

Supporting Information

Fabrication of nanoporous material from a hydrophobic peptide

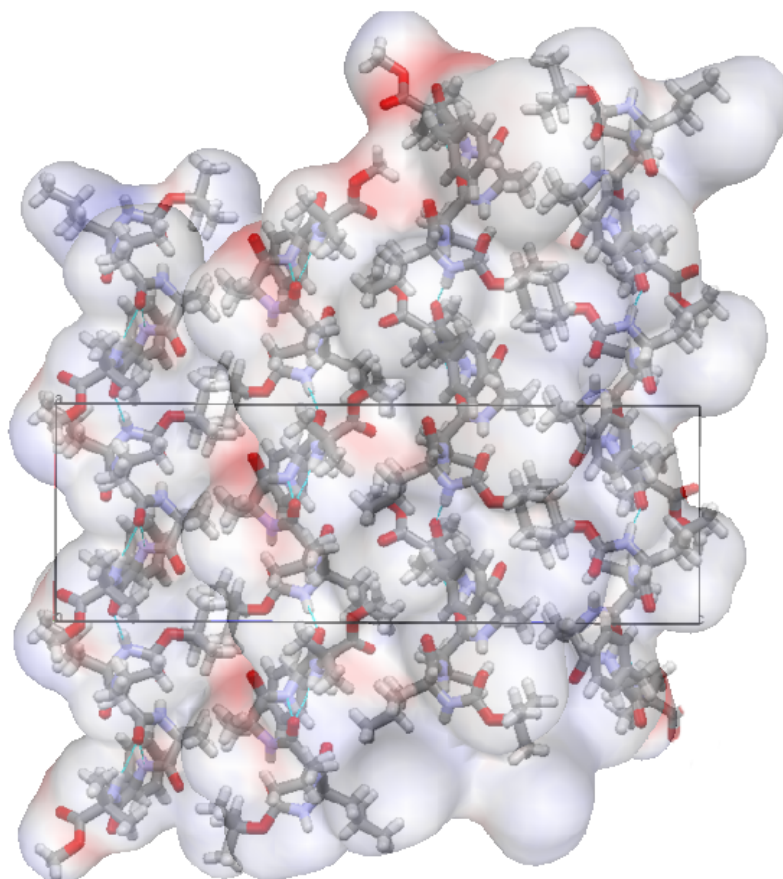
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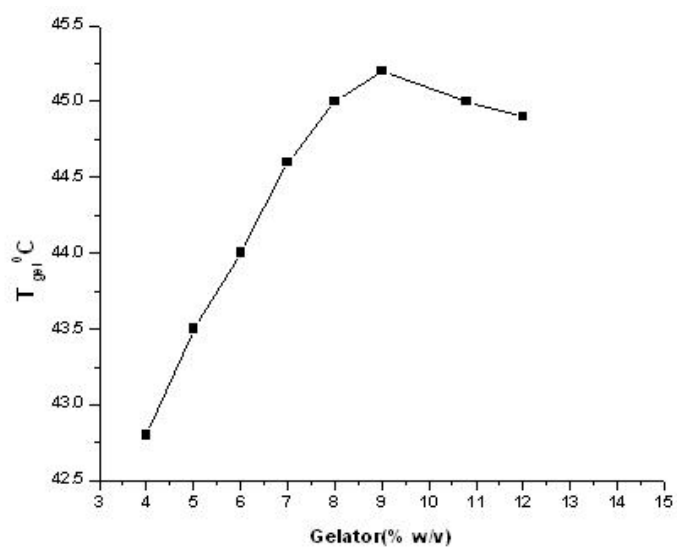
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Table of contents

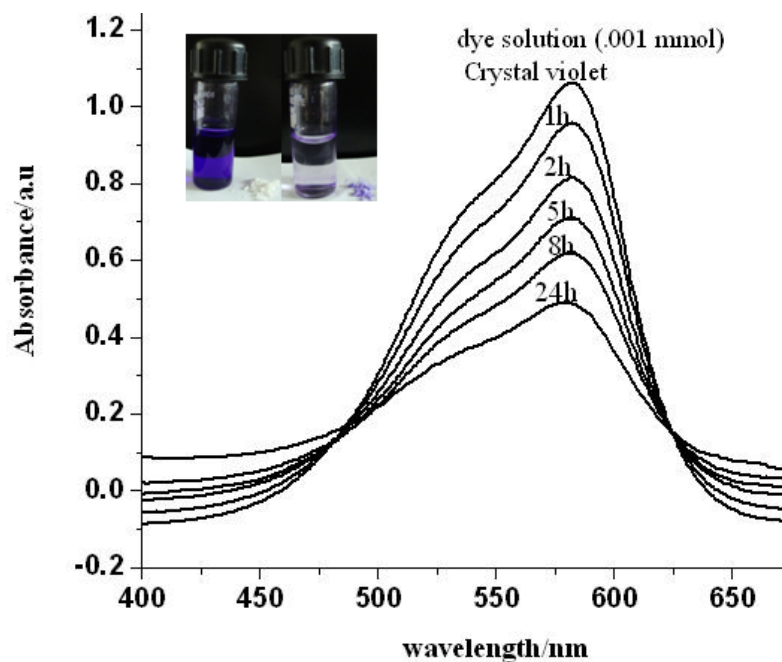
ESI Figure S1	2	Figure S12	9
ESI Figure S2	3	Figure S13	9
ESI Figure S3	4	Figure S14	10
Figure S4	5	Figure S15	10
Figure S5	5	Figure S16	11
Figure S6	6	Figure S17	11
Figure S7	6	Figure S18	12
Figure S8	7	Figure S19	12
Figure S9	7	Figure S20	13
Figure S10	8		
Figure S11	8		



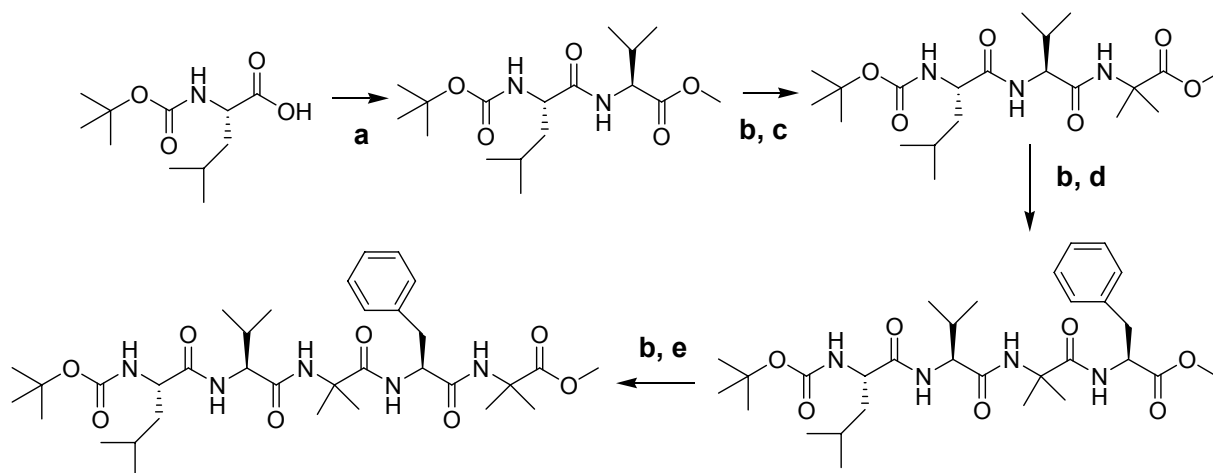
ESI Figure S1: Space filling presentation of higher order crystal packing of peptide **1** shows no pores in the crystal.



ESI Figure S2: The sol-gel transition temperature (T_{gel}) of peptide **1** in xylene.



ESI Figure S3: UV data for time dependent adsorption of crystal violet from aqueous solution by the peptide **1** xerogel.



Scheme 1: Schematic presentation of synthesis of peptide **1**. Reagents and conditions: a) DCM, H-Val-OMe, DCC, HOBT, 0°C; b) MeOH, 2M NaOH; c) DCM, H-Aib-OMe, DCC, HOBT, 0°C; d) DCM, H-Phe-OMe, DCC, HOBT, 0°C; e) DCM, H-Aib-OMe, DCC, HOBT, 0°C.

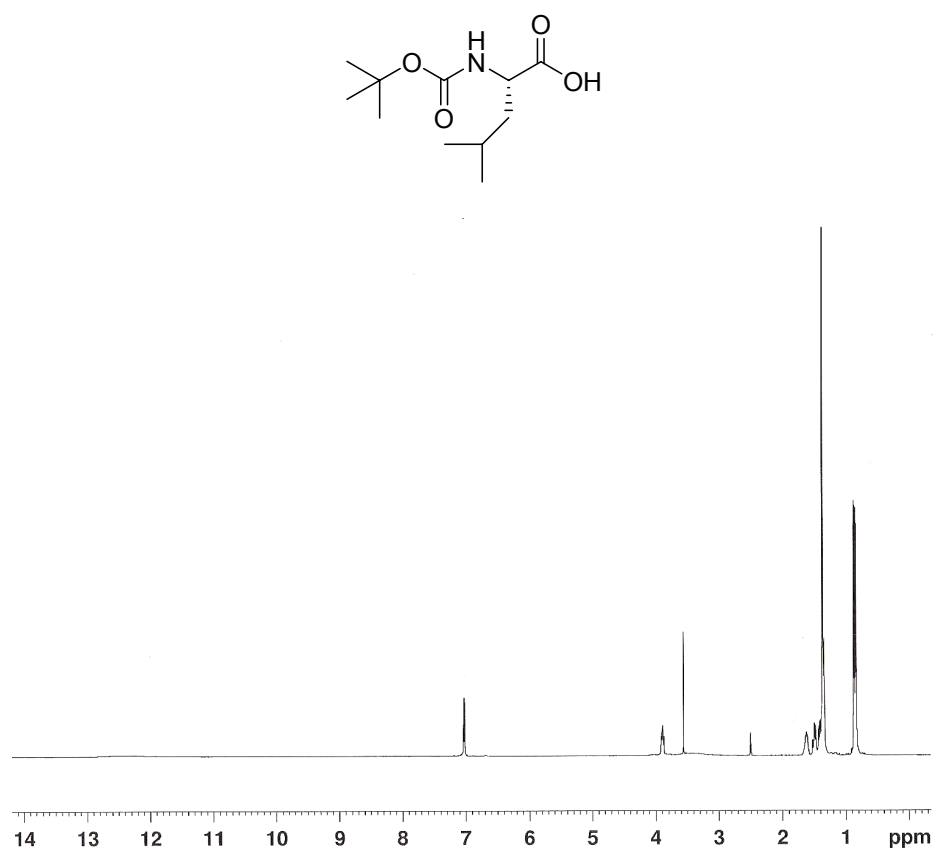


Figure S4: ¹H NMR (500 MHz, DMSO-*d*₆) spectra of Boc-leu(1)-OH.

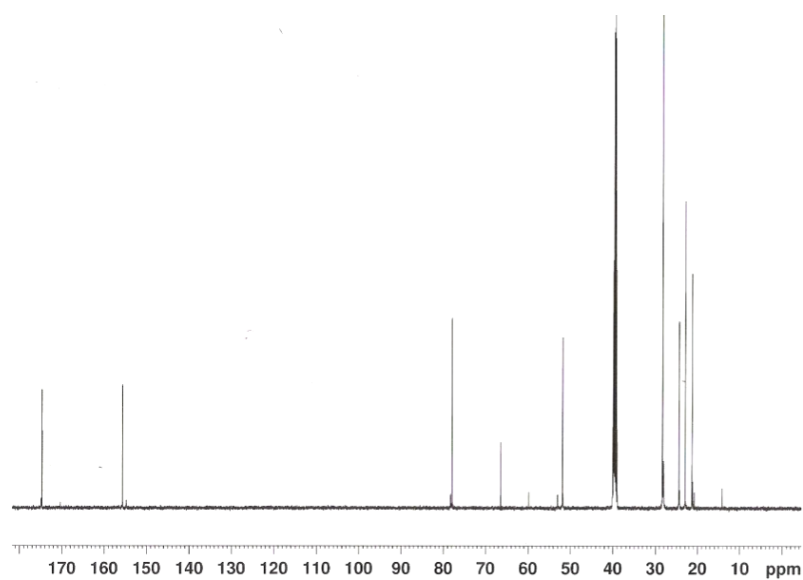


Figure S5: ¹³C NMR (125 MHz, DMSO-*d*₆) spectra of Boc-Leu(1)-OH

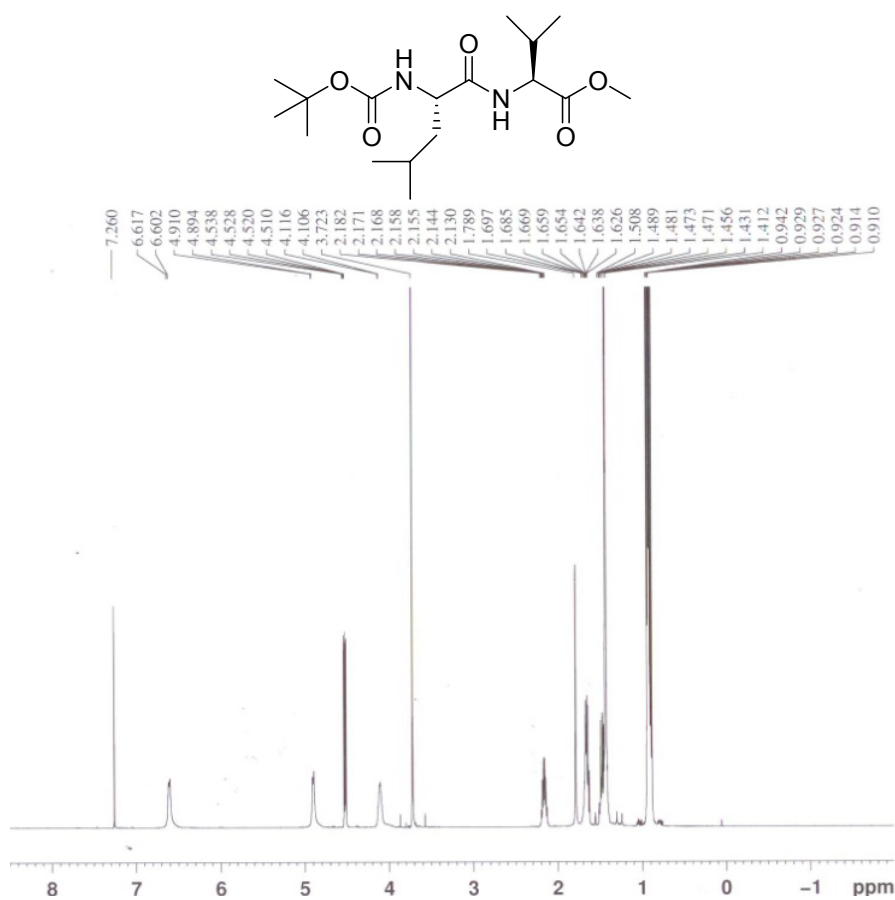


Figure S6: ¹H NMR (500 MHz, CDCl₃) spectra of Boc-leu(1)-Val(2)-OMe

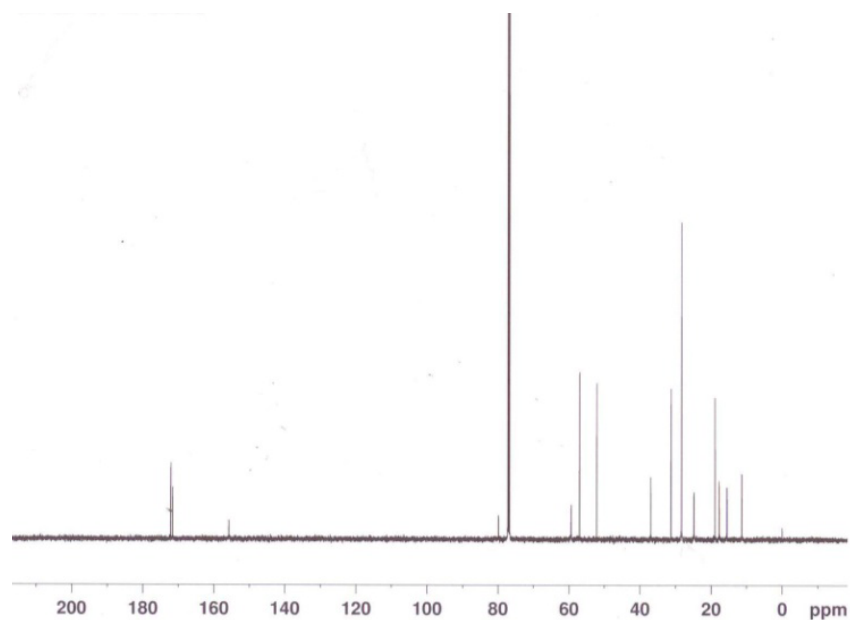


Figure S7: ¹³C NMR (125 MHz, CDCl₃) spectra of Boc-Leu(1)-Val(2)-OMe

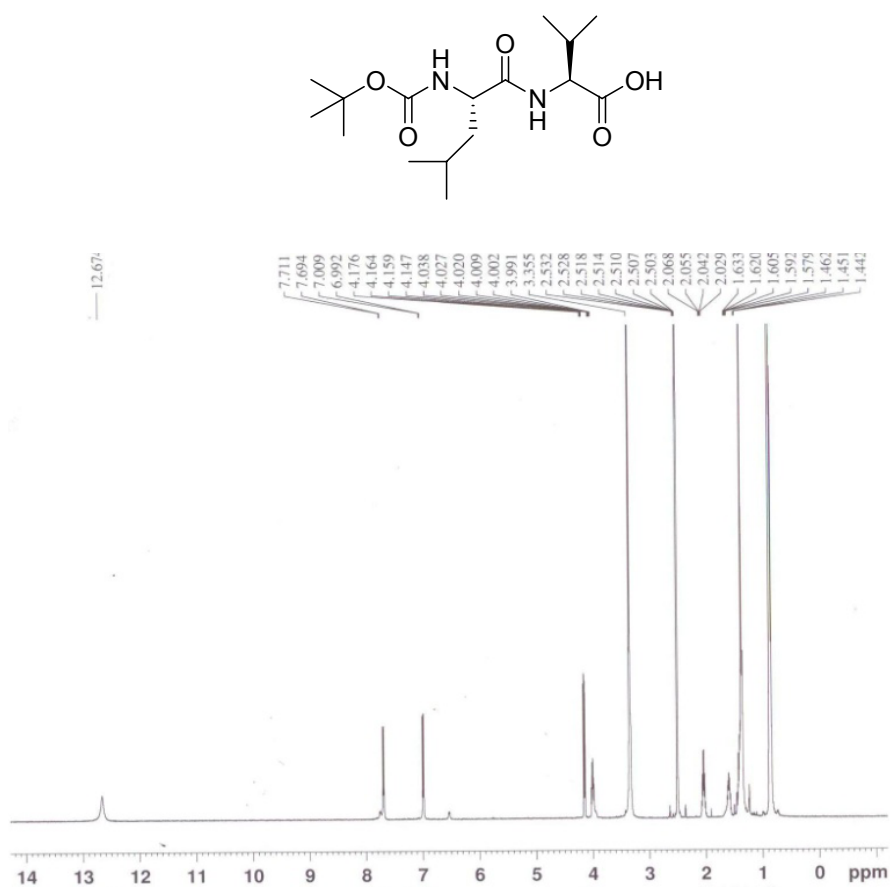


Figure S8. ¹H NMR (500 MHz, DMSO-d₆) spectra of Boc-Leu(1)-Val(2)-OH.

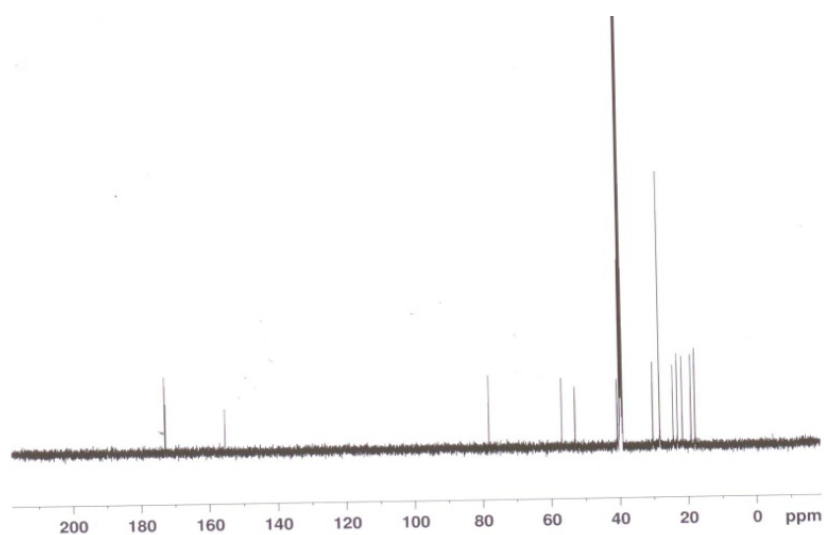


Figure S9: ¹³C NMR (125 MHz, DMSO-d₆) spectra of Boc-Leu(1)-Val(2)-OH.

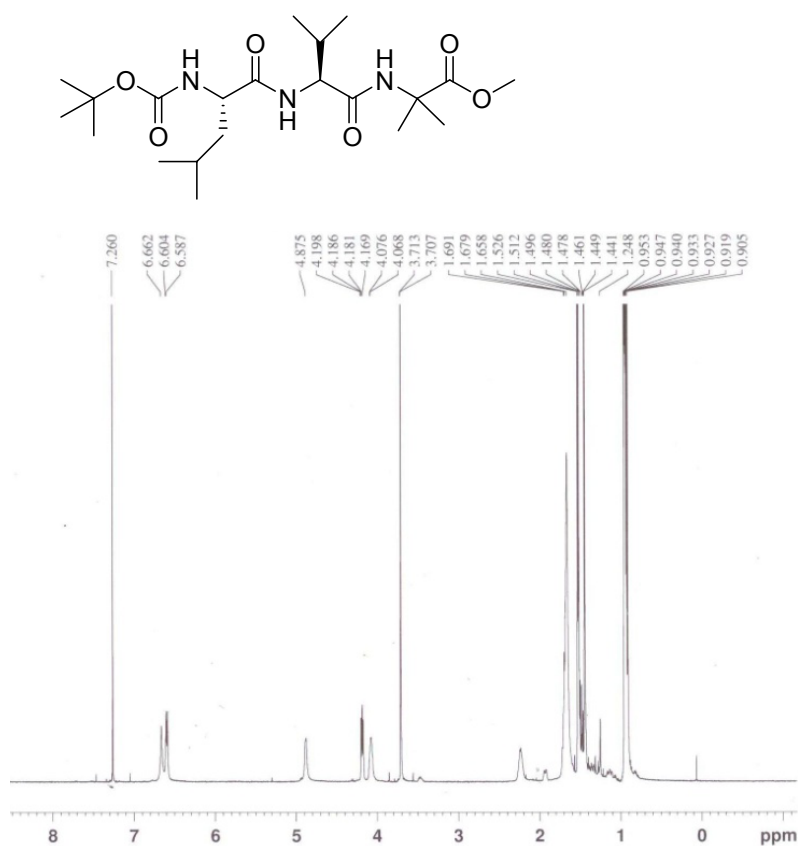


Figure S10: ¹H NMR (500 MHz, CDCl₃) spectra of Boc-Leu(1)-Val(2)-Aib(3)-OMe.

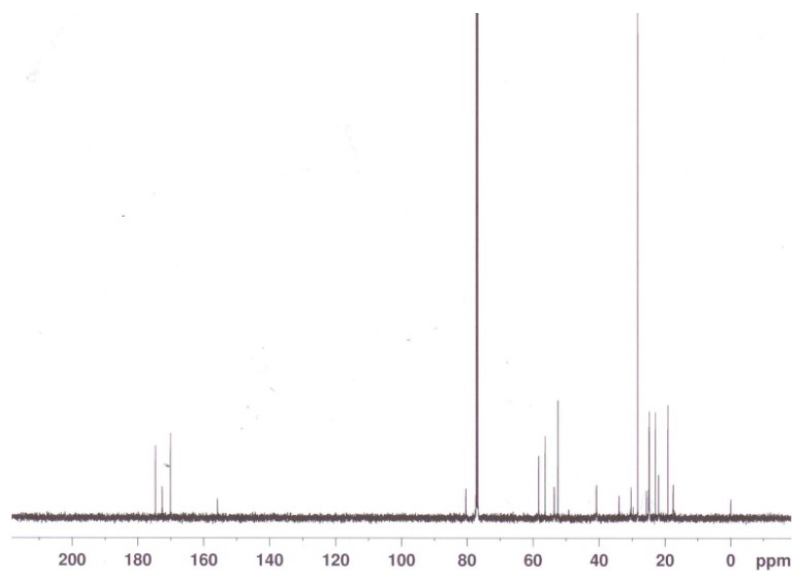


Figure S11. ¹³C NMR (125 MHz, CDCl₃) spectra of Boc-Leu(1)-Val(2)-Aib(3)-OMe

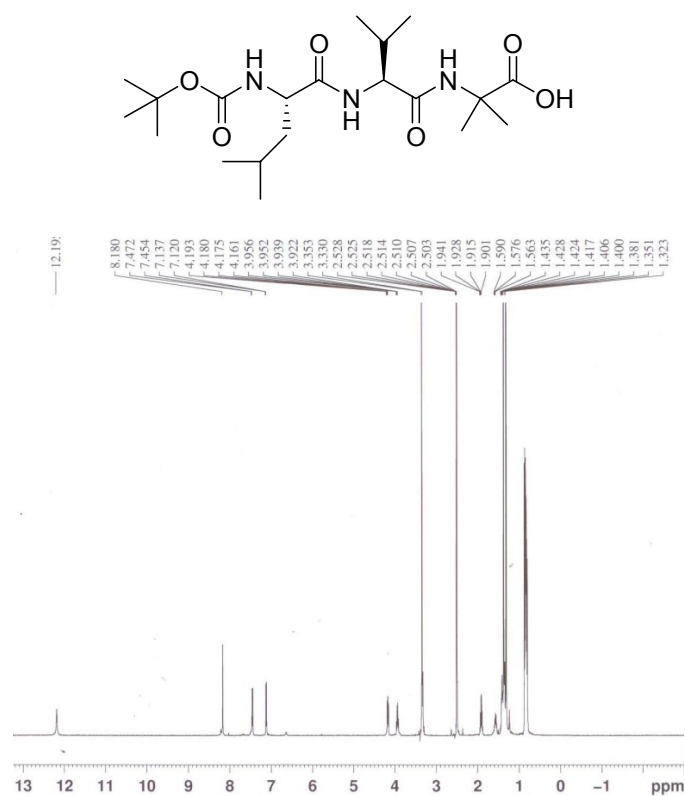


Figure S12. ¹H NMR (500 MHz, DMSO-*d*₆) spectra of Boc-Leu(1)-Val(2)-Aib(3)-OH.

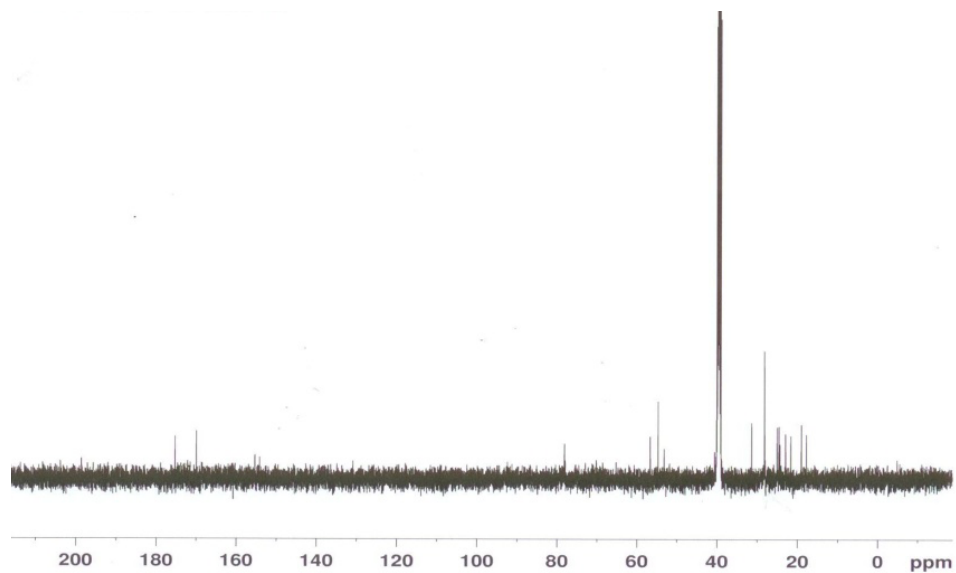


Figure S13: ¹³C NMR (125 MHz, DMSO-*d*₆) spectra of Boc-Leu(1)-Val(2)-Aib(3)-OH

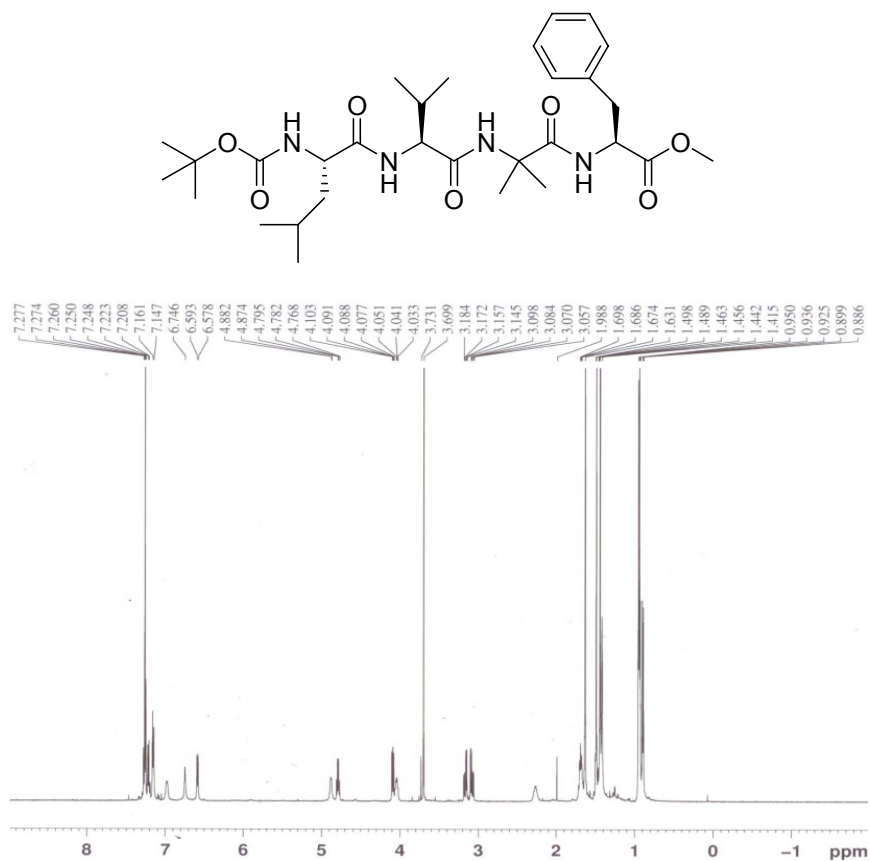


Figure S14: ¹H NMR (500 MHz, CDCl₃) spectra of Boc-Leu(1)-Val(2)-Aib(3)-Phe-OMe.

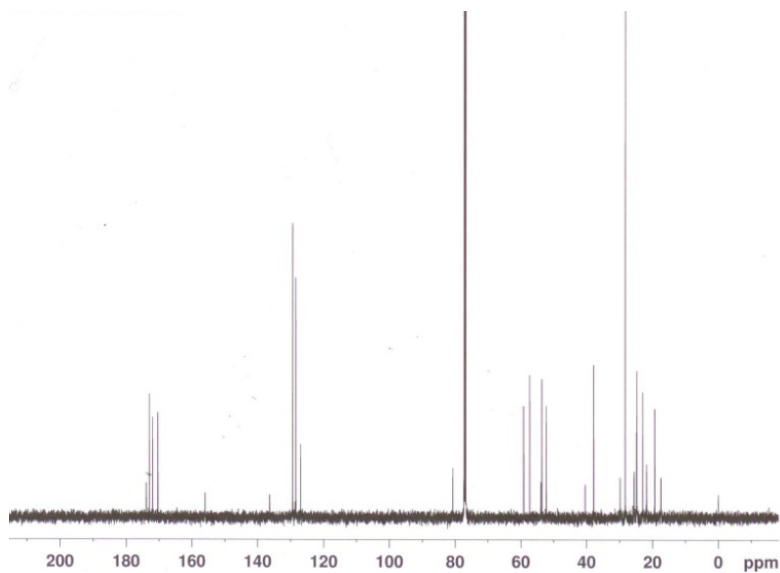


Figure S15: ¹³C NMR (125 MHz, CDCl₃) spectra of Boc-Leu(1)-Val(2)-Aib(3)-Phe(4)-OMe

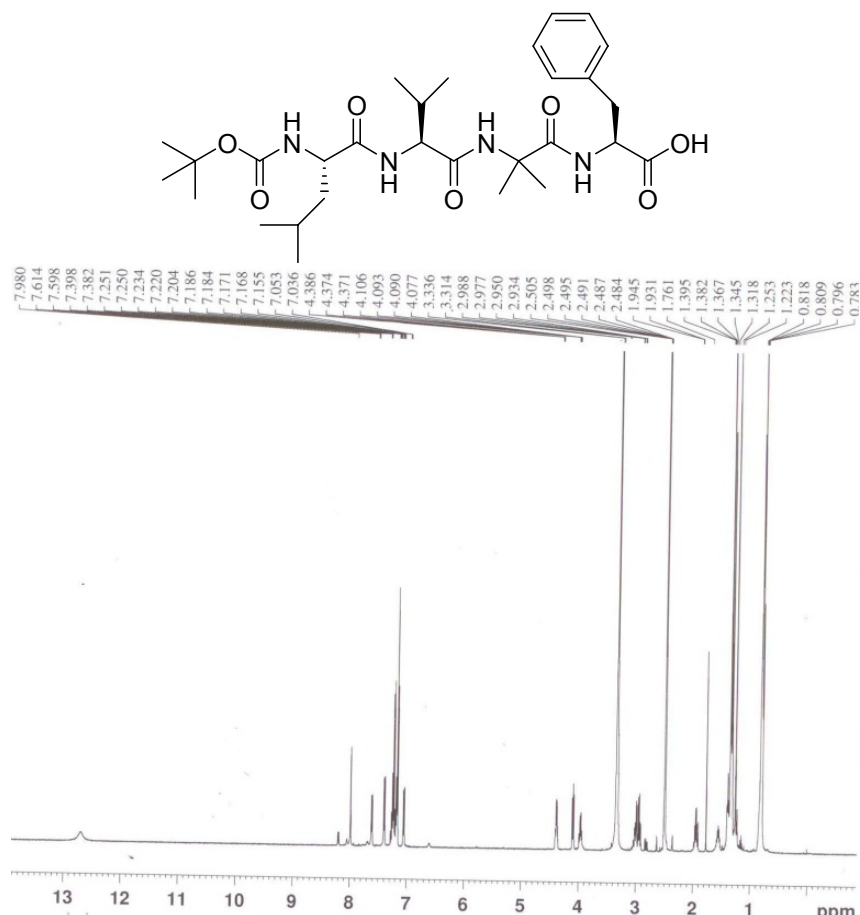


Figure S16. ^1H NMR (500 MHz, $\text{DMSO}-d_6$) spectra of Boc-Leu(1)-Val(2)-Aib(3)-Phe(4)-OH.

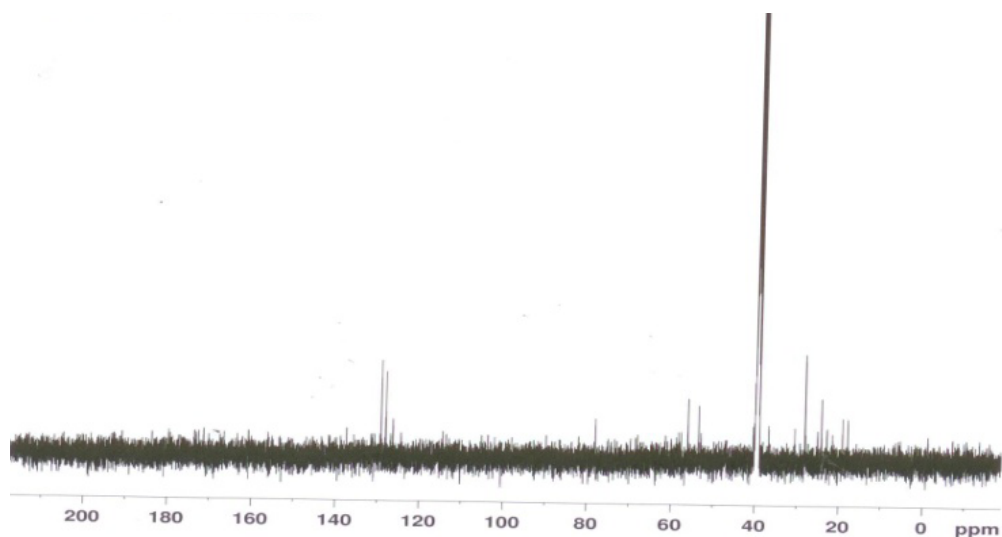


Figure S17: ^{13}C NMR (125 MHz, $\text{DMSO}-d_6$) spectra of Boc-Leu(1)-Val(2)-Aib(3)-Phe(4)-OH

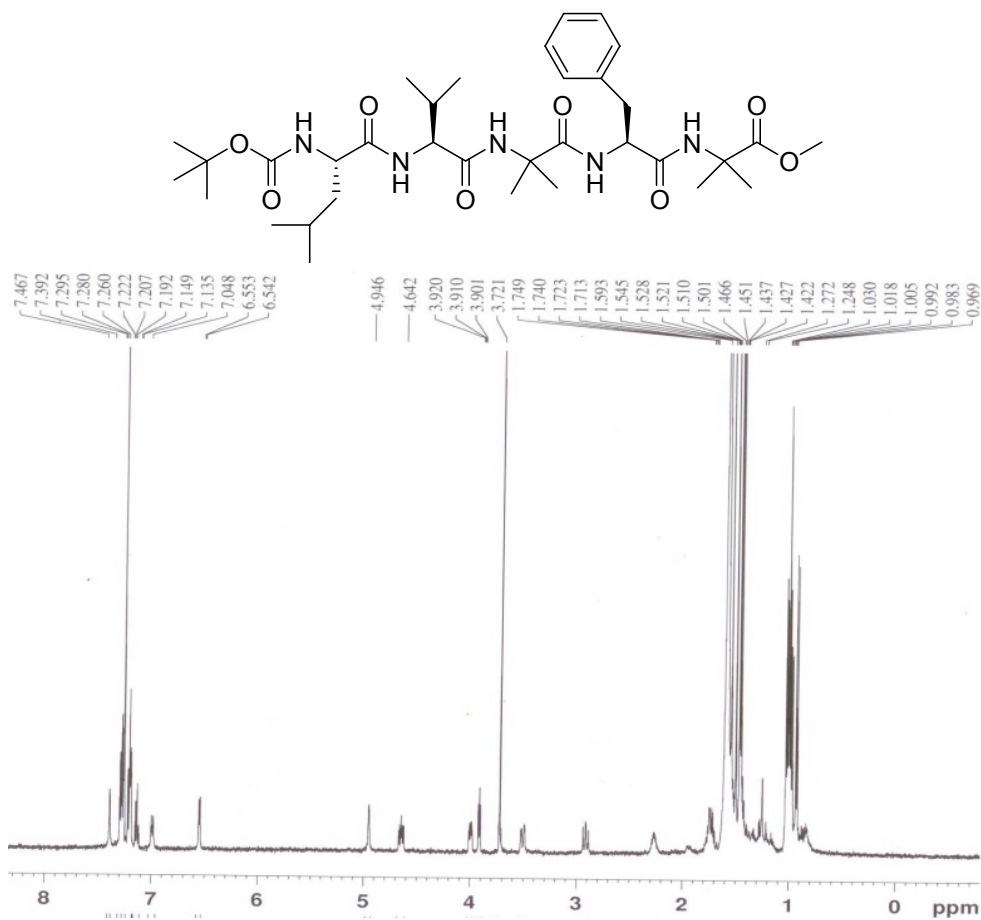


Figure S18: ¹H NMR (500 MHz, CDCl₃) spectra of Boc-Leu(1)-Val(2)-Aib(3)-Phe(4)-Aib(5)-OMe.

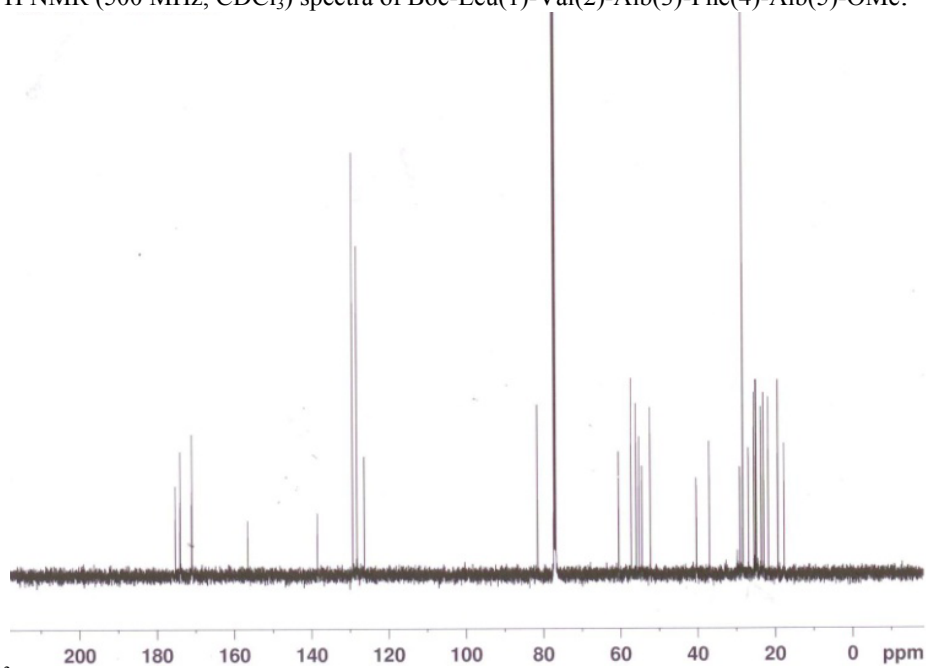


Figure S19: ¹³C NMR (125 MHz, CDCl₃) spectra of Boc-Leu(1)-Val(2)-Aib(3)-Phe(4)-Aib(5)-OMe

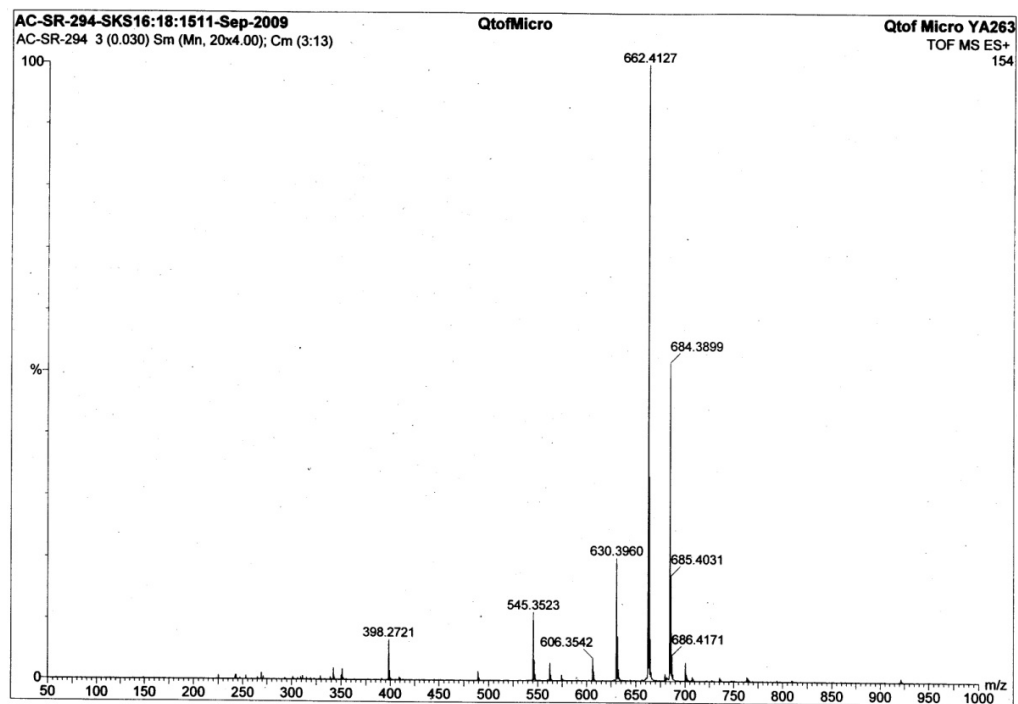


Figure S20: Mass spectra of Boc-Leu(1)-Val(2)-Aib(3)-Phe(4)-Aib(5)-OMe