

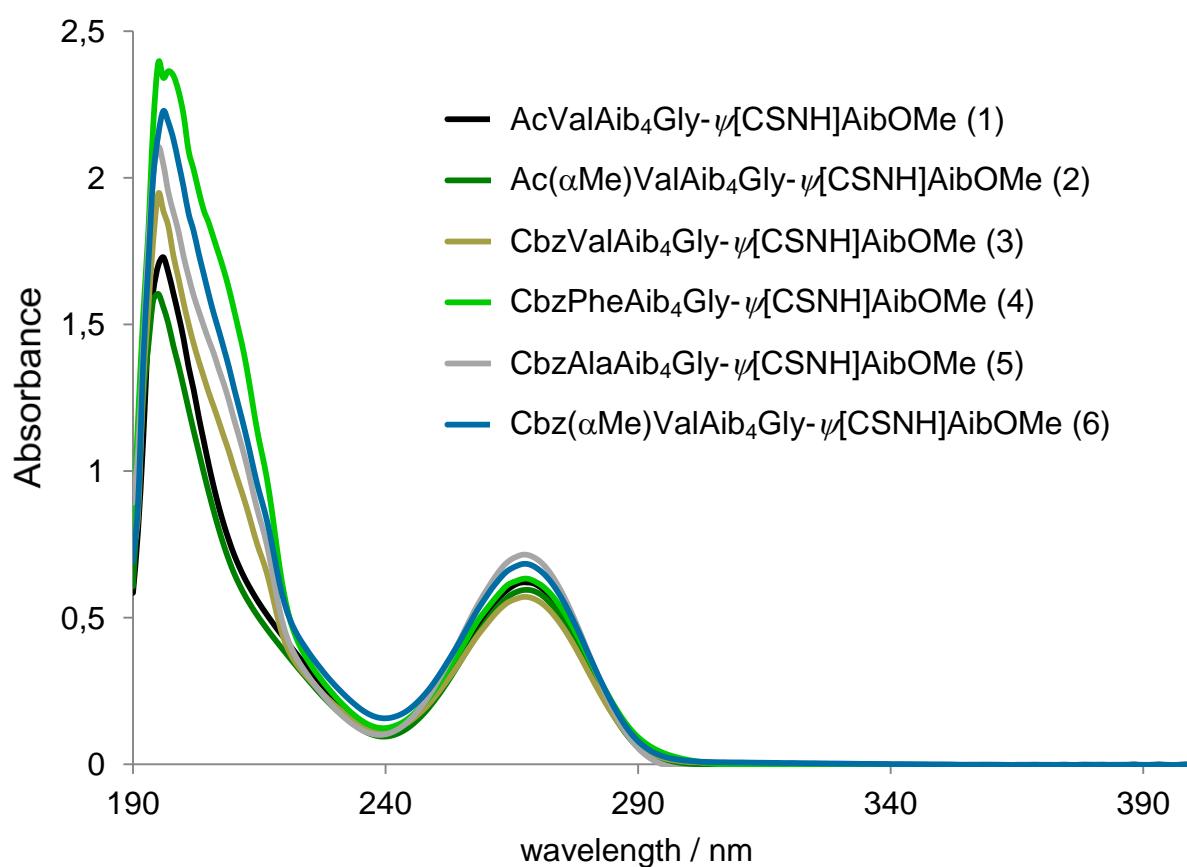
# Thionoglycine as a multifunctional spectroscopic reporter: CD validation of an NMR method for analysing screw-sense preference in helical foldamers

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## Supporting Information

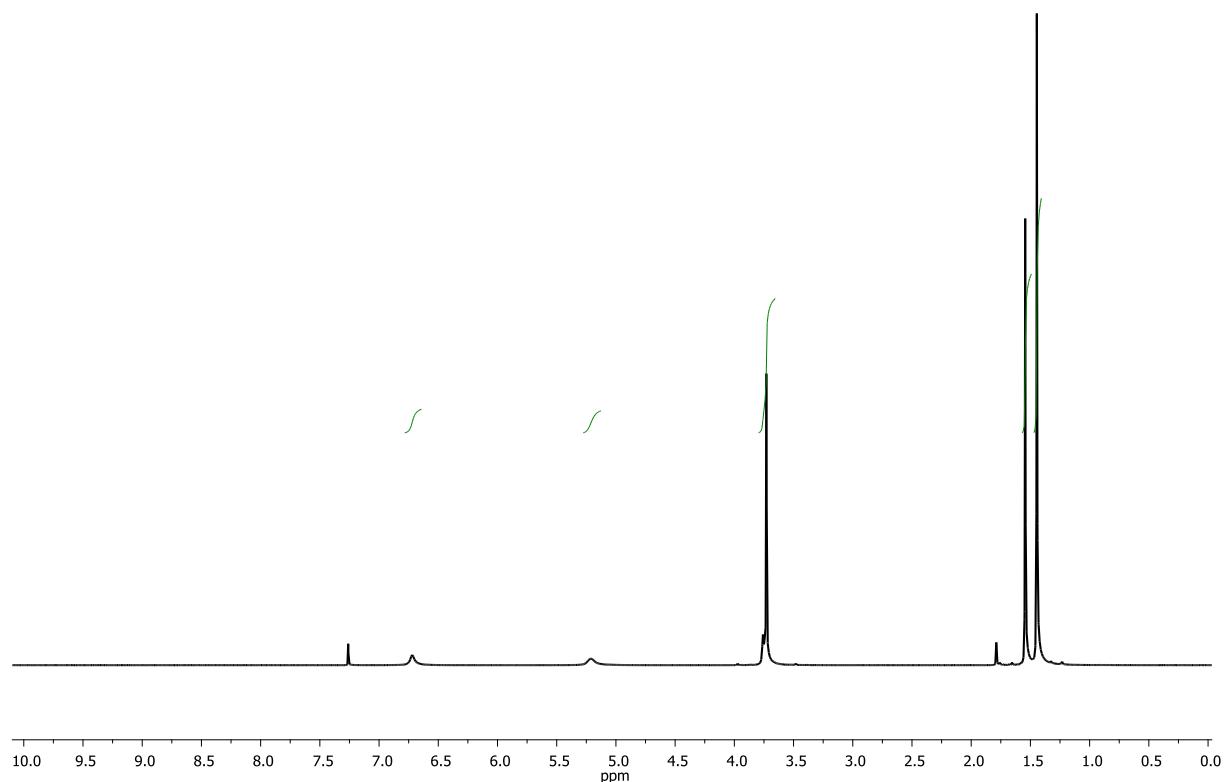
UV spectra of compounds 1-6 in MeOH

concentration  $\sim 6.5 \cdot 10^{-4}$  M

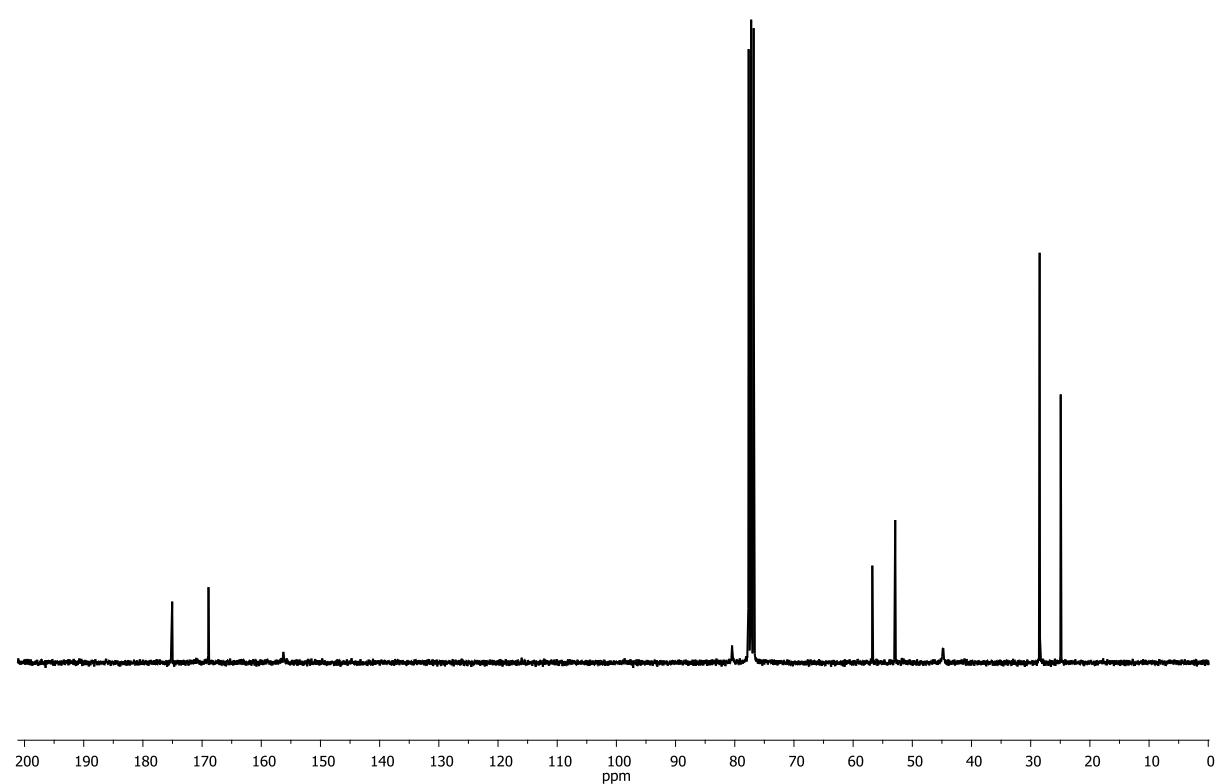


## Copies of NMR spectra

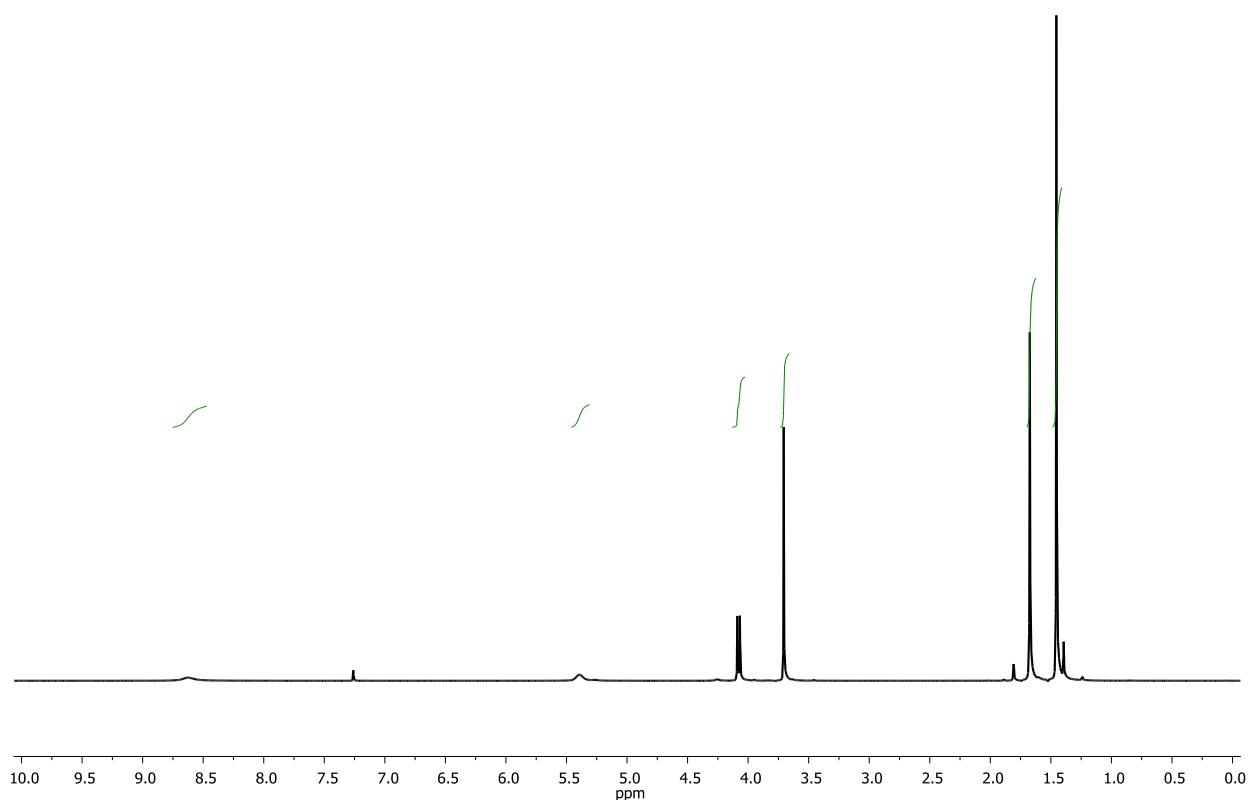
$^1\text{H}$  NMR spectrum of Boc-Gly-Aib-OMe ( $\text{CDCl}_3$ , 300 MHz)



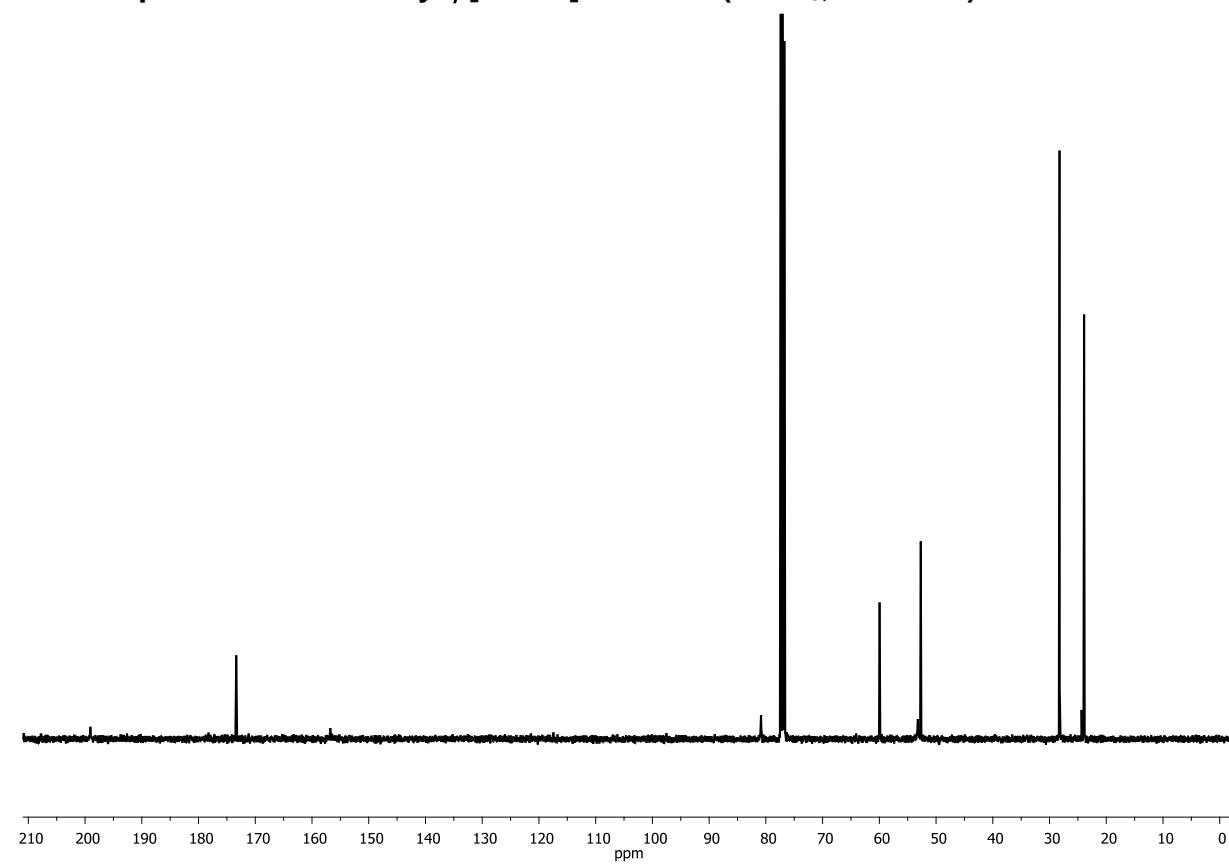
$^{13}\text{C}$  NMR spectrum of Boc-Gly-Aib-OMe ( $\text{CDCl}_3$ , 125 MHz)



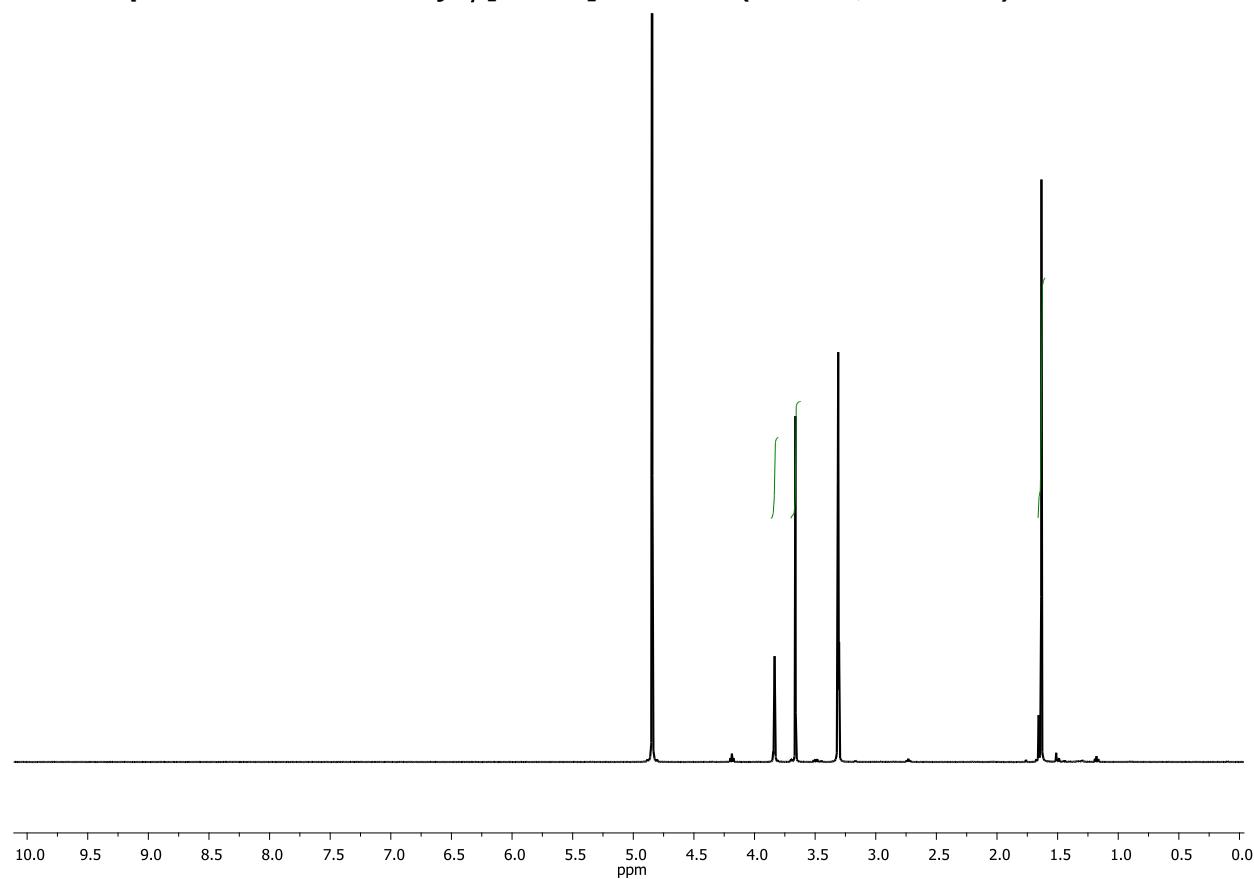
**$^1\text{H}$  NMR spectrum of Boc-Gly- $\gamma$ [CSNH]Aib-OMe ( $\text{CDCl}_3$ , 300 MHz)**



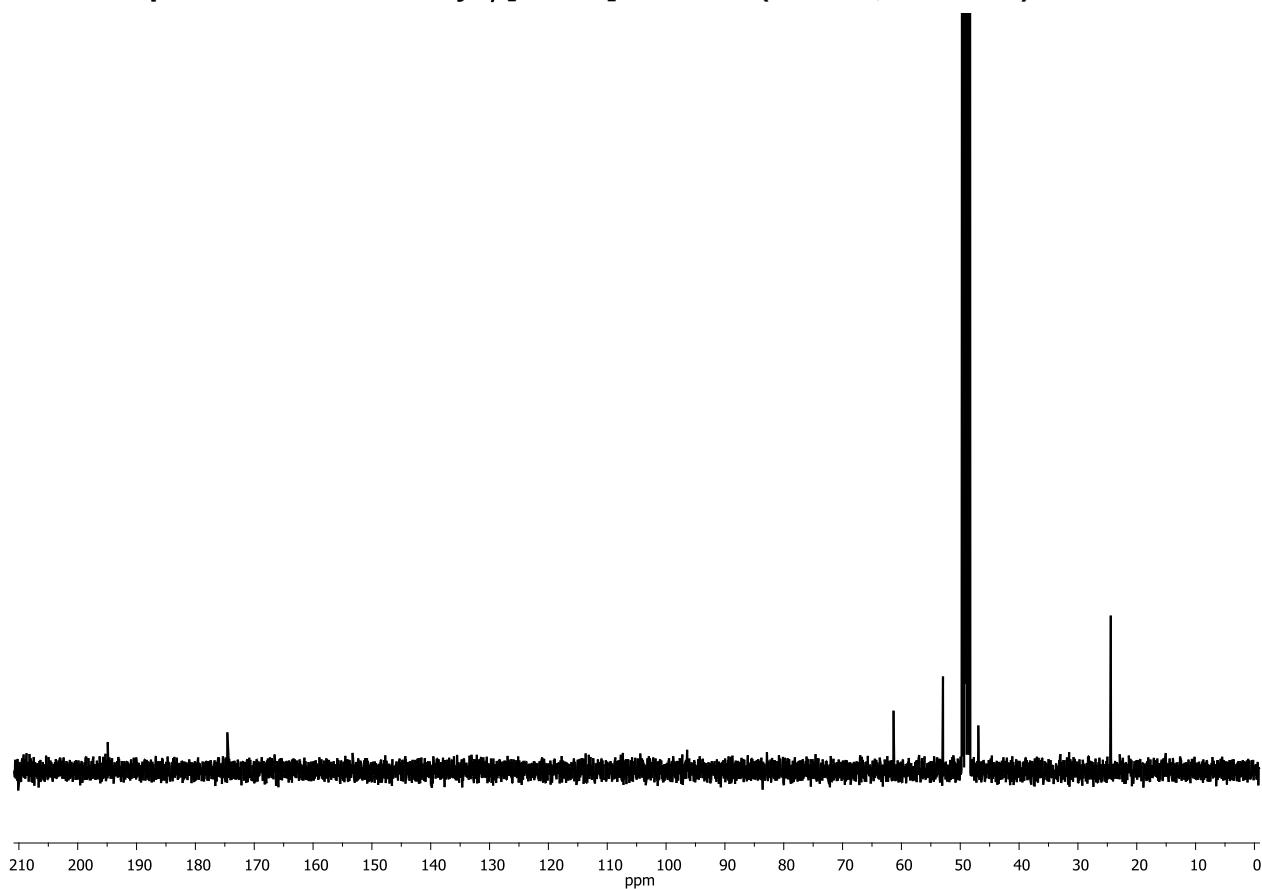
**$^{13}\text{C}$  NMR spectrum of Boc-Gly- $\gamma$ [CSNH]Aib-OMe ( $\text{CDCl}_3$ , 300 MHz)**



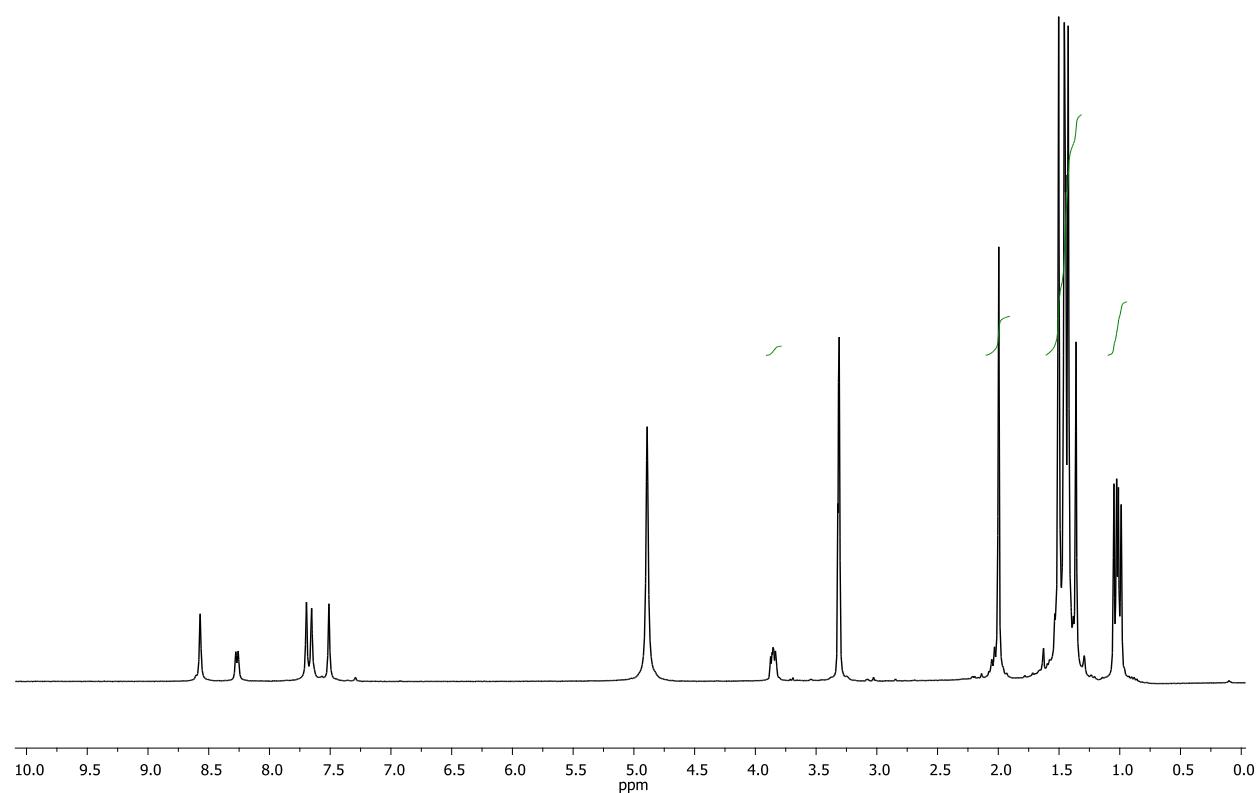
**$^1\text{H}$  NMR spectrum of HCl·H-Gly- $\gamma$ [CSNH]Aib-OMe ( $\text{CD}_3\text{OD}$ , 500 MHz)**



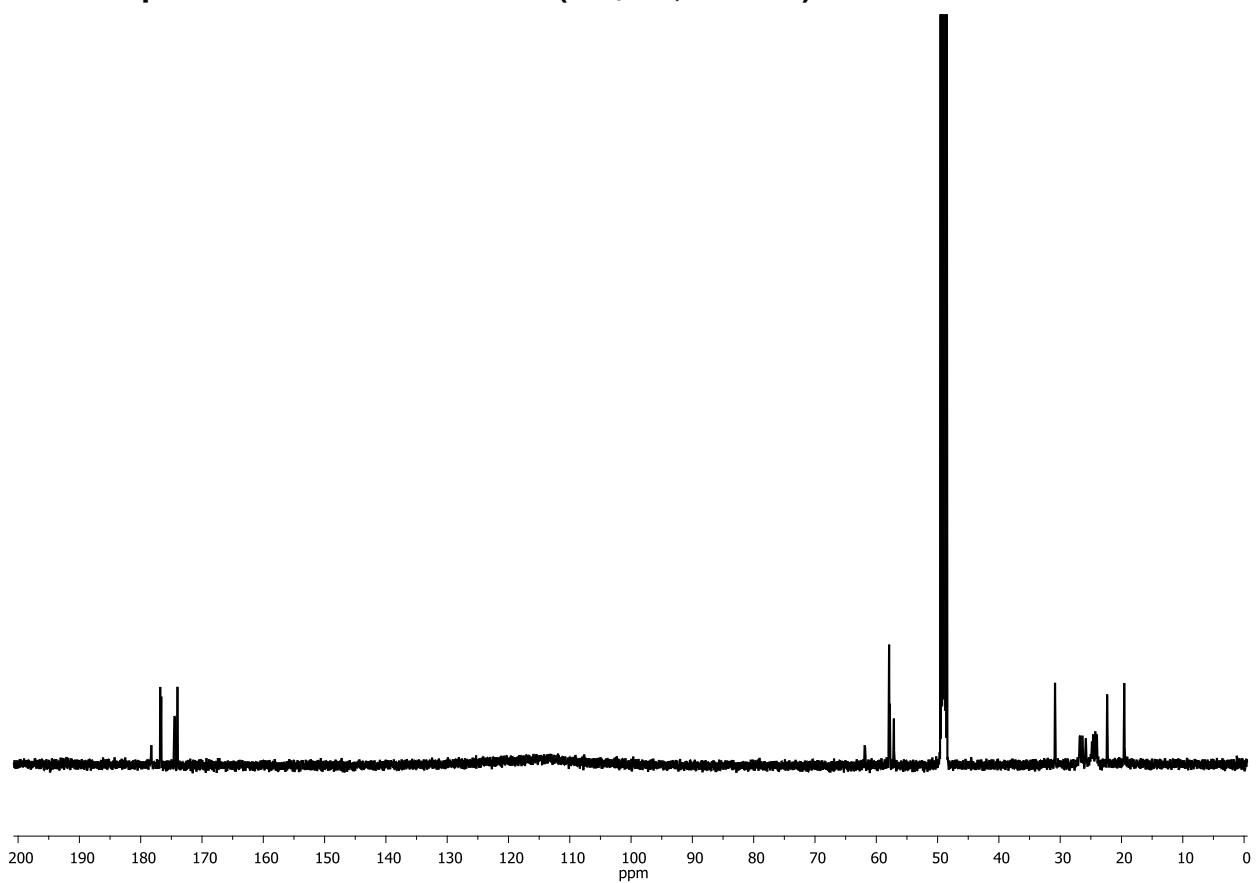
**$^{13}\text{C}$  NMR spectrum of HCl·H-Gly- $\gamma$ [CSNH]Aib-OMe ( $\text{CD}_3\text{OD}$ , 101 MHz)**



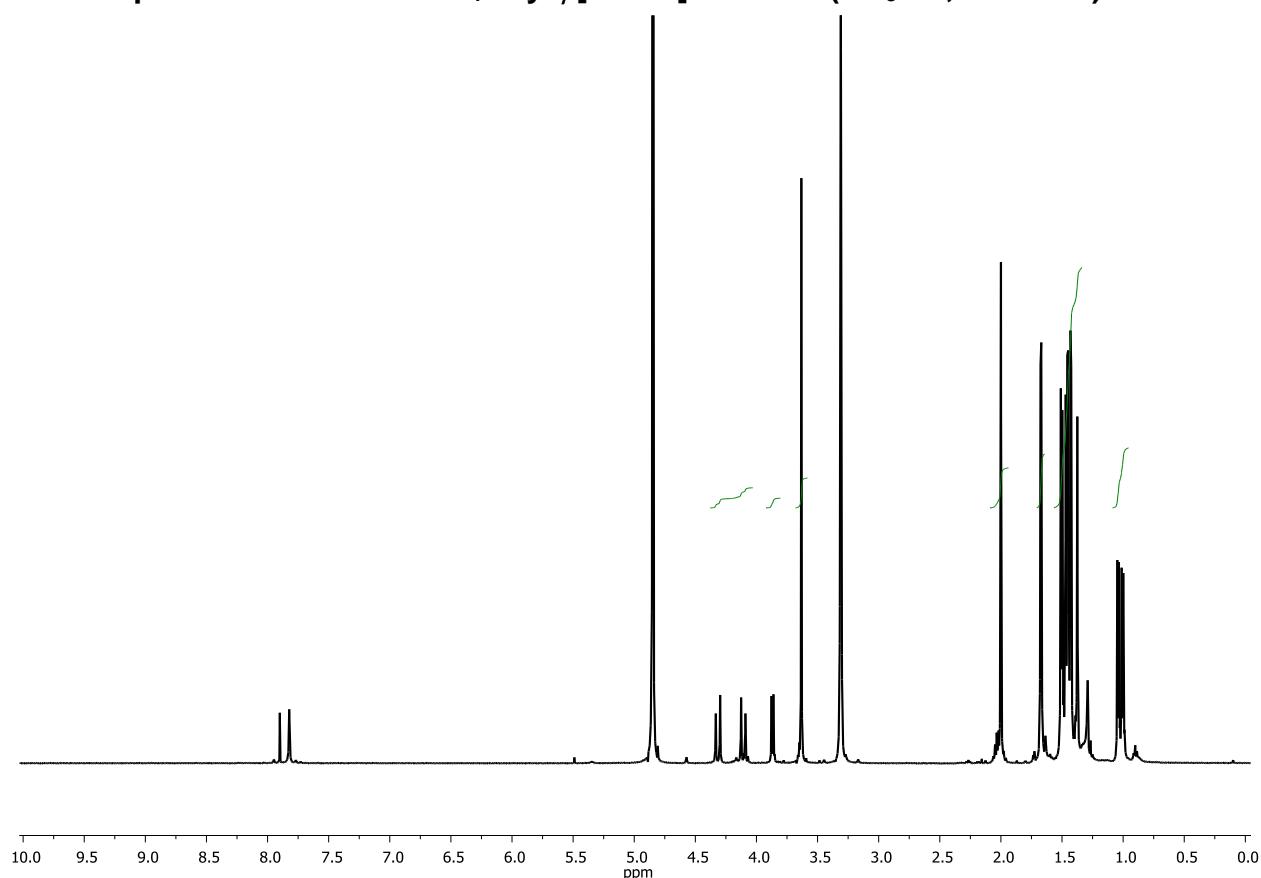
**<sup>1</sup>H NMR spectrum of Ac-Val-Aib<sub>4</sub>-OH (CD<sub>3</sub>OD, 300 MHz)**



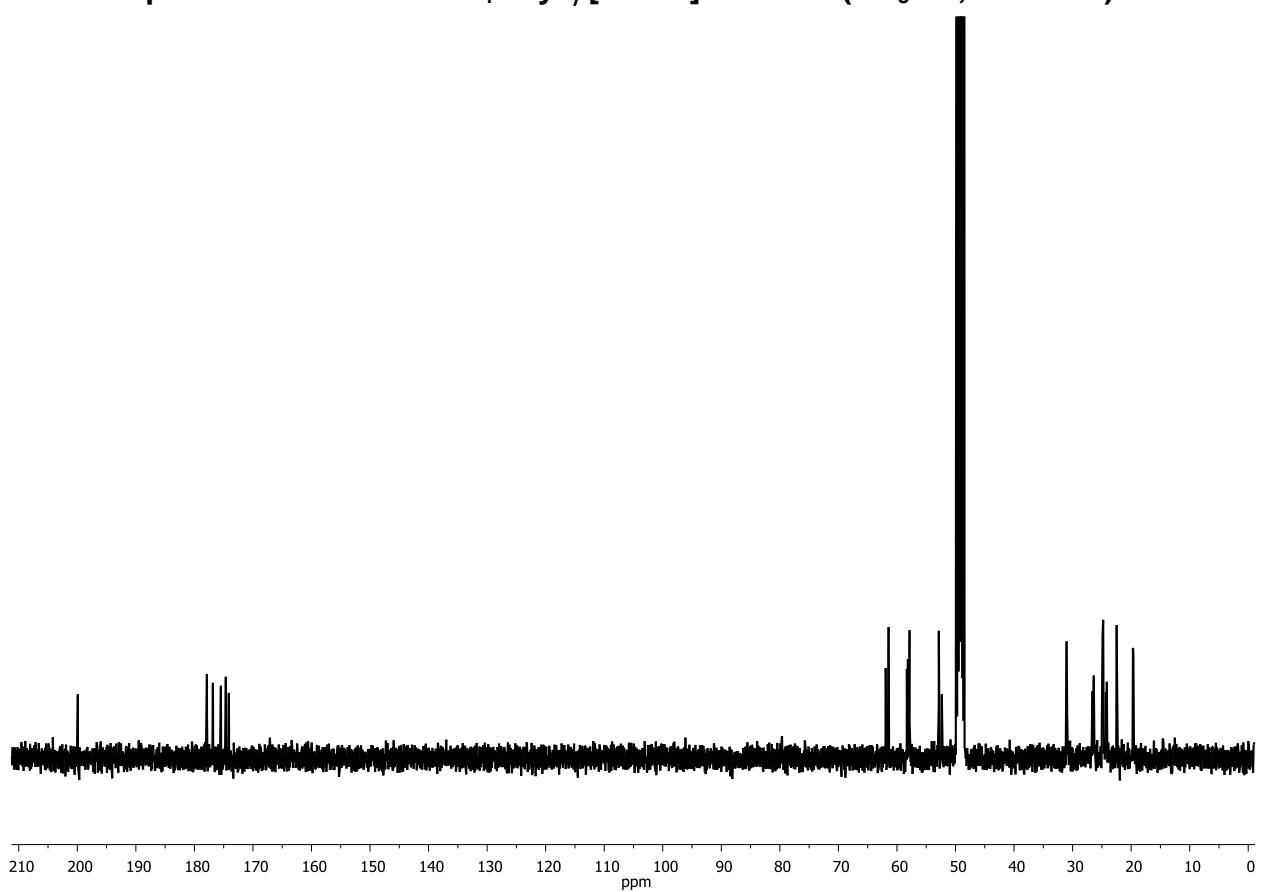
**<sup>13</sup>C NMR spectrum of Ac-Val-Aib<sub>4</sub>-OH (CD<sub>3</sub>OD, 75 MHz)**



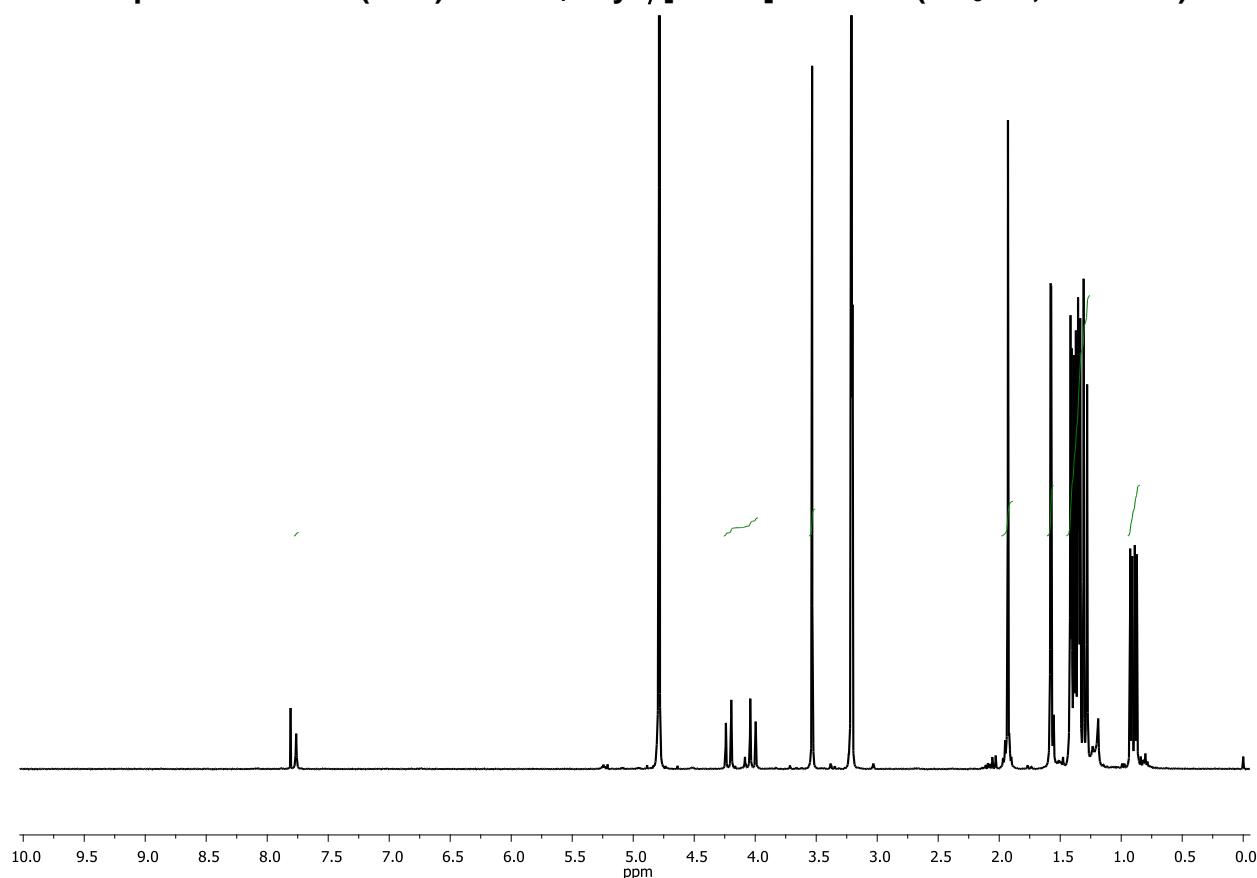
**$^1\text{H}$  NMR spectrum of Ac-Val-Aib<sub>4</sub>-Gly- $\psi$ [CSNH]Aib-OMe (CD<sub>3</sub>OD, 500 MHz)**



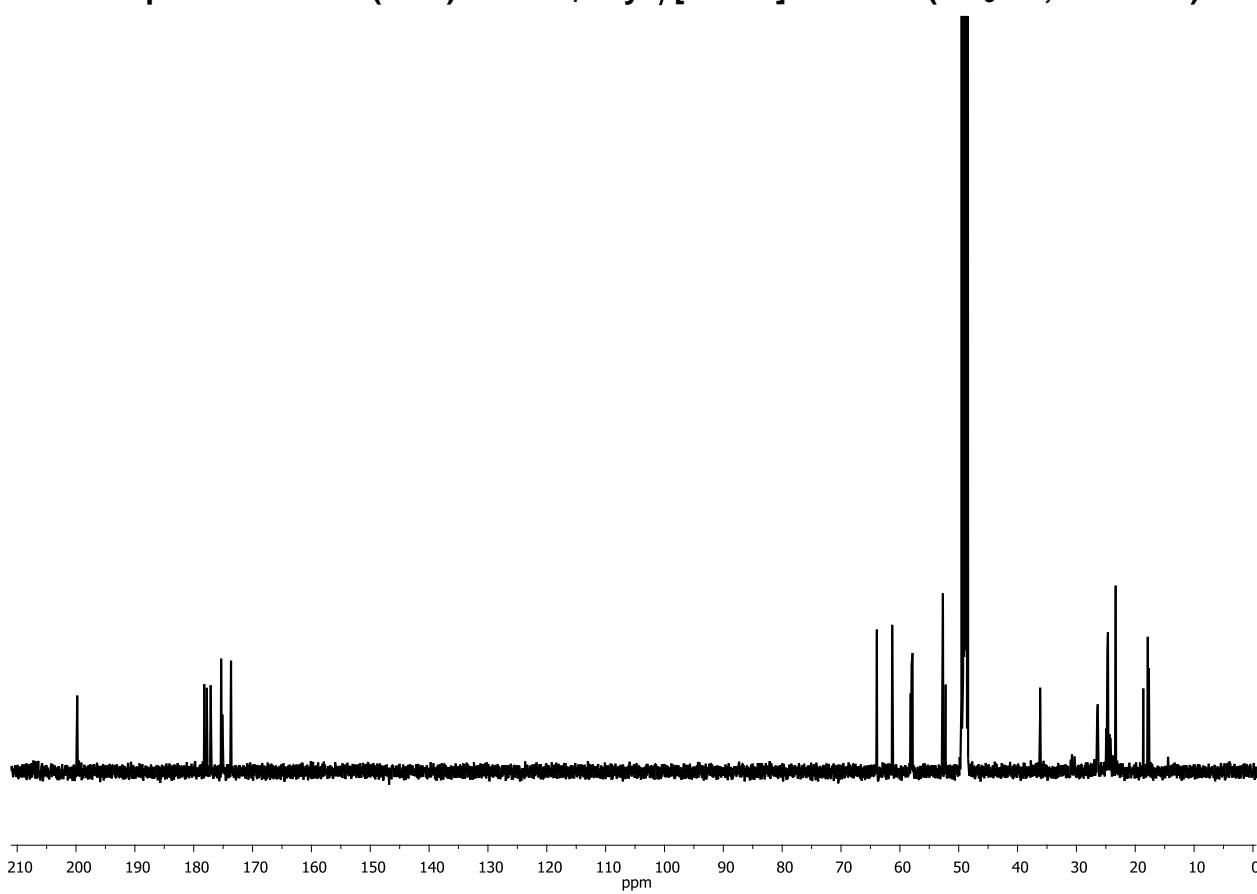
**$^{13}\text{C}$  NMR spectrum of Ac-Val-Aib<sub>4</sub>-Gly- $\psi$ [CSNH]Aib-OMe (CD<sub>3</sub>OD, 125 MHz)**



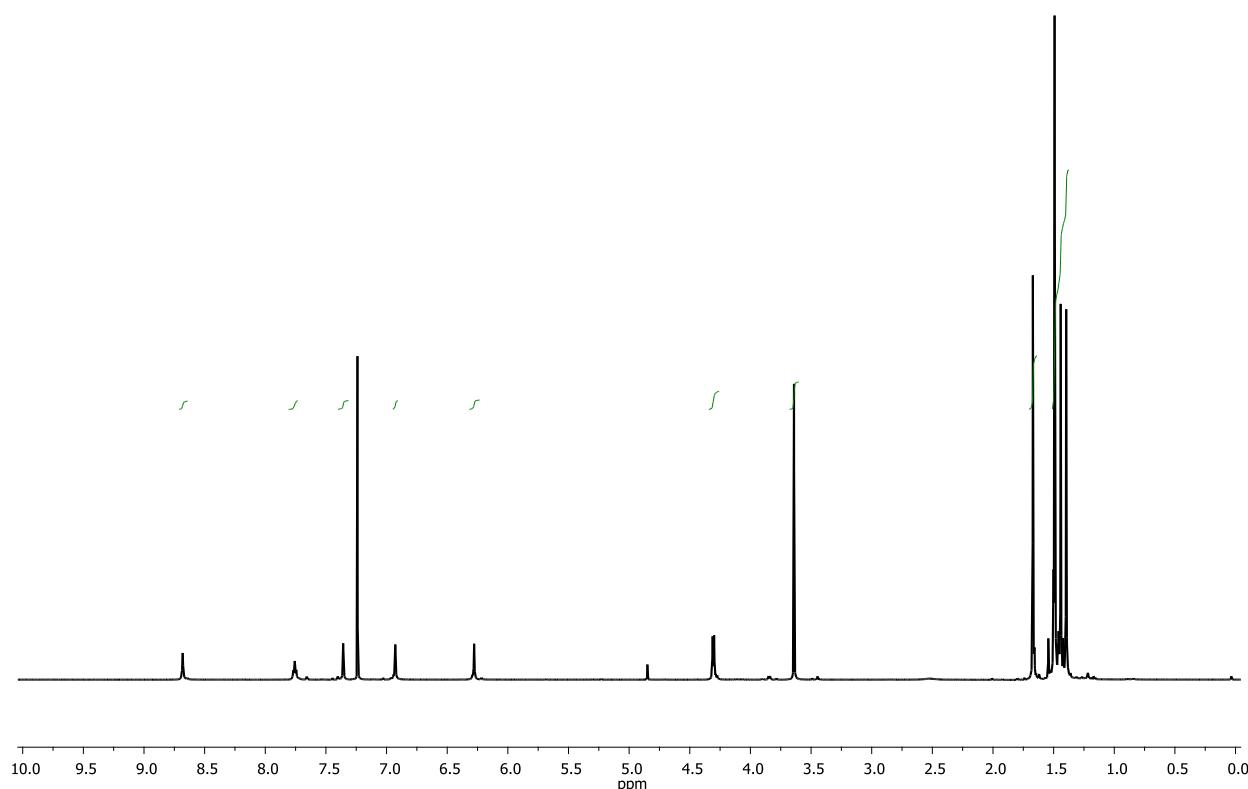
**$^1\text{H}$  NMR spectrum of Ac-( $\alpha\text{Me}$ )Val-Aib<sub>4</sub>-Gly- $\psi$ [CSNH]Aib-OMe (CD<sub>3</sub>OD, 500 MHz)**



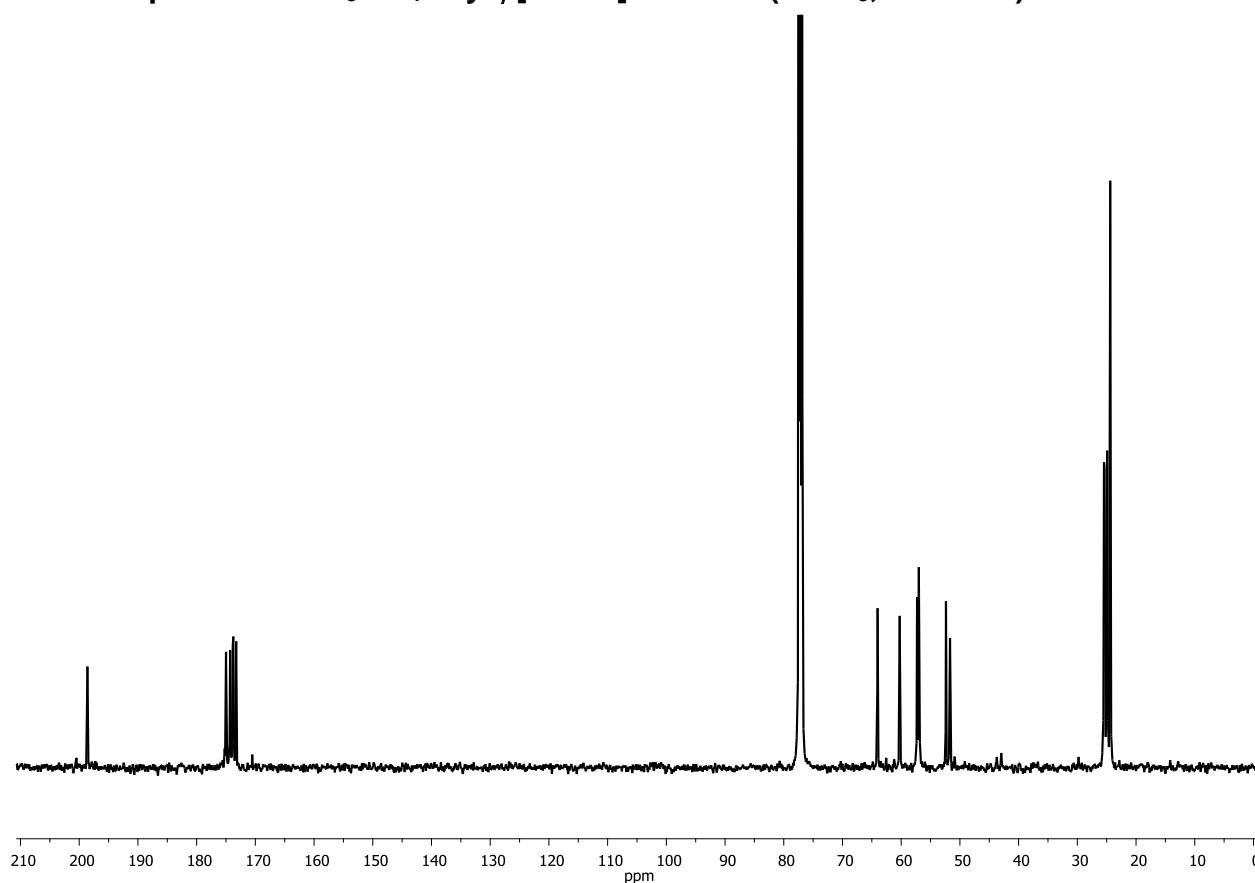
**$^{13}\text{C}$  NMR spectrum of Ac-( $\alpha\text{Me}$ )Val-Aib<sub>4</sub>-Gly- $\psi$ [CSNH]Aib-OMe (CD<sub>3</sub>OD, 125 MHz)**



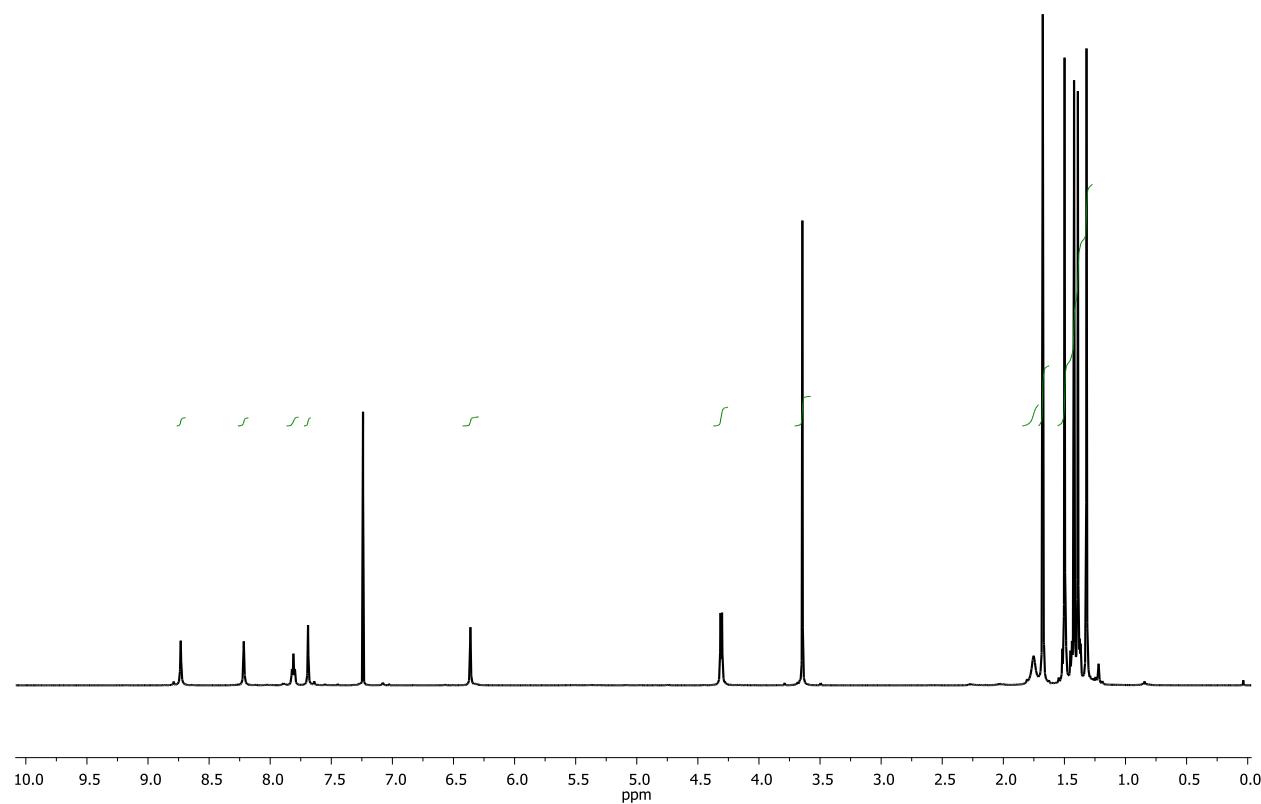
**$^1\text{H}$  NMR spectrum of  $\text{N}_3\text{Aib}_4\text{-Gly-}\psi[\text{CSNH}]\text{Aib-OMe}$  ( $\text{CDCl}_3$ , 500 MHz)**



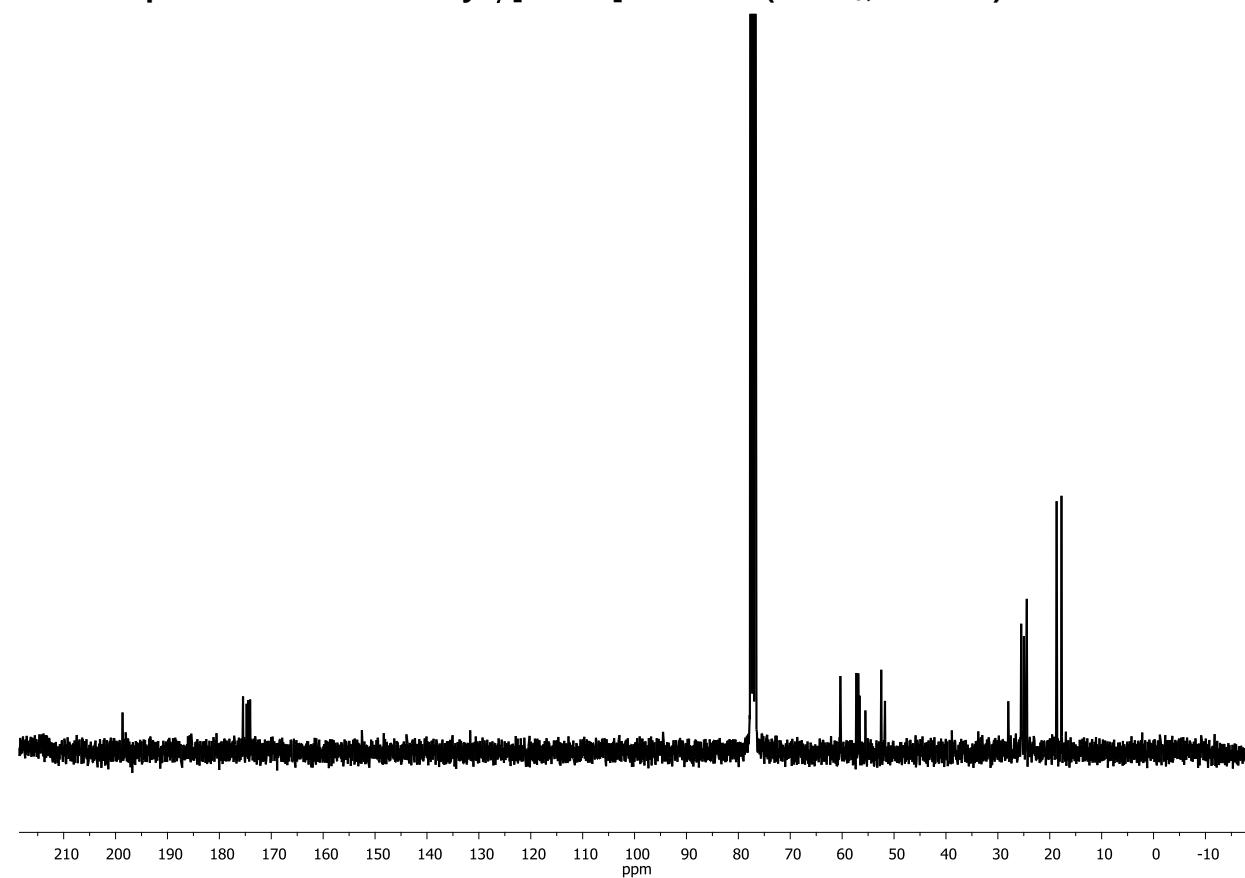
**$^{13}\text{C}$  NMR spectrum of  $\text{N}_3\text{Aib}_4\text{-Gly-}\psi[\text{CSNH}]\text{Aib-OMe}$  ( $\text{CDCl}_3$ , 125 MHz)**



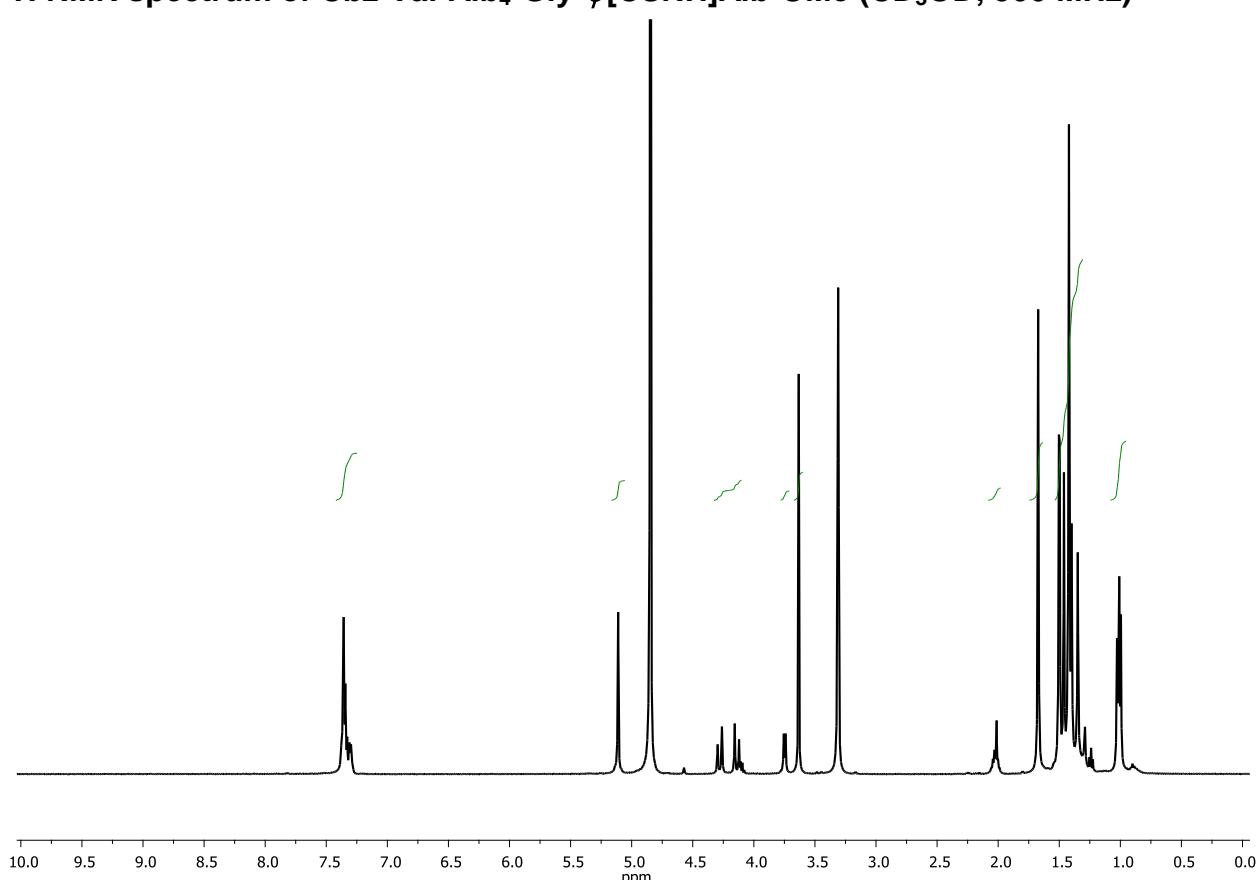
**<sup>1</sup>H NMR spectrum of H-Aib<sub>4</sub>-Gly- $\psi$ [CSNH]Aib-OMe (CDCl<sub>3</sub>, 500 MHz)**



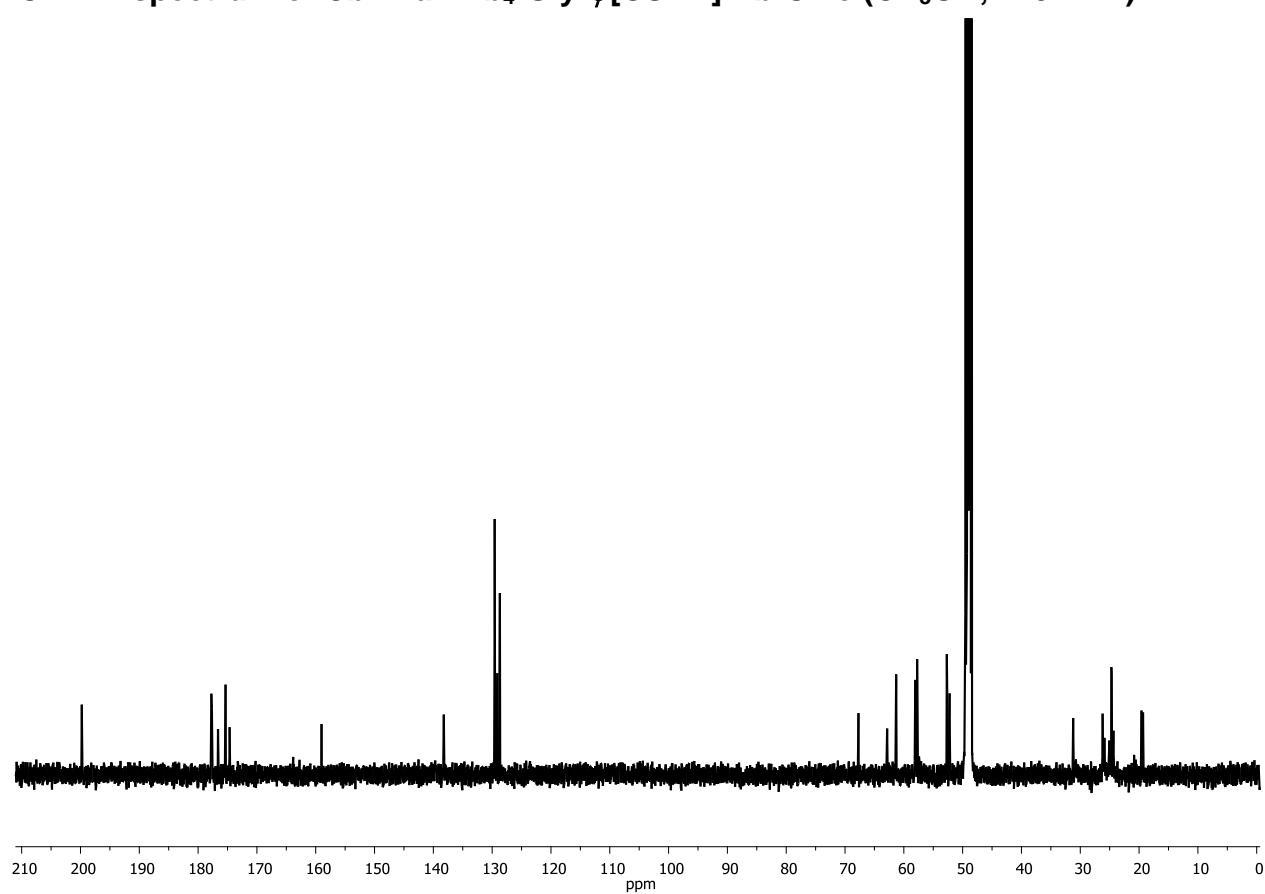
**<sup>13</sup>C NMR spectrum of H-Aib<sub>4</sub>-Gly- $\psi$ [CSNH]Aib-OMe (CDCl<sub>3</sub>, 75 MHz)**



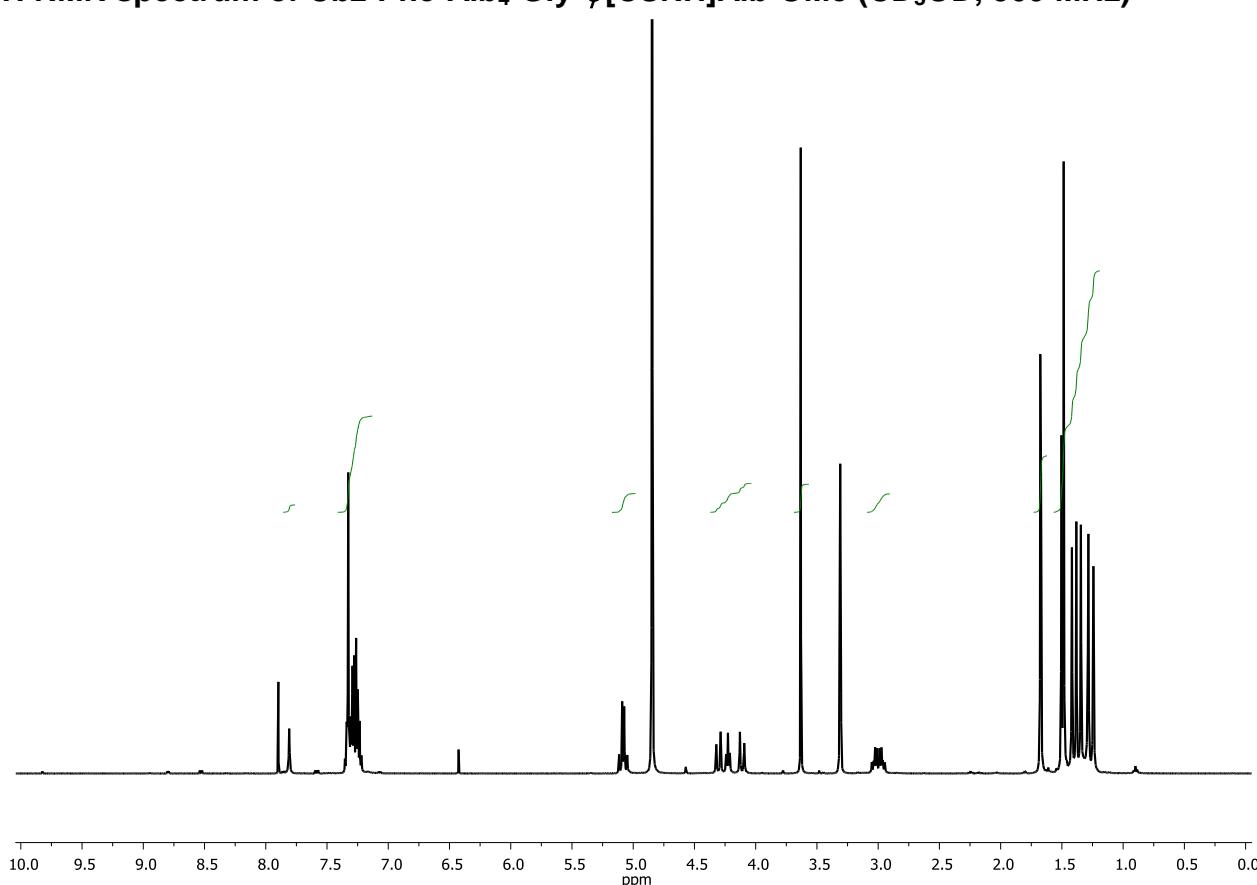
**$^1\text{H}$  NMR spectrum of Cbz-Val-Aib<sub>4</sub>-Gly- $\psi$ [CSNH]Aib-OMe (CD<sub>3</sub>OD, 500 MHz)**



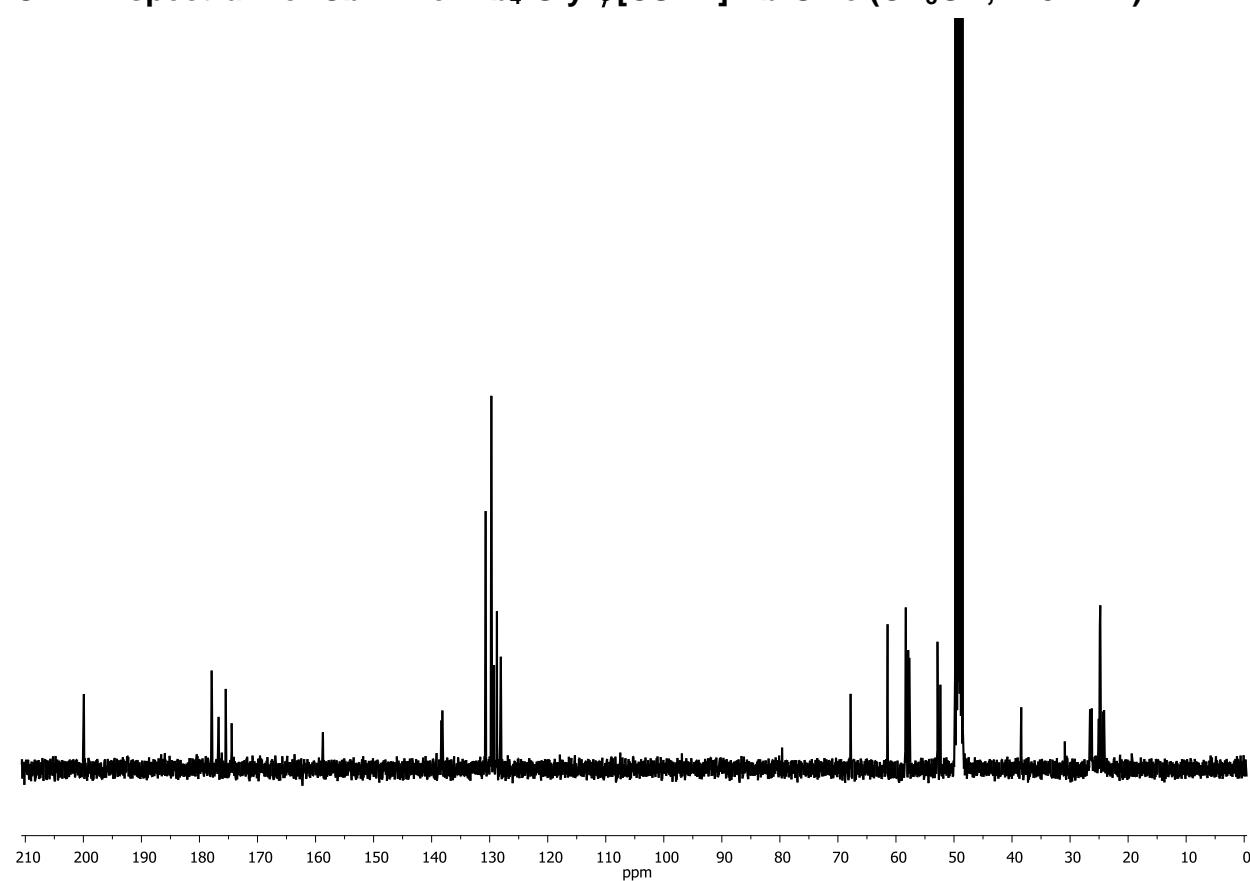
**$^{13}\text{C}$  NMR spectrum of Cbz-Val-Aib<sub>4</sub>-Gly- $\psi$ [CSNH]Aib-OMe (CD<sub>3</sub>OD, 125 MHz)**



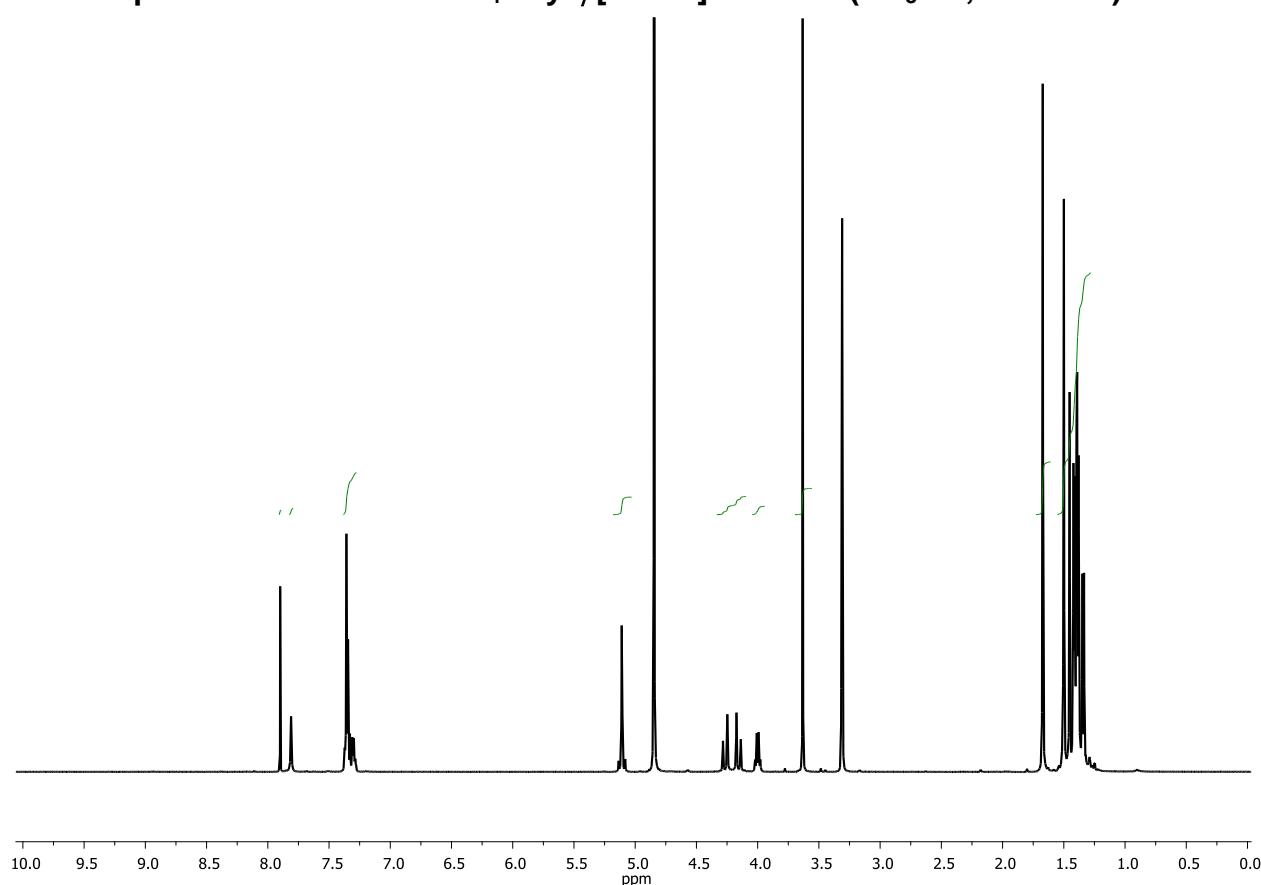
**$^1\text{H}$  NMR spectrum of Cbz-Phe-Aib<sub>4</sub>-Gly- $\psi$ [CSNH]Aib-OMe (CD<sub>3</sub>OD, 500 MHz)**



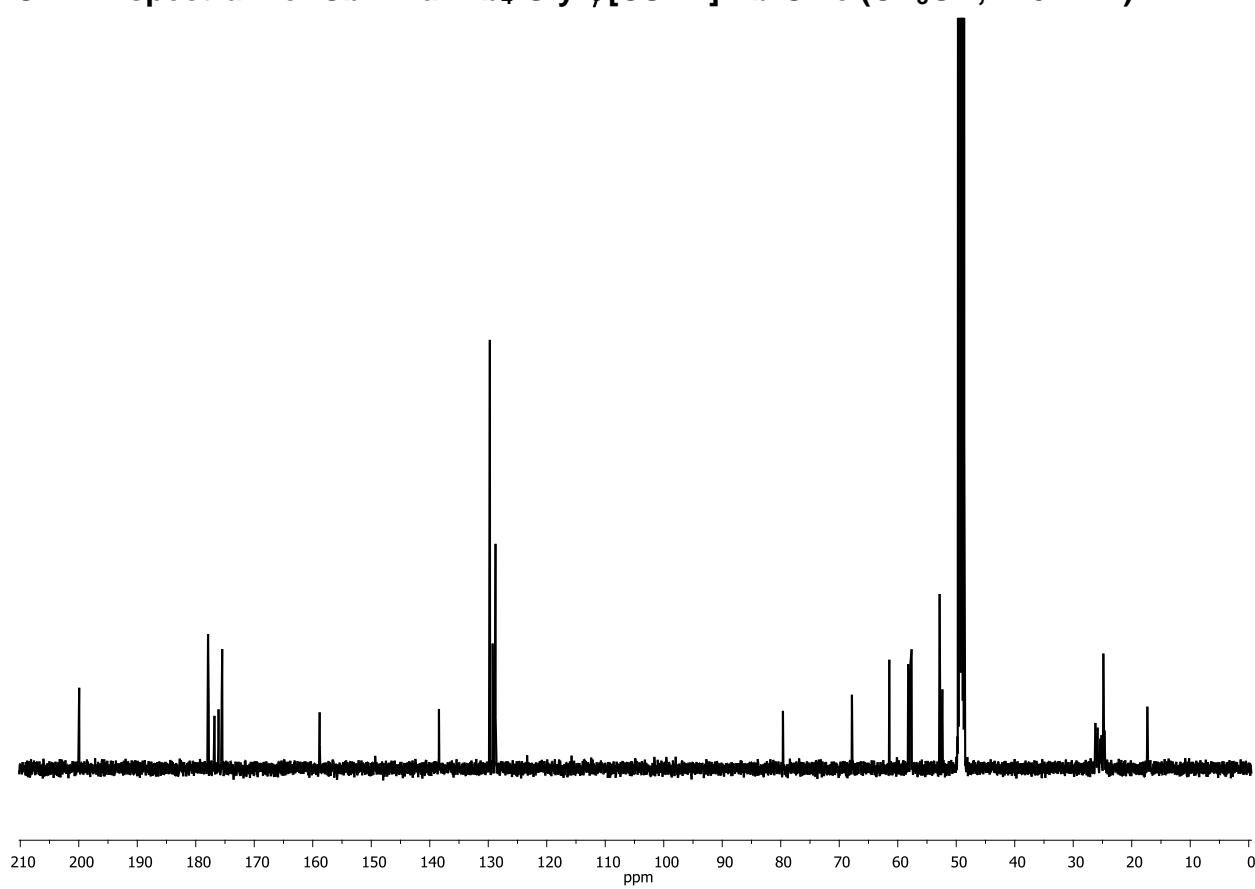
**$^{13}\text{C}$  NMR spectrum of Cbz-Phe-Aib<sub>4</sub>-Gly- $\psi$ [CSNH]Aib-OMe (CD<sub>3</sub>OD, 125 MHz)**



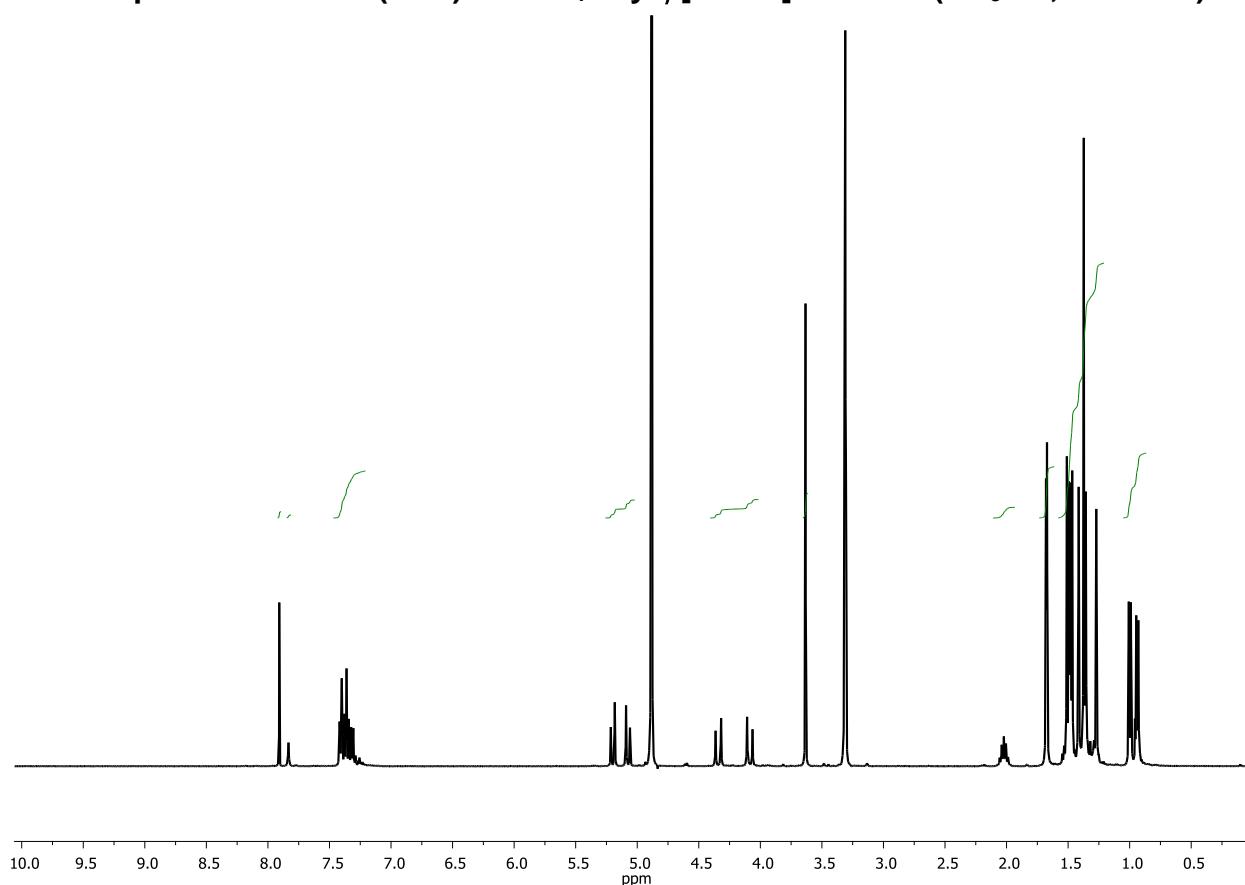
**$^1\text{H}$  NMR spectrum of Cbz-Ala-Aib<sub>4</sub>-Gly- $\psi$ [CSNH]Aib-OMe (CD<sub>3</sub>OD, 500 MHz)**



**$^{13}\text{C}$  NMR spectrum of Cbz-Ala-Aib<sub>4</sub>-Gly- $\psi$ [CSNH]Aib-OMe (CD<sub>3</sub>OD, 125 MHz)**



**$^1\text{H}$  NMR spectrum of Cbz-( $\alpha$ Me)Val-Aib<sub>4</sub>-Gly- $\psi$ [CSNH]Aib-OMe (CD<sub>3</sub>OD, 500 MHz)**



**$^{13}\text{C}$  NMR spectrum of Cbz-( $\alpha$ Me)Ala-Aib<sub>4</sub>-Gly- $\psi$ [CSNH]Aib-OMe (CD<sub>3</sub>OD, 125 MHz)**

