# SUPPLEMENTARY MATERIAL

# Two new cephalochromin derivative from the *Alternaria* sp. ZG22

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**Abstract:** Two new cephalochromin derivatives, prenylcephalochromin A (**1**), prenylcephalochromin B (**2**), along with cephalochromin (**3**) were isolated from the *Alternaria* sp. ZG22 obtained from a *Dasymaschalon rostratum* collected from the Hainan. The structures of two new compounds were elucidated by comprehensive spectroscopic methods. Compounds **1**-**3** showed $\alpha$-glucosidase inhibitory activity.

**Key words:** *Alternaria* sp; cephalochromin derivative; α-glucosidase inhibitory activity

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Table S1. $^{1}H$ and $^{13}C$ NMR data (400 MHz, $CDCl_3$) for compound **1** - **3** spectrum

| position | **1** (in $CDCl_3$) | | **2** (in $CDCl_3$) | | **3** (in $CDCl_3$) | |
|---|---|---|---|---|---|---|
| | $\delta_H$ | $\delta_C$ | $\delta_H$ | $\delta_C$ | $\delta_H$ | $\delta_C$ |
| 2 | 4.44 (1H, q, *J* = 8 Hz) | 73.2 | 4.45 (1H, q, *J* = 8 Hz) | 73.3 | 4.48 (1H, q, *J* = 8 Hz) | 73.4 |
| 3 | 2.68 (2H, d, *J* = 8 Hz) | 43.4 | 2.65 (2H, d, *J* = 8 Hz) | 43.9 | 2.69 (2H, d, *J* = 8 Hz) | 43.2 |
| 4 | | 197.9 | | 198.4 | | 198.4 |
| 4a | | 102.8 | | 103.7 | | 102.1 |
| 5 | | 164.9 | | 166.3 | | 164.5 |
| 5a | | 105.3 | | 107.6 | | 102.6 |
| 6 | | 154.4 | | 156.2 | | 161.0 |
| 7 | | 106.3 | | 101.5 | 6.53 (1H, s) | 99.9 |
| 8 | | 157.4 | | 157.0 | | 160.0 |
| 9 | | 105.8 | | 102.4 | | 105.6 |
| 9a | | 141.5 | | 142.1 | | 142.3 |
| 10 | 5.94 (1H, s) | 100.2 | 5.83 (1H, s) | 98.6 | 5.94 (1H, s) | 99.6 |
| 10a | | 155.2 | | 154.2 | | 156.4 |
| 11 | 1.41 (3H, d, *J* = 8 Hz) | 21.0 | 1.41 (3H, d, *J* = 8 Hz) | 20.9 | 1.41 (3H, d, *J* = 8 Hz) | 20.9 |
| 2' | 4.45 (1H, q, *J* = 8 Hz) | 73.3 | 4.44 (1H, q, *J* = 8 Hz) | 73.0 | 4.48 (1H, q, *J* = 8 Hz) | 73.4 |
| 3' | 2.66 (2H, d, *J* = 8 Hz) | 43.3 | 2.65 (2H, d, *J* = 8 Hz) | 43.2 | 2.69 (2H, d, *J* = 8 Hz) | 43.2 |
| 4' | | 198.3 | | 197.4 | | 198.4 |
| 4'a | | 102.3 | | 102.6 | | 102.1 |
| 5' | | 164.8 | | 164.6 | | 164.5 |
| 5'a | | 105.4 | | 106.3 | | 102.6 |
| 6' | | 159.8 | | 161.0 | | 161.0 |
| 7' | 6.53 (1H, s) | 99.5 | 6.51 (1H, s) | 99.9 | 6.53 (1H, s) | 99.9 |
| 8' | | 158.4 | | 160.0 | | 160.0 |
| 9' | | 104.2 | | 105.6 | | 105.6 |
| 9'a | | 141.6 | | 141.3 | | 142.3 |
| 10' | 5.95 (1H, s) | 100.1 | 5.98 (1H, s) | 99.6 | 5.94 (1H, s) | 99.6 |
| 10'a | | 156.0 | | 156.4 | | 156.4 |
| 11' | 1.39 (3H, d, *J* = 8 Hz) | 20.9 | 1.37 (3H, d, *J* = 8 Hz) | 20.9 | 1.41 (3H, d, *J* = 8 Hz) | 20.9 |
| 1" | 6.86 (1H, d, *J* = 10 Hz) | 116.1 | 6.71 (1H, d, *J* = 10 Hz) | 116.7 | | |
| 2" | 5.67 (1H, d, *J* = 10 Hz) | 129.3 | 5.62 (1H, d, *J* = 10 Hz) | 127.2 | | |
| 3" | | 77.7 | | 77.9 | | |

| | | | | | | |
|---|---|---|---|---|---|---|
| 4" | 1.32 (3H, s) | 28.4 | 1.62 (3H, s) | 28.1 | | |
| 5" | 1.26 (3H, s) | 28.2 | 1.62 (3H, s) | 27.9 | | |
| | 5.37 (1H, s) | 8'-OH | 5.71 (1H, s) | 8'-OH | 5.81 (1H, s) | 8'-OH |
| | 9.67 (1H, s) | 6'-OH | 9.65 (1H, s) | 6'-OH | 9.70 (1H, s) | 6'-OH |
| | 15.2 (1H, s) | 5-OH | 14.1 (1H, s) | 5-OH | 15.1 (1H, s) | 5'-OH |
| | 15.3 (1H, s) | 5'-OH | 15.1 (1H, s) | 5'-OH | 5.81 (1H, s) | 8-OH |
| | 9.92 (1H, s) | 6-OH | 5.80 (1H, s) | 8-OH | 9.70 (1H, s) | 6-OH |
| | | | | | 15.1 (1H, s) | 5-OH |

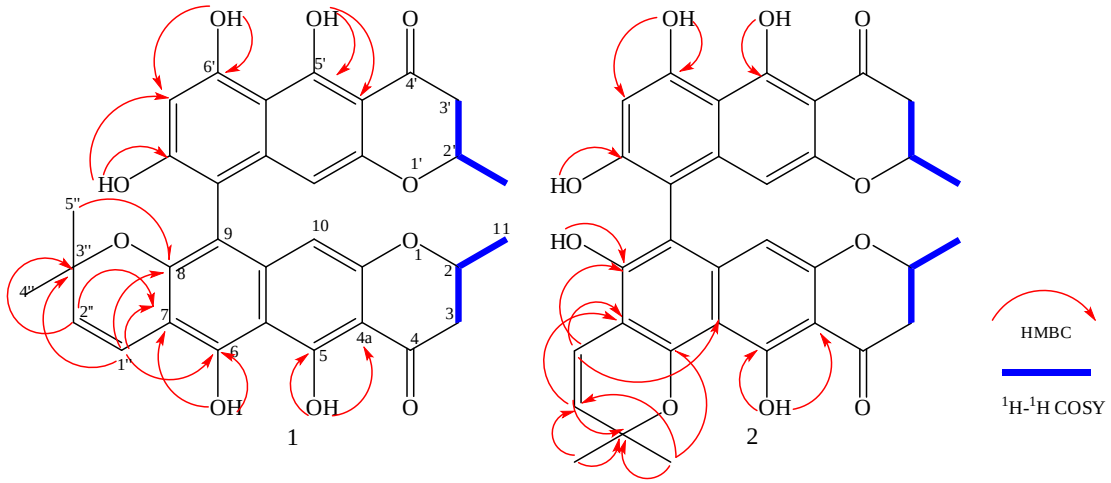


Figure S1. Key partial structures of compound **1** and **2** from HMBC data and $^1$H-$^1$H COSY

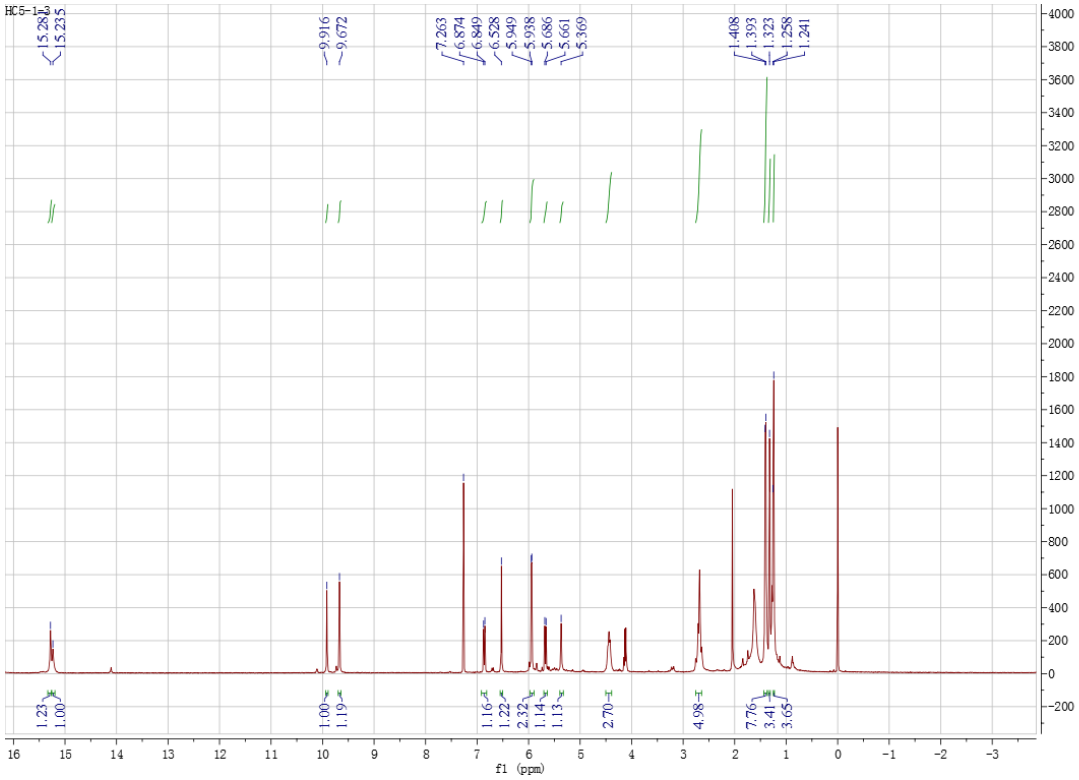


Figure S2. $^{1}$H NMR spectrum of compound **1**

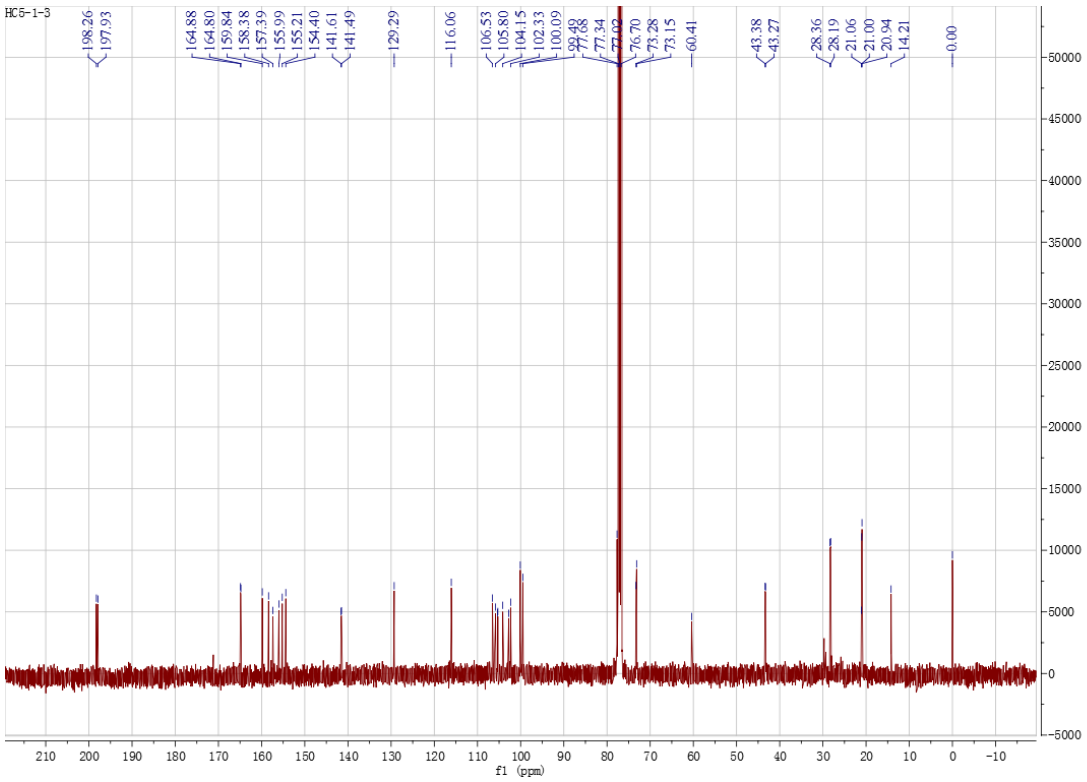


Figure S3. $^{13}$C NMR spectrum of compound **1**

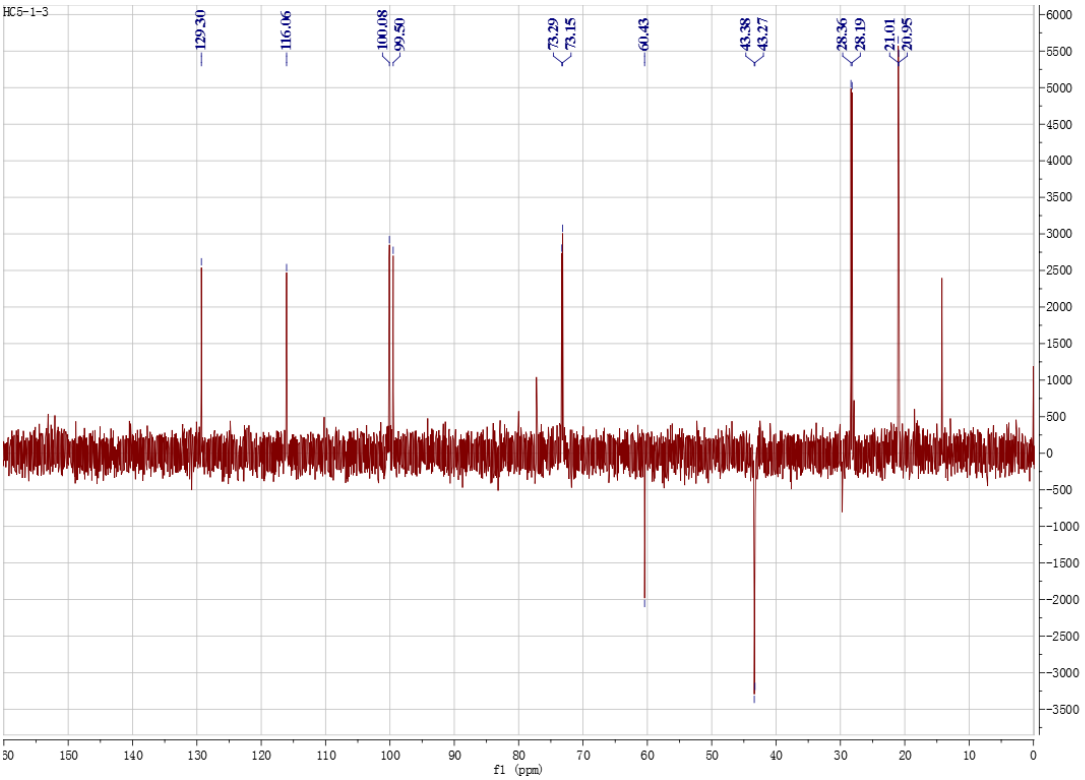


Figure S4.135DEPT spectrum of compound **1**

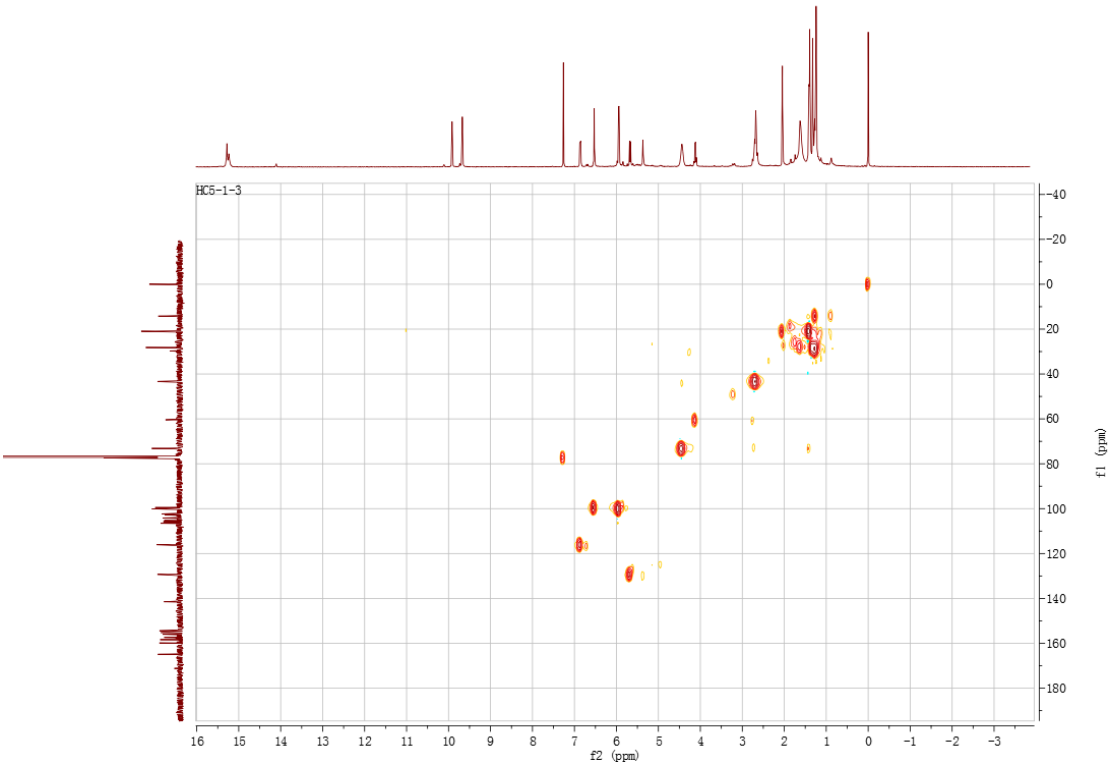


Figure S5. HSQC spectrum of compound **1**

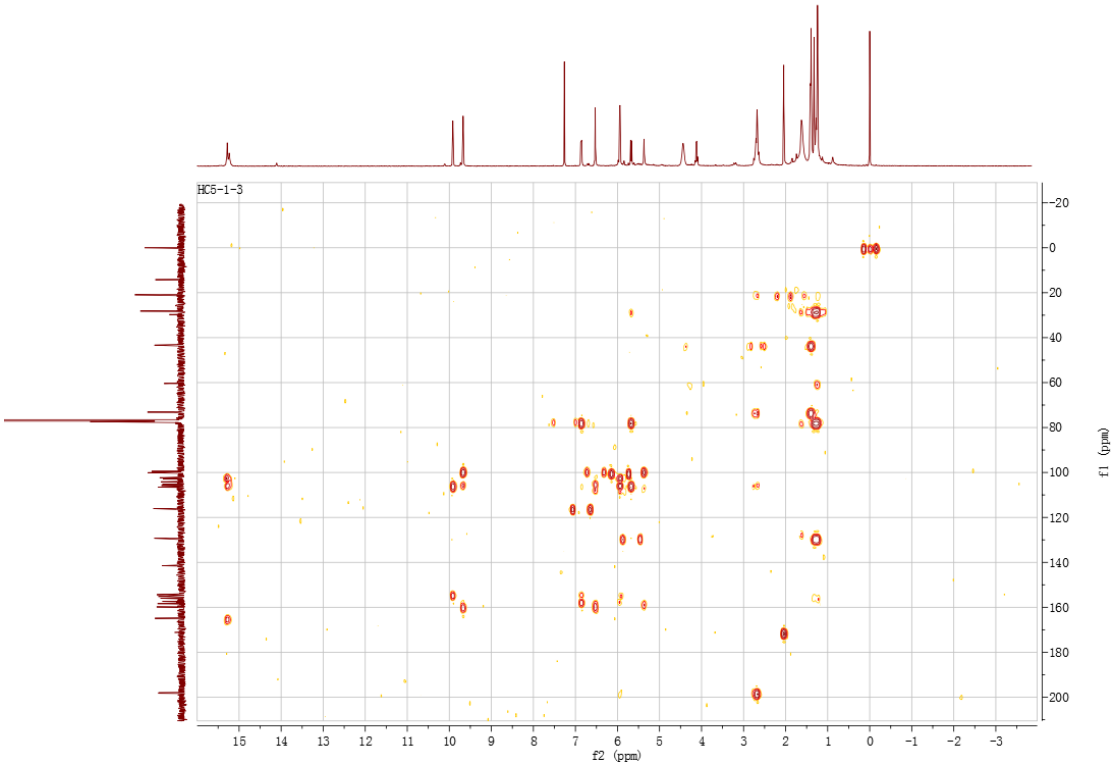


Figure S6. HMBC spectrum of compound **1**

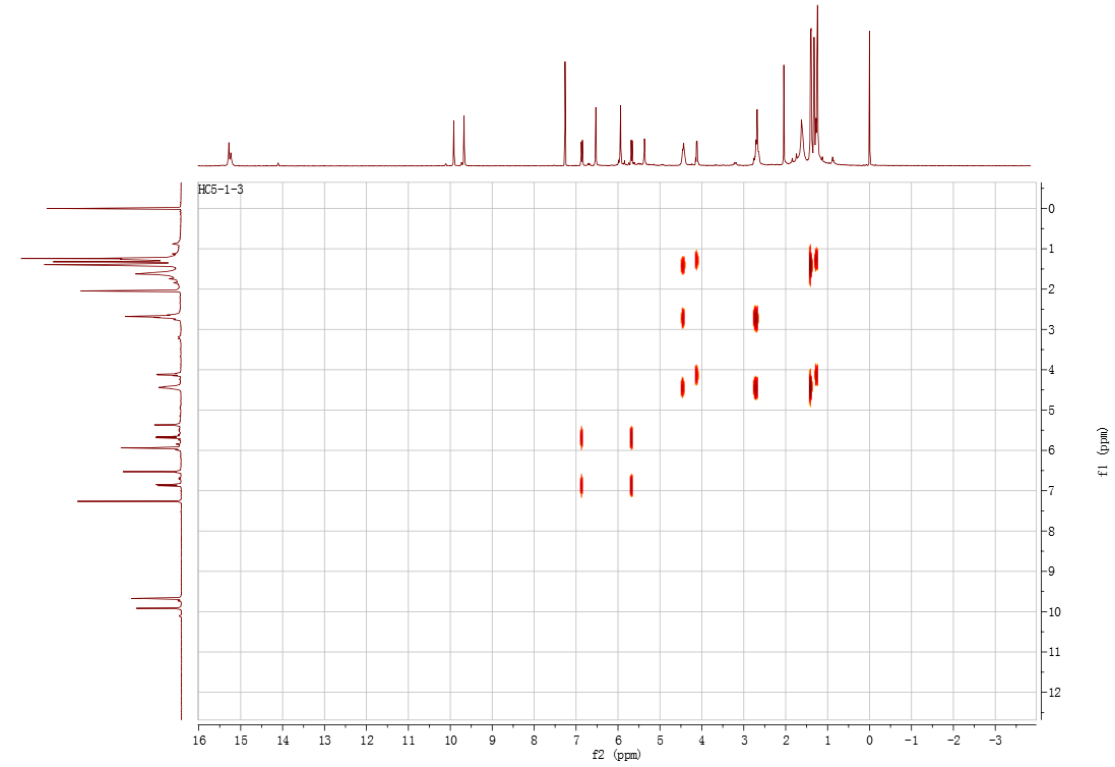


Figure S7. $^{1}$H-$^{1}$H COSY spectrum of compound **1**

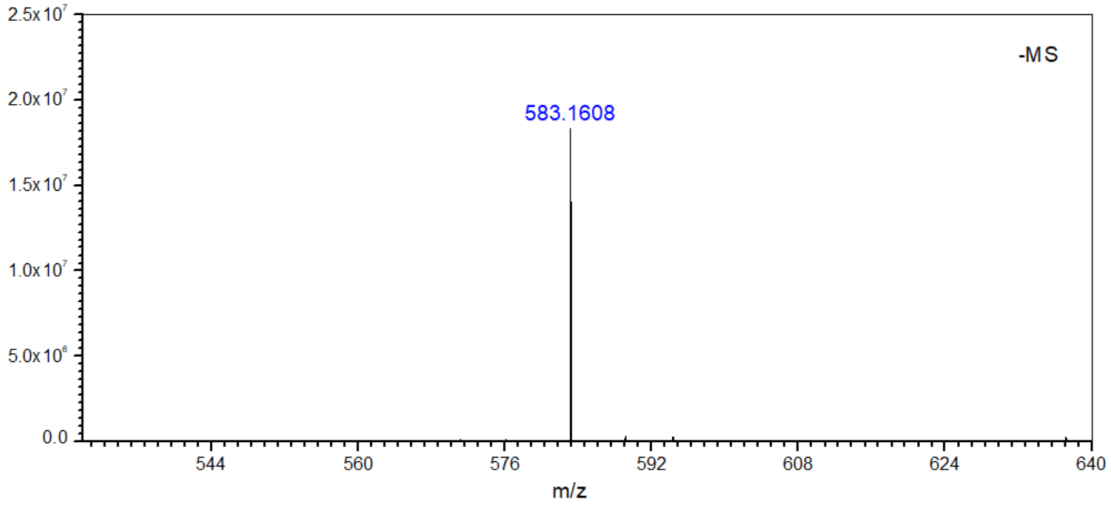


Figure S8. HRESIMS of compound **1**

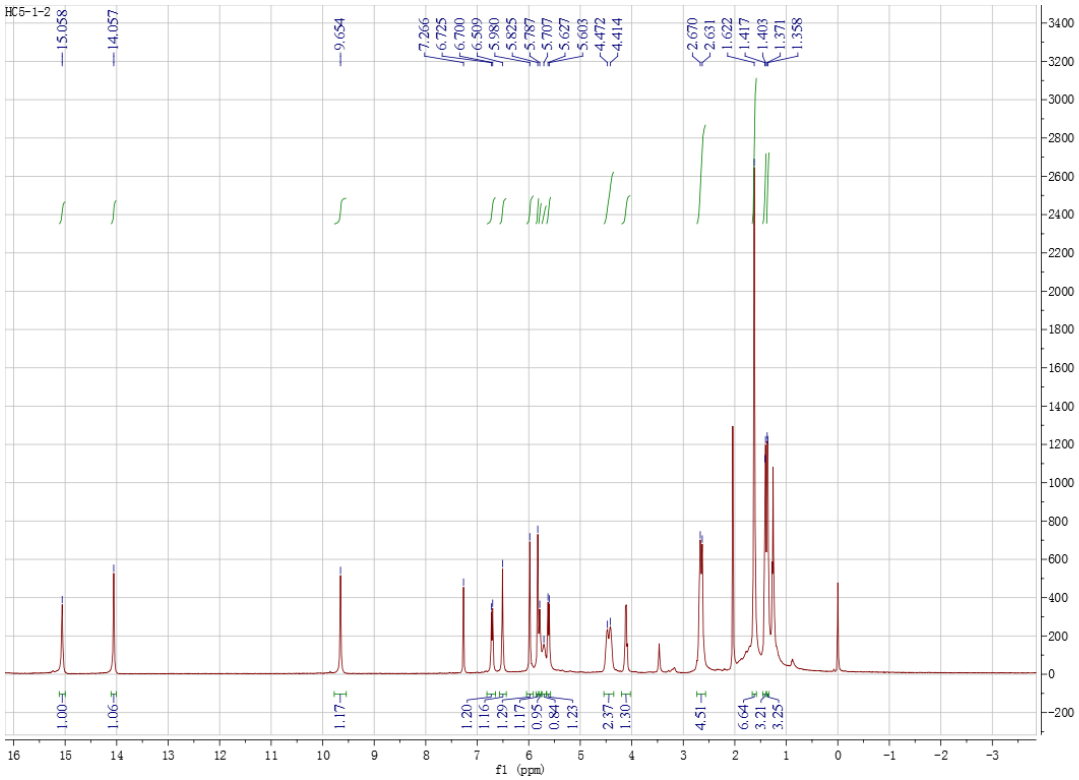


Figure S9. $^{1}$H NMR spectrum of compound **2**

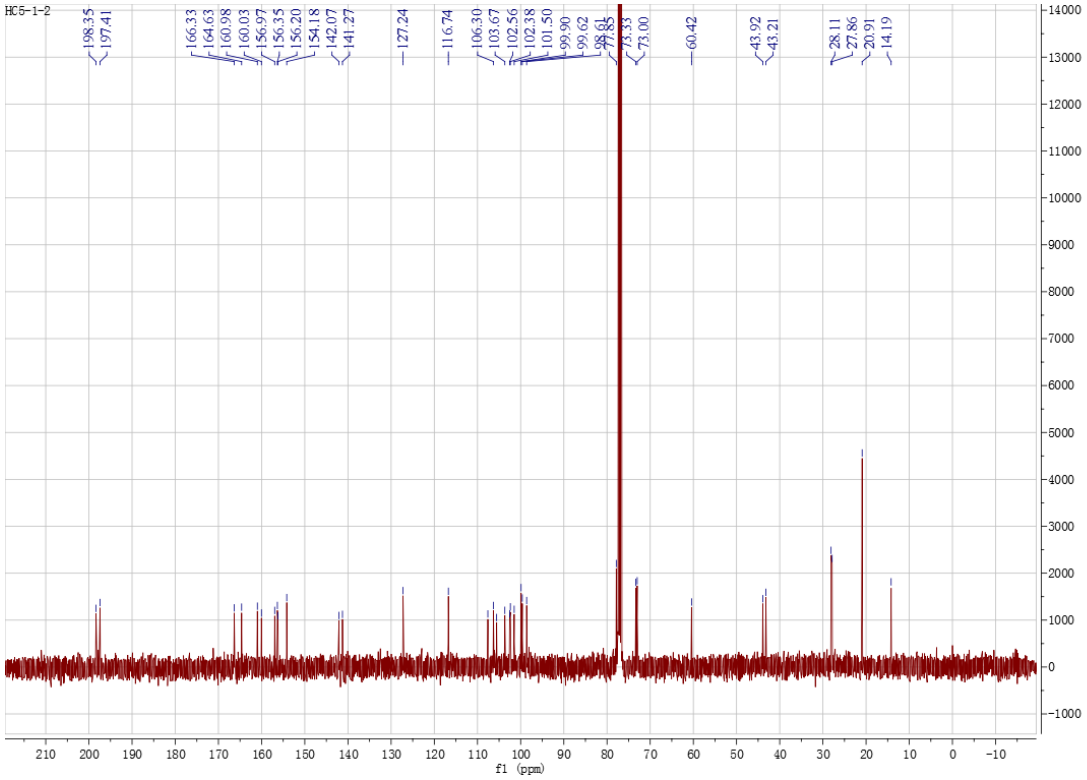


Figure S10. $^{13}$C NMR spectrum of compound **2**

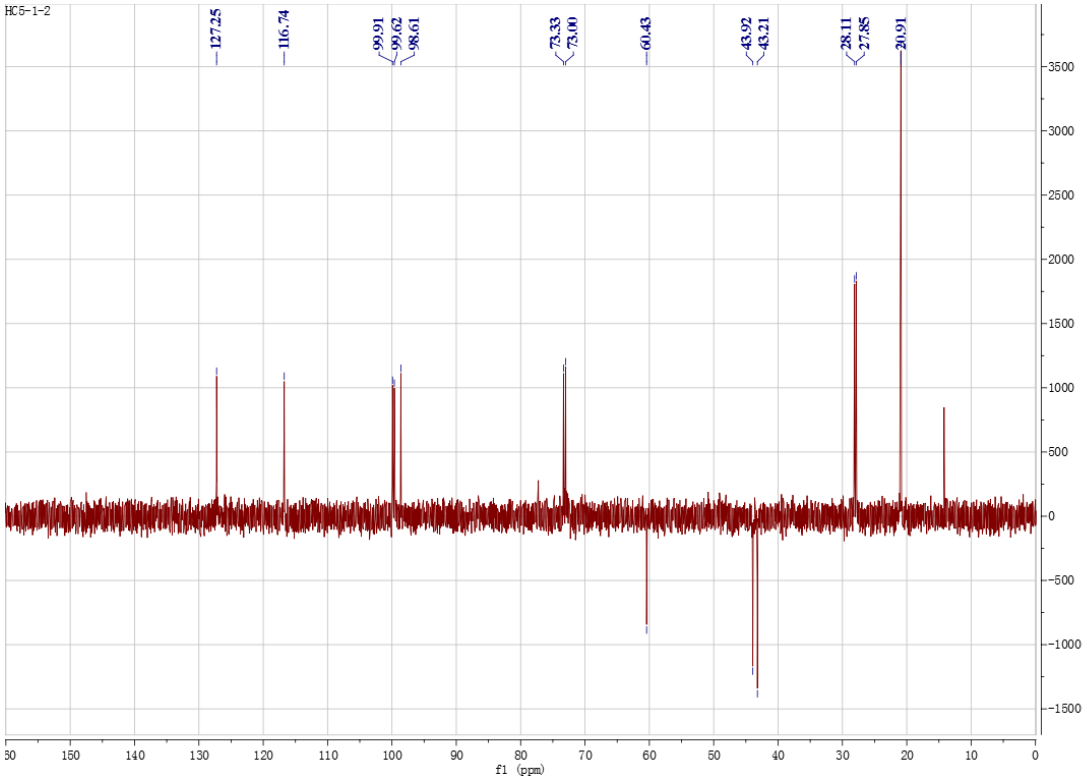


Figure S11. 135DEPT spectrum of compound **2**

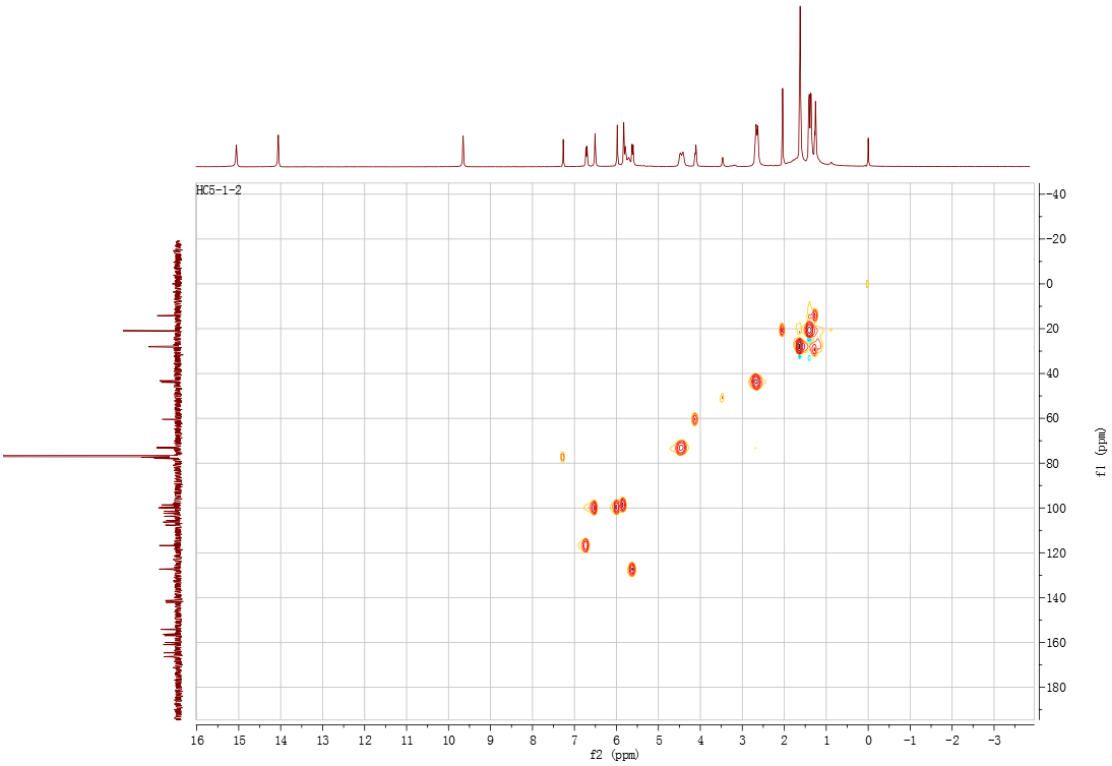


Figure S12. HSQC spectrum of compound **2**

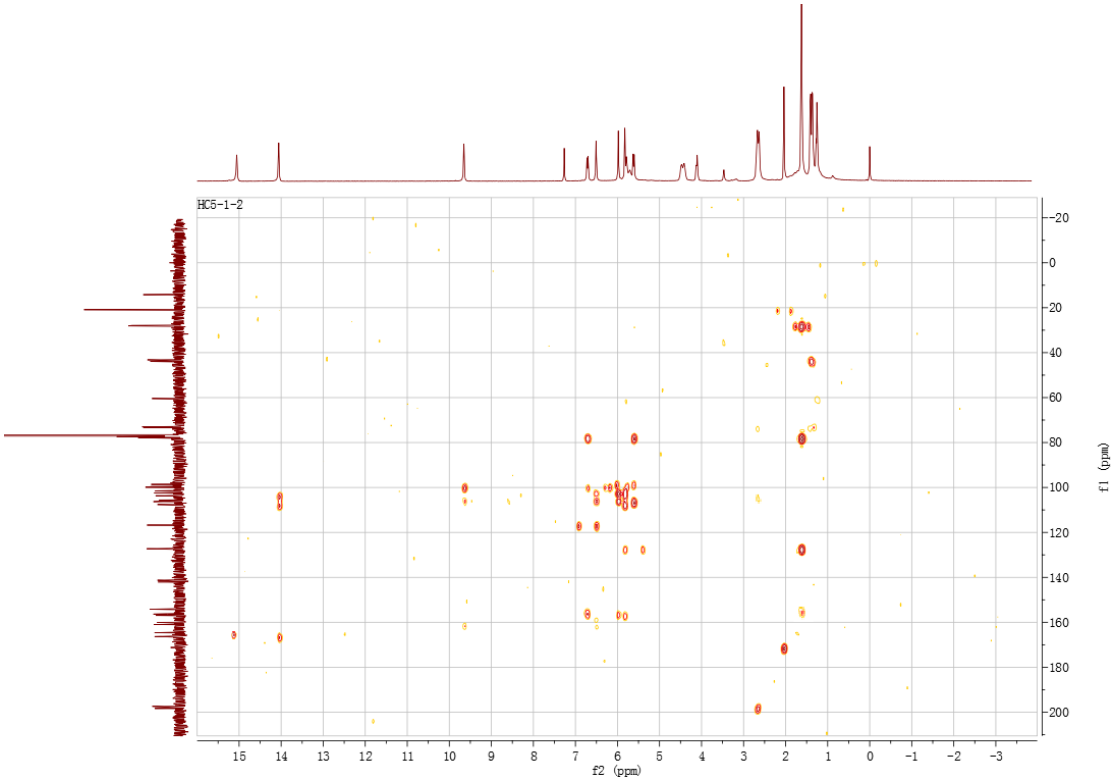


Figure S13. HMBC spectrum of compound **2**

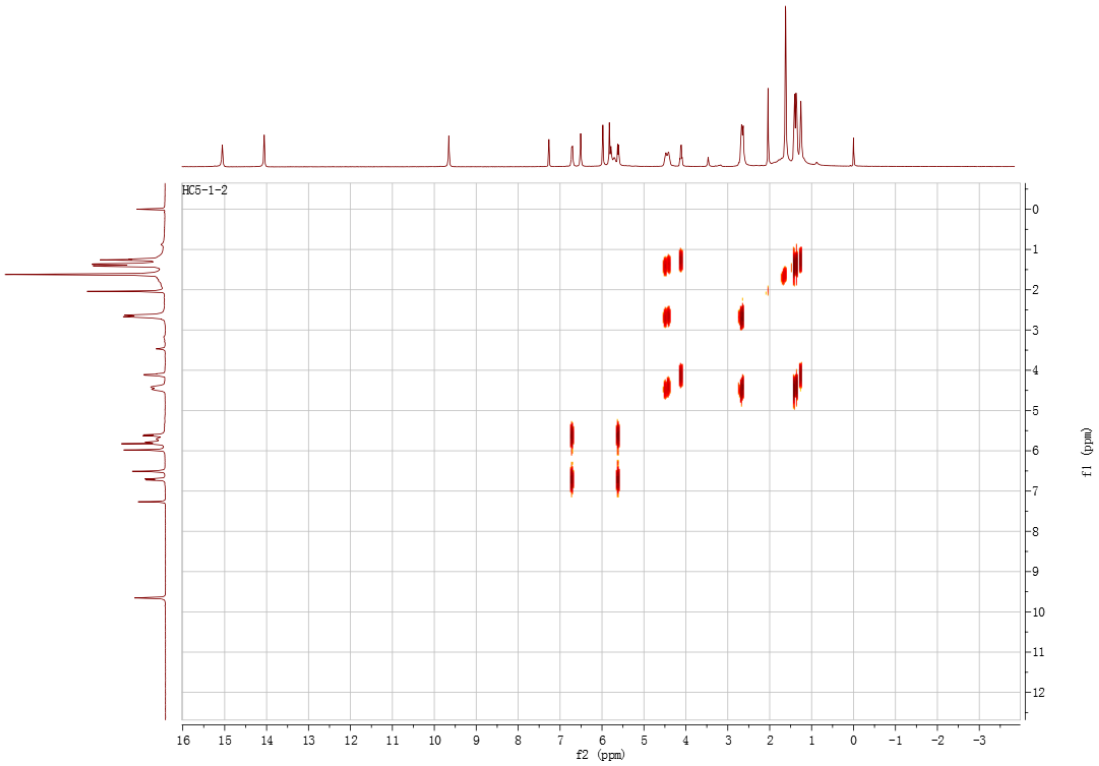


Figure S14. $^{1}$H-$^{1}$H COSY spectrum of compound **2**

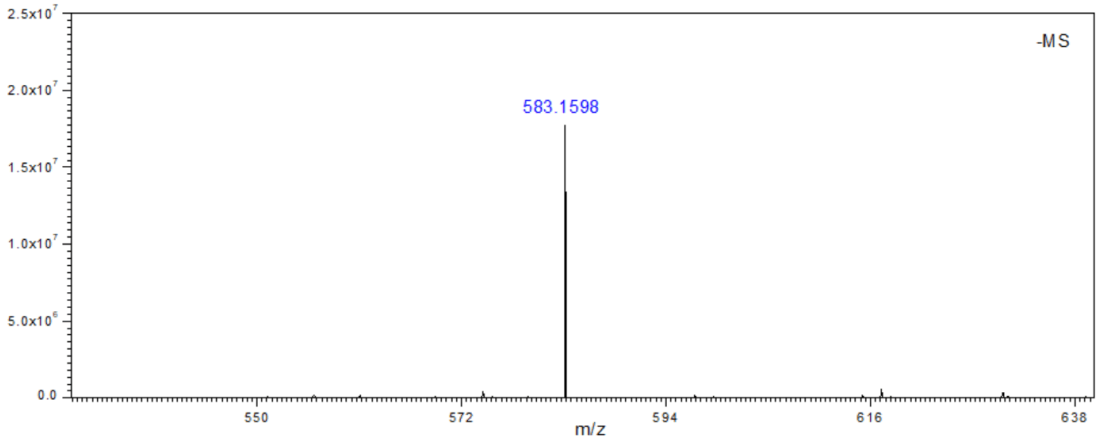


Figure S15. HRESIMS of compound **2**