SUPPLYMENTARY DATA

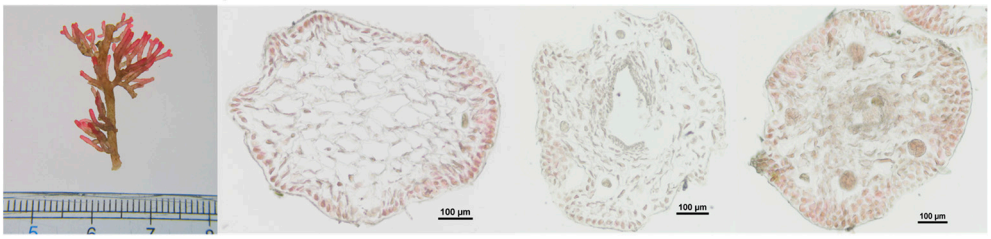


Figure S1. *Laurencia* sp. was collected from the Nansha Islands area in the South China Sea.

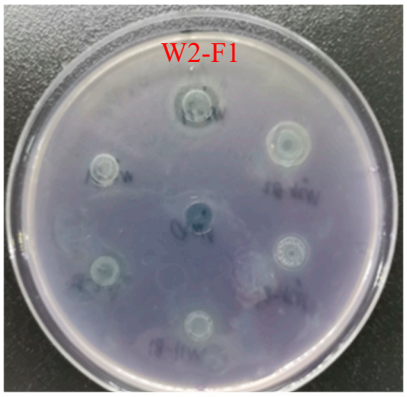


Figure S2. Evaluated QSI activities using the indicator strain of *Chromobacterium violaceum* CV026.

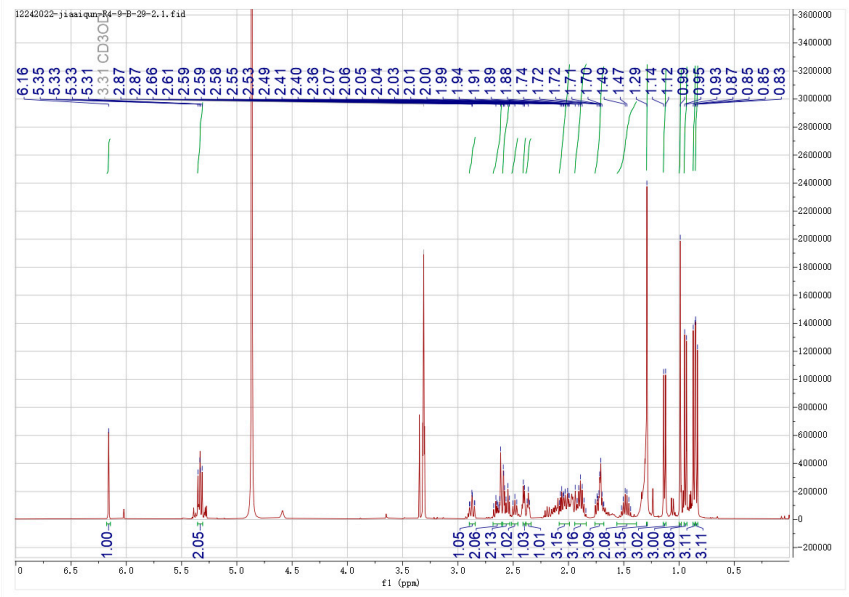


Figure S3-1. ^{1}H NMR spectrum (400 MHz) of compound **1** in MeOD.

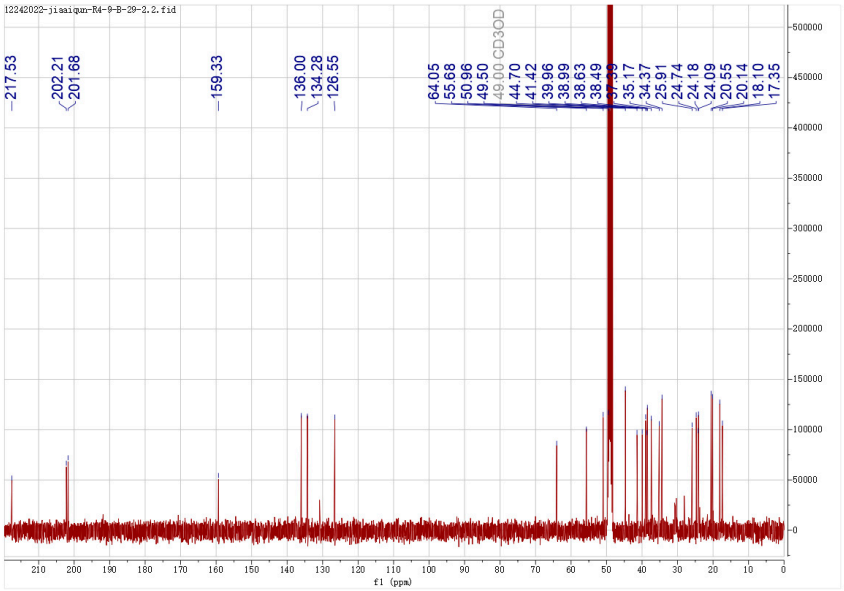


Figure S3-2. ^{13}C NMR spectrum (101 MHz) of compound **1** in MeOD.

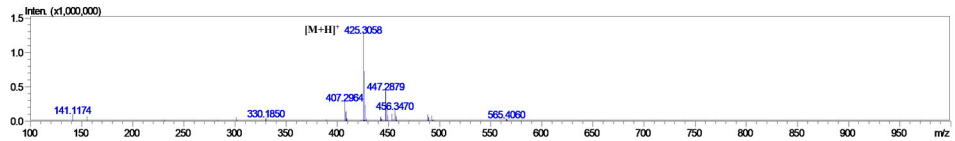


Figure S3-3. Positive HRMS spectrum of compound **1**.

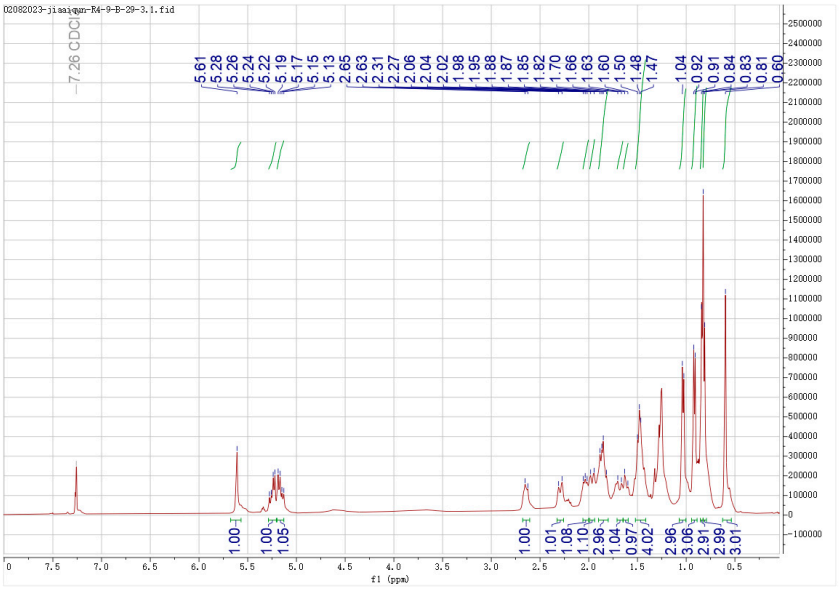


Figure S4-1. ^{1}H NMR spectrum (400 MHz) of compound **2** in $CDCl_3$.

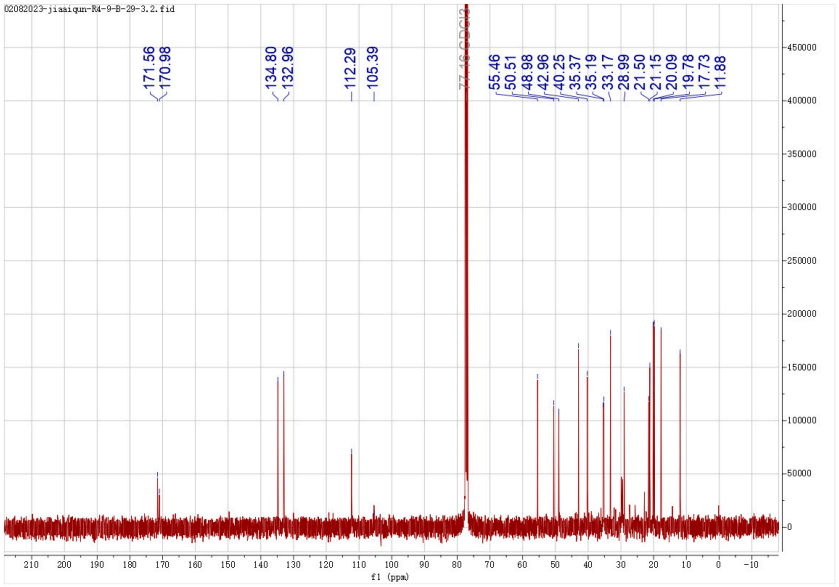


Figure S4-2. ^{13}C NMR spectrum (101 MHz) of compound **2** in $CDCl_3$.

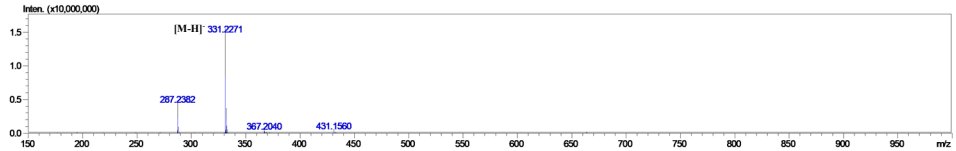


Figure S4-3. Negative HRMS spectrum of compound **2**.

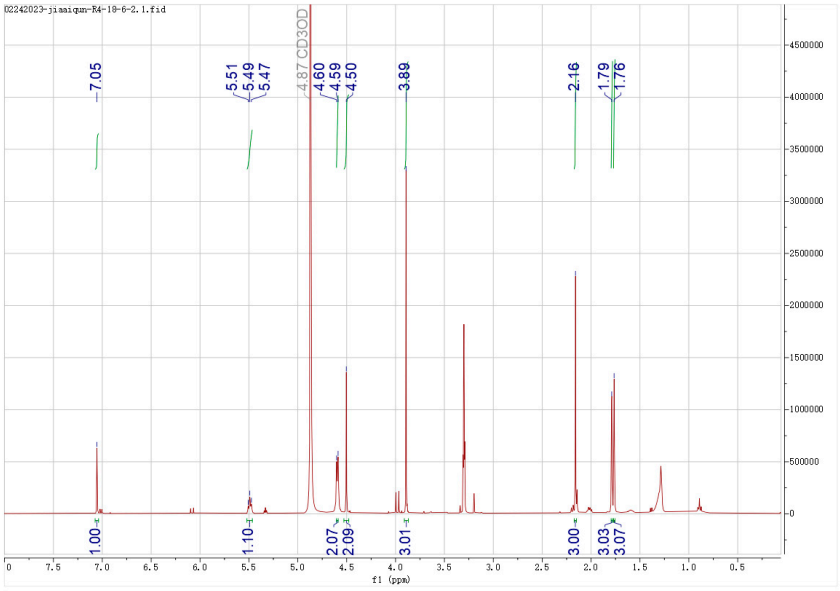


Figure S5-1. ^{1}H NMR spectrum (400 MHz) of compound **3** in MeOD.

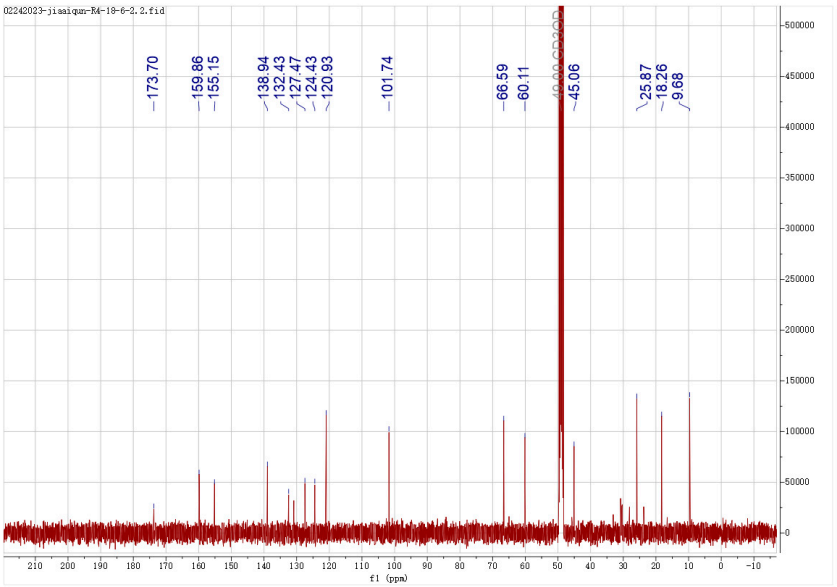
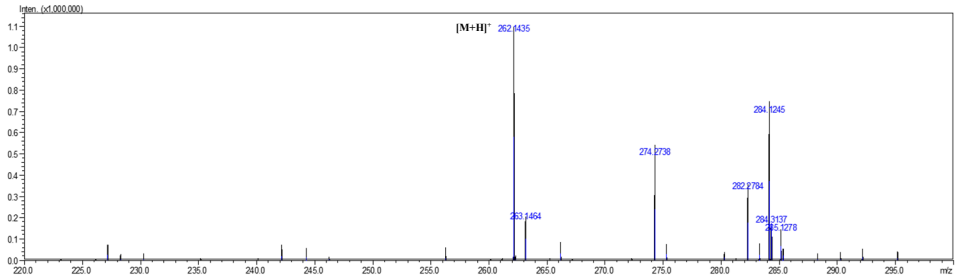


Figure S5-2. ^{13}C NMR spectrum (101 MHz) of compound **3** in MeOD.



FigureS5-3. Positive HRMS spectrum of compound **3**.

Figure S6-1. ^{1}H NMR spectrum (400 MHz) of compound **4** in MeOD.

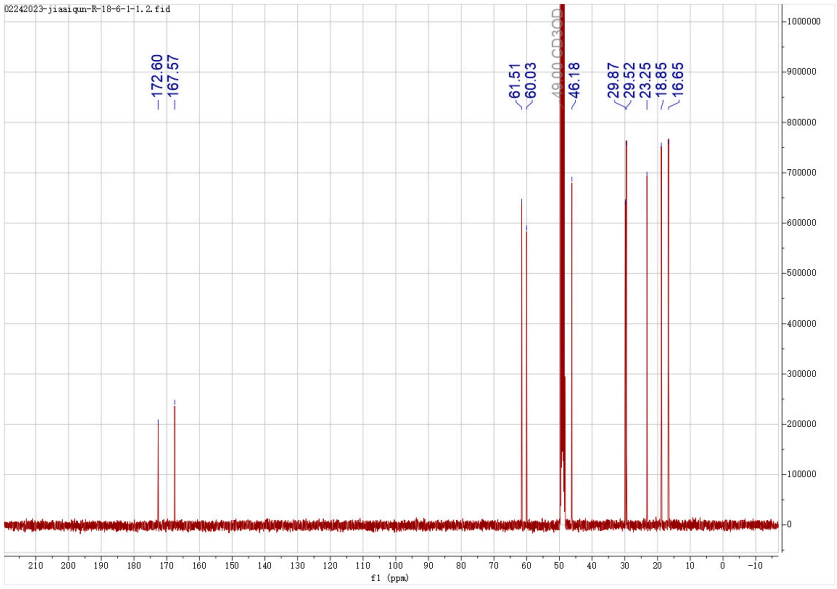


Figure S6-2. ^{13}C NMR spectrum (101 MHz) of compound **4** in MeOD.

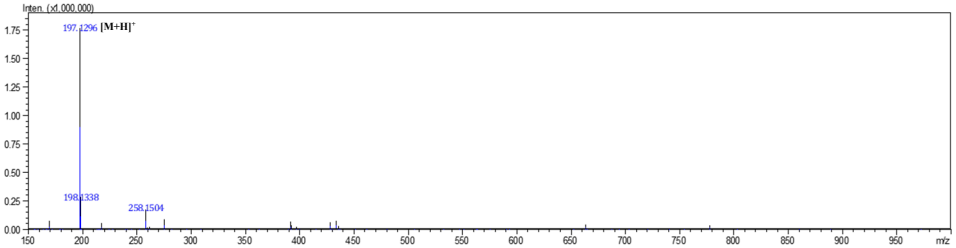


Figure S6-3. Positive HRMS spectrum of compound **4**.

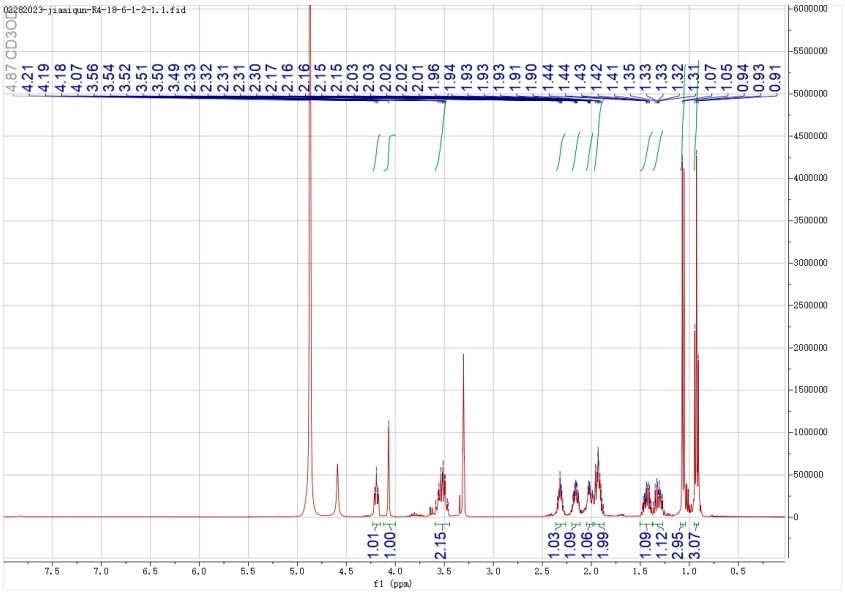


Figure S7-1. ^{1}H NMR spectrum (400 MHz) of compound **5** in MeOD.

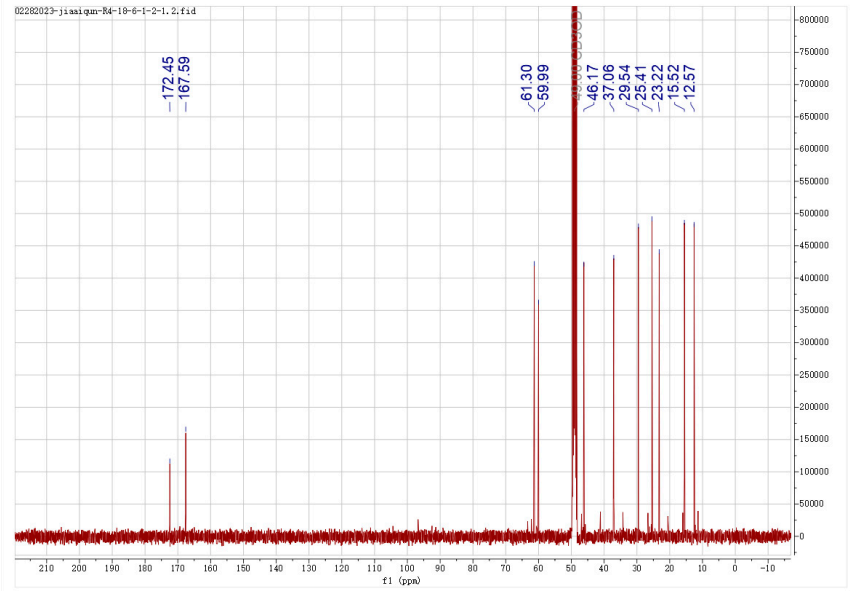


Figure S7-2. ^{13}C NMR spectrum (101 MHz) of compound **5** in MeOD.

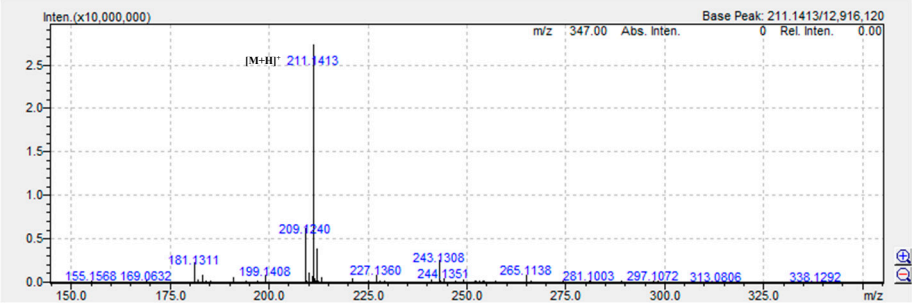


Figure S7-3. Positive HRMS spectrum of compound **5**.

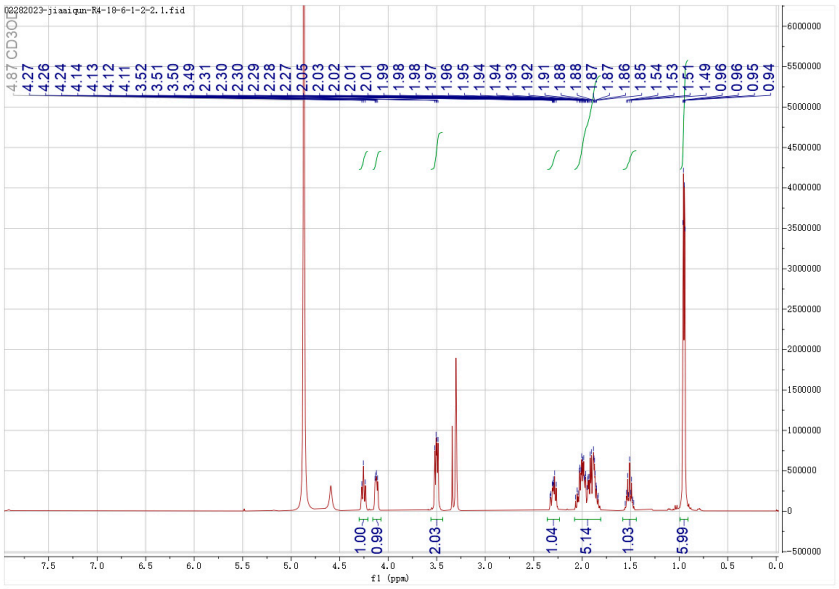


Figure S8-1. ^{1}H NMR spectrum (400 MHz) of compound **6** in MeOD.

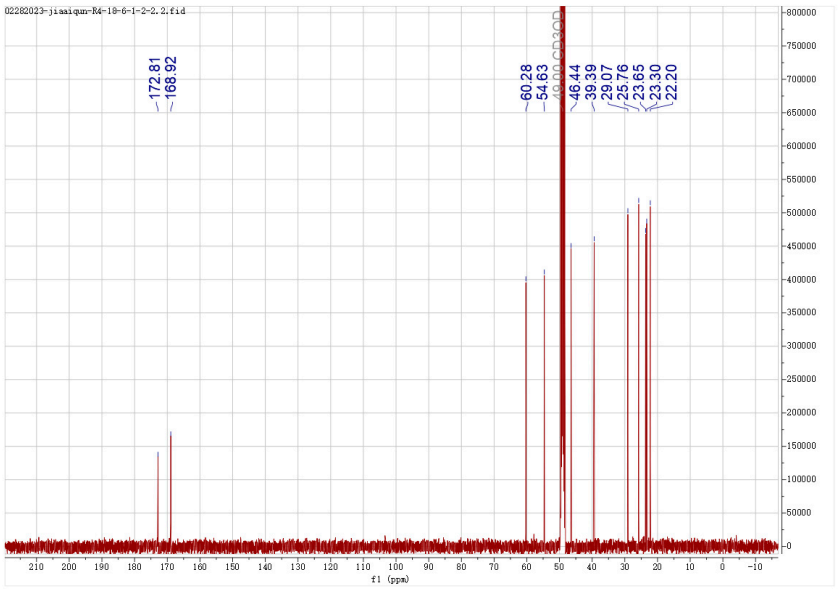


Figure S8-2. ^{13}C NMR spectrum (101 MHz) of compound **6** in MeOD.

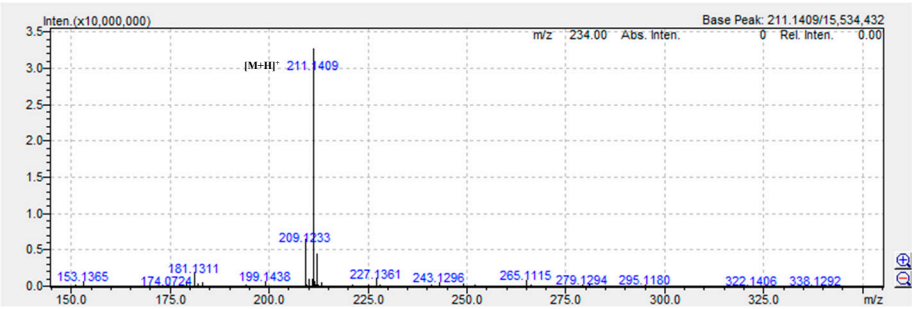


Figure S8-3. Positive HRMS spectrum of compound **6**.

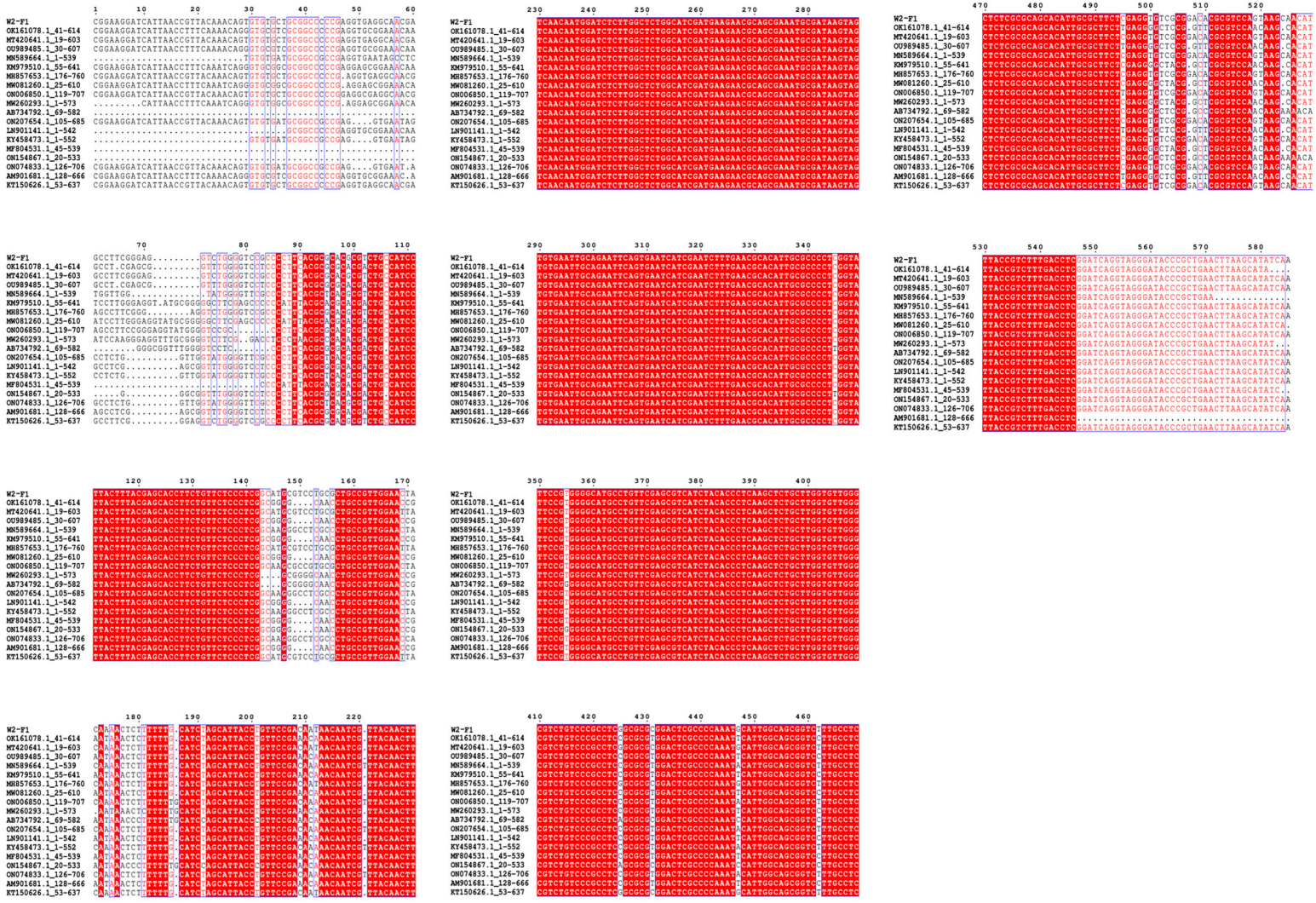


Figure S9. Sequence comparison results of strain W2-F1.

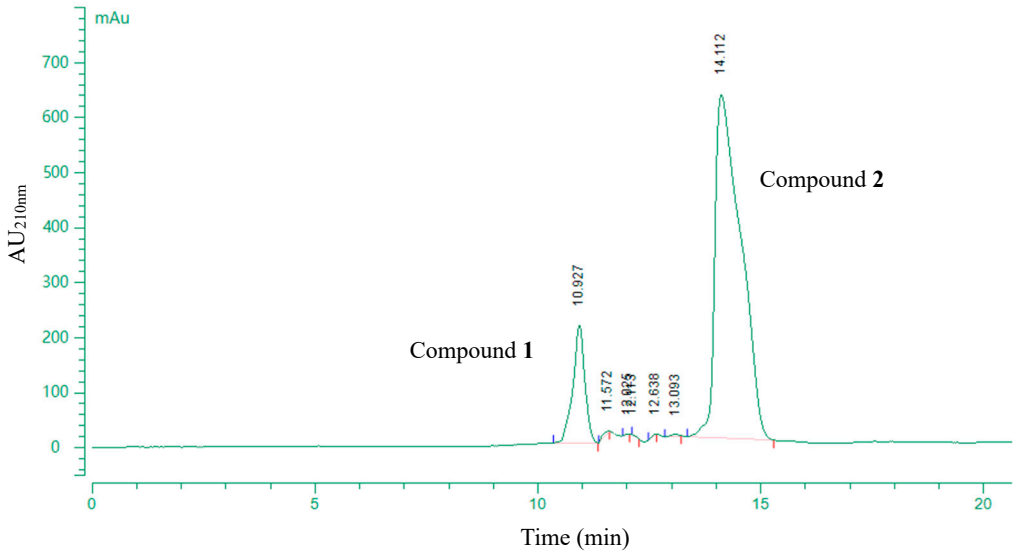


Figure S10. Preparation liquid phase chromatogram of compounds **1** and **2**.

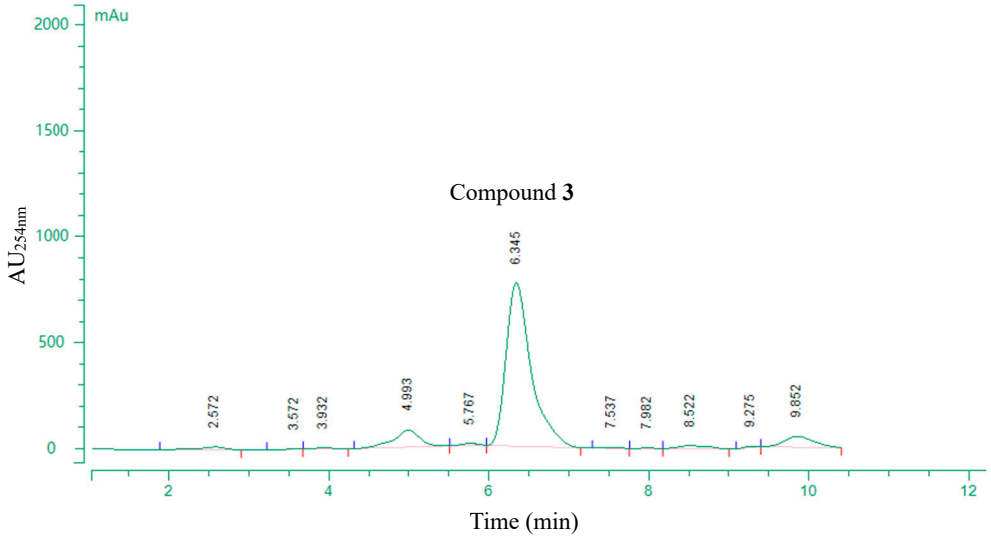


Figure S11. Preparation liquid phase chromatogram of compound **3**.

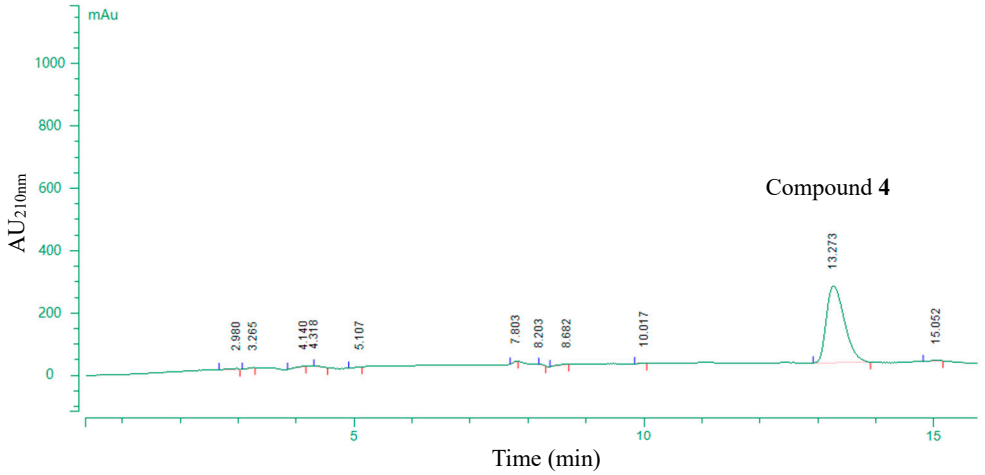


Figure S12. Preparation liquid phase chromatogram of compound **4**.

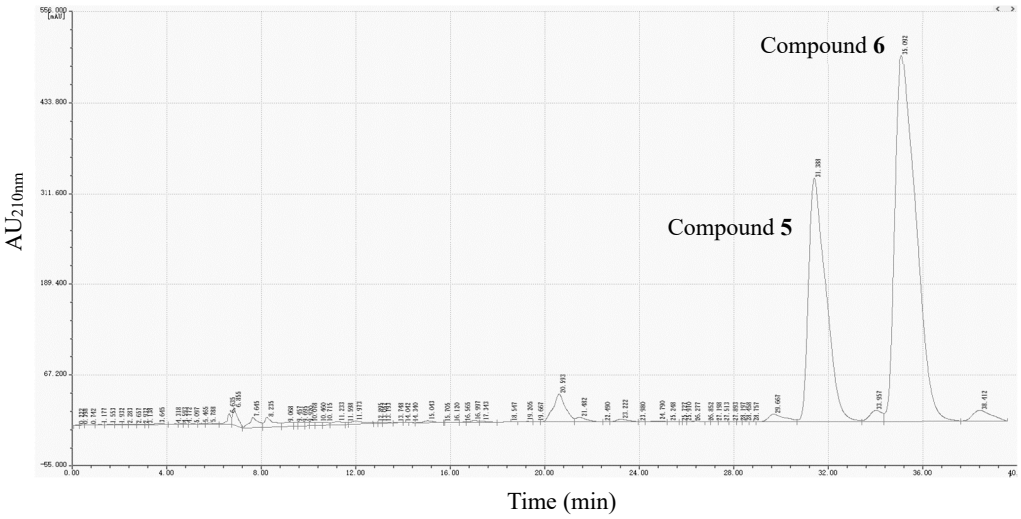


Figure S13. Preparation liquid phase chromatogram of compounds **5** and **6**.

Table S1. The chemical shifts of each hydrogen bearing chiral carbon.

	The chemical shifts of each hydrogen bearing chiral carbon		
	The NMR data from reported papers		Our isolated compounds
cyclo-(Val-Pro)	L-Pro: 3.94 (s) (CDCl3) Val: 4.08 (t, *J* = 7.5) [1]	D-Pro: 4.09 (dt) (CDCl3) D-Val: 3.94 (br.s) [2]	Pro: 4.03 (s, 1H) Val: 4.20 (t, *J* = 7.2 Hz, 1H)
cyclo-(Ile-Pro)	L-Pro: 4.10 (br,s) (CDCl3) L-Ile: 4.22 (t, *J* = 7.1 Hz) [3]	D-Pro: 4.07 (t) (CDCl3) D-Ile: 3.96 (br.s) [2]	Pro: 4.07 (s, H-4, 1H) Ile: 4.19 (t, *J* = 7.0 Hz, 1H)
cyclo-(Leu-Pro)	L-Pro: 4.15 (br.*s*) (MeOD) L-Leu: 4.29 (t, *J* = 7.1) [4]	D-Pro: 4.27 (t, *J* = 7.5) (MeOD) D-Leu: 4.13-4.16 (m) [5]	Pro: 4.12 (dd, *J* = 6.8, 3.7 Hz, 1H) Leu: 4.25 (t, *J* = 7.1 Hz, 1H)

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