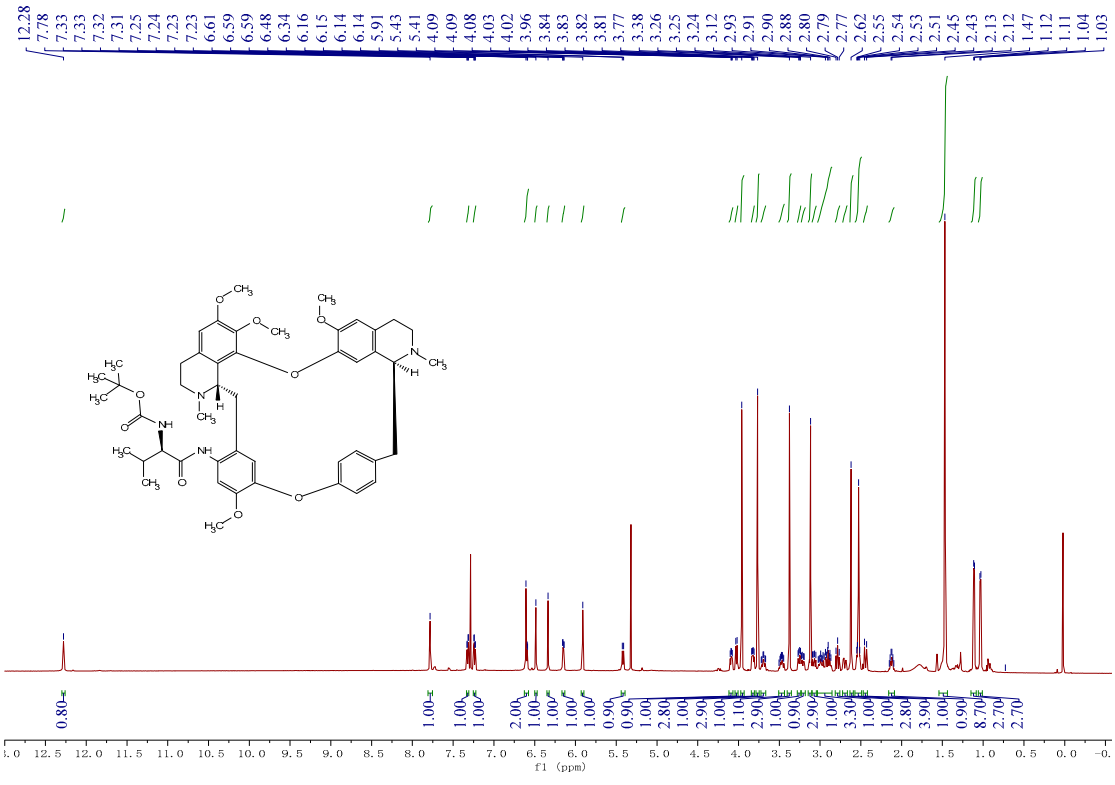

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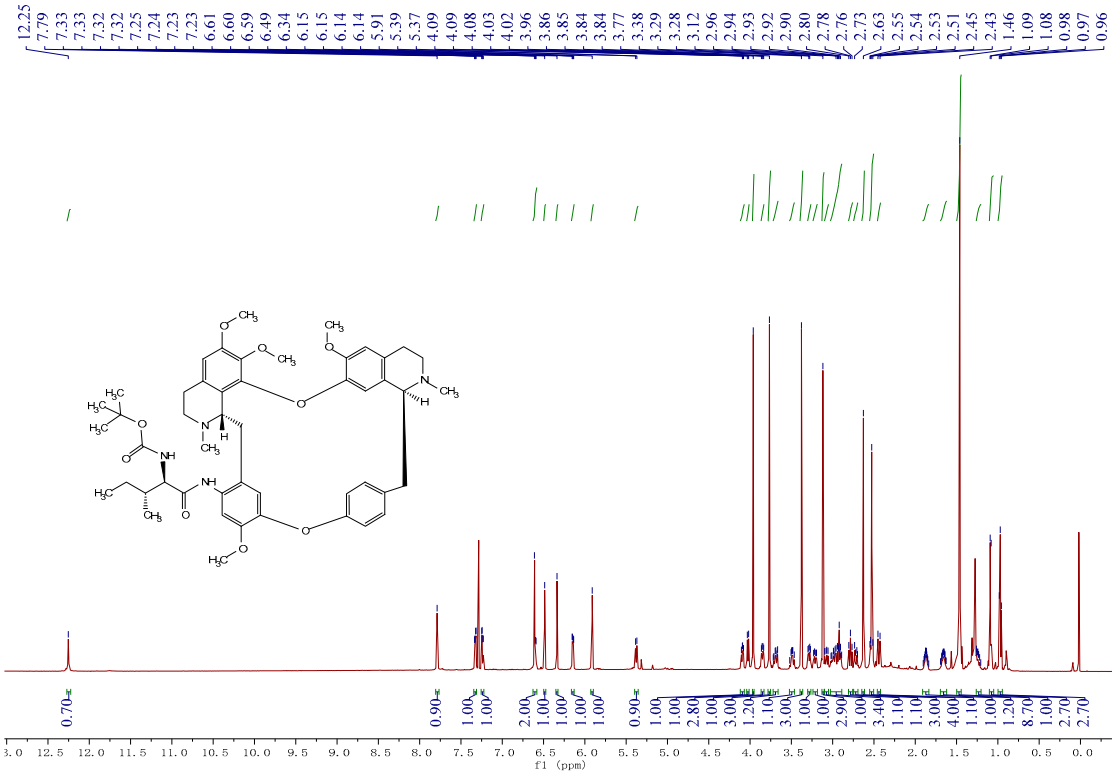
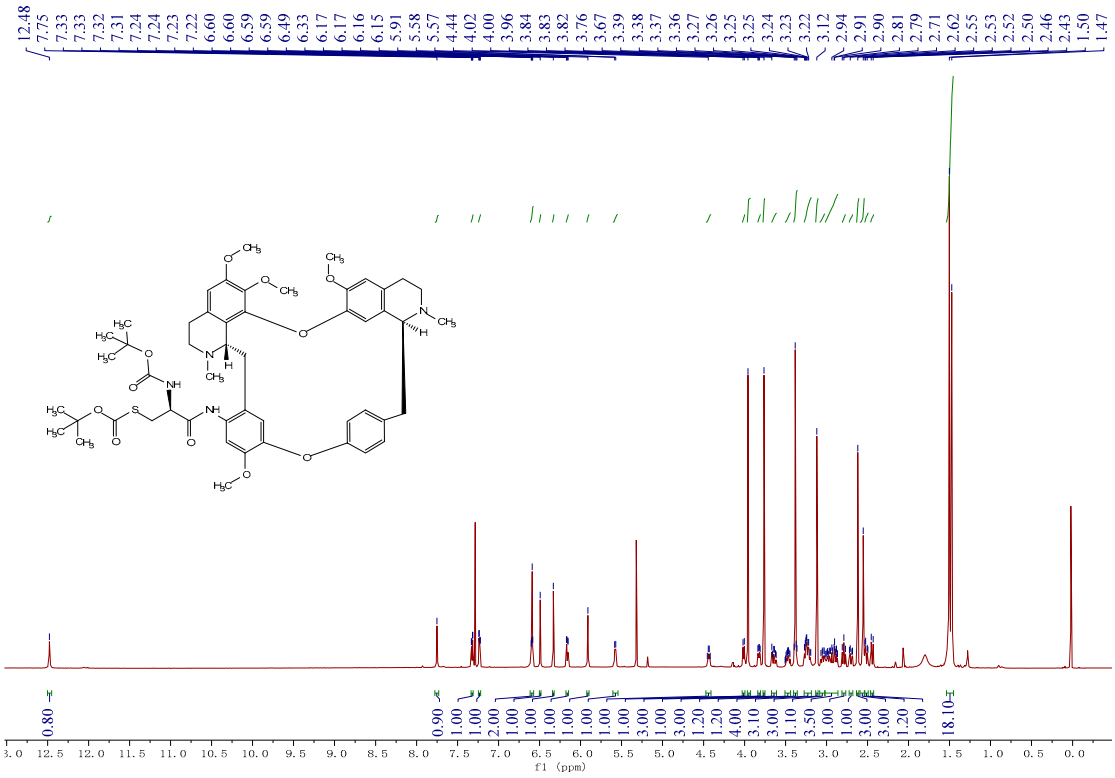


**Figure S10.** $^{1}$H-NMR Spectra of **1h** in $CDCl_3$.



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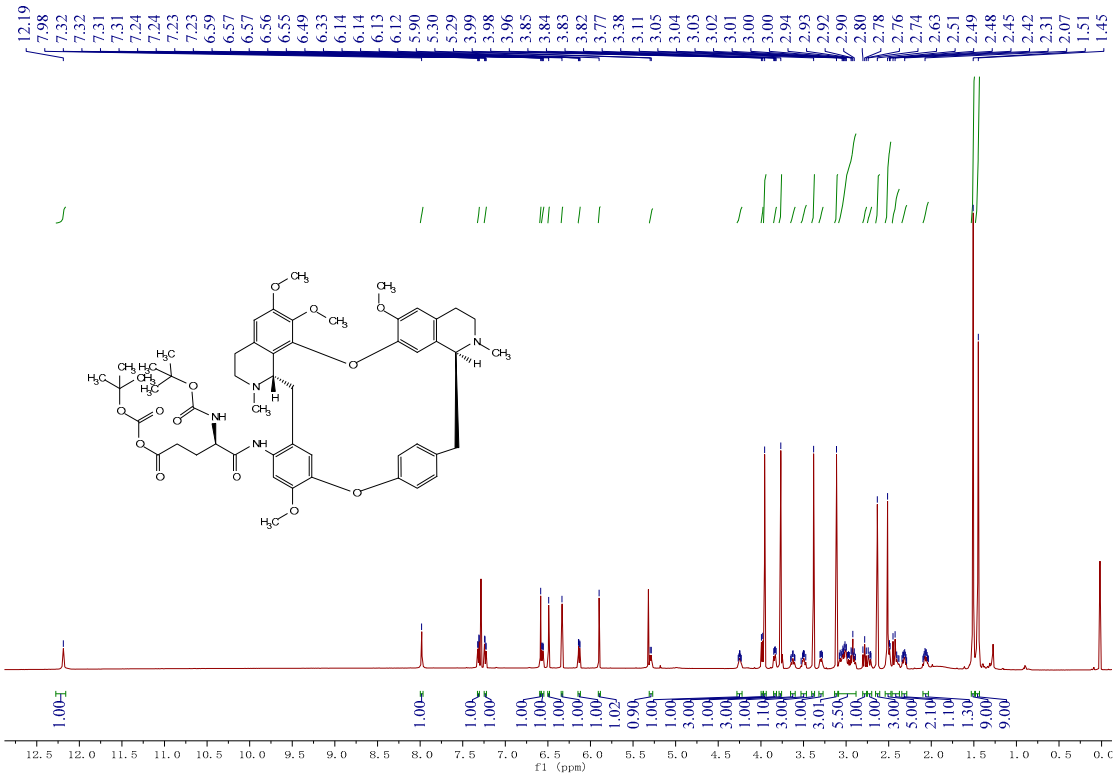

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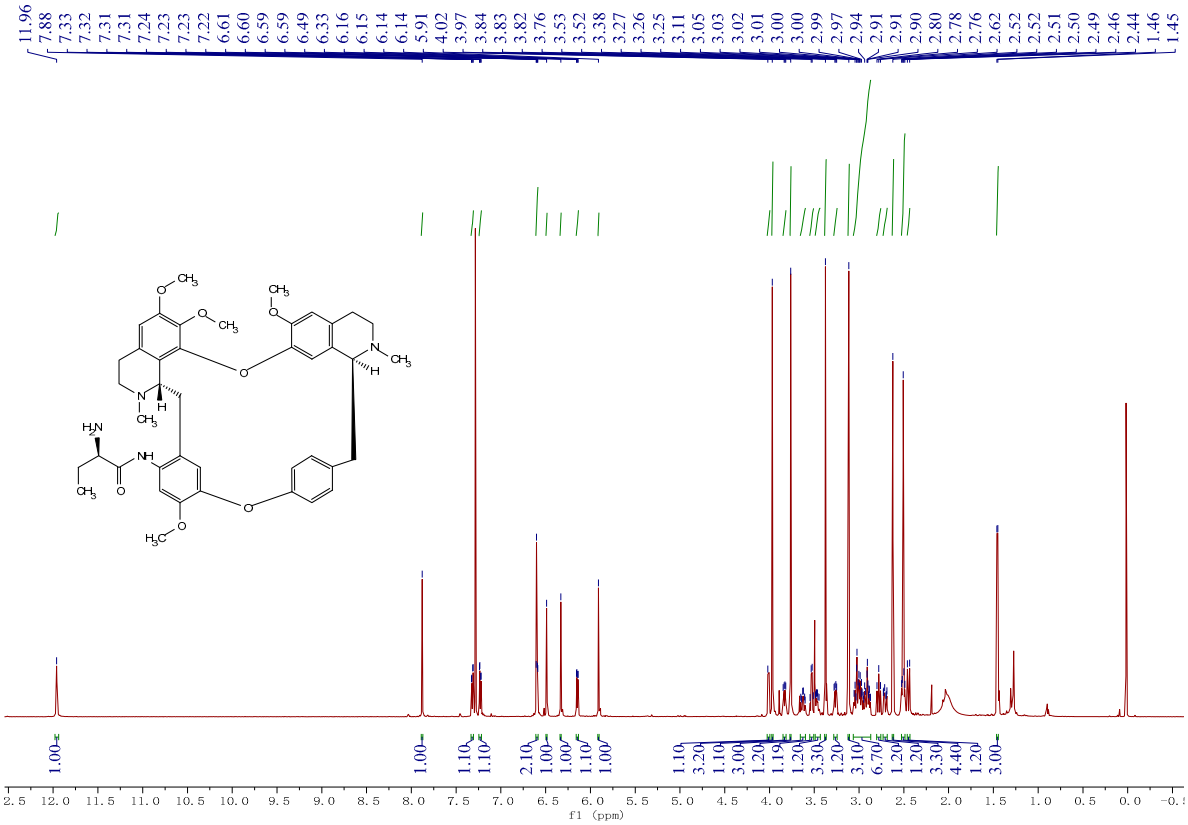


**Figure S13.** $^{1}$H-NMR Spectra of **1k** in $CDCl_3$.

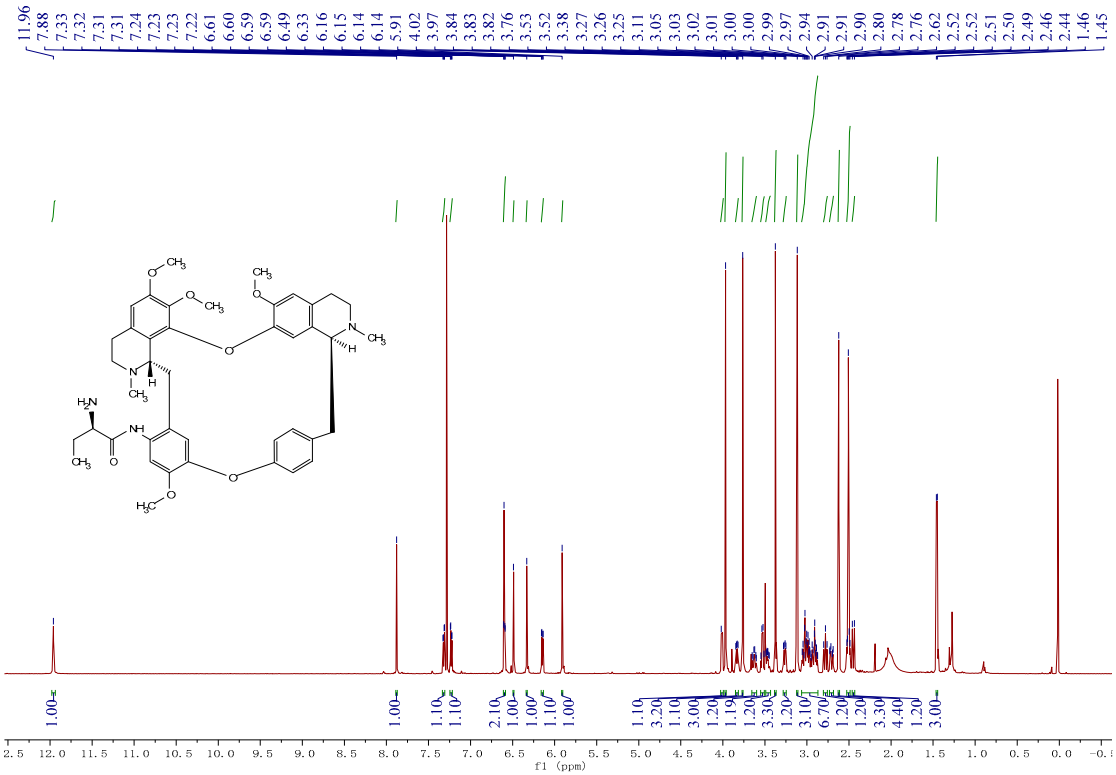


**Figure S14.** $^{1}$H-NMR Spectra of **1l** in $CDCl_3$.

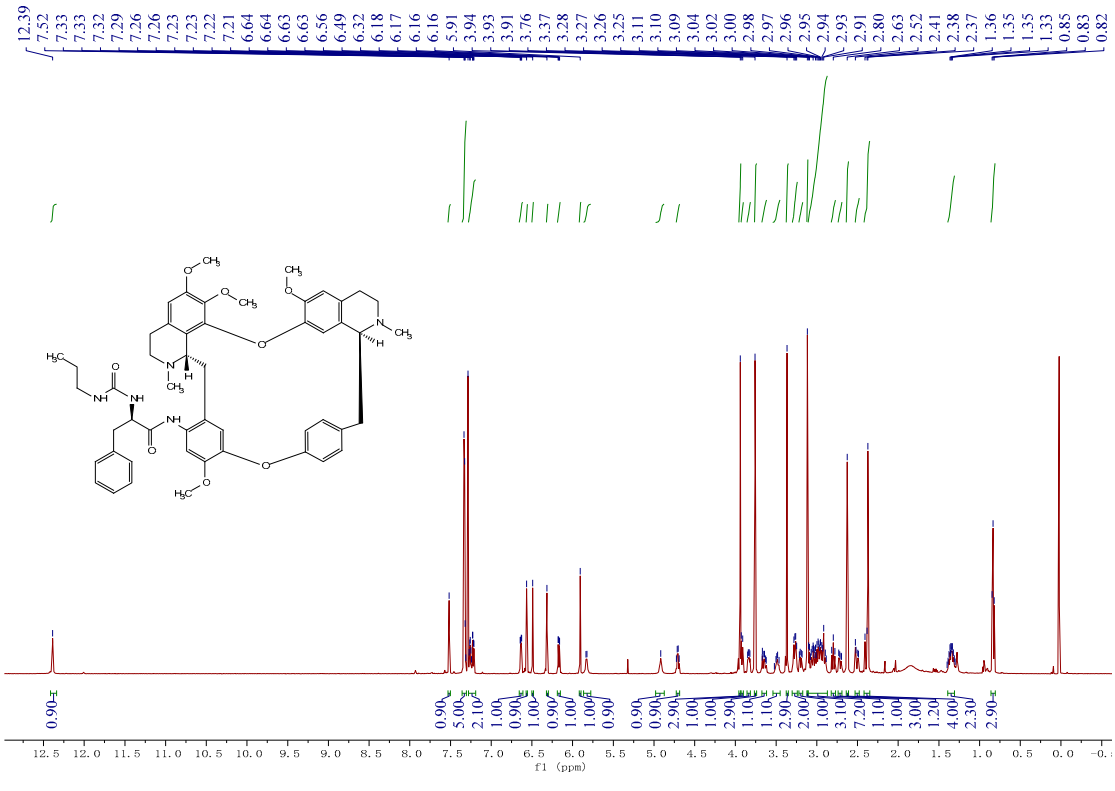
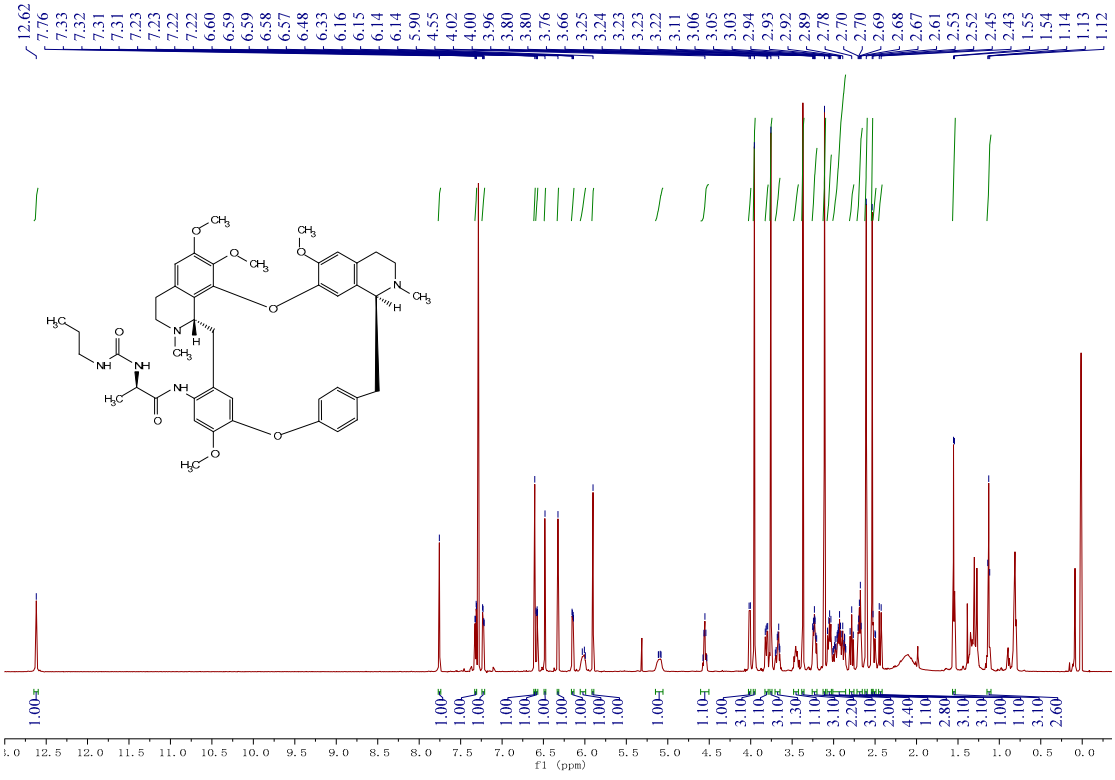


**Figure S15.** $^{1}$H-NMR Spectra of **2a** in $CDCl_3$.



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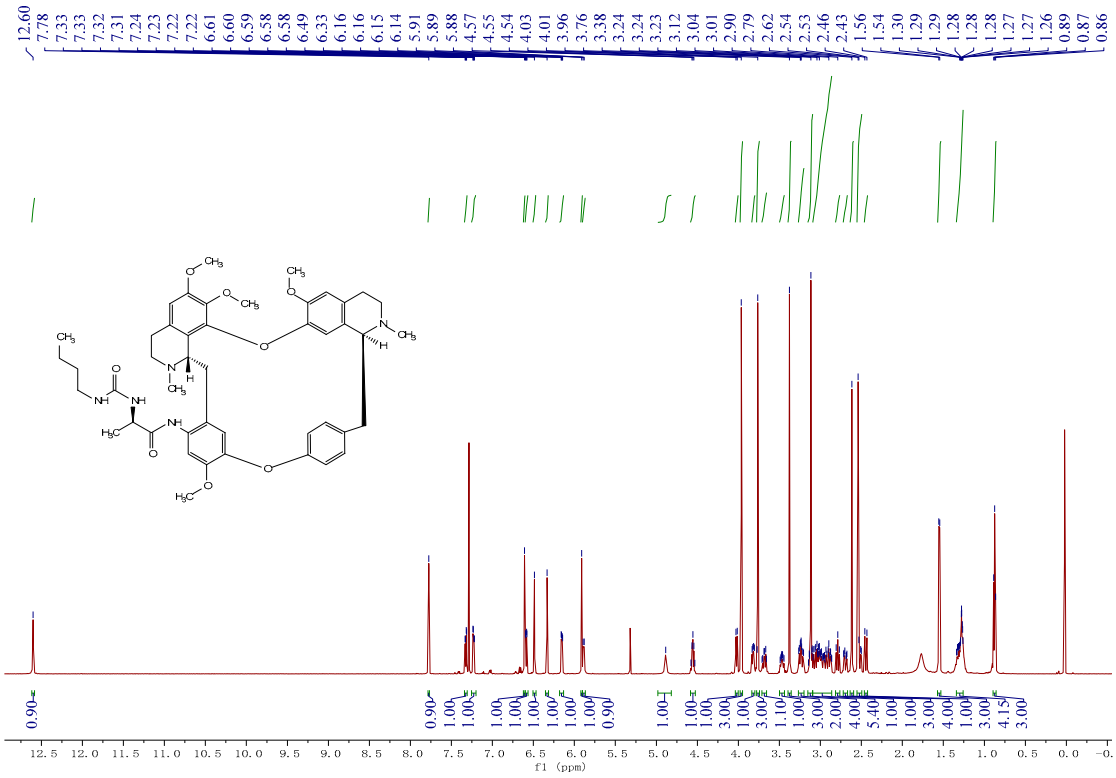
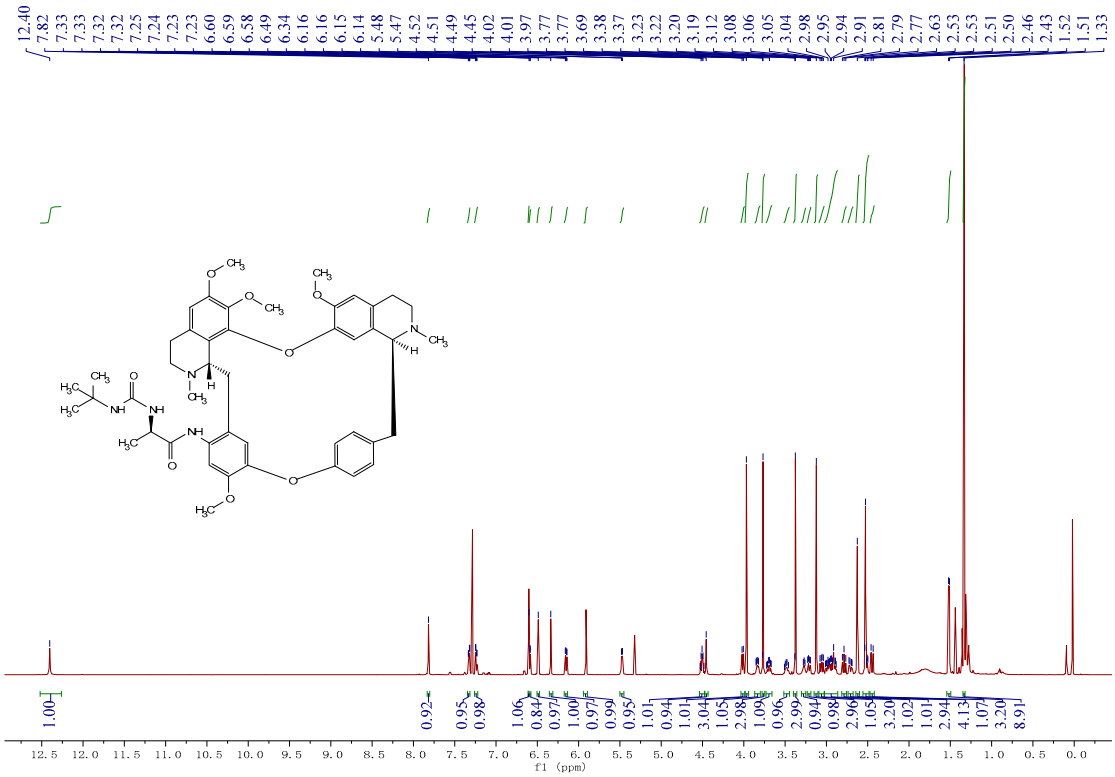


**Figure S17.** $^{1}$H-NMR Spectra of **3b** in $CDCl_3$.



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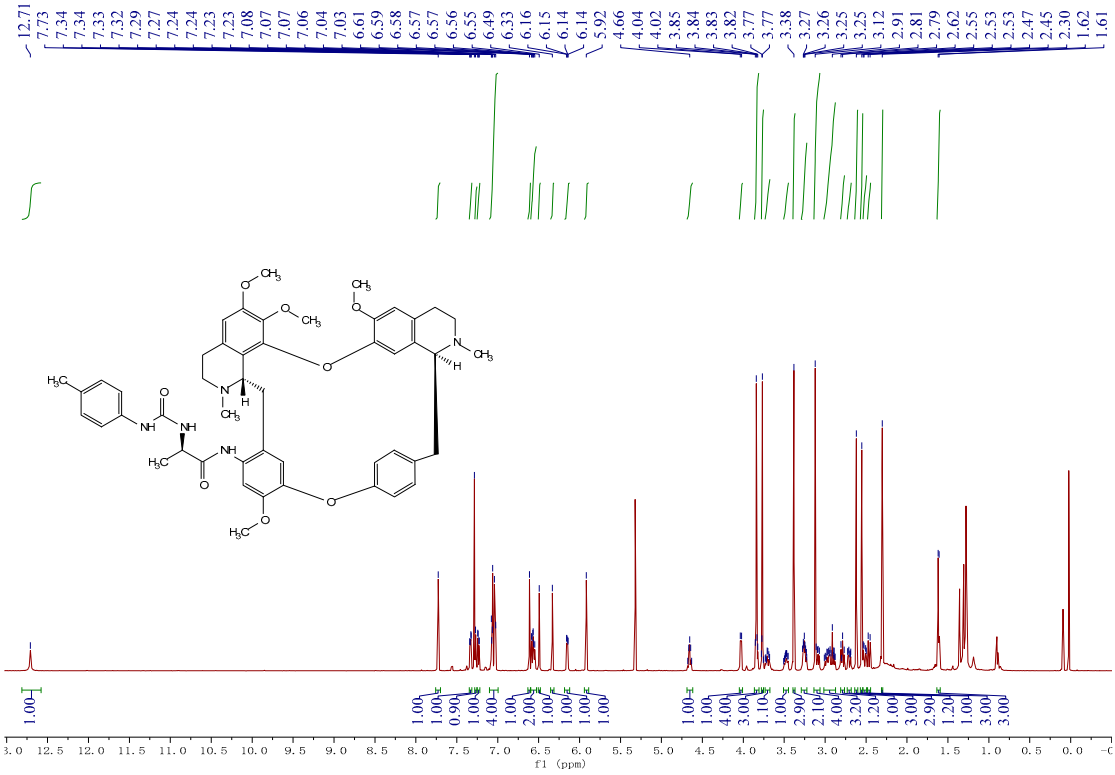

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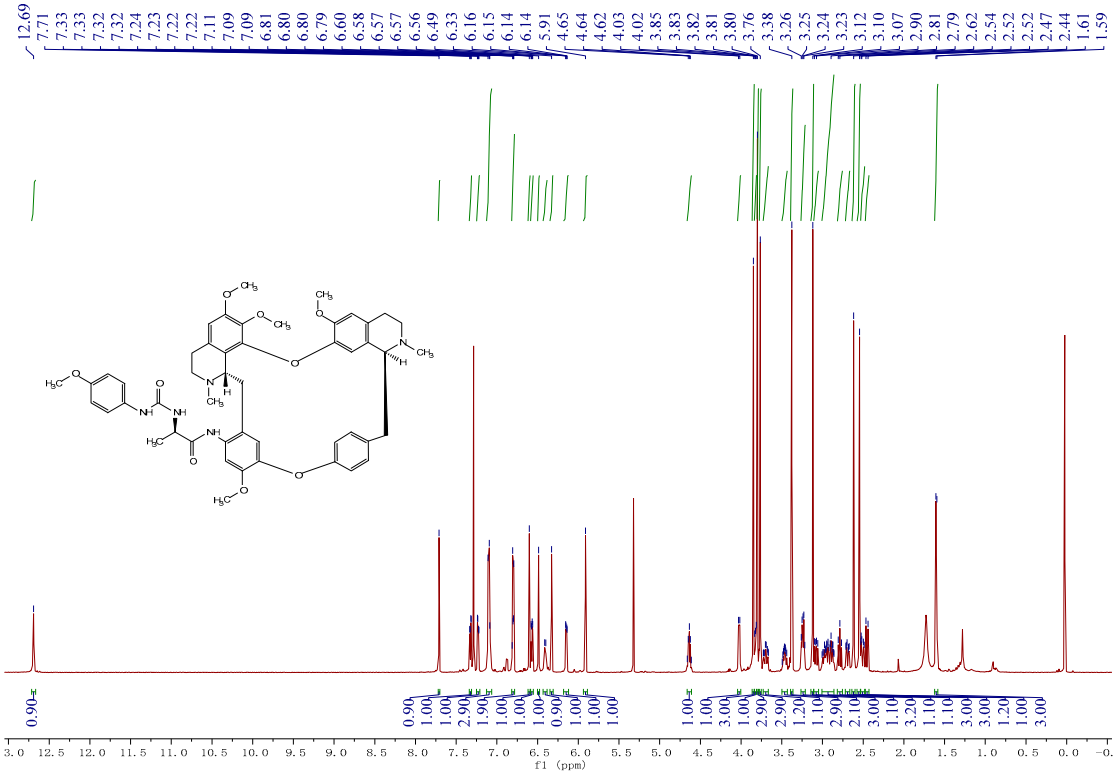

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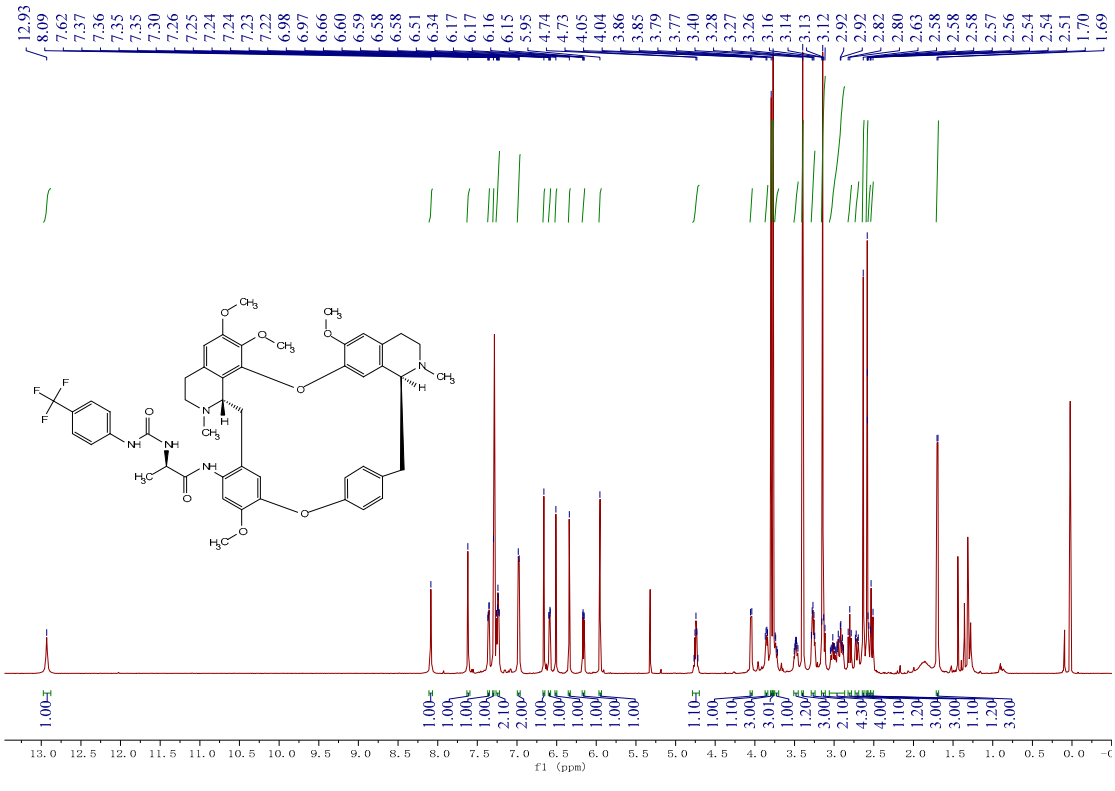


**Figure S21.** $^{1}$H-NMR Spectra of **3f** in $CDCl_3$.

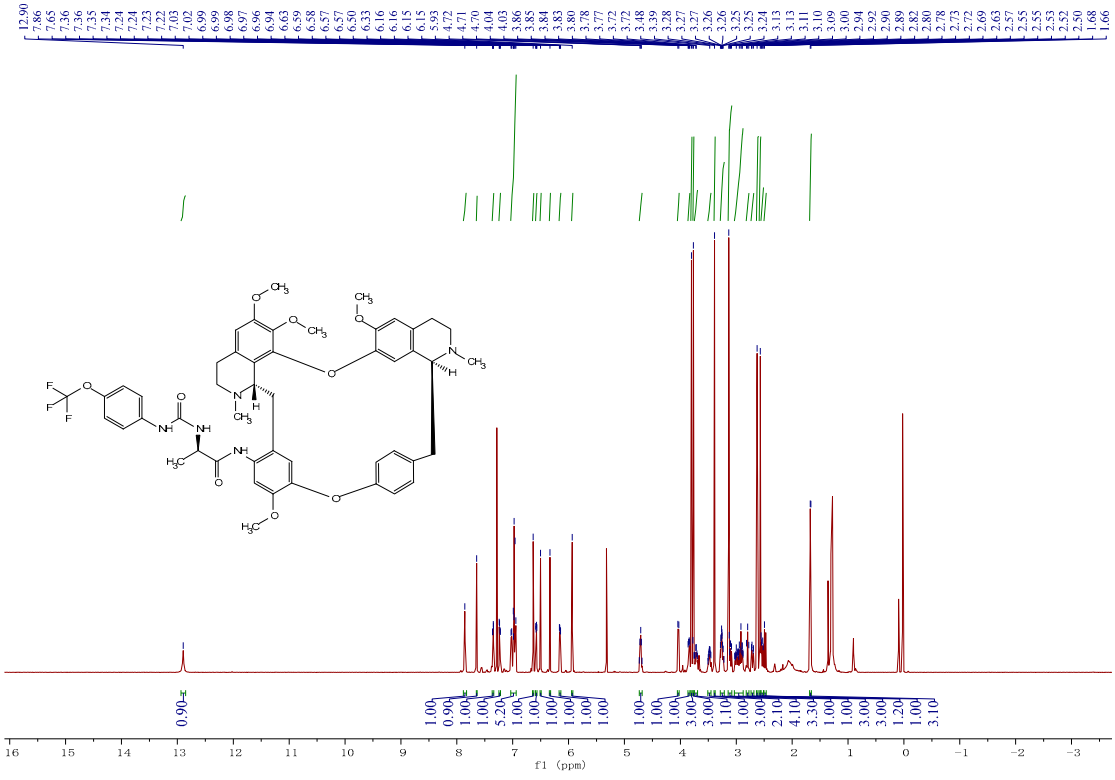
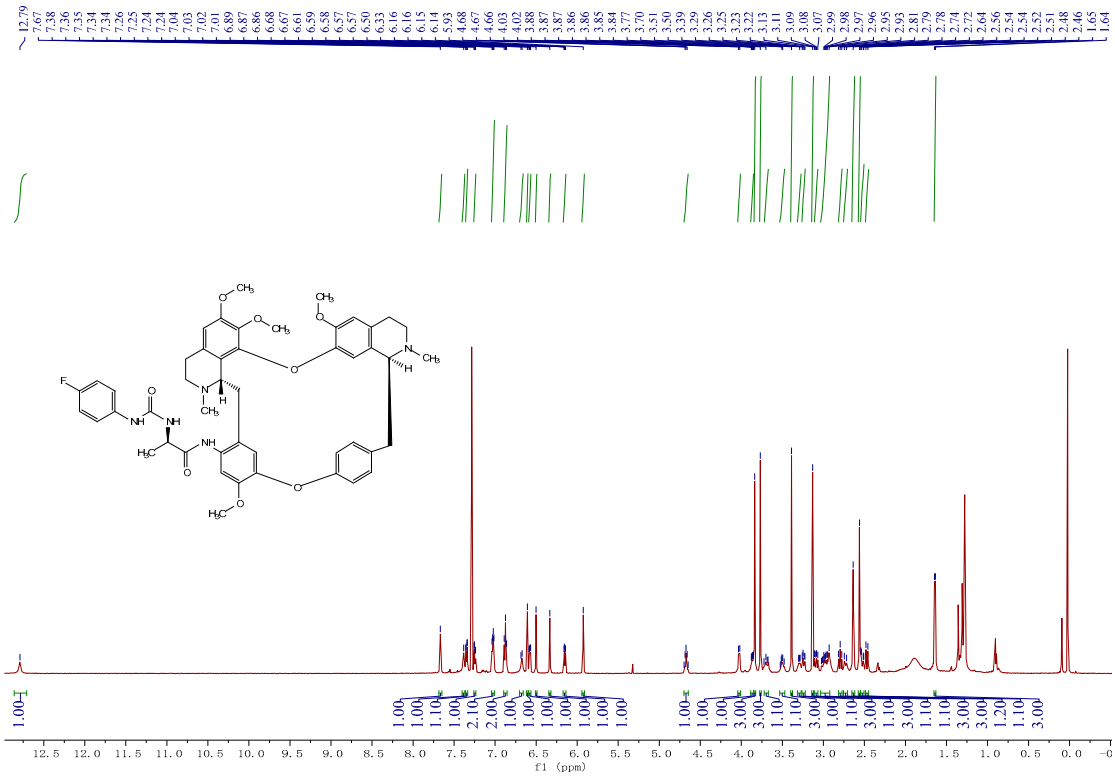


**Figure S22.** $^{1}$H-NMR Spectra of **3g** in $CDCl_3$.



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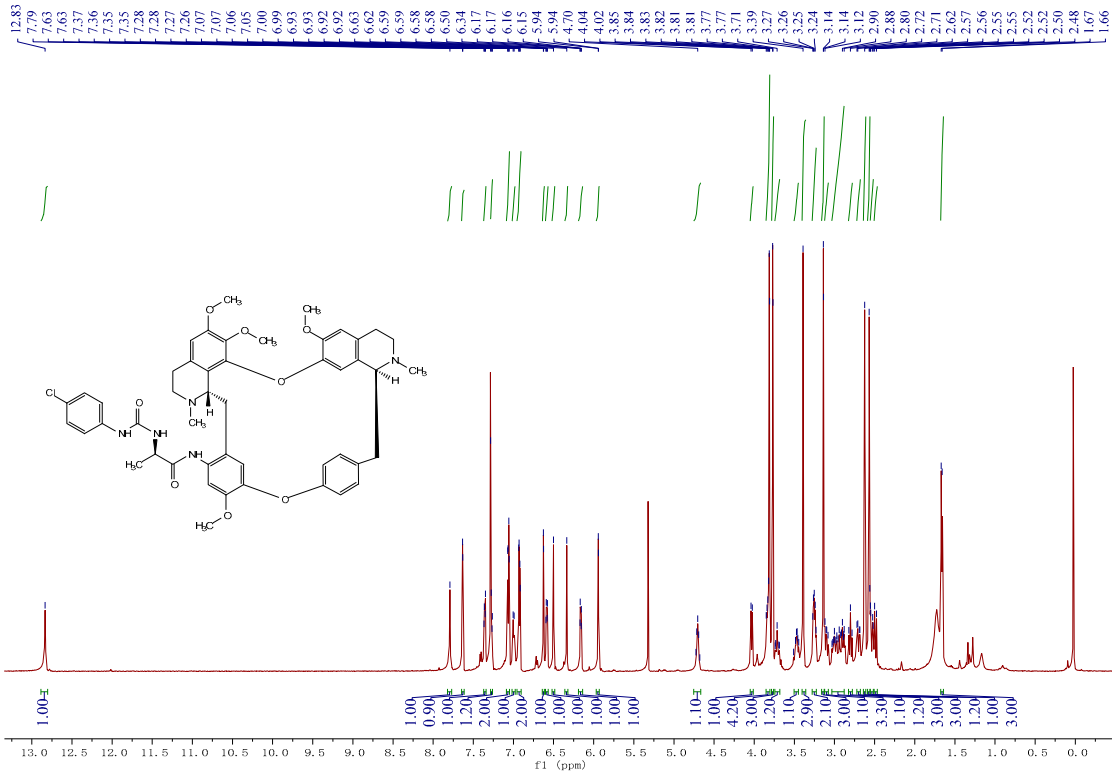

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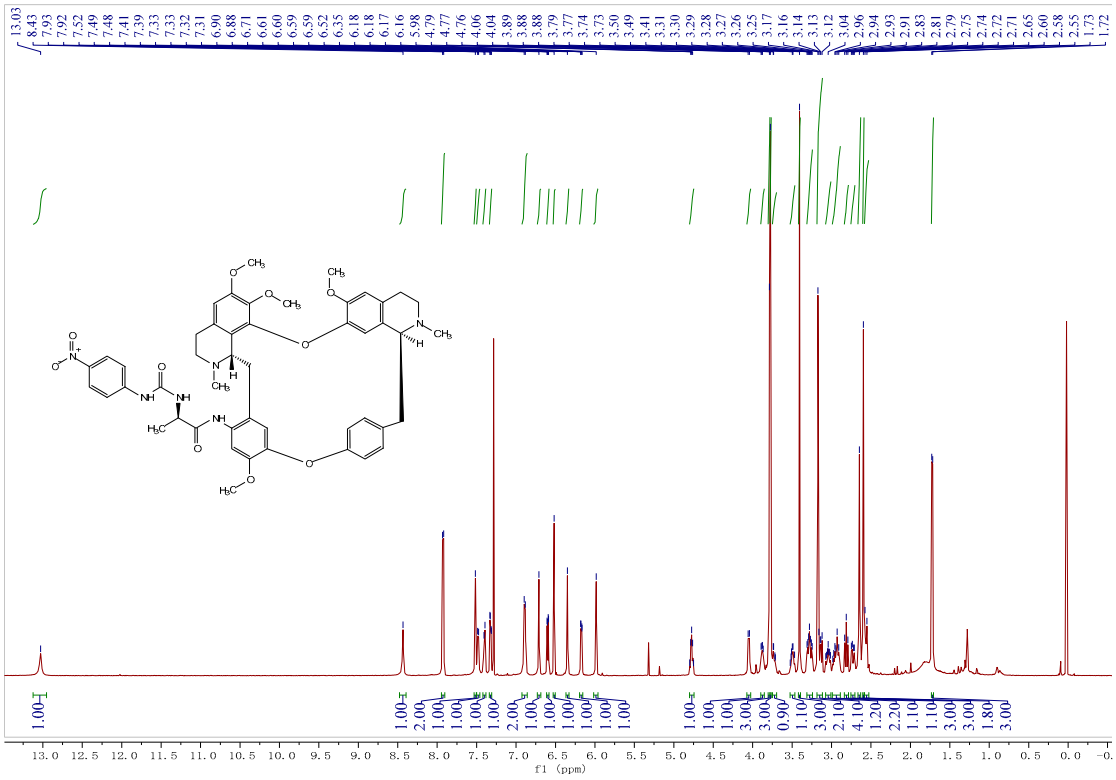

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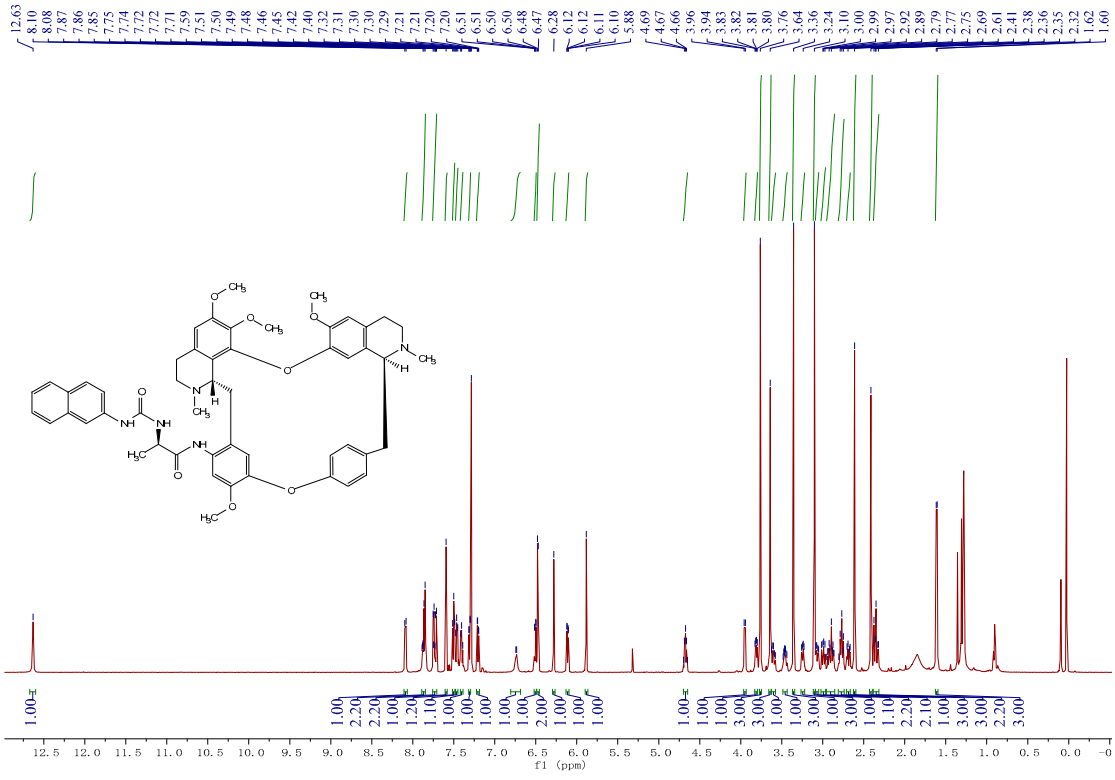

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## 2. $^{13}$C-NMR Spectra of 1a-3k

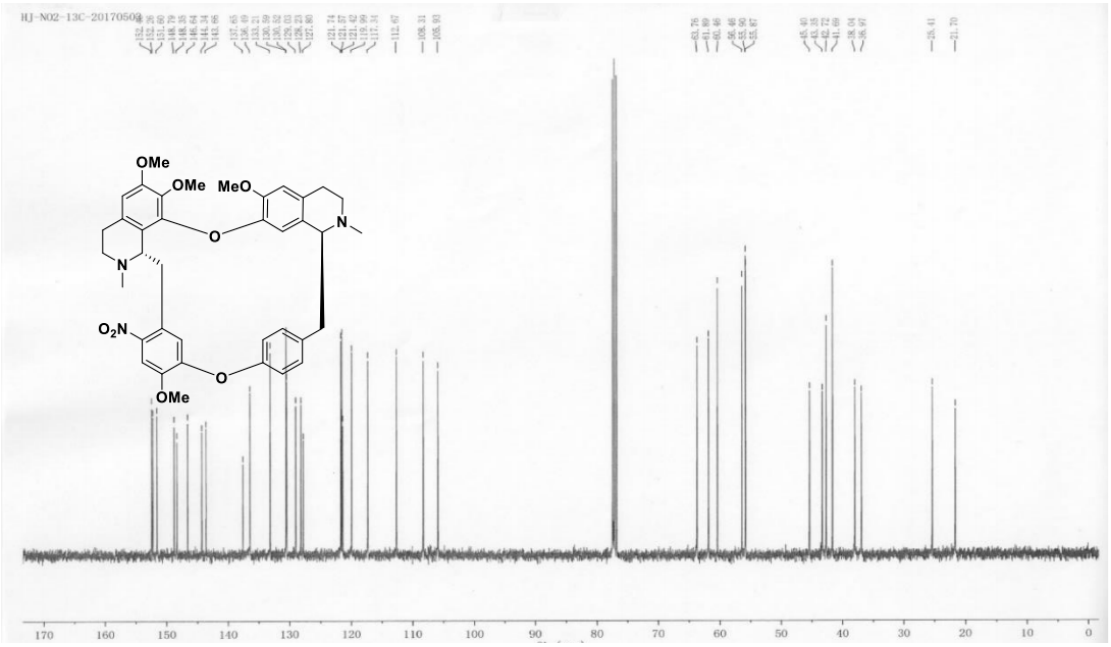


**Figure S27.** $^{13}$C-NMR Spectra of **Tet-NO$_2$** in $CDCl_3$.

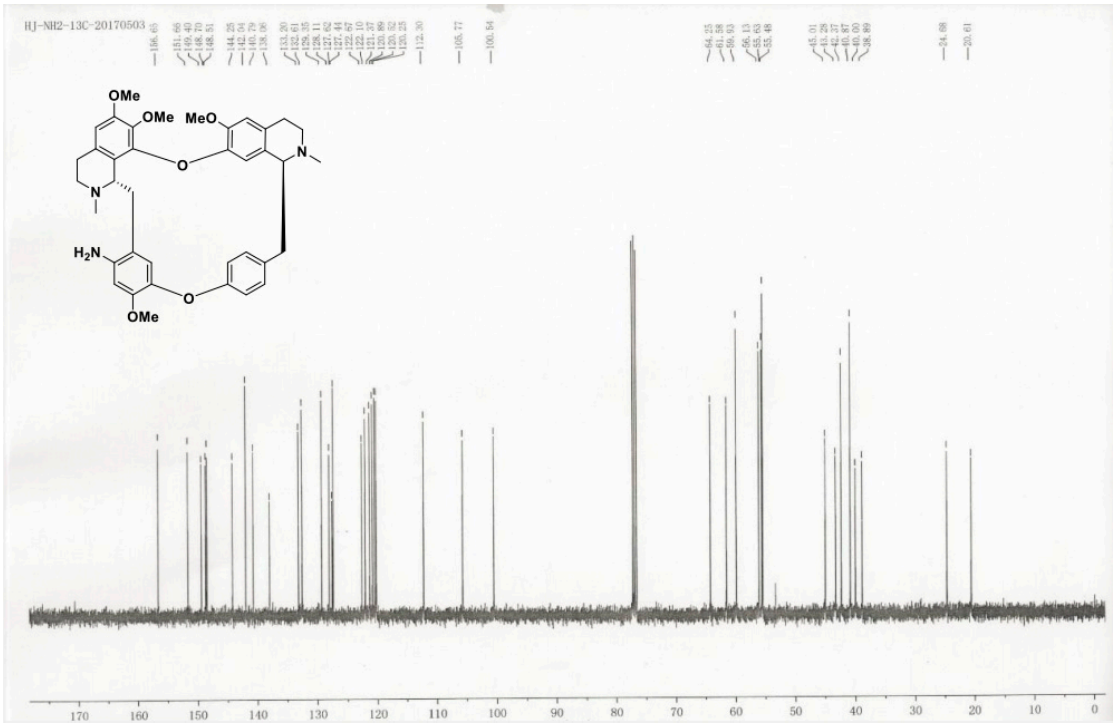


**Figure S28.** $^{13}$C-NMR Spectra of **Tet-NH$_2$** in $CDCl_3$.

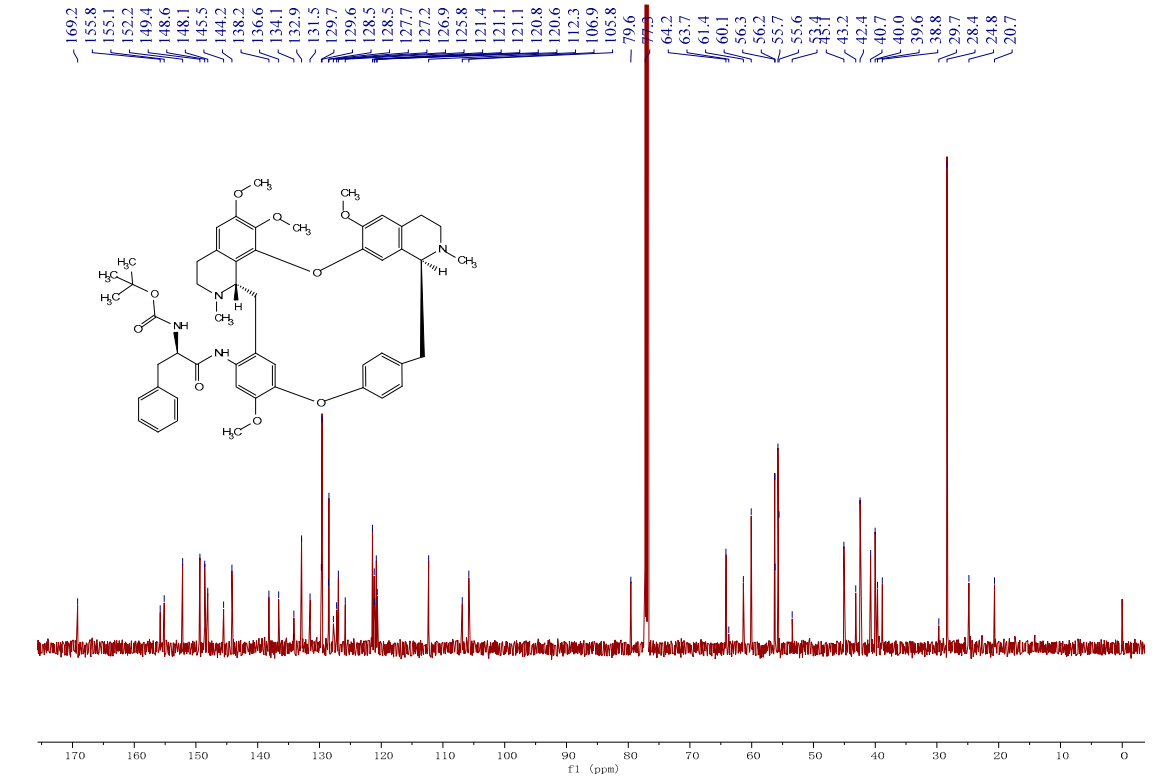


**Figure S29.** $^{13}$C-NMR Spectra of **1a** in $CDCl_3$.

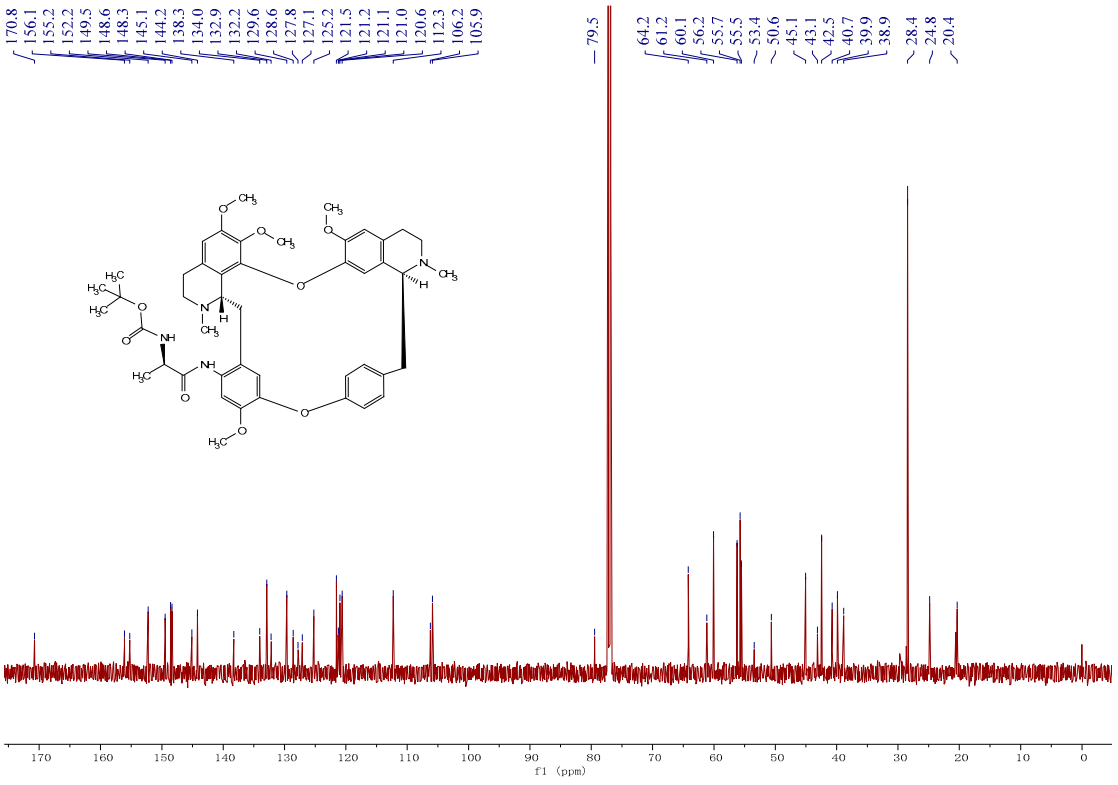


**Figure S30.** $^{13}$C-NMR Spectra of **1b** in $CDCl_3$.

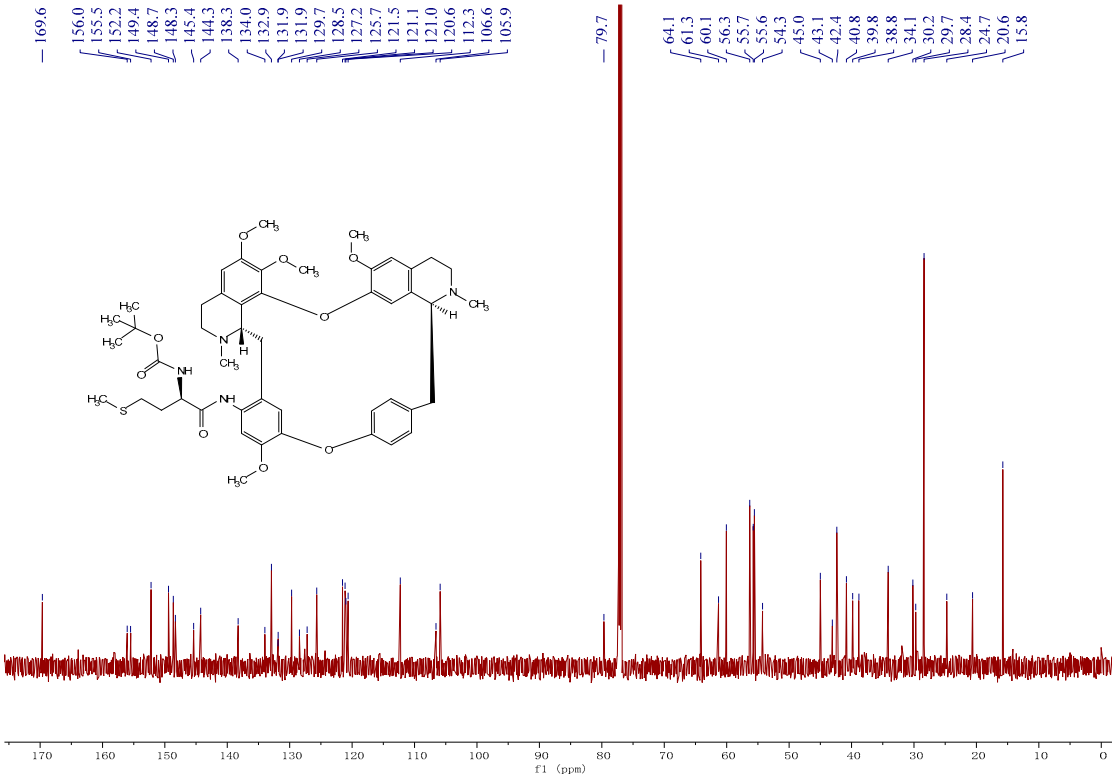


**Figure S31.** $^{13}$C-NMR Spectra of **1c** in $CDCl_3$.

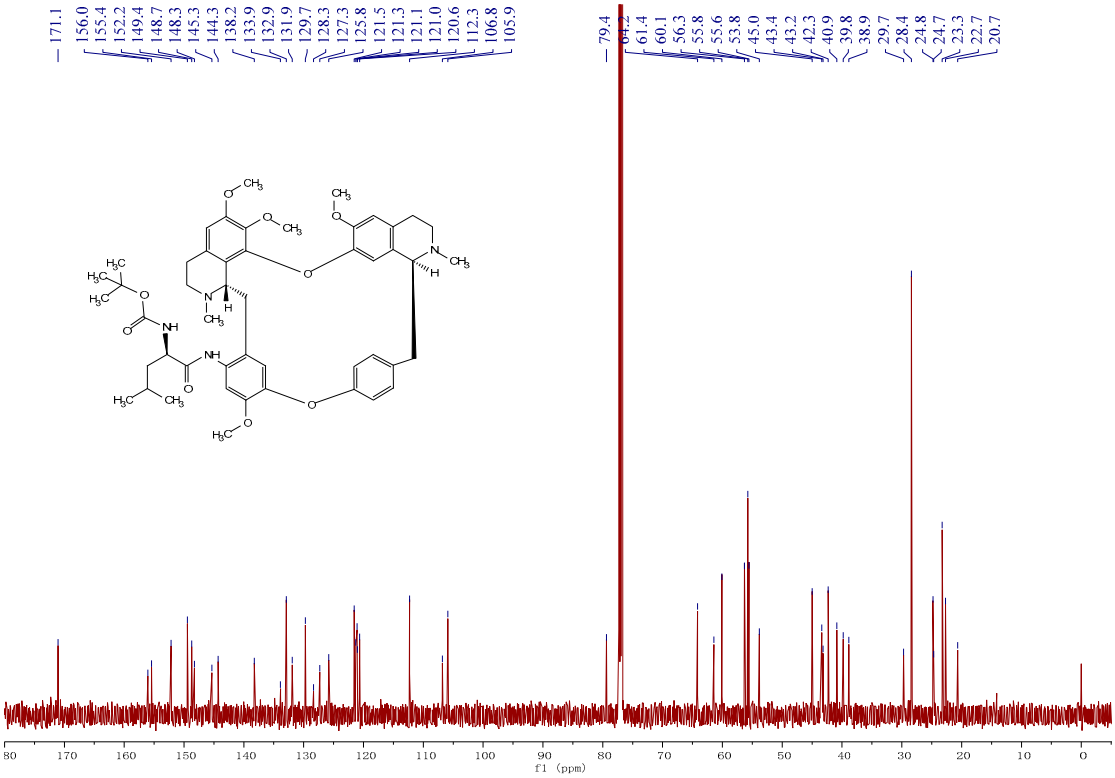


**Figure S32.** $^{13}$C-NMR Spectra of **1d** in $CDCl_3$.

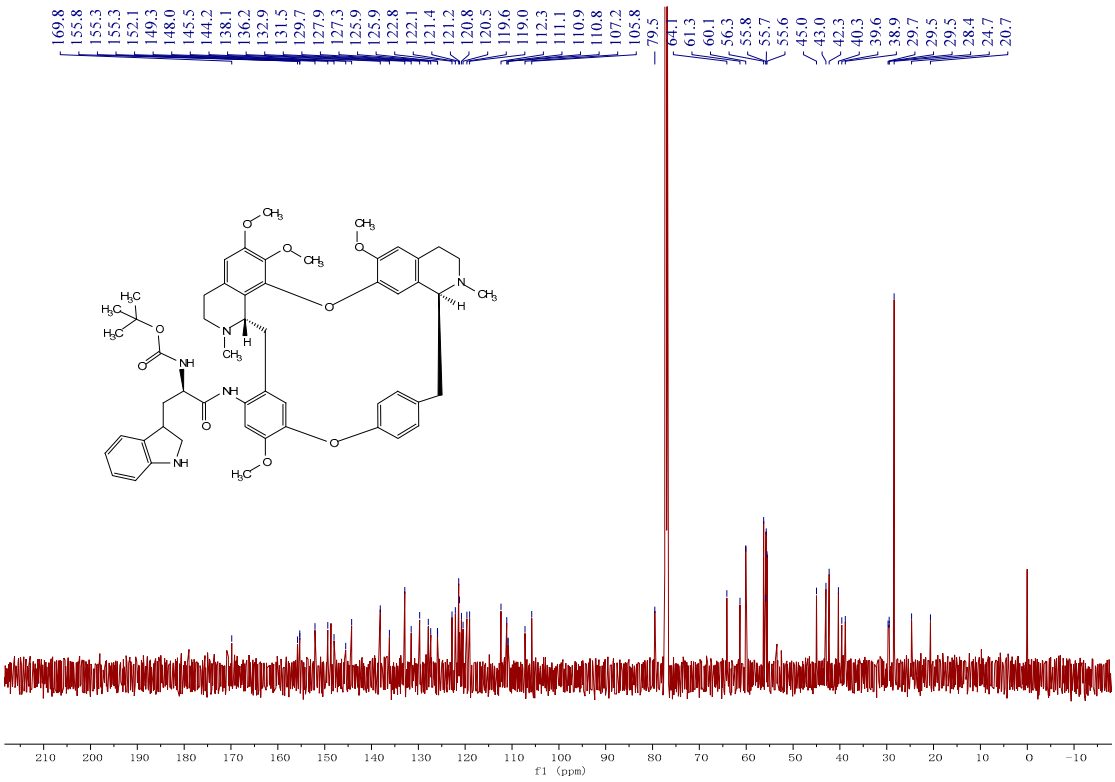


**Figure S33.** $^{13}$C-NMR Spectra of **1e** in $CDCl_3$.

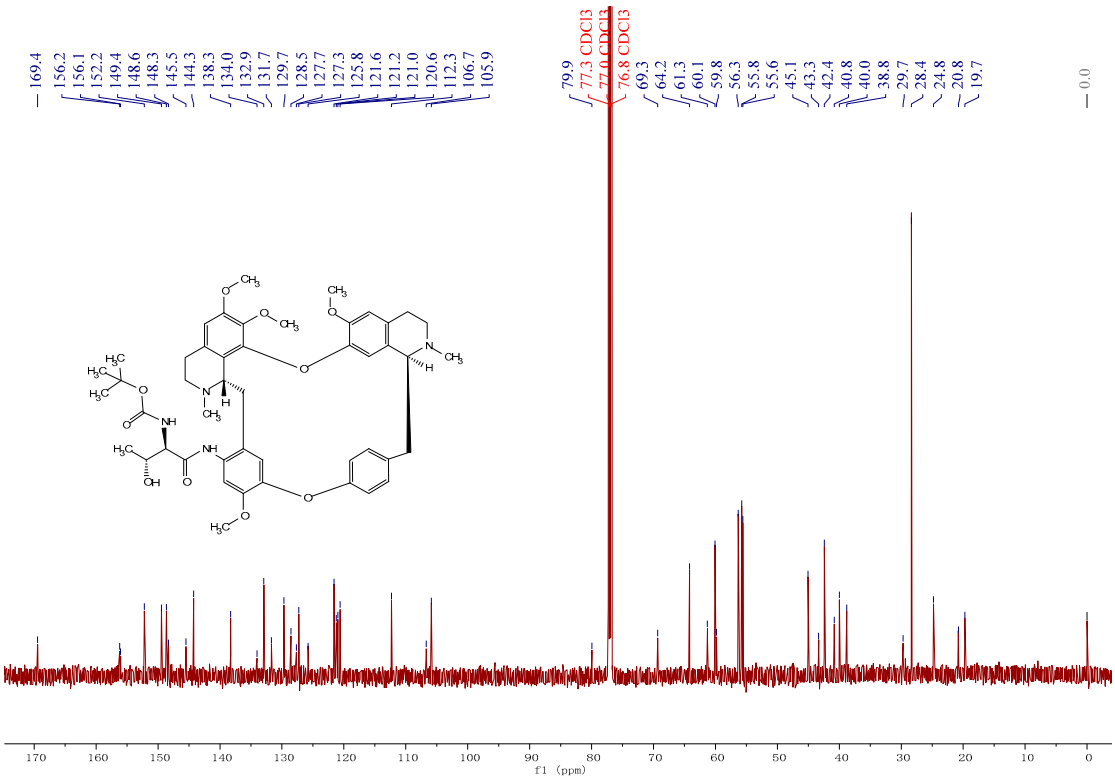


**Figure S34.** $^{13}$C-NMR Spectra of **1f** in $CDCl_3$.

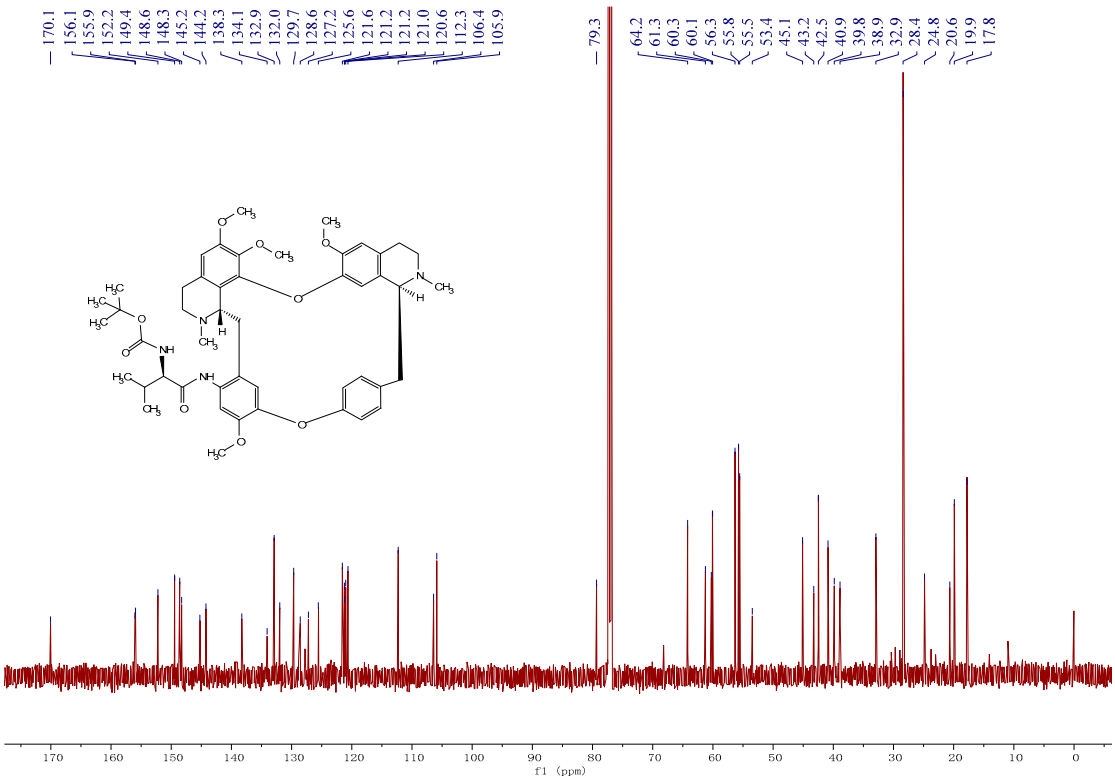


**Figure S35.** $^{13}$C-NMR Spectra of **1g** in $CDCl_3$.

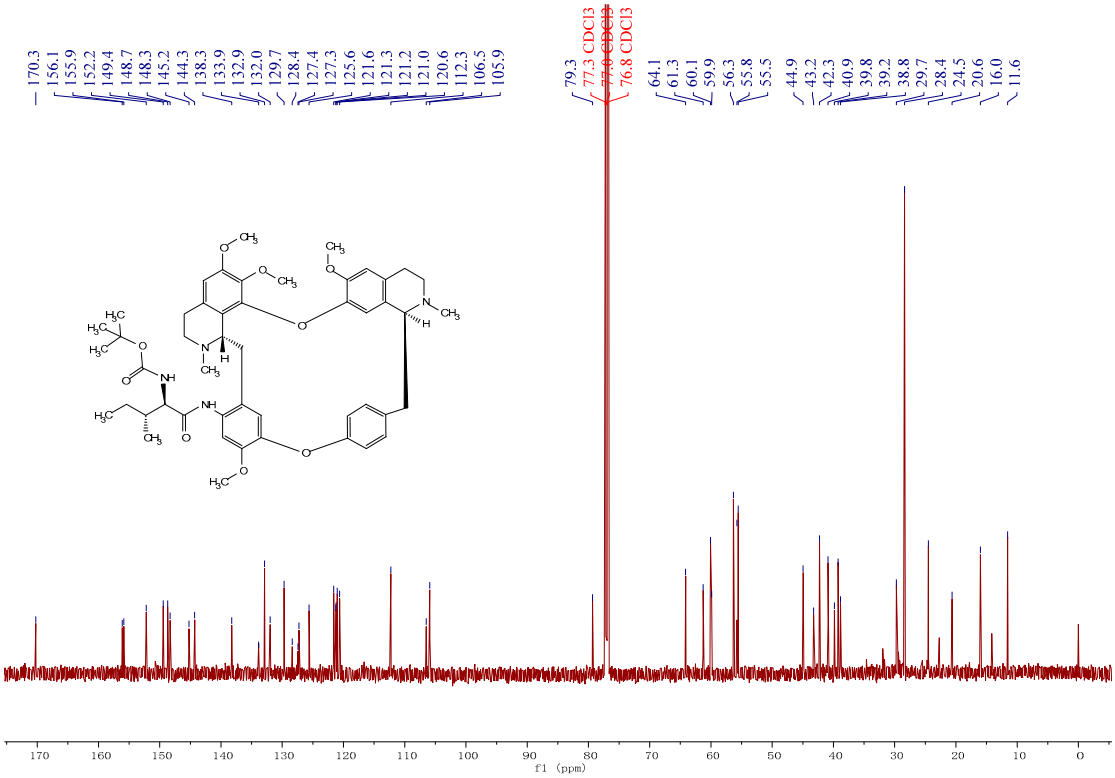


**Figure S36.** $^{13}$C-NMR Spectra of **1h** in $CDCl_3$.

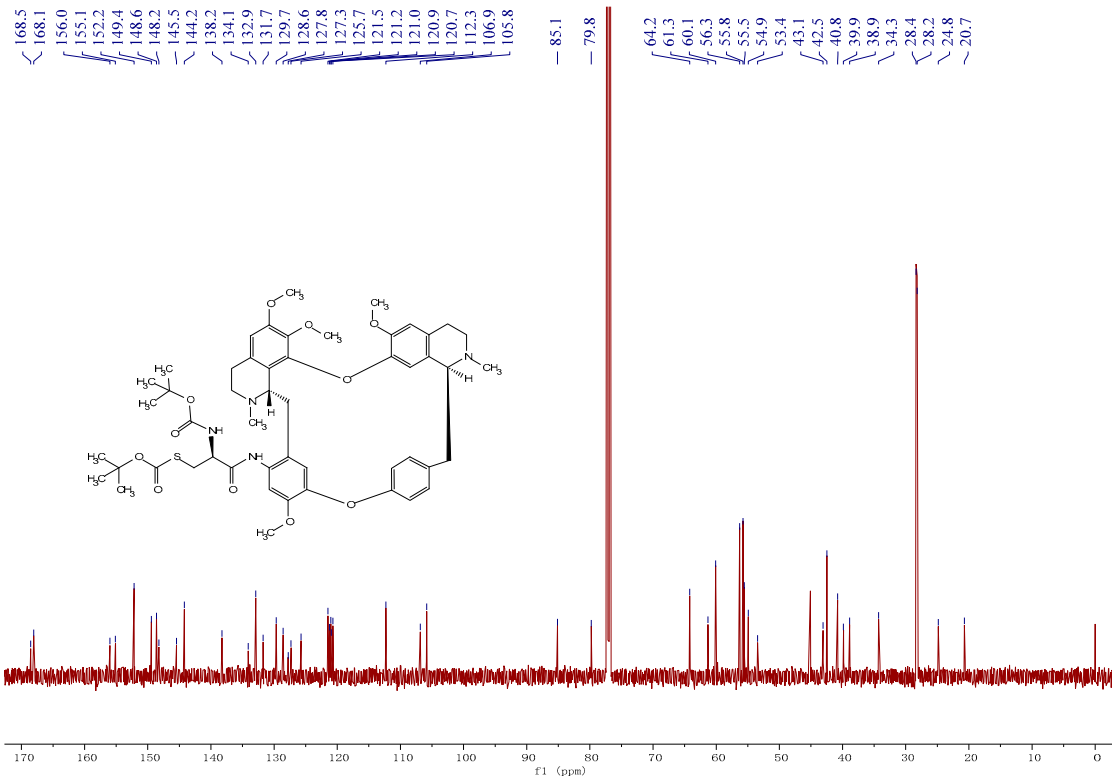


**Figure S37.** $^{13}$C-NMR Spectra of **1i** in $CDCl_3$.

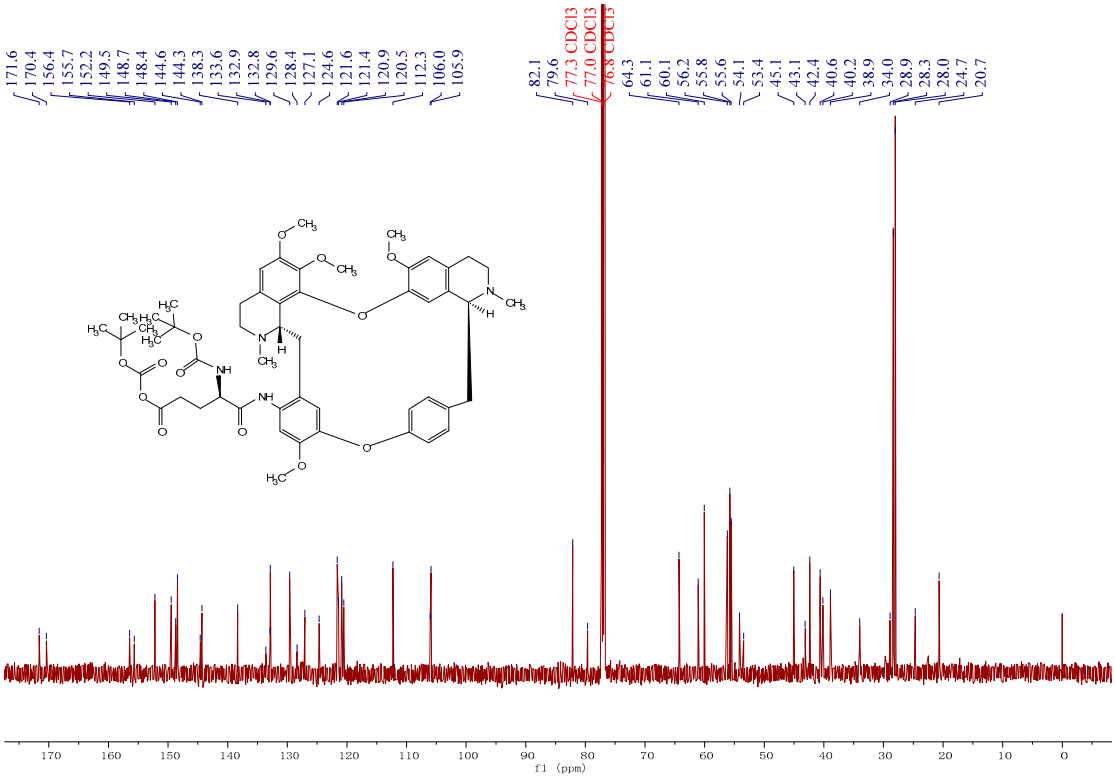


**Figure S38.** $^{13}$C-NMR Spectra of **1j** in $CDCl_3$.

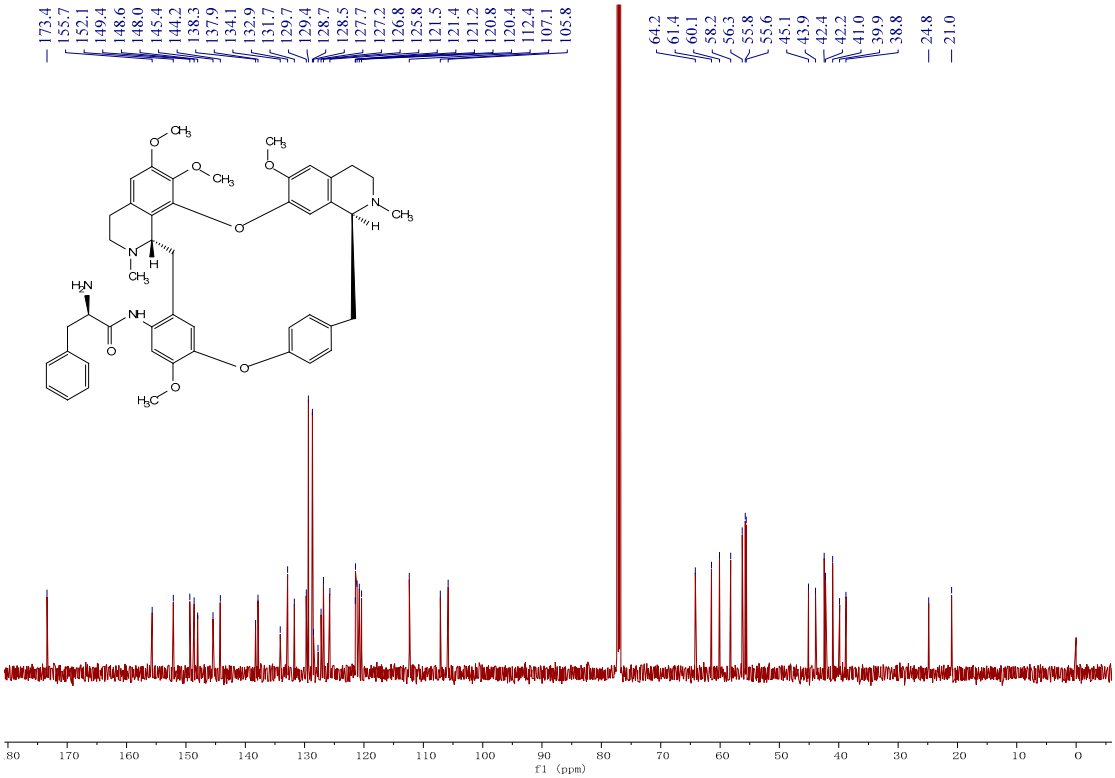


**Figure S39.** $^{13}$C-NMR Spectra of **1k** in $CDCl_3$.

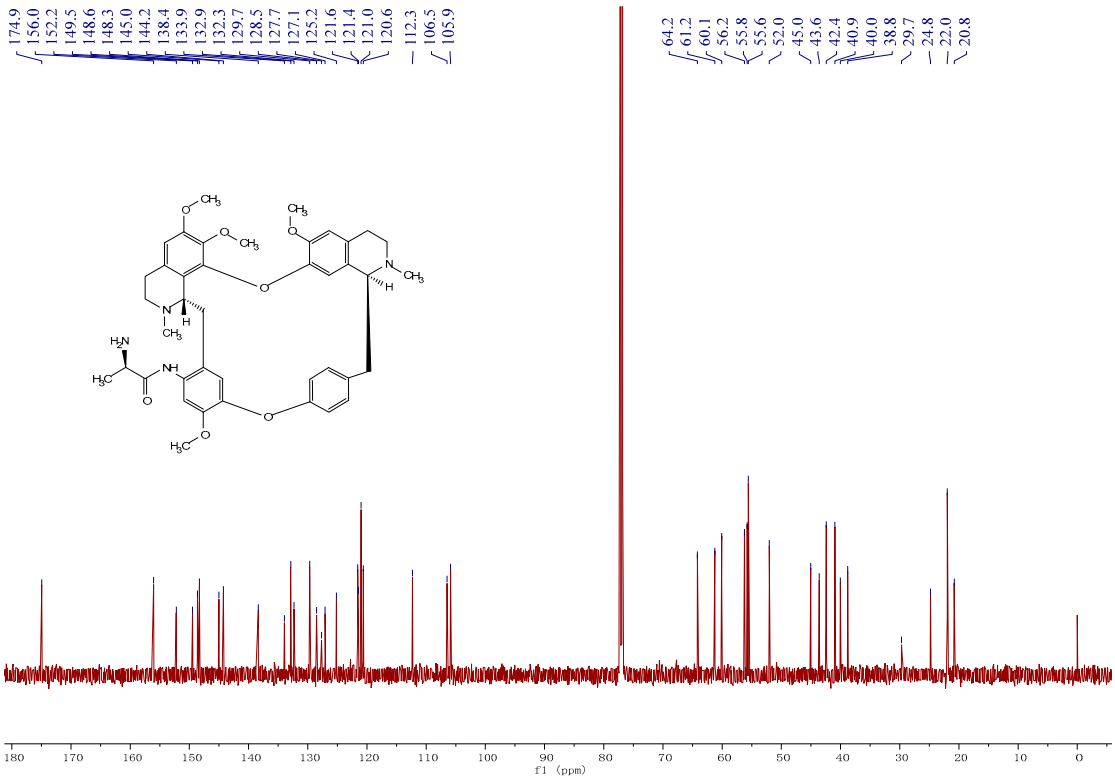


**Figure S40.** $^{13}$C-NMR Spectra of **1l** in $CDCl_3$.

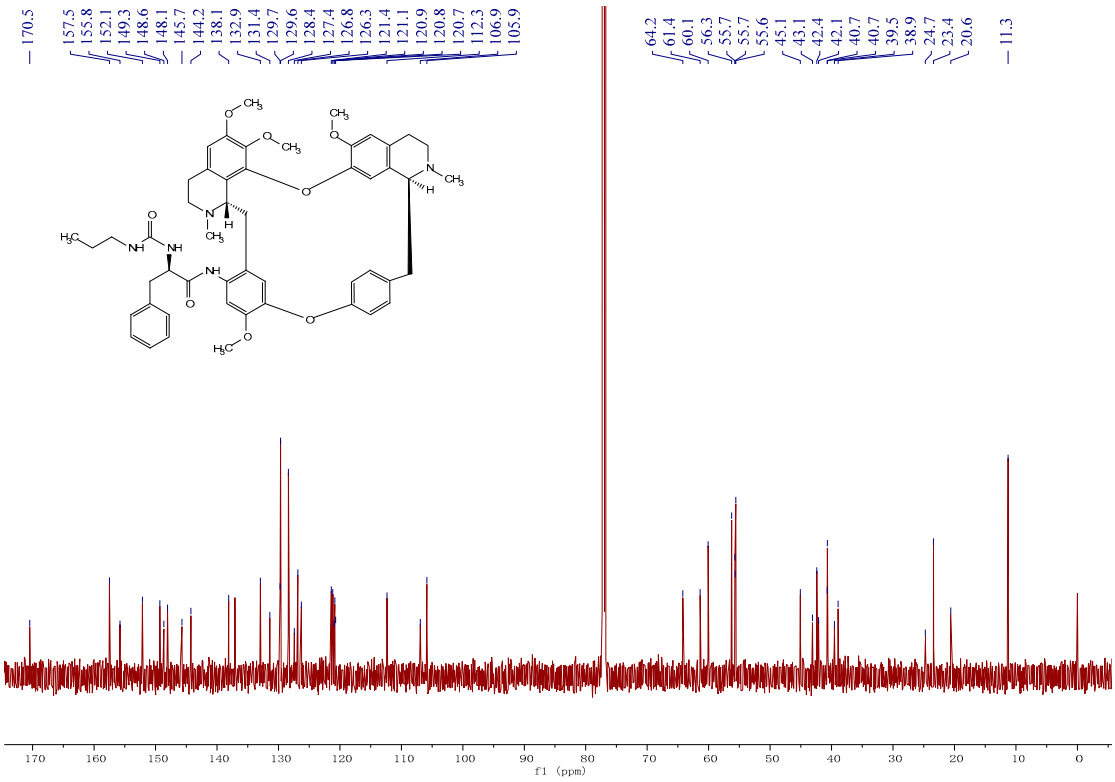


**Figure S41.** $^{13}$C-NMR Spectra of **2a** in $CDCl_3$.

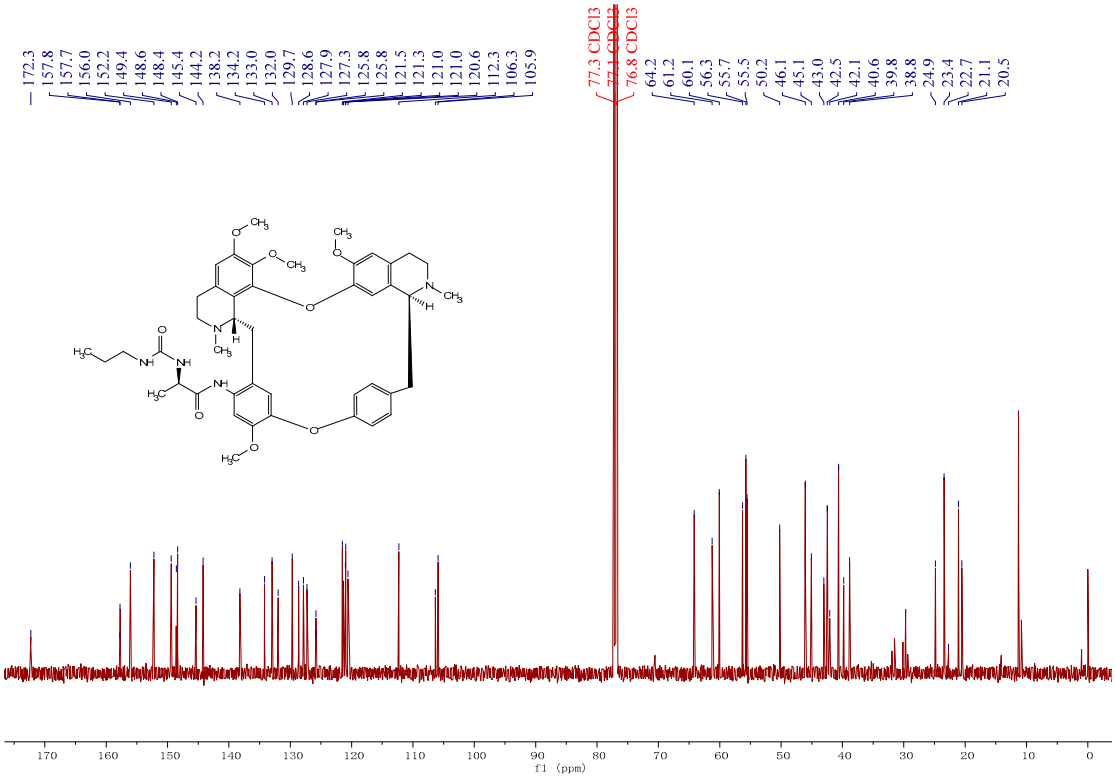


**Figure S42.** $^{13}$C-NMR Spectra of **3a** in $CDCl_3$.

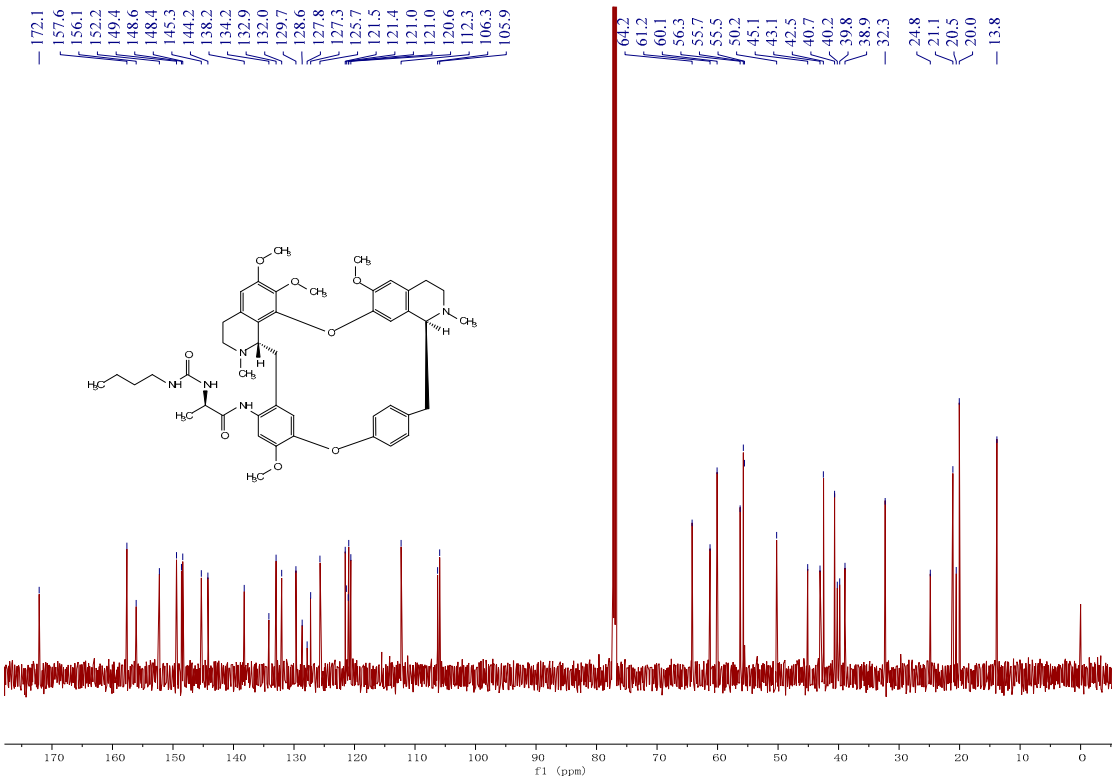


**Figure S43.** $^{13}$C-NMR Spectra of **3b** in $CDCl_3$.

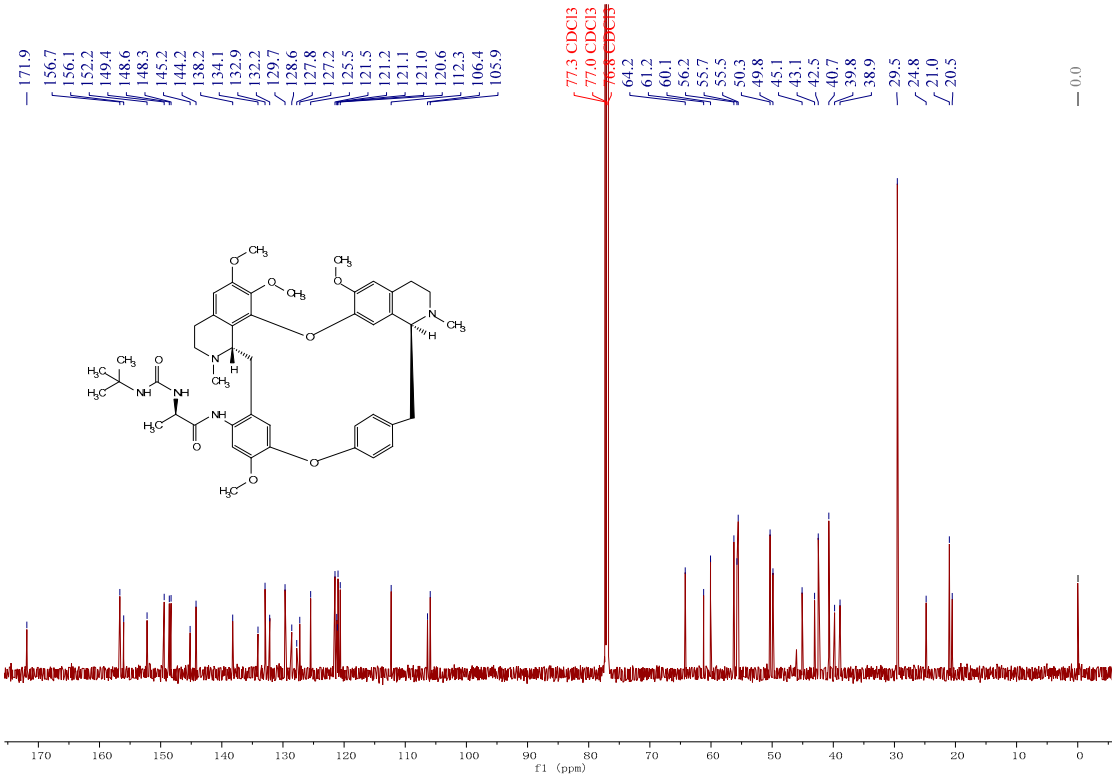


**Figure S44.** $^{13}$C-NMR Spectra of **3c** in $CDCl_3$.

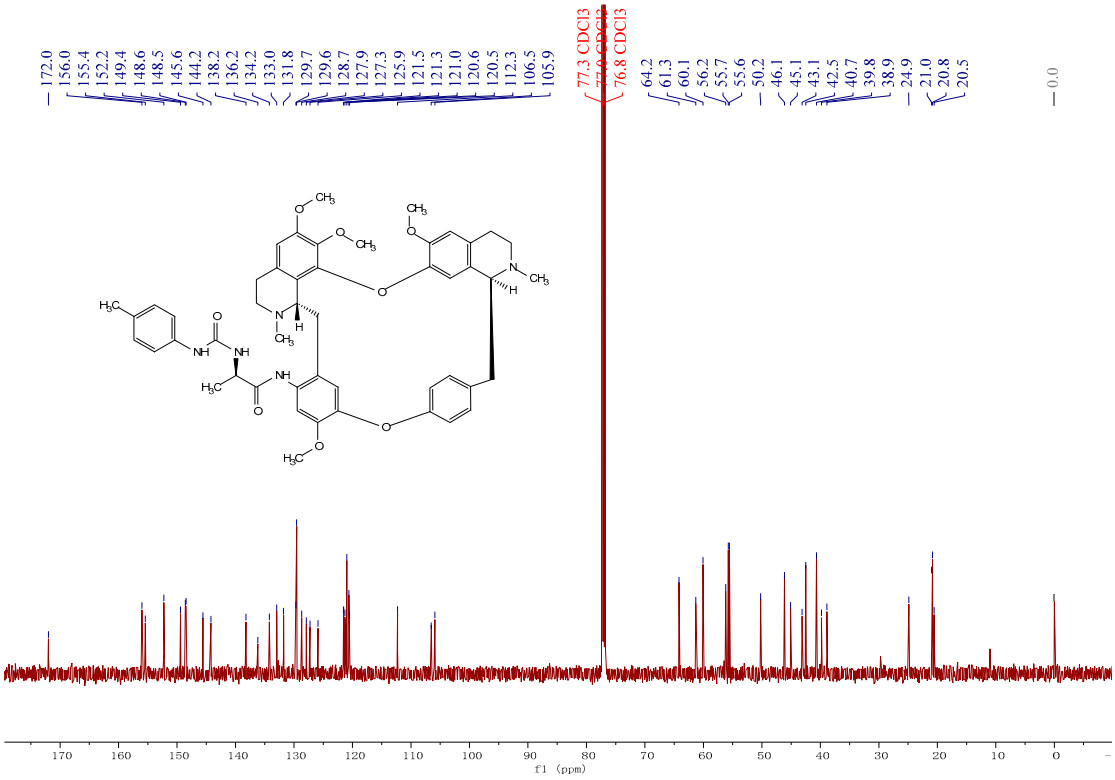


**Figure S45.** $^{13}$C-NMR Spectra of **3d** in $CDCl_3$.

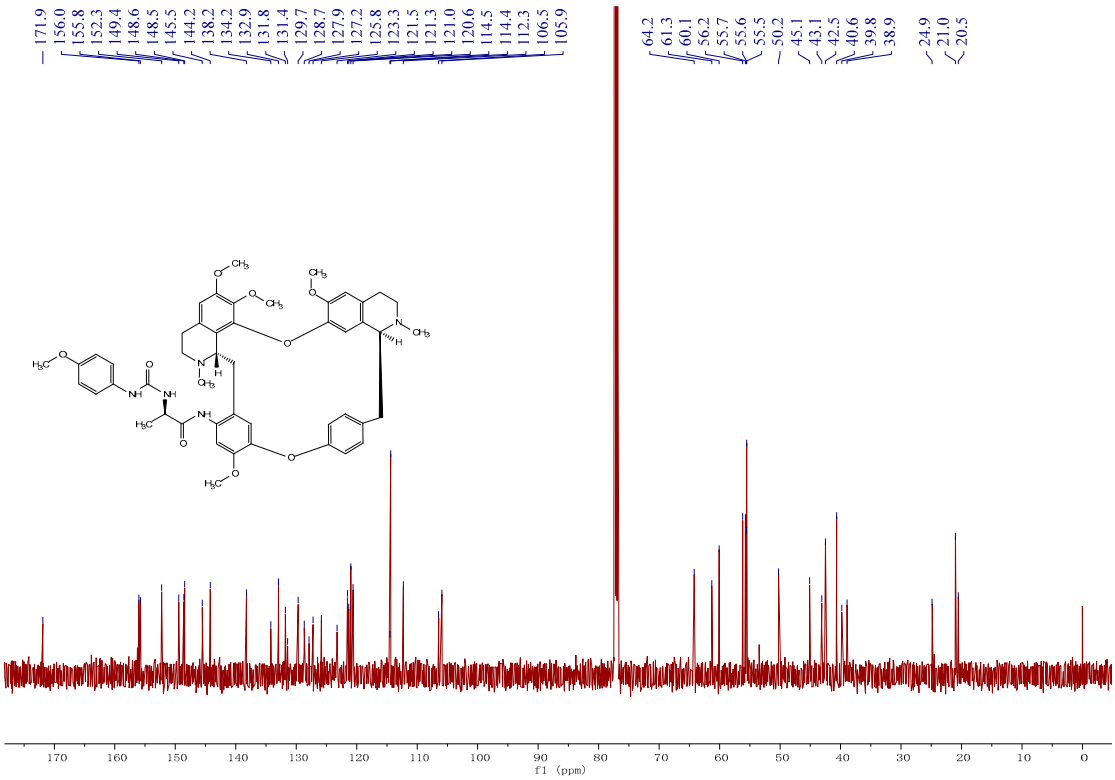


**Figure S46.** $^{13}$C-NMR Spectra of **3e** in $CDCl_3$.

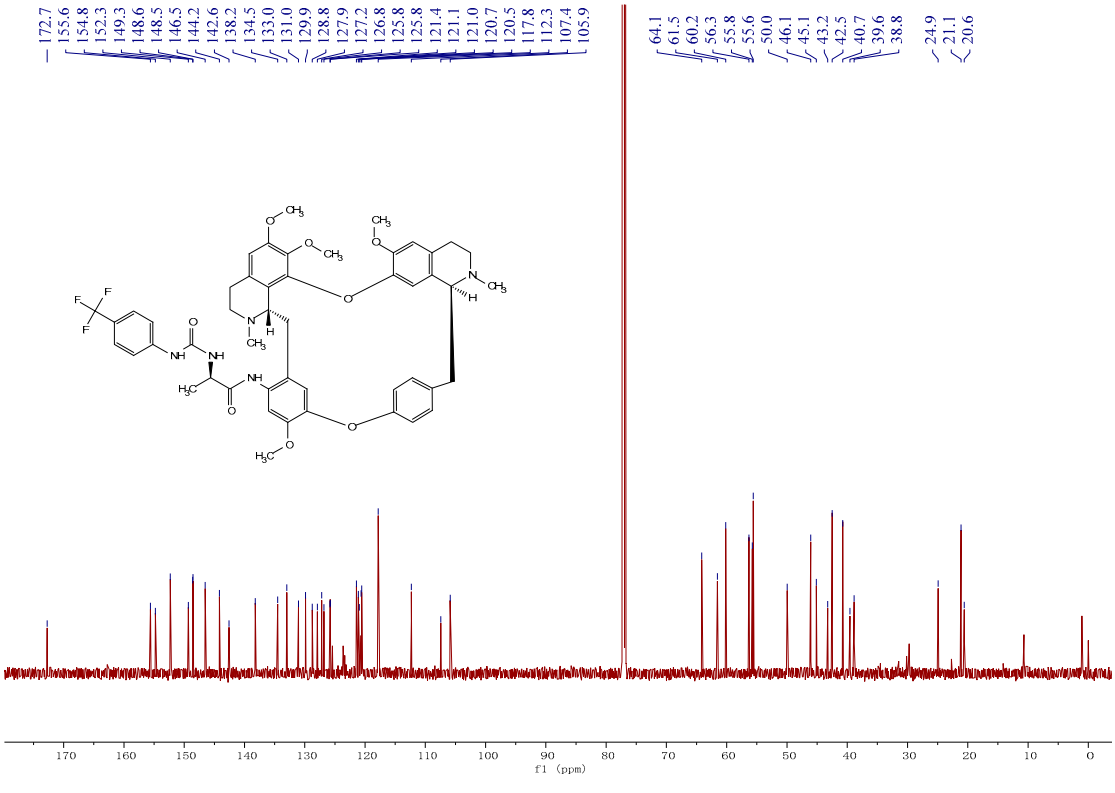


**Figure S47.** $^{13}$C-NMR Spectra of **3f** in $CDCl_3$.

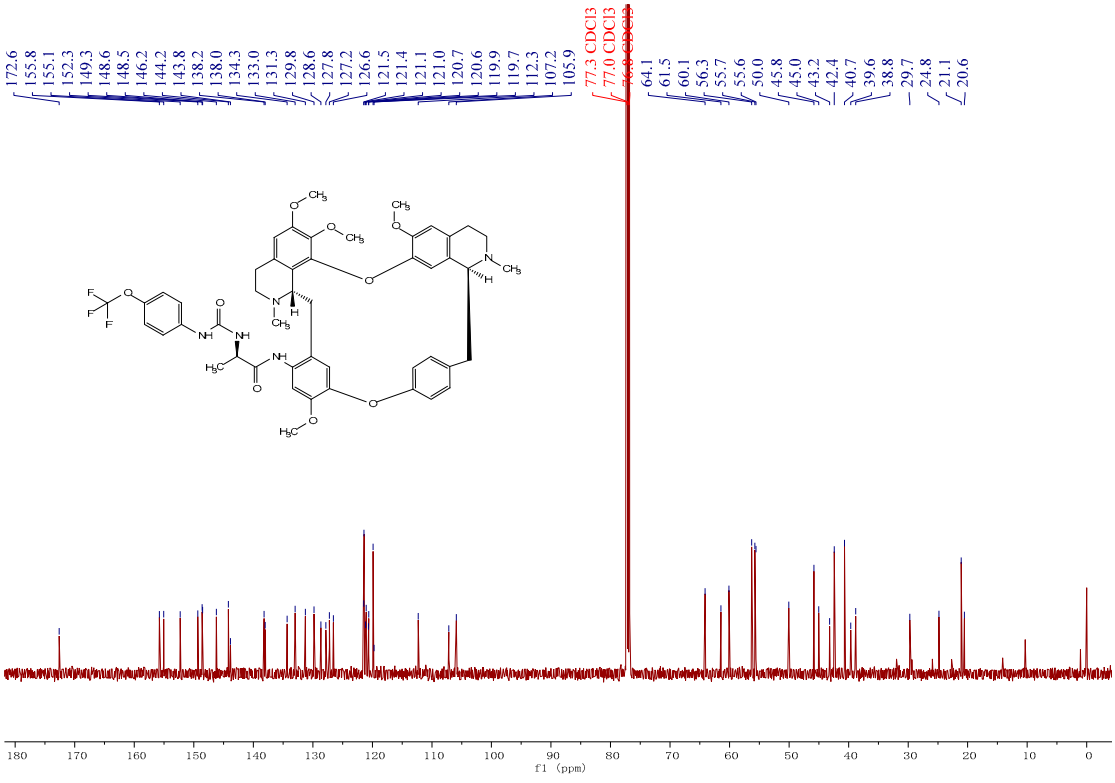


**Figure S48.** $^{13}$C-NMR Spectra of **3g** in $CDCl_3$.

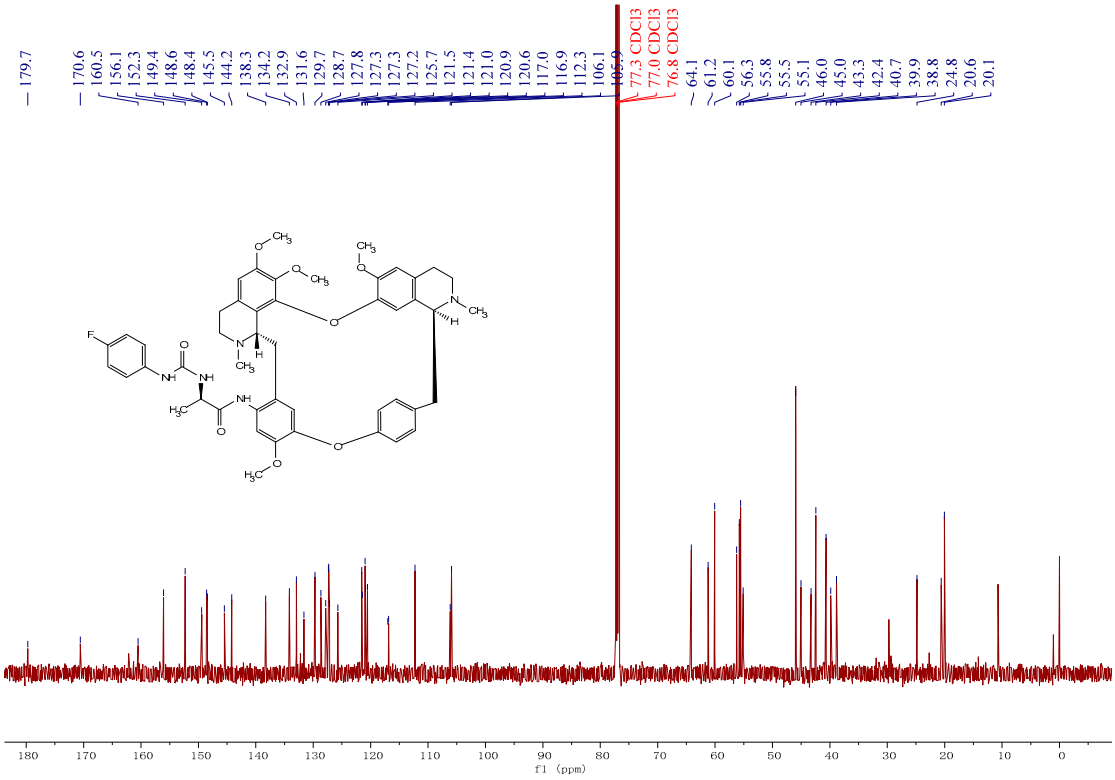


**Figure S49.** $^{13}$C-NMR Spectra of **3h** in $CDCl_3$.

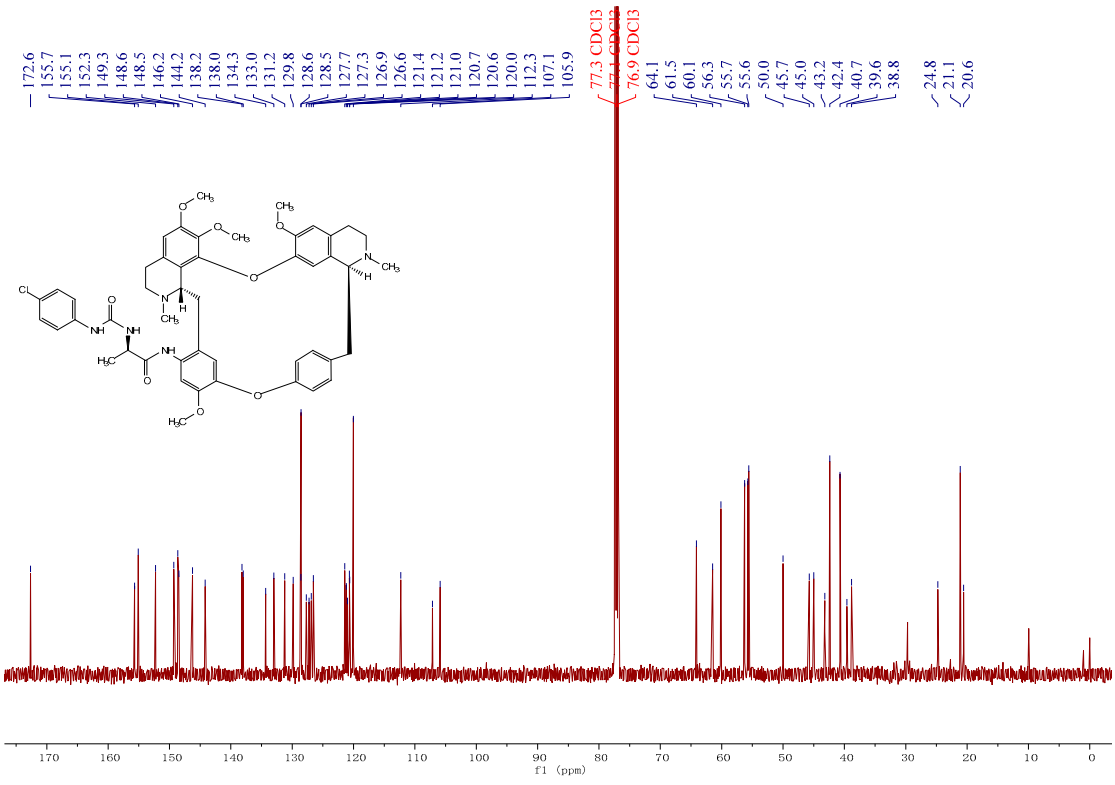


**Figure S50.** $^{13}$C-NMR Spectra of **3i** in $CDCl_3$.

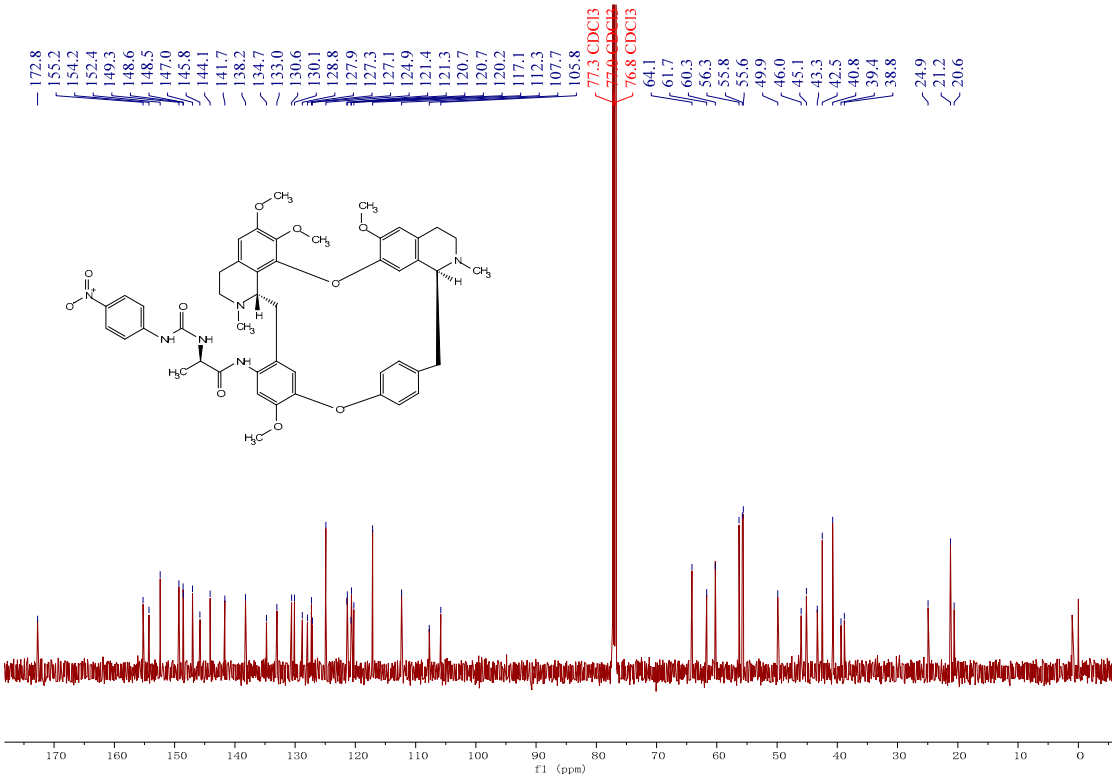


**Figure S51.** $^{13}$C-NMR Spectra of **3j** in $CDCl_3$.

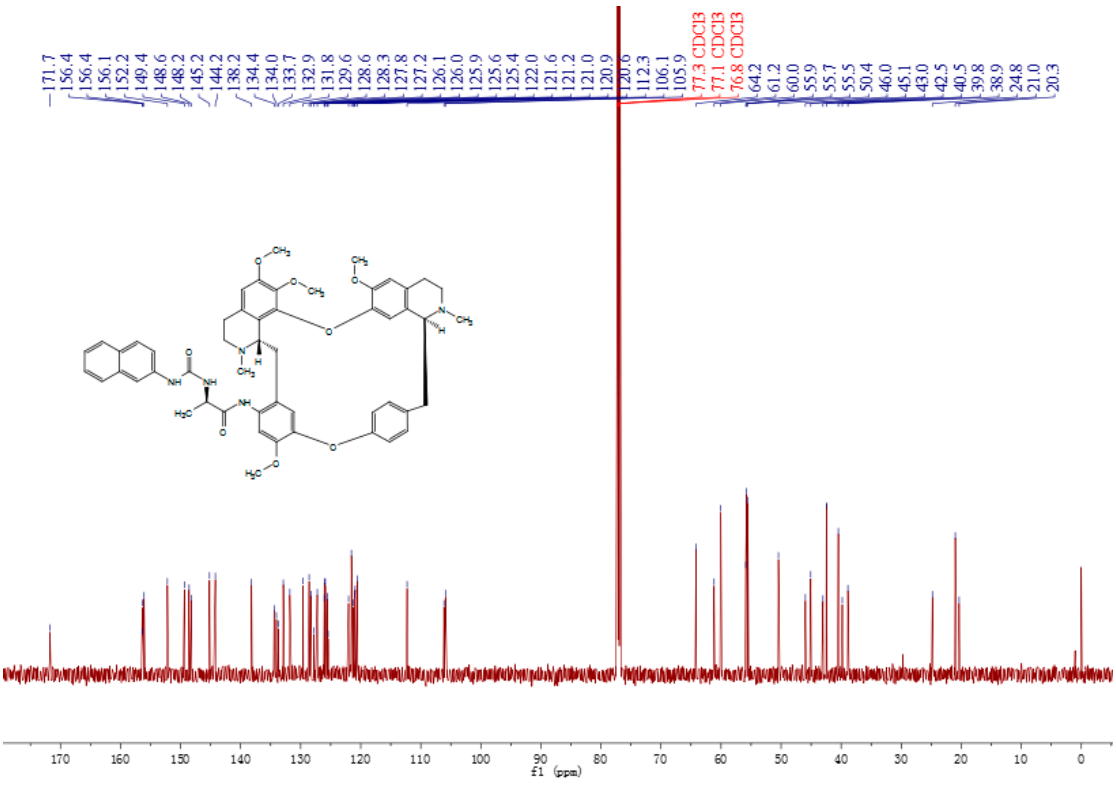


**Figure S52.** $^{13}$C-NMR Spectra of **3k** in $CDCl_3$.