Supporting Information

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Development of novel cyclohexanecarboxamido hydrazones: Synthesis, characterization, and functional group tolerance

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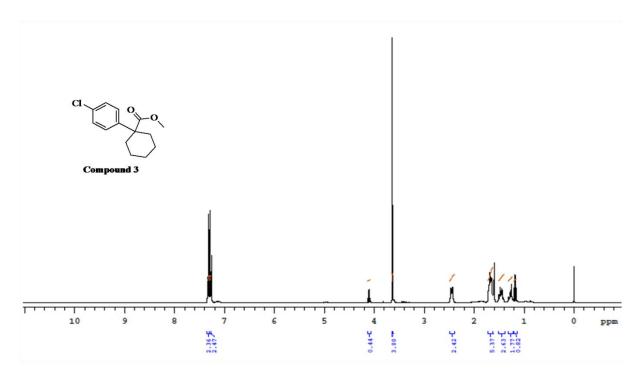


Figure S1: 1H NMR spectrum of compound 3

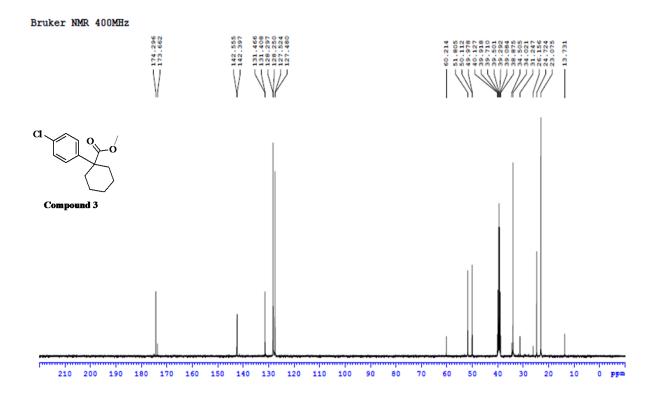


Figure S2:¹³C NMR spectrum of compound 3

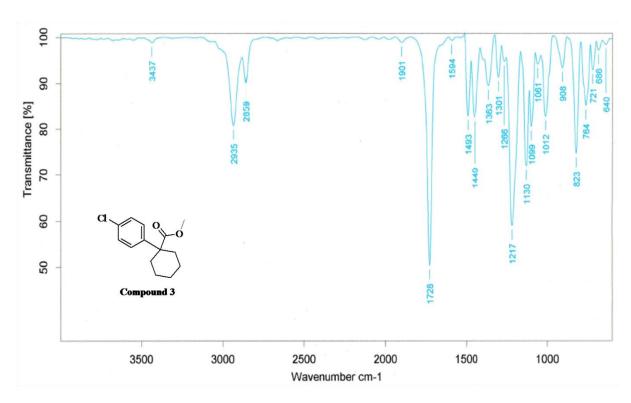


Figure S3: FT-IR spectrum of compound 3

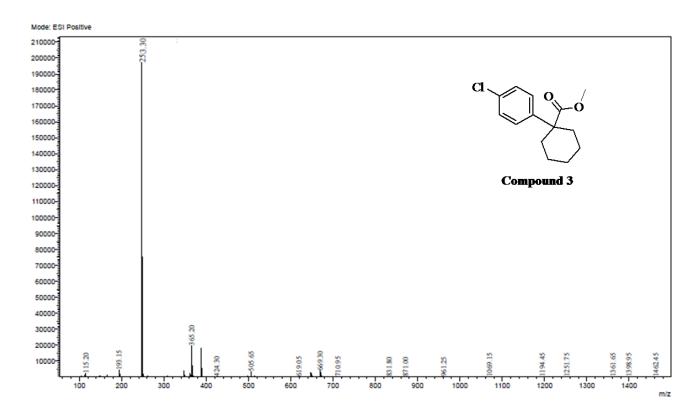


Figure S4: ESI-MS spectrum of compound 3

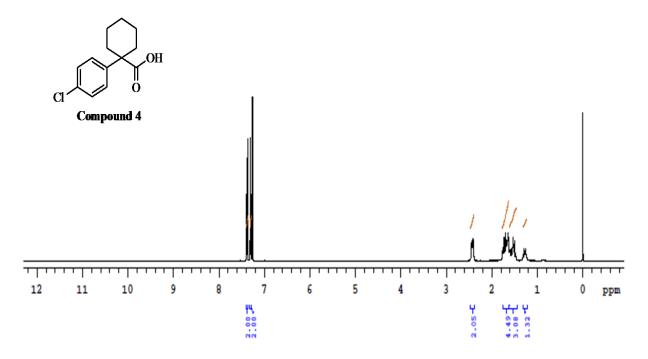


Figure S5: 1H NMR spectrum of compound 4

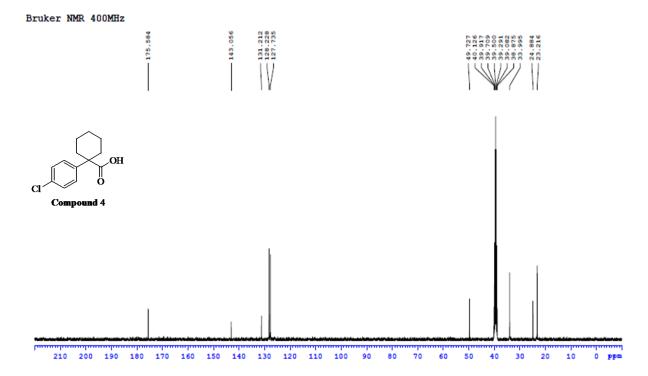


Figure S6:¹³C NMR spectrum of compound 4

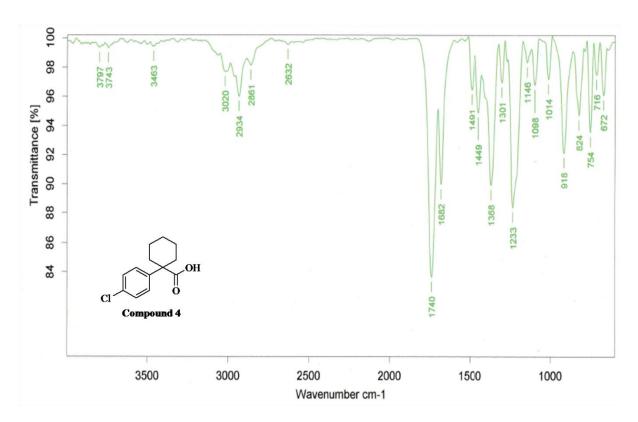


Figure S7: FT-IR spectrum of compound 4

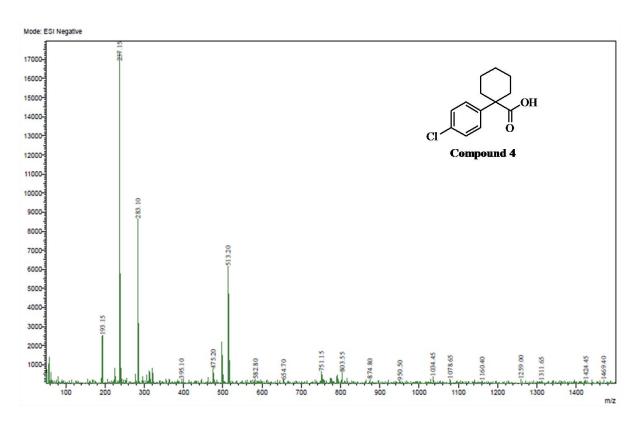


Figure S8: ESI-MS spectrum of compound 4

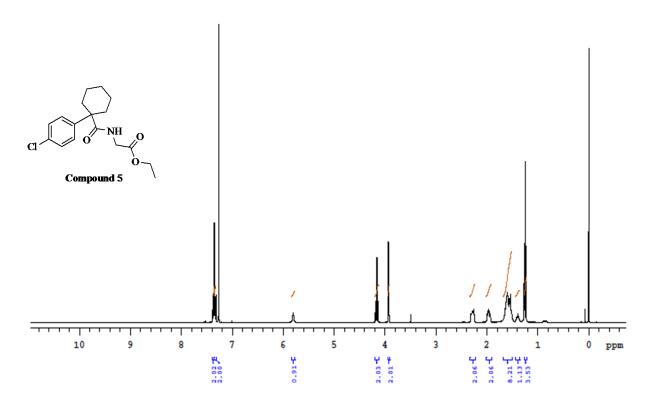


Figure S9: ¹H NMR spectrum of compound 5

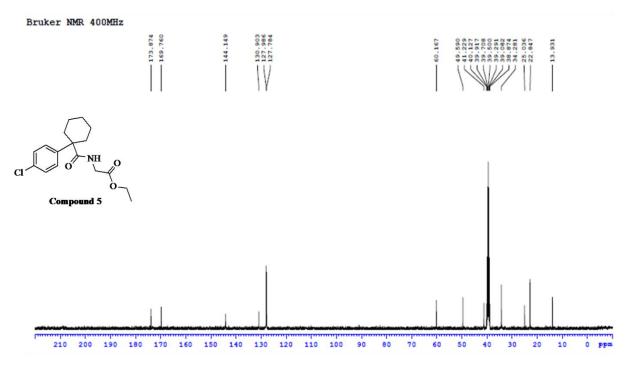


Figure S10:¹³C NMR spectrum of compound 5

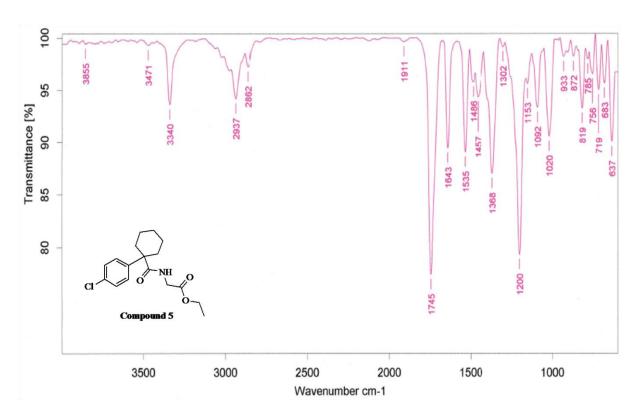


Figure S11: FT-IR spectrum of compound 5

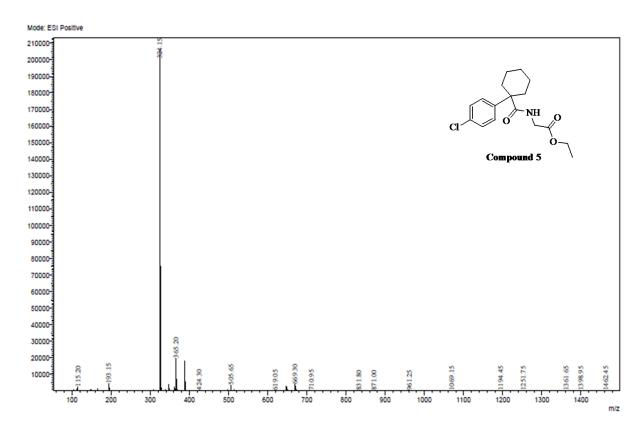


Figure S12: ESI-MS spectrum of compound 5

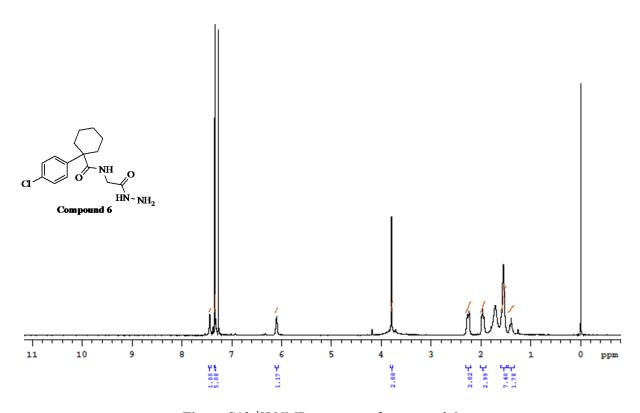


Figure S13: 1H NMR spectrum of compound 6

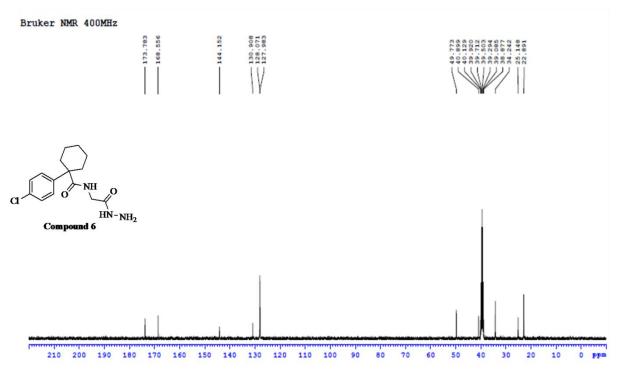


Figure S14:¹³C NMR spectrum of compound 6

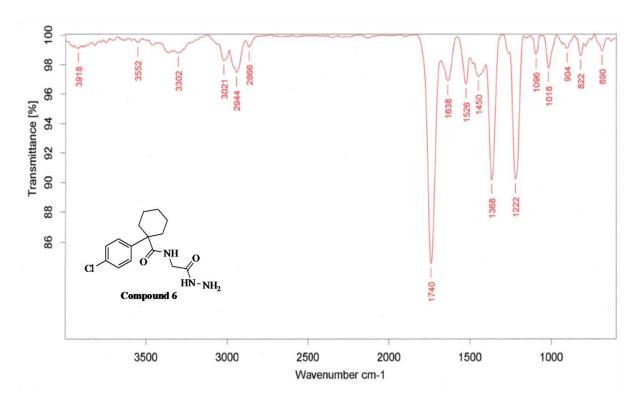


Figure S15: FT-IR spectrum of compound 6

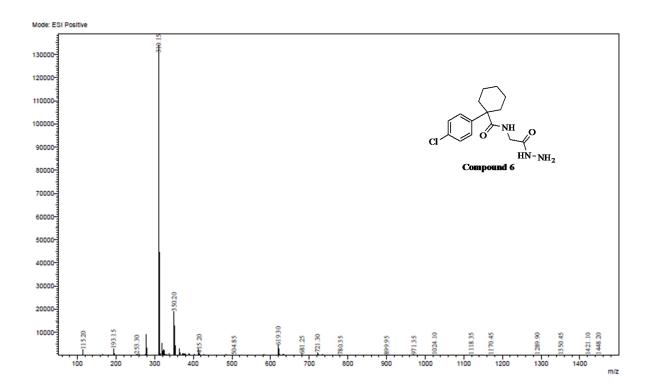


Figure S16: ESI-MS spectrum of compound 6

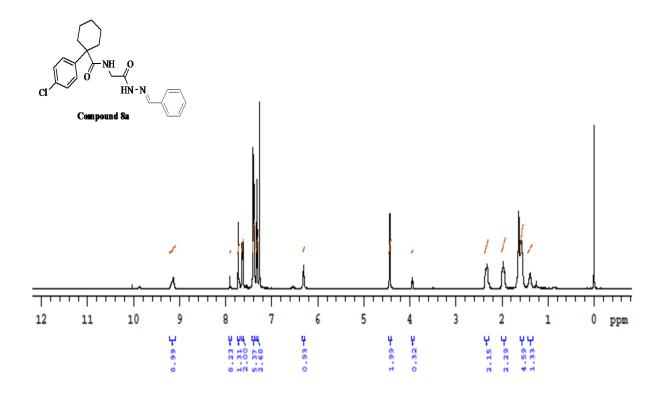


Figure S17:¹H NMR spectrum of compound 8a

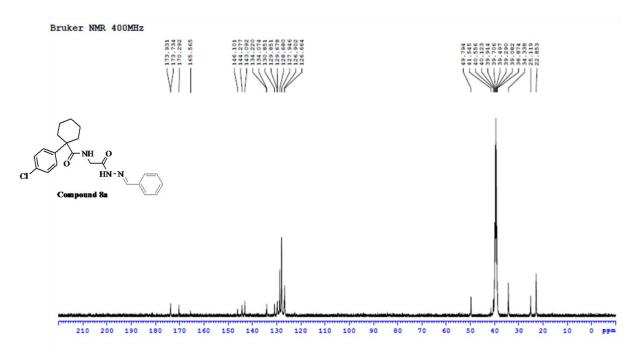


Figure S18:¹³C NMR spectrum of compound 8a

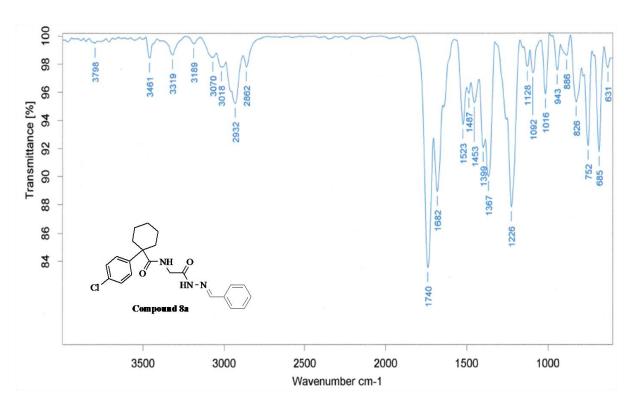


Figure S19: FT-IR spectrum of compound 8a

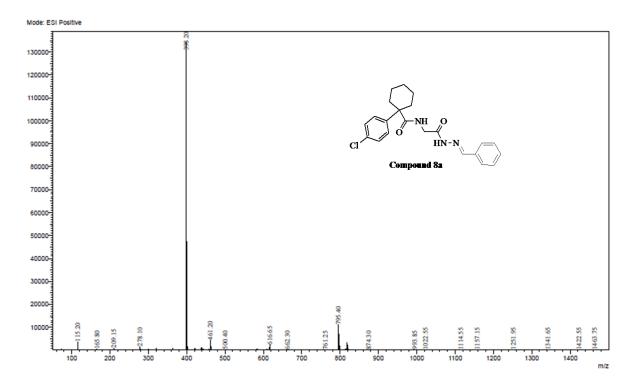


Figure S20: ESI-MS spectrum of compound 8a

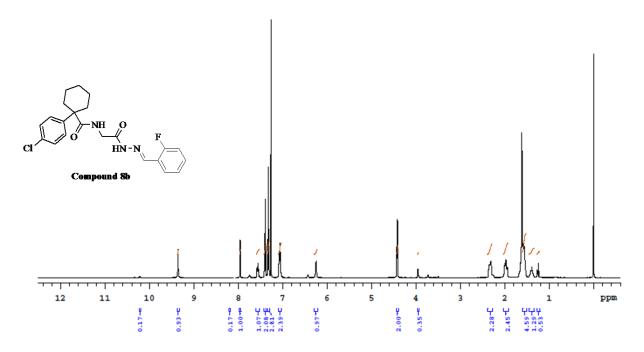


Figure S21: 1H NMR spectrum of compound 8b

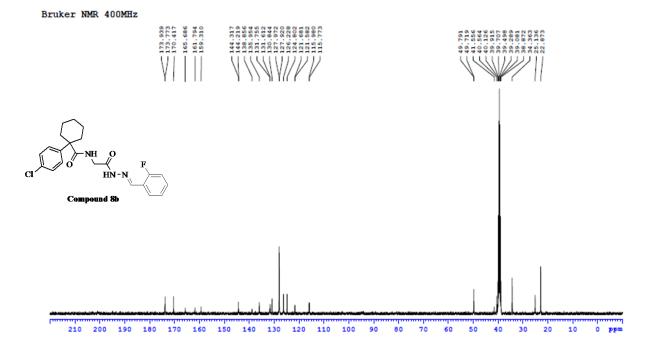


Figure S22: 13C NMR spectrum of compound 8b

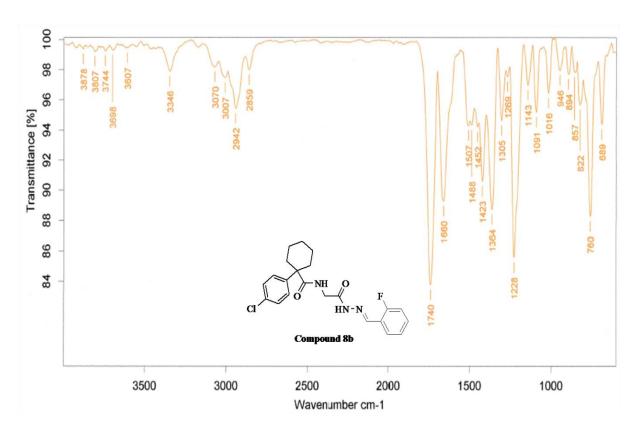


Figure S23: FT-IR spectrum of compound 8b

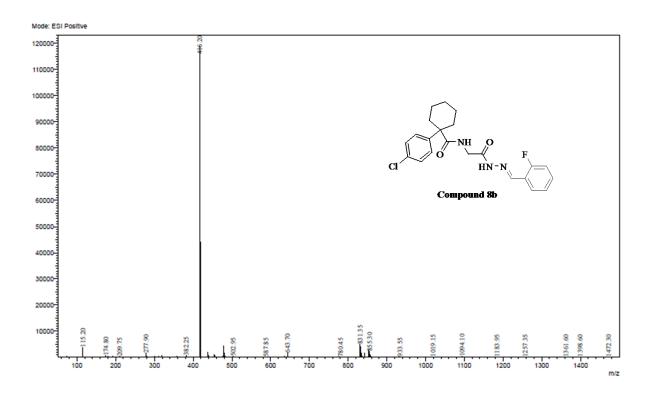


Figure S24: ESI-MS spectrum of compound 8b

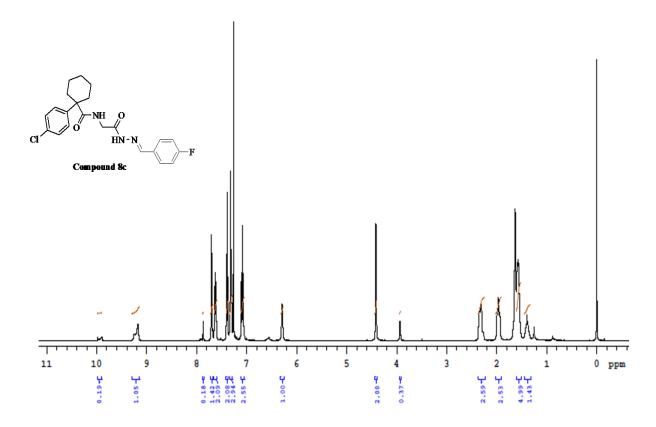


Figure S25: ¹H NMR spectrum of compound 8c

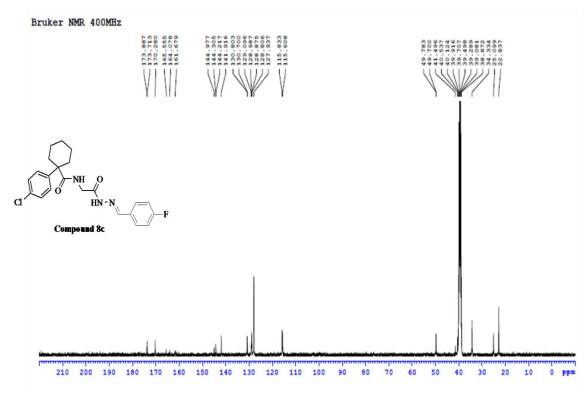


Figure S26:¹³C NMR spectrum of compound **8c** © 2025 ACG Publications. All rights reserved.

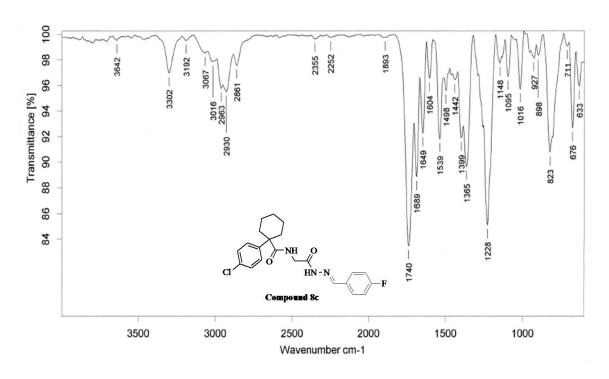


Figure S27: FT-IR spectrum of compound 8c

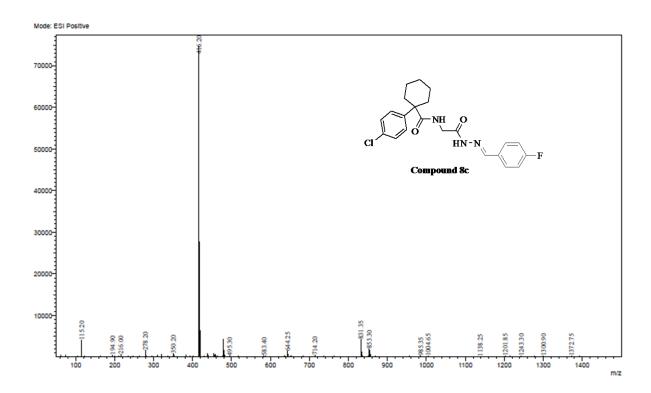


Figure S28: ESI-MS spectrum of compound 8c

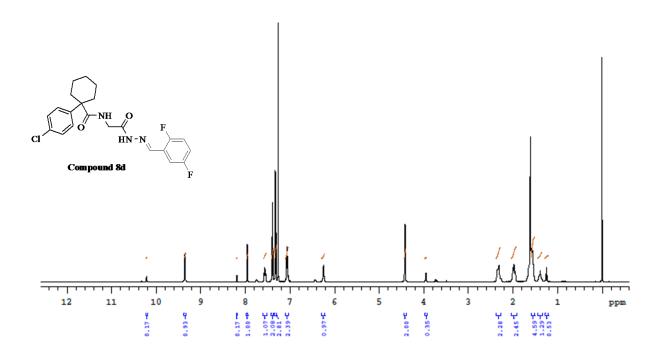


Figure S29:1H NMR spectrum of compound 8d

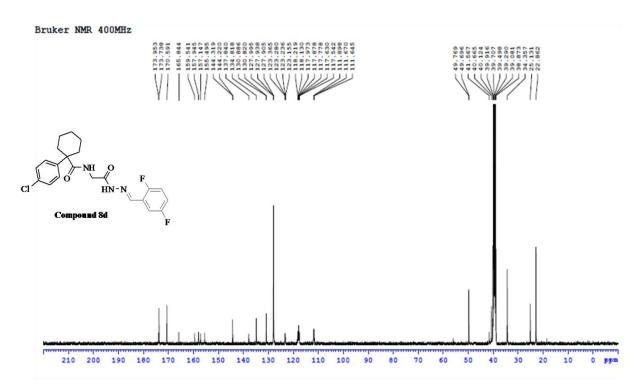


Figure S30:¹³C NMR spectrum of compound 8d

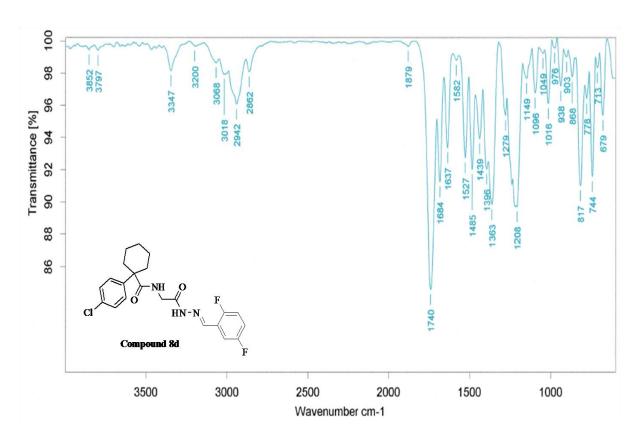


Figure S31: FT-IR spectrum of compound 8d

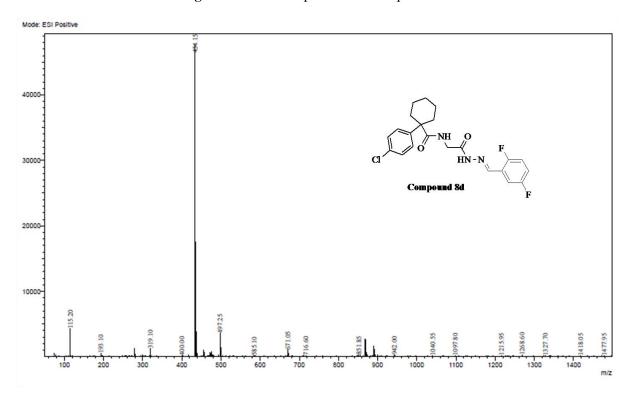


Figure S32: ESI-MS spectrum of compound 8d

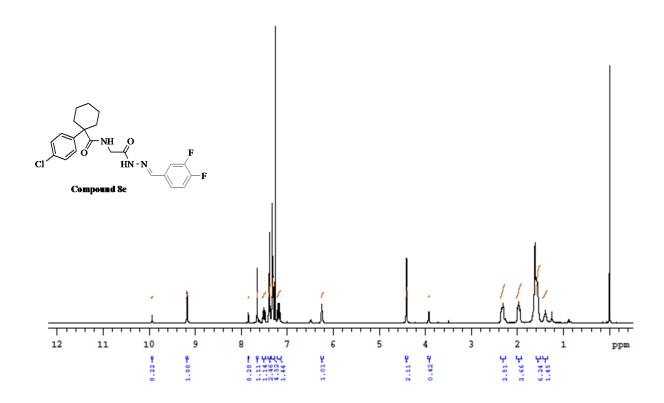


Figure \$33:1H NMR spectrum of compound 8e

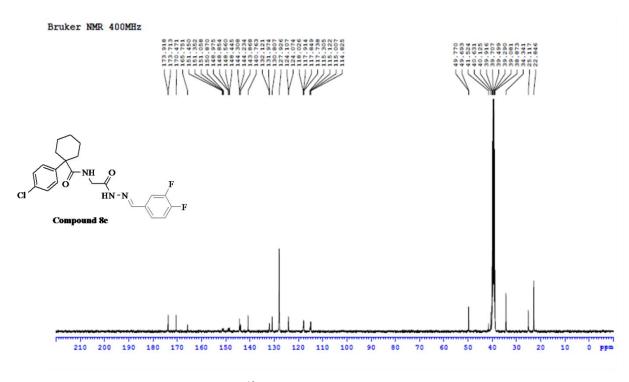


Figure S34:¹³C NMR spectrum of compound 8e

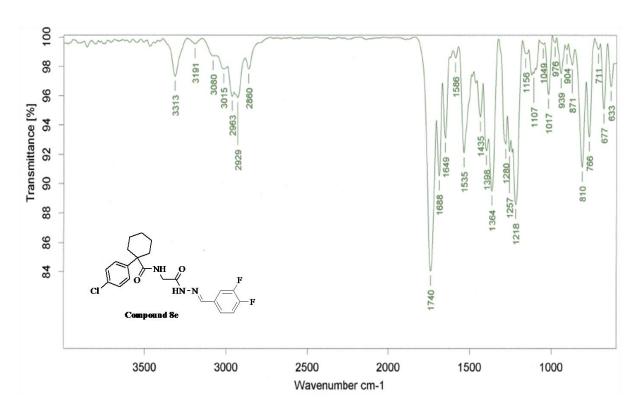


Figure S35: FT-IR spectrum of compound 8e

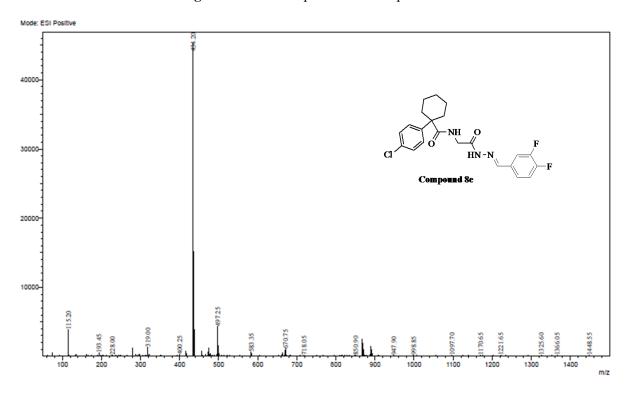


Figure S36: ESI-MS spectrum of compound 8e

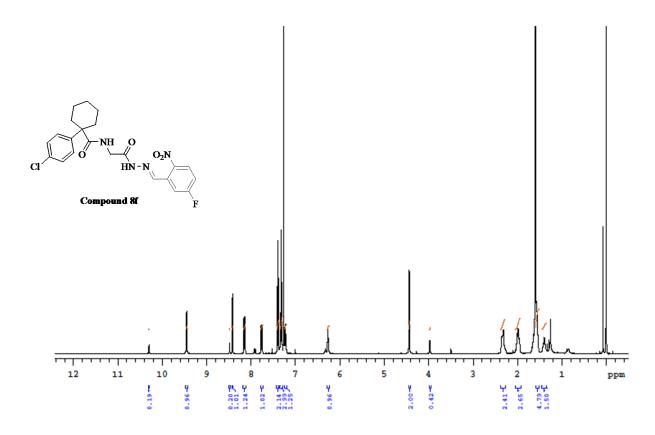


Figure S37: 1H NMR spectrum of compound 8f

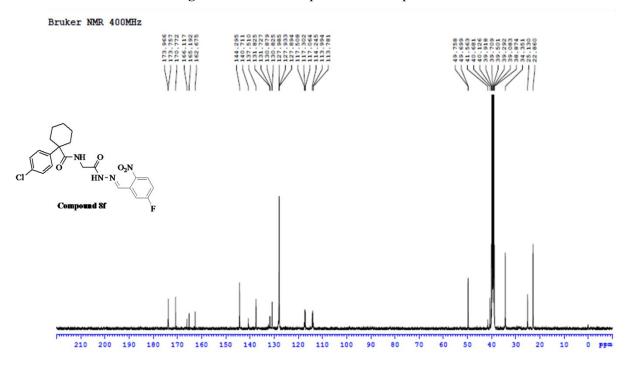


Figure \$38:13C NMR spectrum of compound 8f

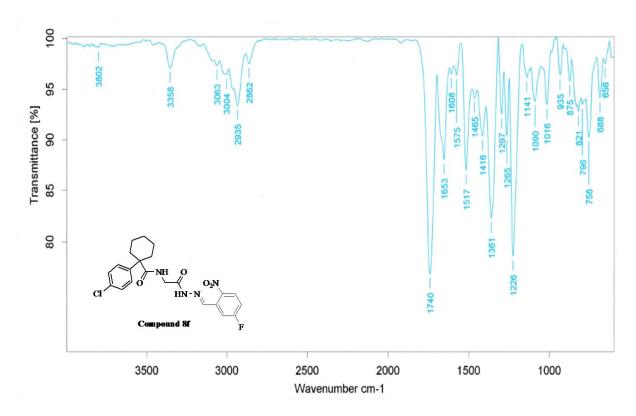


Figure S39: FT-IR spectrum of compound 8f

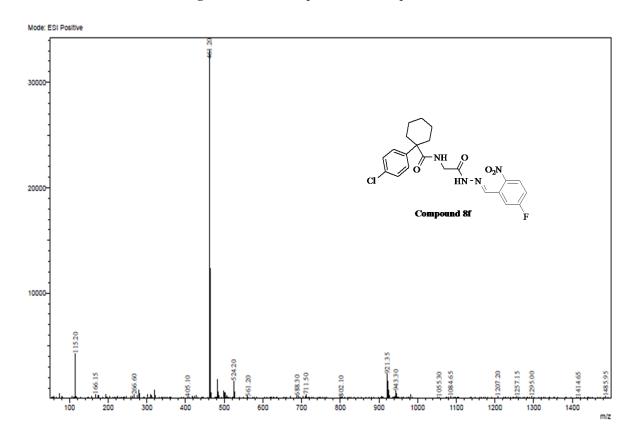


Figure 40: ESI-MS spectrum of compound 8f

Analytical Spectra's of Compound 8g

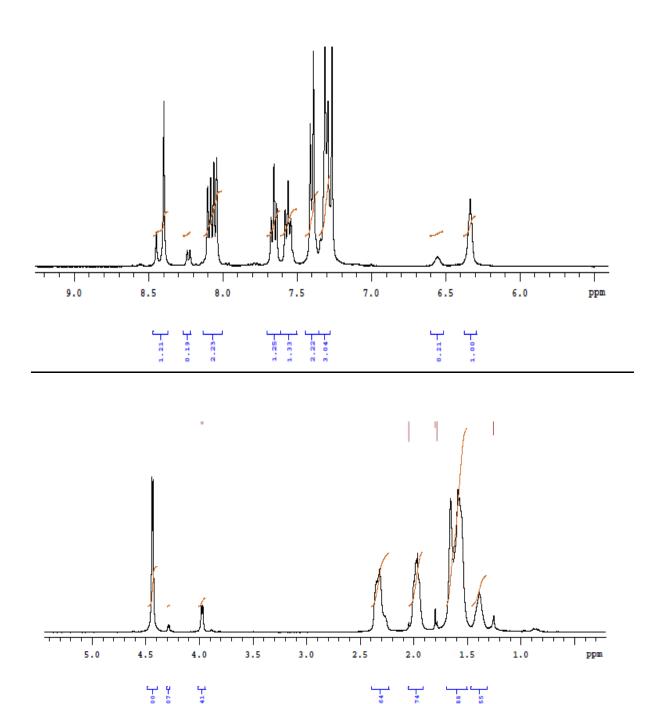


Figure S41: H NMR spectrum of compound 8g

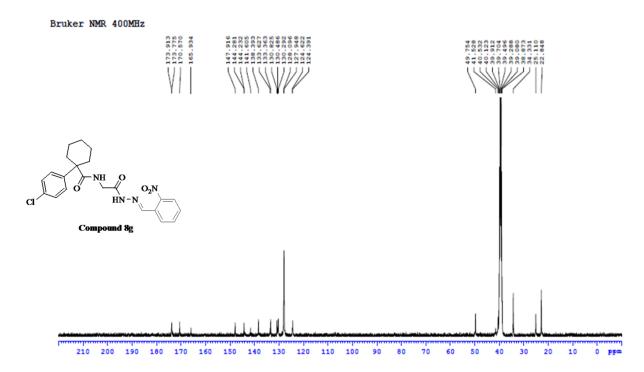


Figure S42:¹³C NMR spectrum of compound 8g

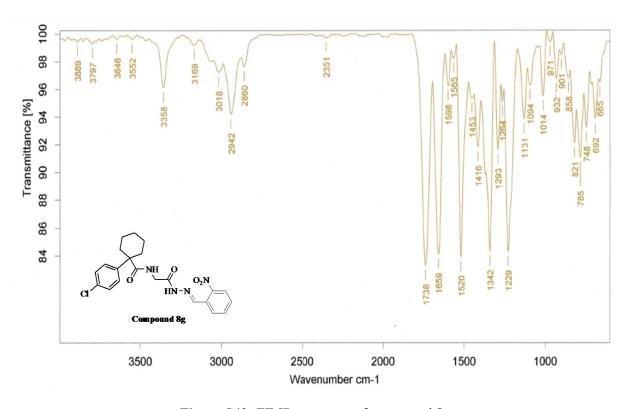


Figure \$43: FT-IR spectrum of compound 8g

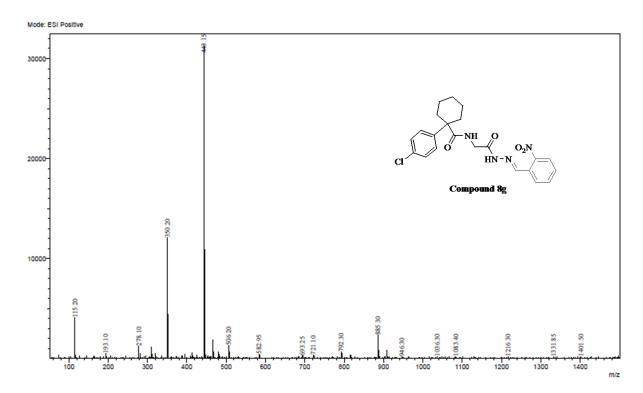


Figure S44: ESI-MS spectrum of compound 8g

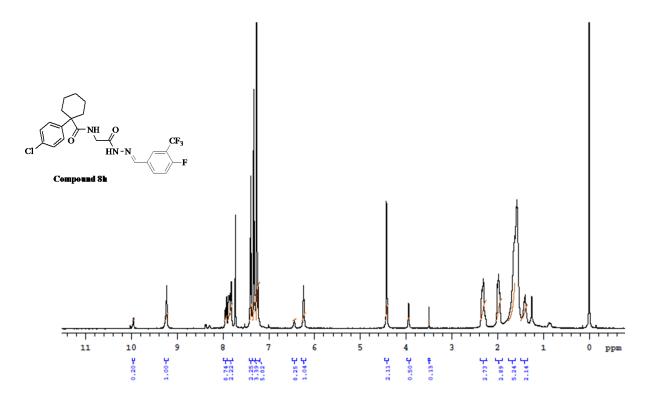


Figure S45:1H NMR spectrum of compound 8h

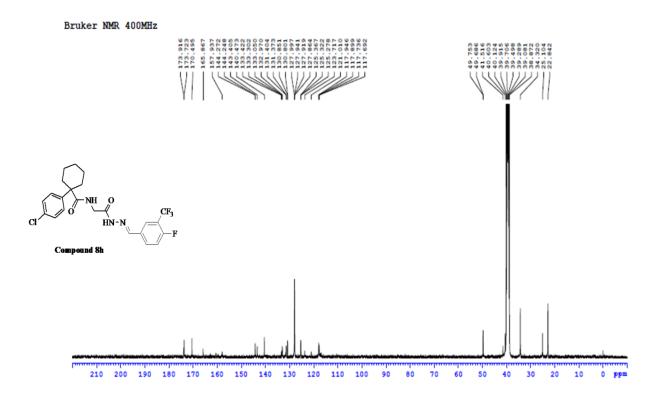


Figure S46:¹³C NMR spectrum of compound 8h

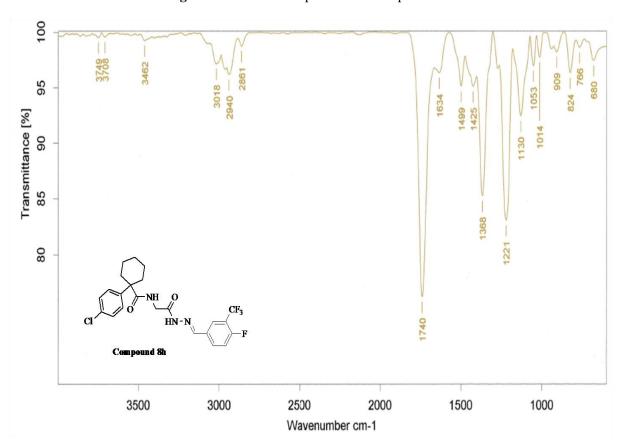


Figure S47: FT-IR spectrum of compound 8h

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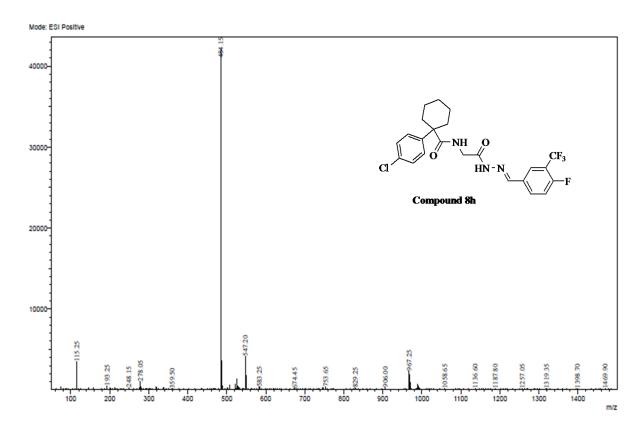


Figure S48: ESI-MS spectrum of compound 8h

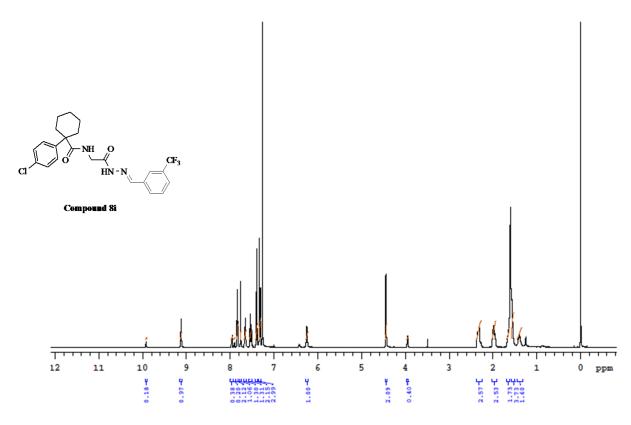


Figure S49:¹H NMR spectrum of compound **8i** © 2025 ACG Publications. All rights reserved.

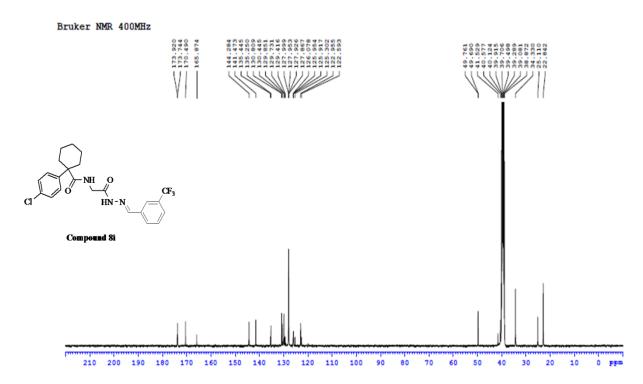


Figure S50:¹³C NMR spectrum of compound 8i

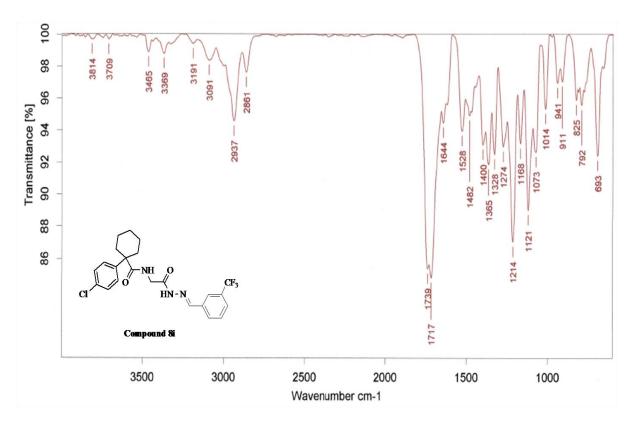


Figure S51: FT-IR spectrum of compound 8i

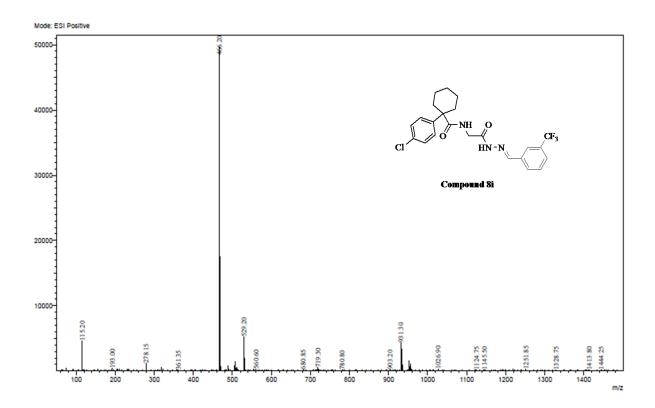


Figure S52: ESI-MS spectrum of compound 8i

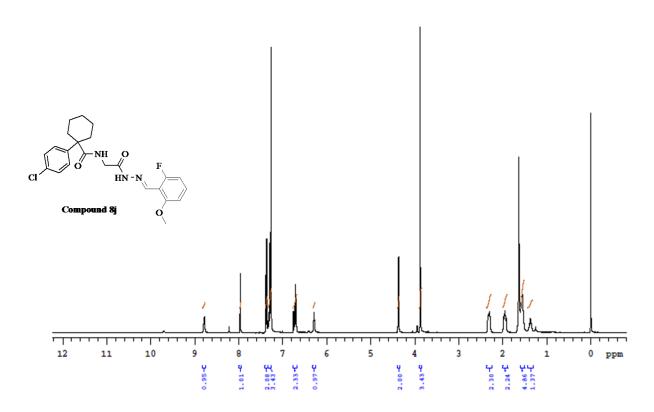


Figure S53:¹H NMR spectrum of compound **8j** © 2025 ACG Publications. All rights reserved.

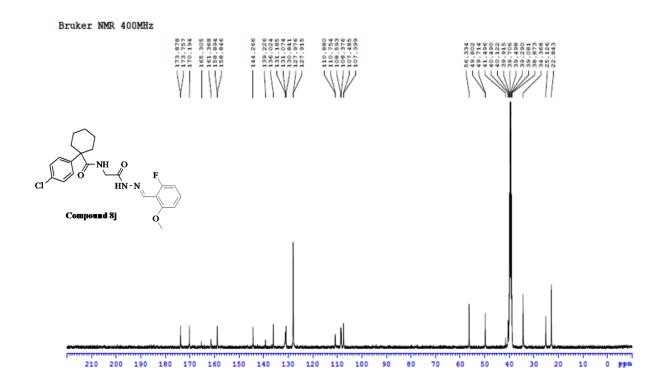


Figure S54:¹³C NMR spectrum of compound 8j

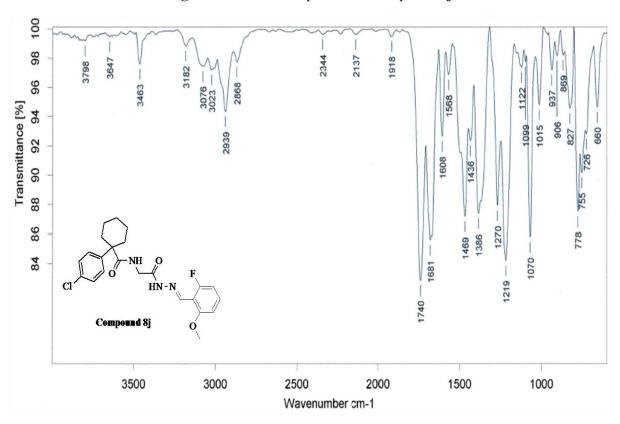


Figure S55: FT-IR spectrum of compound 8j

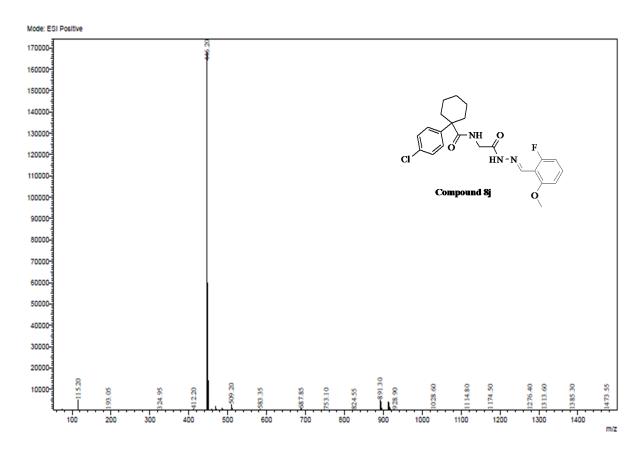


Figure S56: ESI-MS spectrum of compound 8j

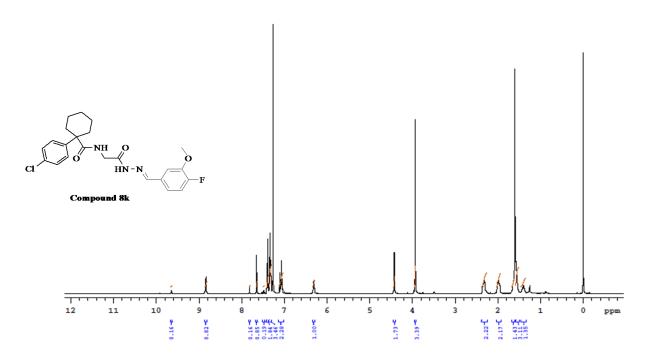


Figure S57: 1H NMR spectrum of compound 8k

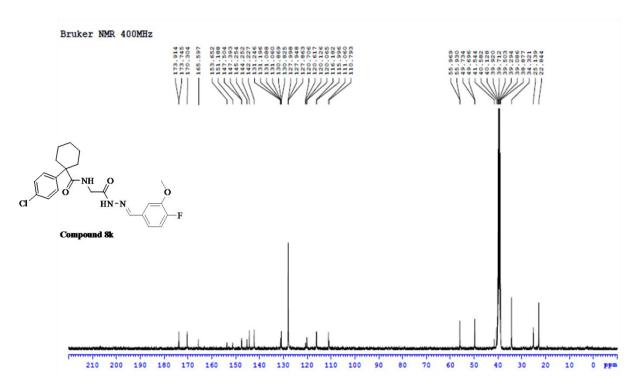


Figure \$58:13C NMR spectrum of compound 8k

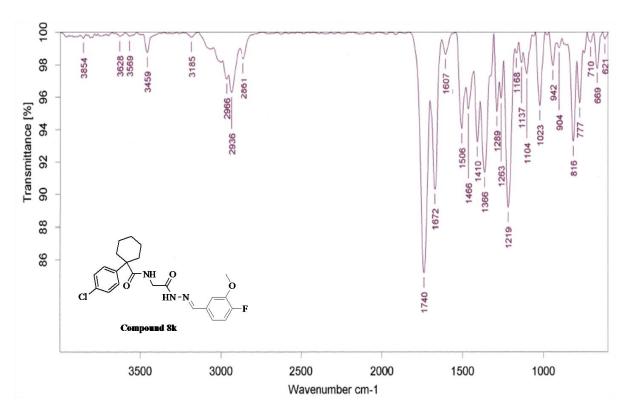


Figure S59: FT-IR spectrum of compound 8k

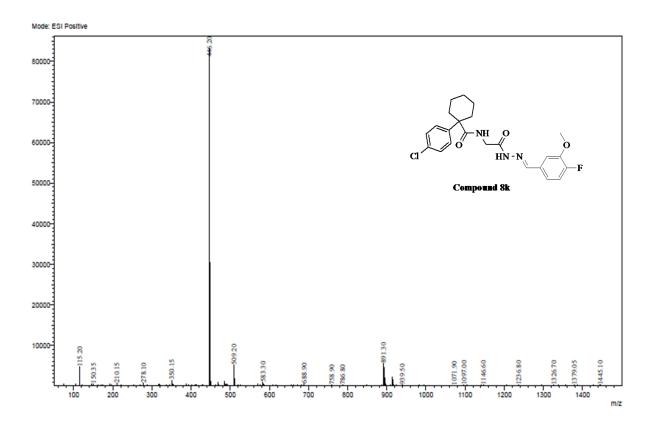


Figure S60: ESI-MS spectrum of compound 8k

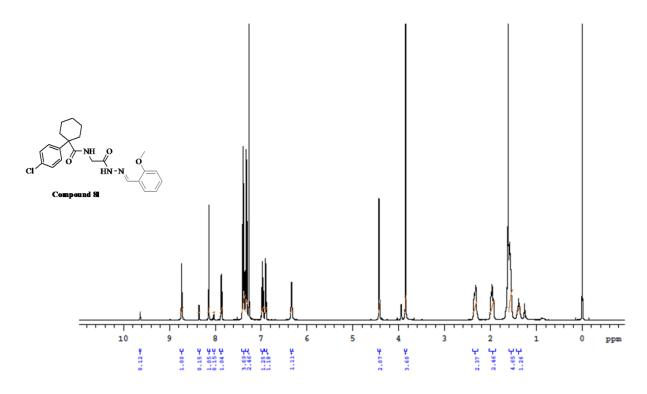


Figure S61: ¹H NMR spectrum of compound 8l

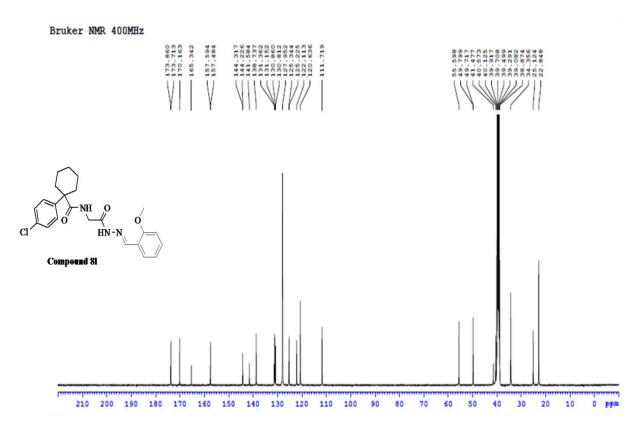


Figure S62:¹³C NMR spectrum of compound 8l

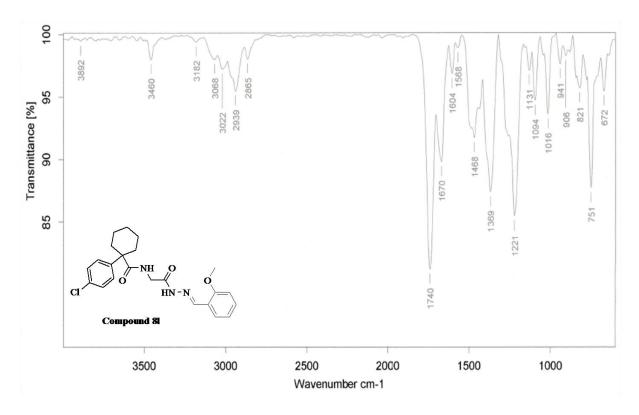


Figure S63: FT-IR spectrum of compound 81

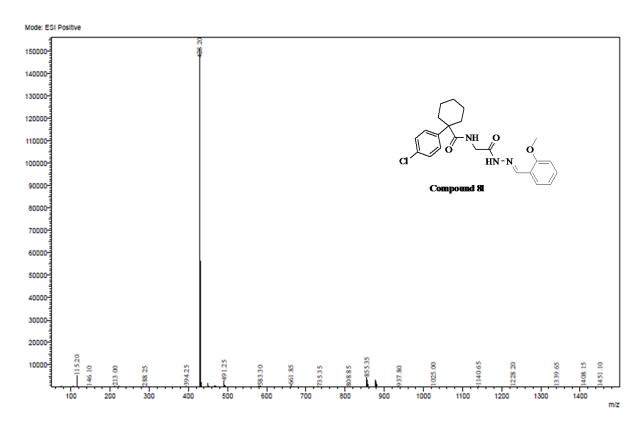


Figure S64: ESI-MS spectrum of compound 81

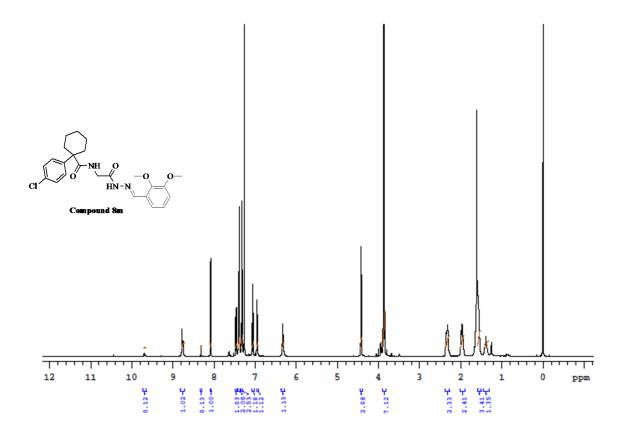


Figure S65: ¹H NMR spectrum of compound 8m

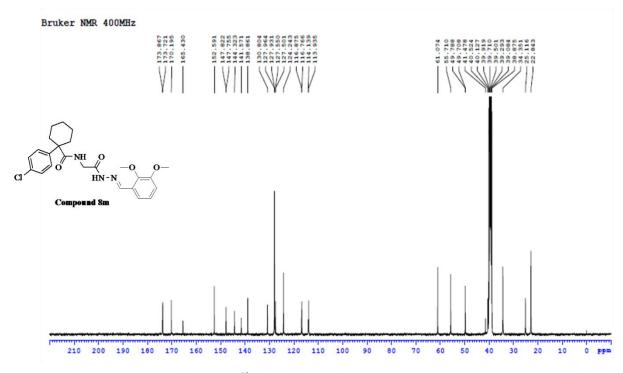


Figure S66:13C NMR spectrum of compound 8m

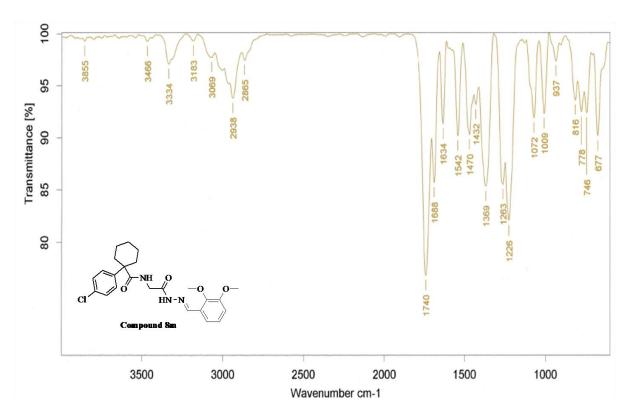


Figure S67: FT-IR spectrum of compound 8m

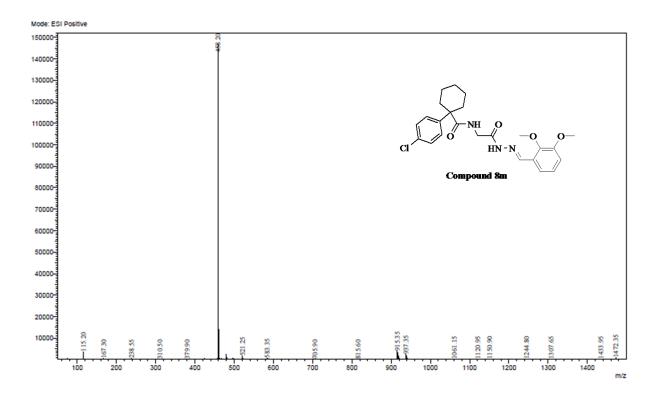


Figure S68: ESI-MS spectrum of compound 8m

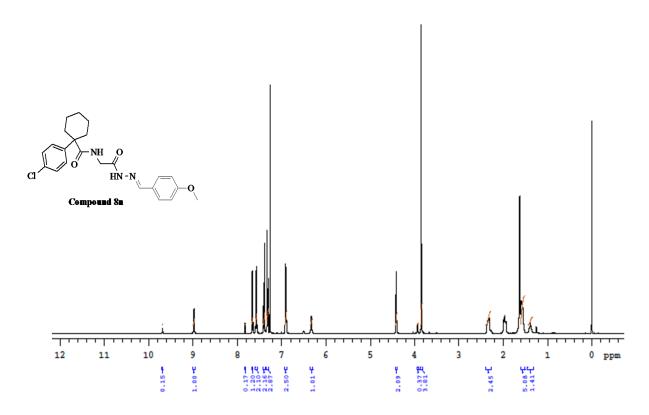


Figure S69: 1H NMR spectrum of compound 8n

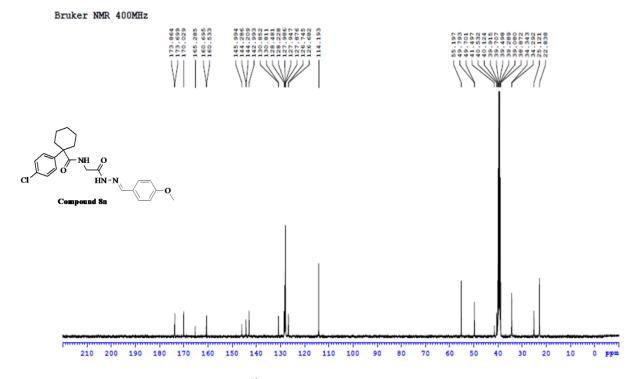


Figure S70:¹³C NMR spectrum of compound 8n

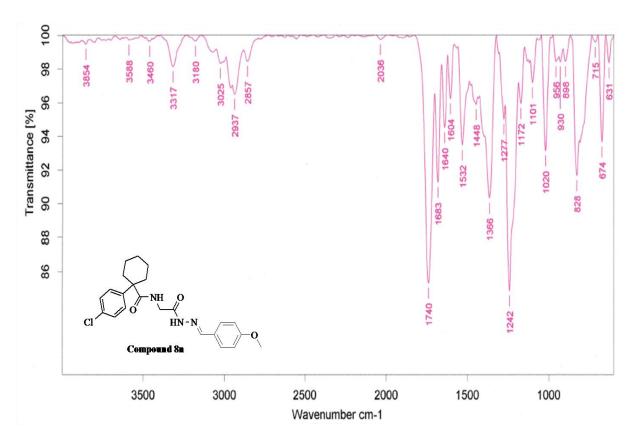


Figure S71: FT-IR spectrum of compound 8n

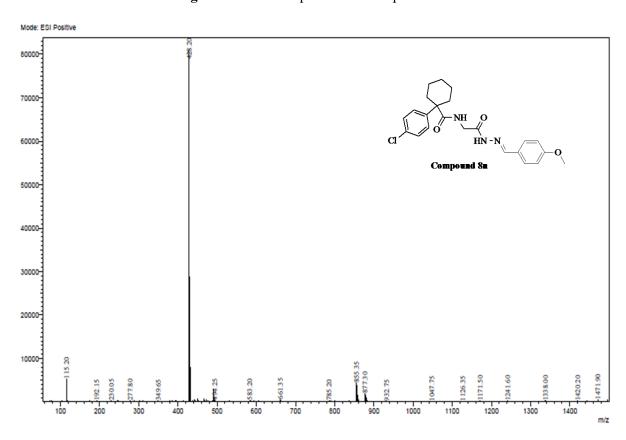


Figure S72: ESI-MS spectrum of compound 8n

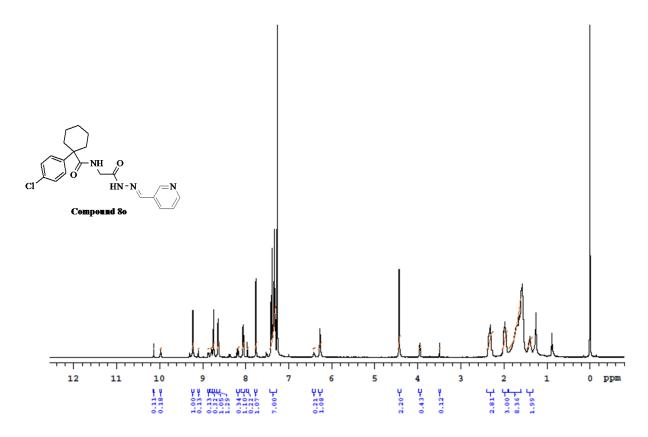


Figure S73: 1 H NMR spectrum of compound 8o

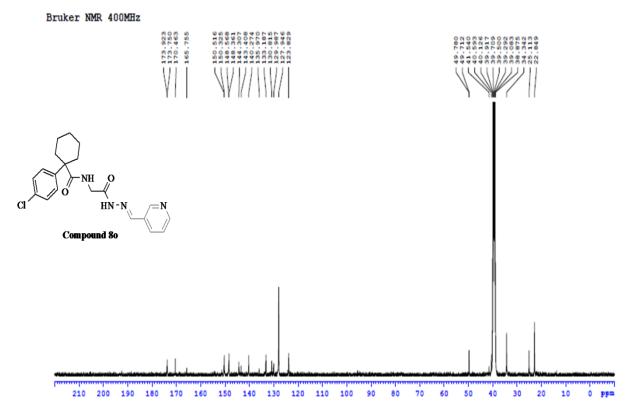


Figure S74:¹³C NMR spectrum of compound 80

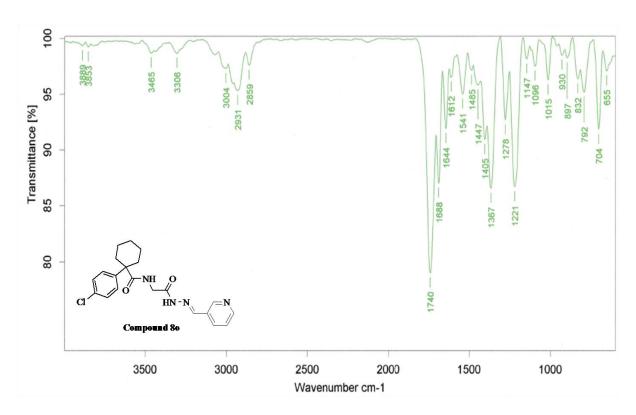


Figure S75: FT-IR spectrum of compound 80

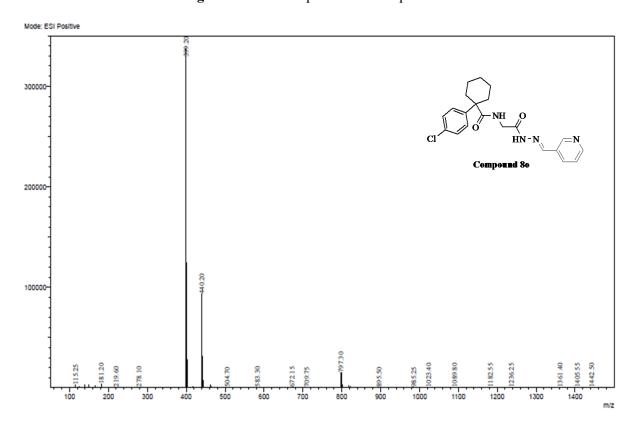


Figure S76: ESI-MS spectrum of compound 80

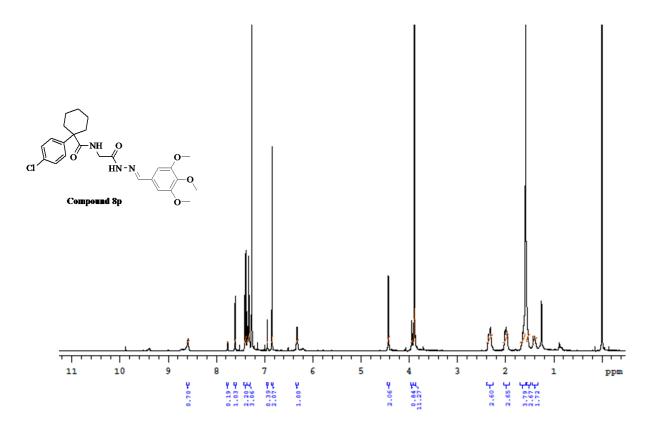


Figure S77: ¹H NMR spectrum of compound 8p

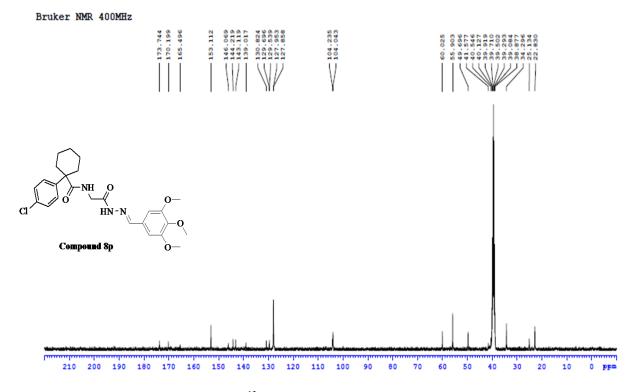


Figure S78: ¹³C NMR spectrum of compound 8p

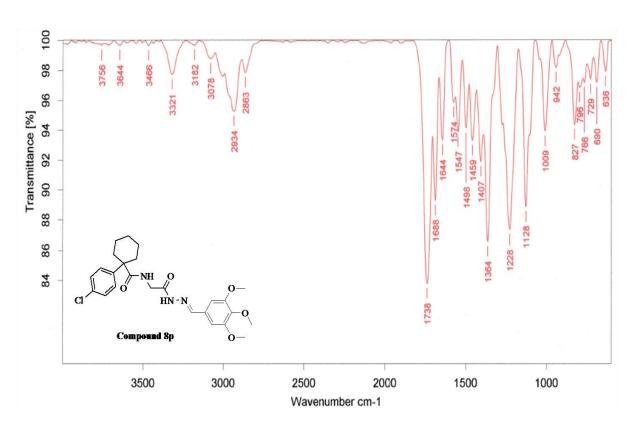


Figure \$79: FT-IR spectrum of compound 8p

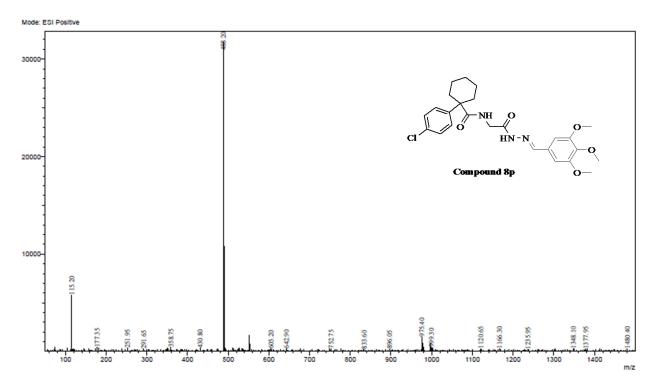


Figure S80: ESI-MS spectrum of compound 8p