

## SUPPLEMENTARY MATERIALS

### ***In vitro* Antiplasmodial and Molecular Docking Studies of Chemical Constituent Isolated from the Bark of *Diospyros lanceifolia* (Ebenaceae)**

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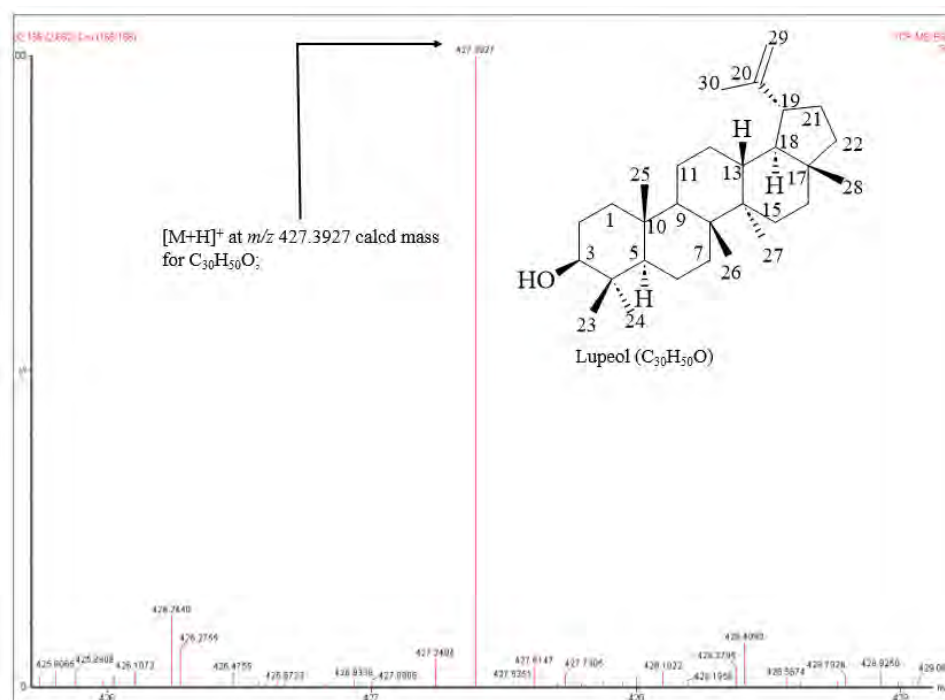
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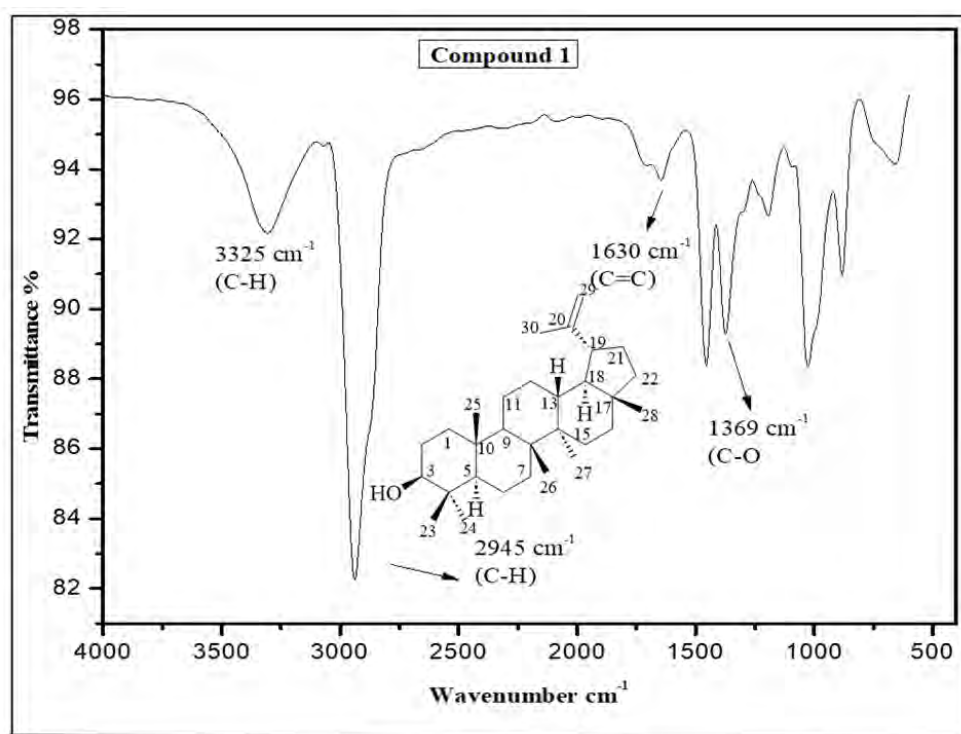
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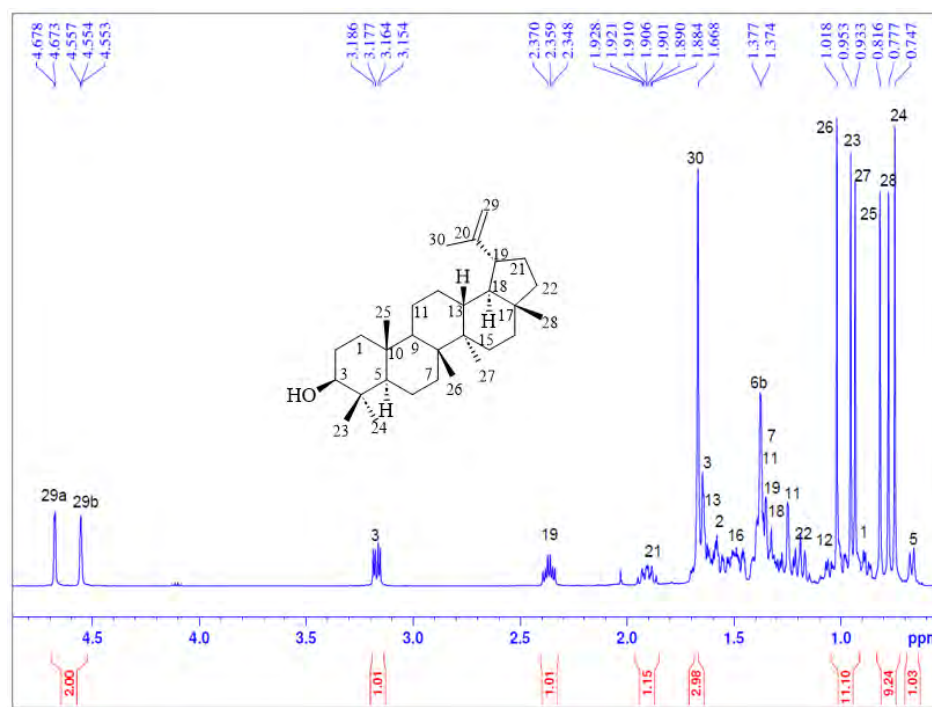
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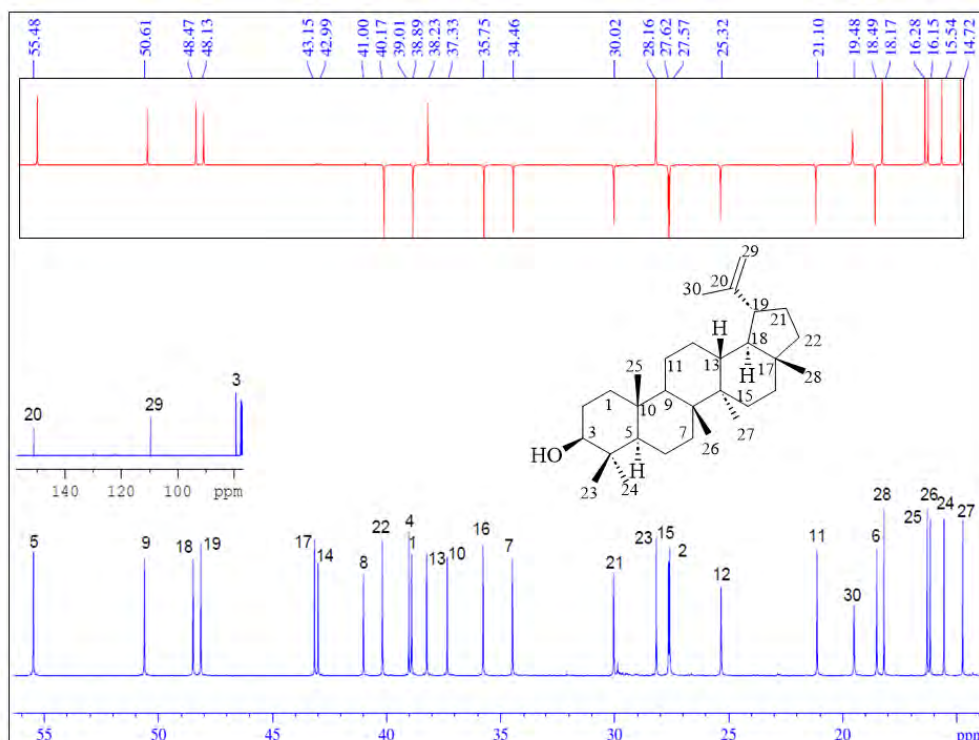
**Figure S1:** HRMS spectrum of **1**



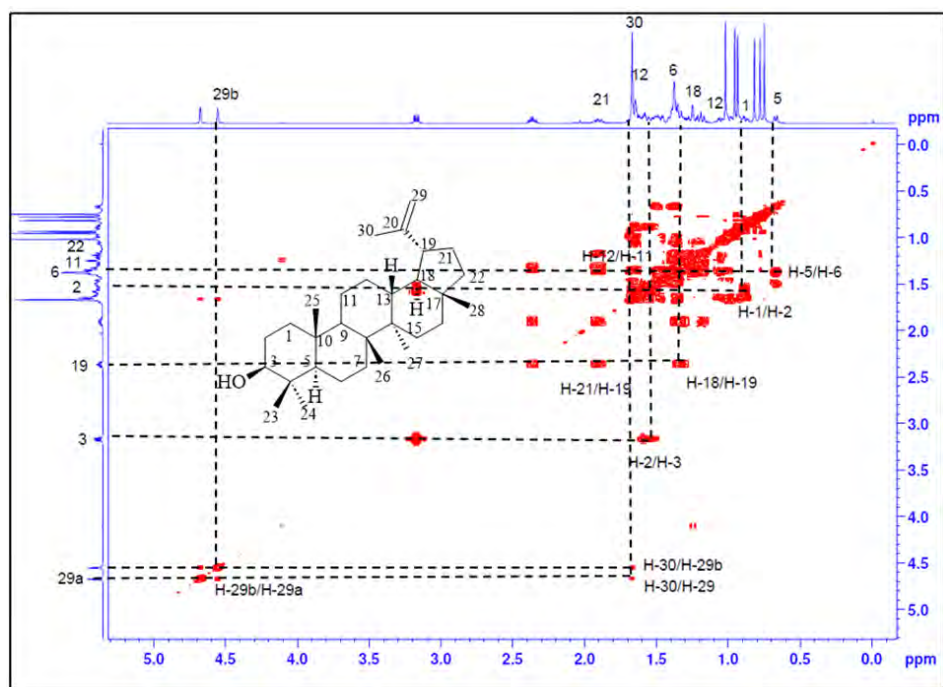
**Figure S2:** FT-IR spectrum of **1**



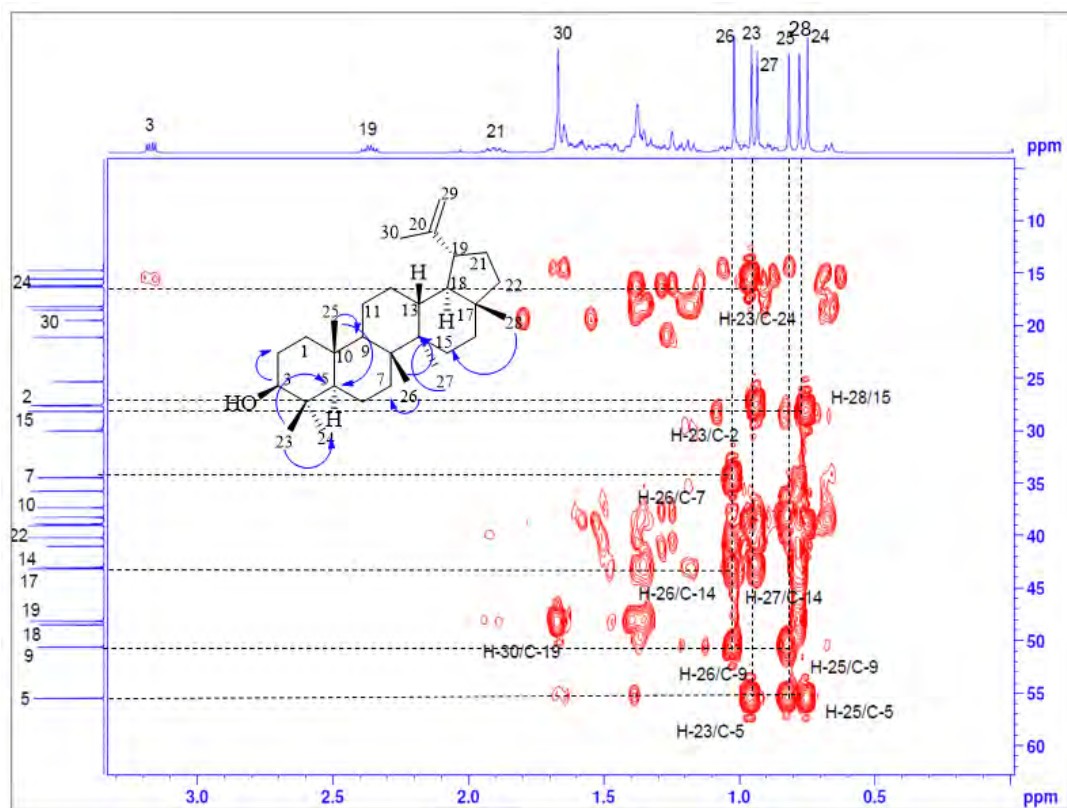
**Figure S3:**  $^1\text{H}$ -NMR (500 MHz,  $\text{CDCl}_3$ ) spectrum of **1**



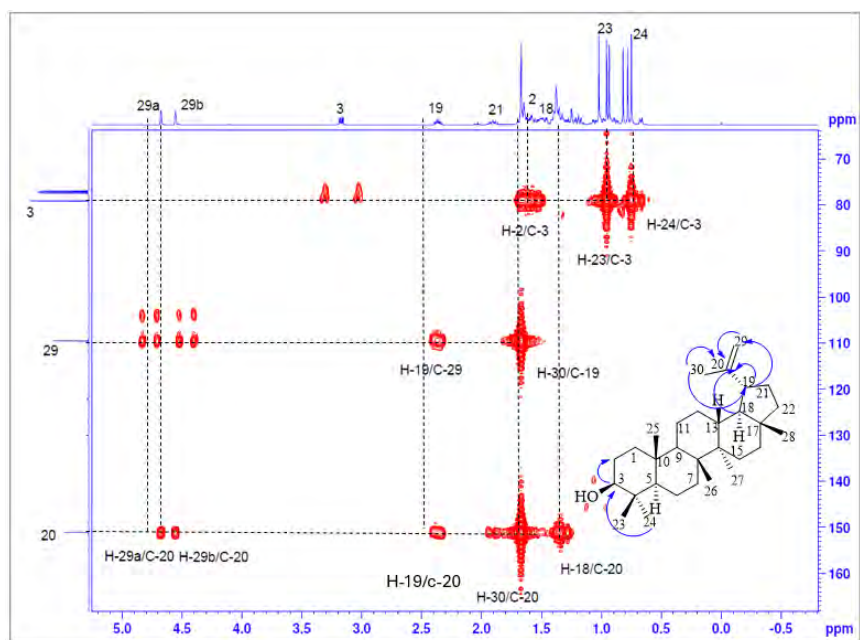
**Figure S4:**  $^{13}\text{C}$ -NMR and DEPT-135 (125 MHz,  $\text{CDCl}_3$ ) spectrum of **1**



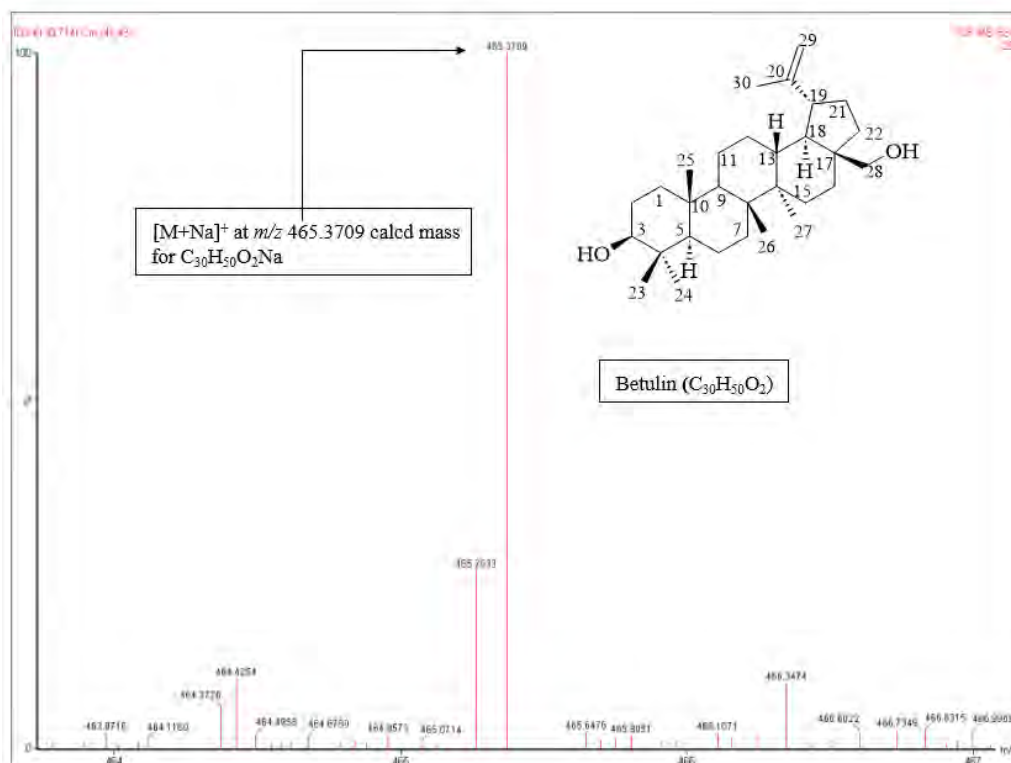
**Figure S5:**  $^1\text{H}$ - $^1\text{H}$  COSY spectrum of **1**



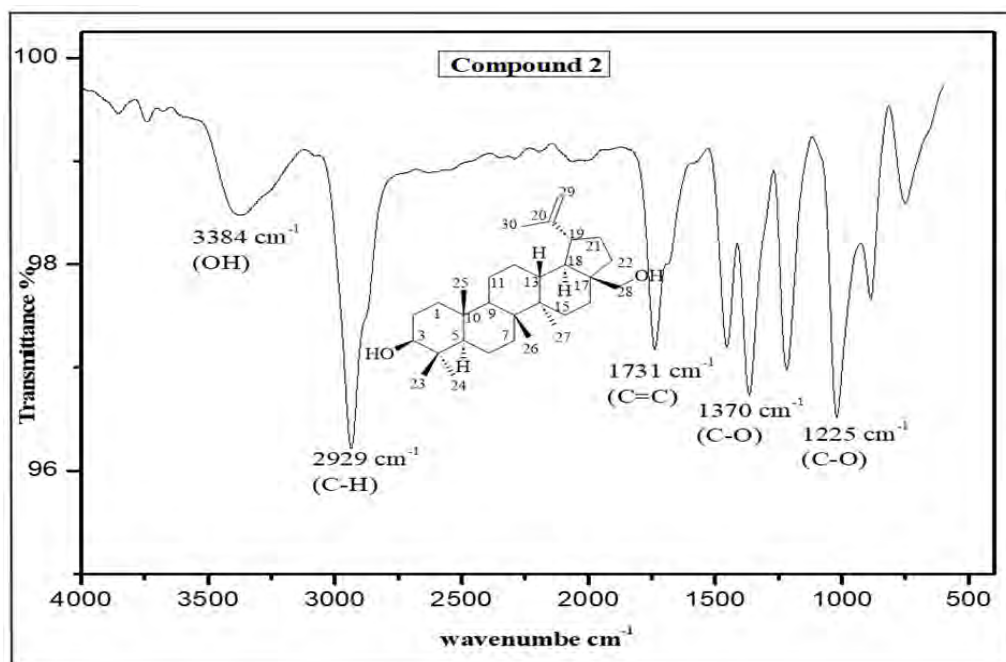
**Figure S6:** HMBC spectrum of **1**



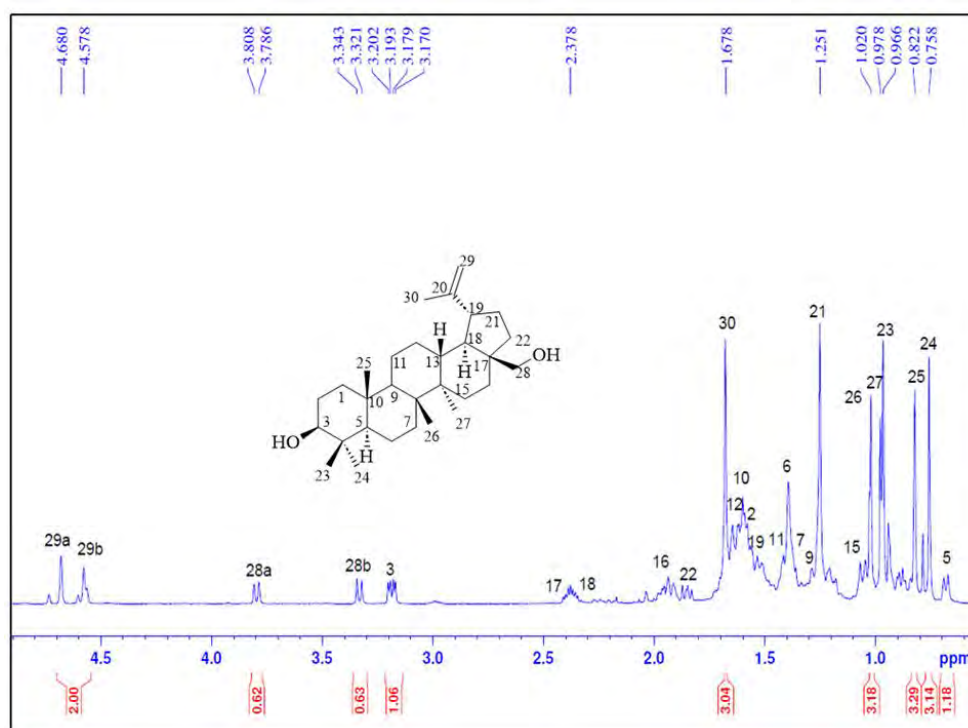
**Figure S7:** HMBC spectrum of **1** (expanded)



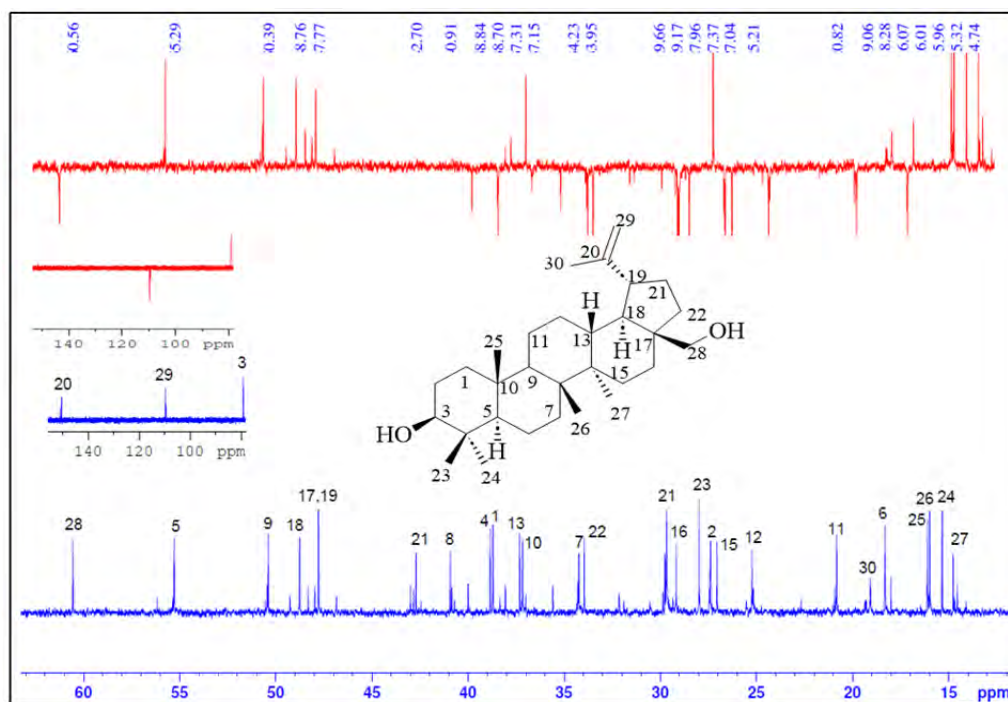
**Figure S8:** HRMS spectrum of **2**



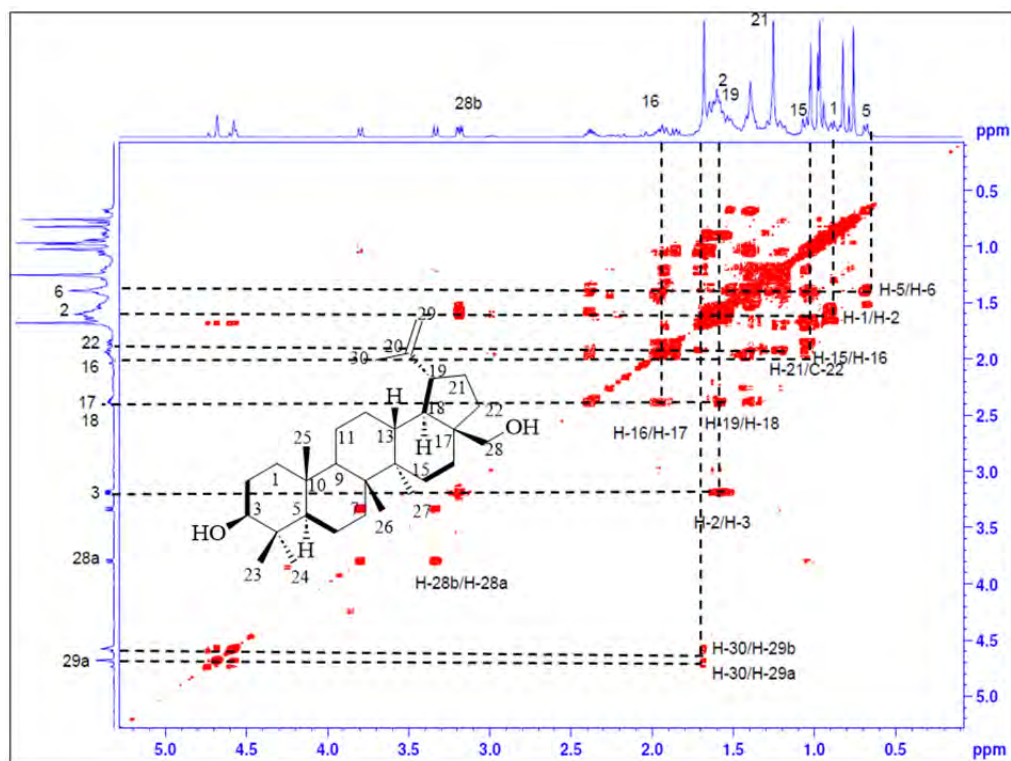
**Figure S9:** FT-IR spectrum of **2**



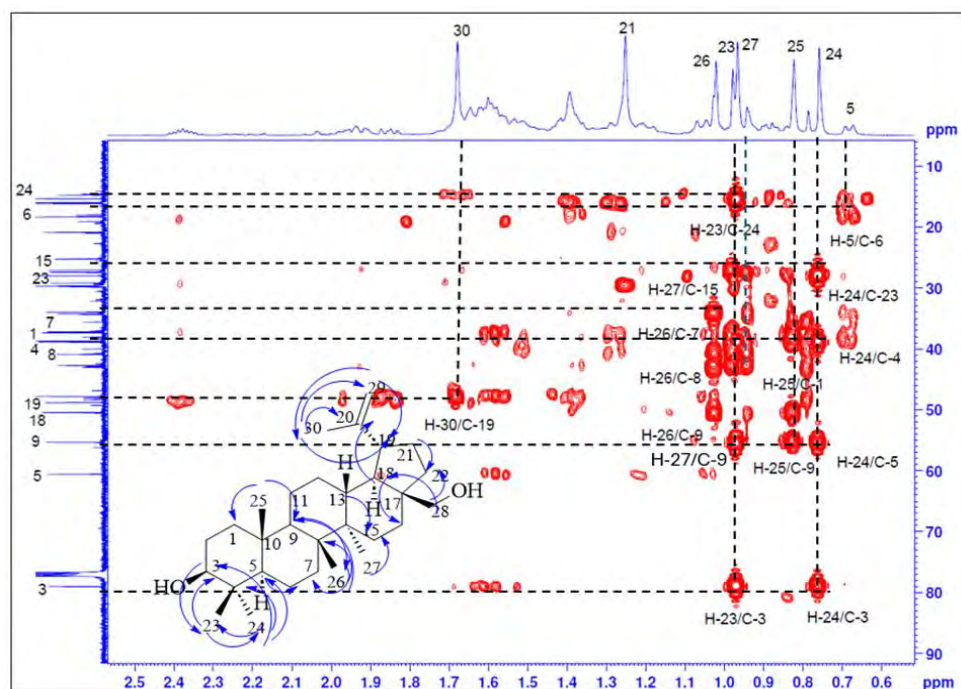
**Figure S10:**  $^1\text{H}$ -NMR (500 MHz,  $\text{CDCl}_3$ ) spectrum of **2**



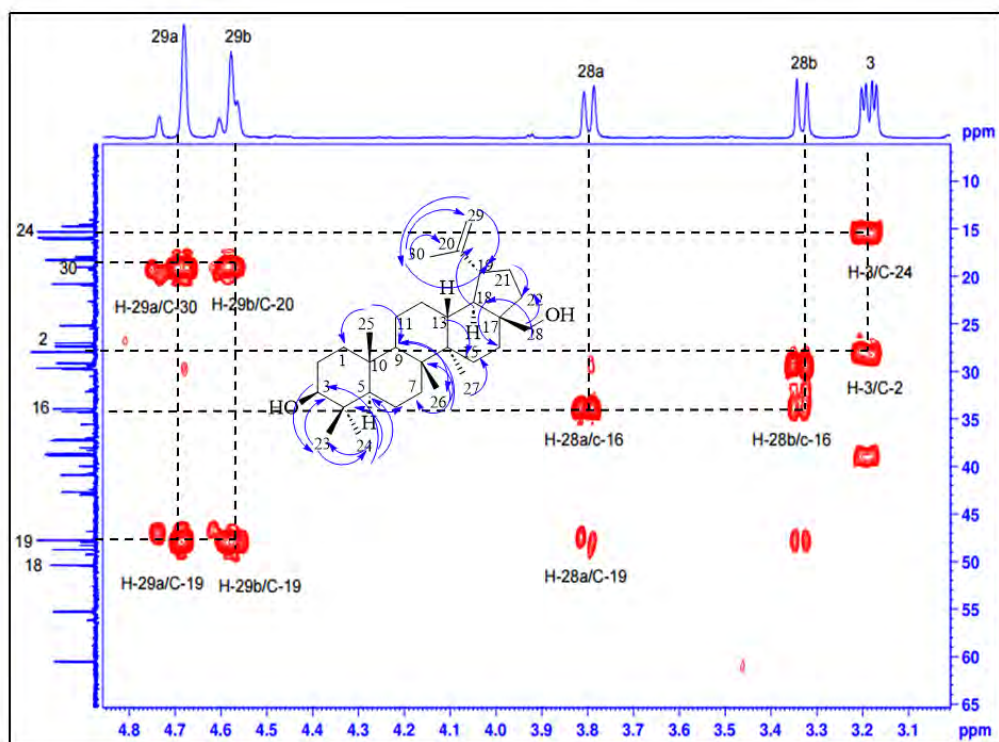
**Figure S11:**  $^{13}\text{C}$ -NMR and DEPT-135 (125 MHz,  $\text{CDCl}_3$ ) spectrum of **2**



**Figure S12:**  $^1\text{H}$ - $^1\text{H}$  COSY spectrum of **2**



**Figure S13:** HMBC spectrum of **2**



**Figure S14:** HMBC spectrum of **2** (Expanded)

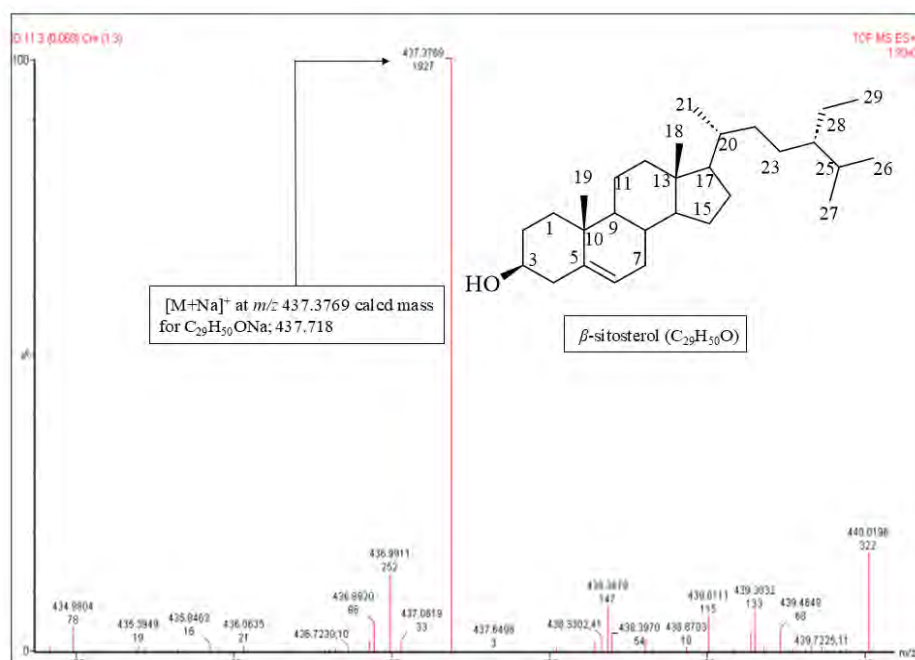


Figure S15: HRMS spectrum of 3

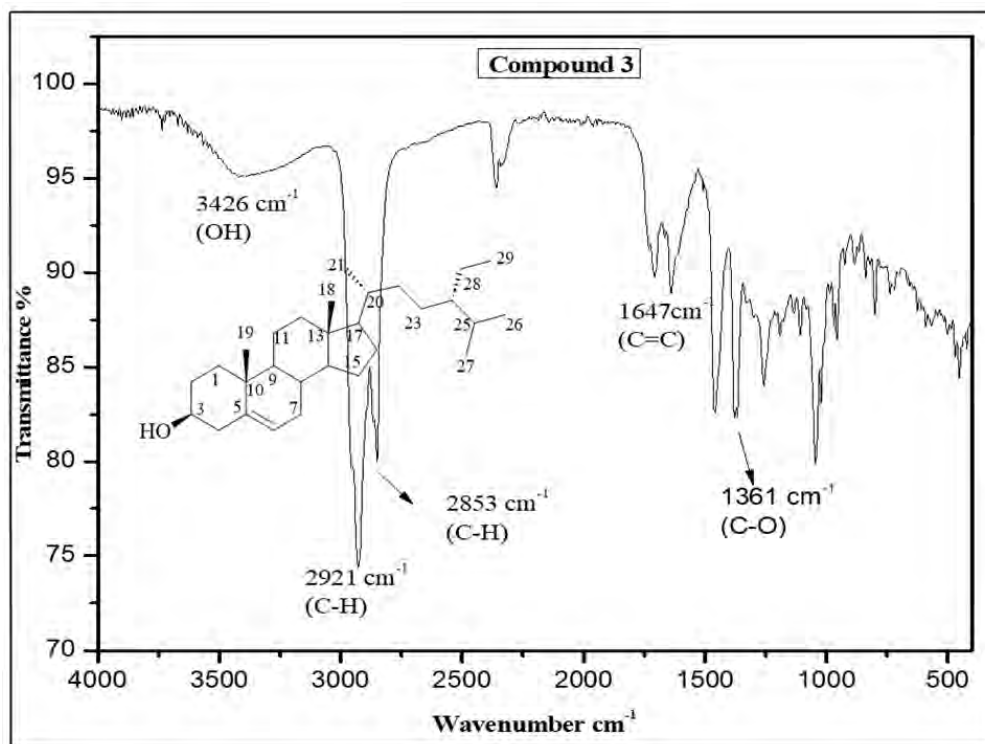
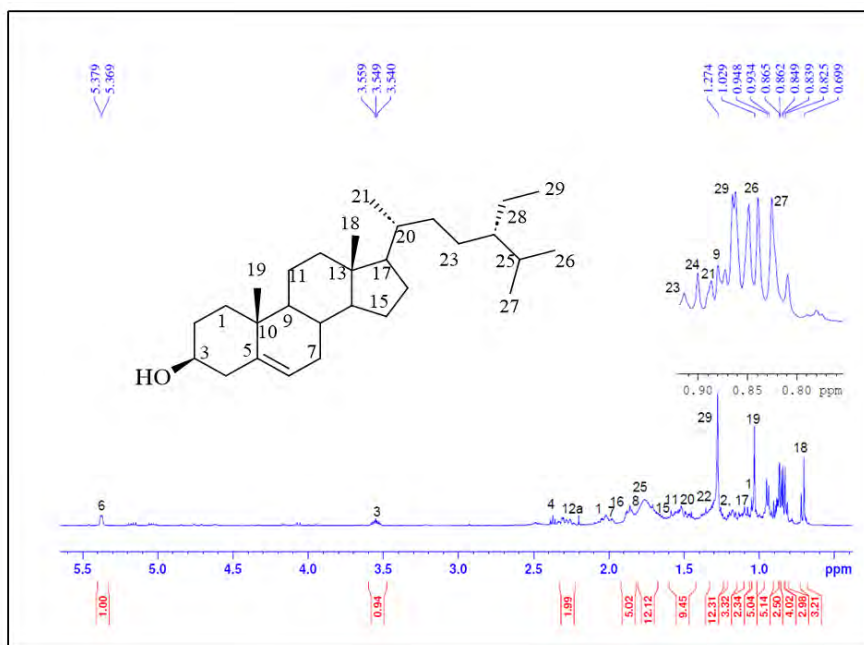
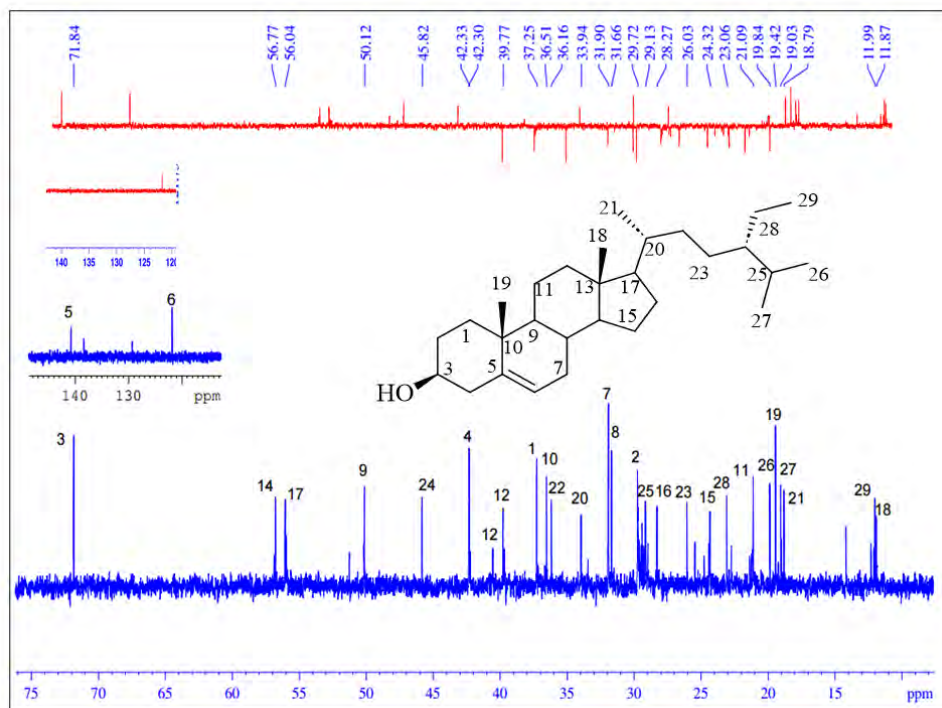


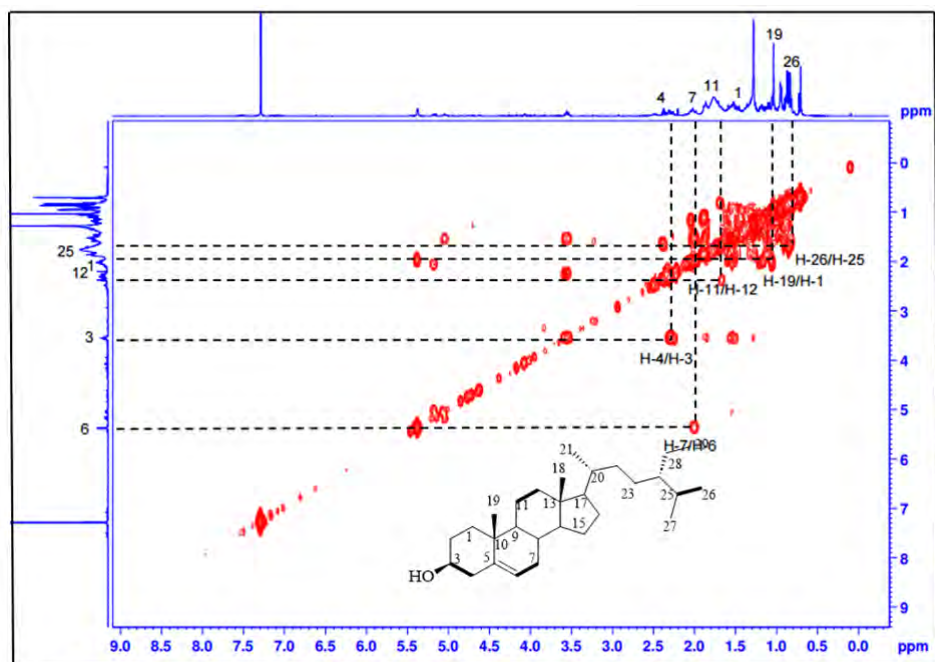
Figure S16: FT-IR spectrum of 3



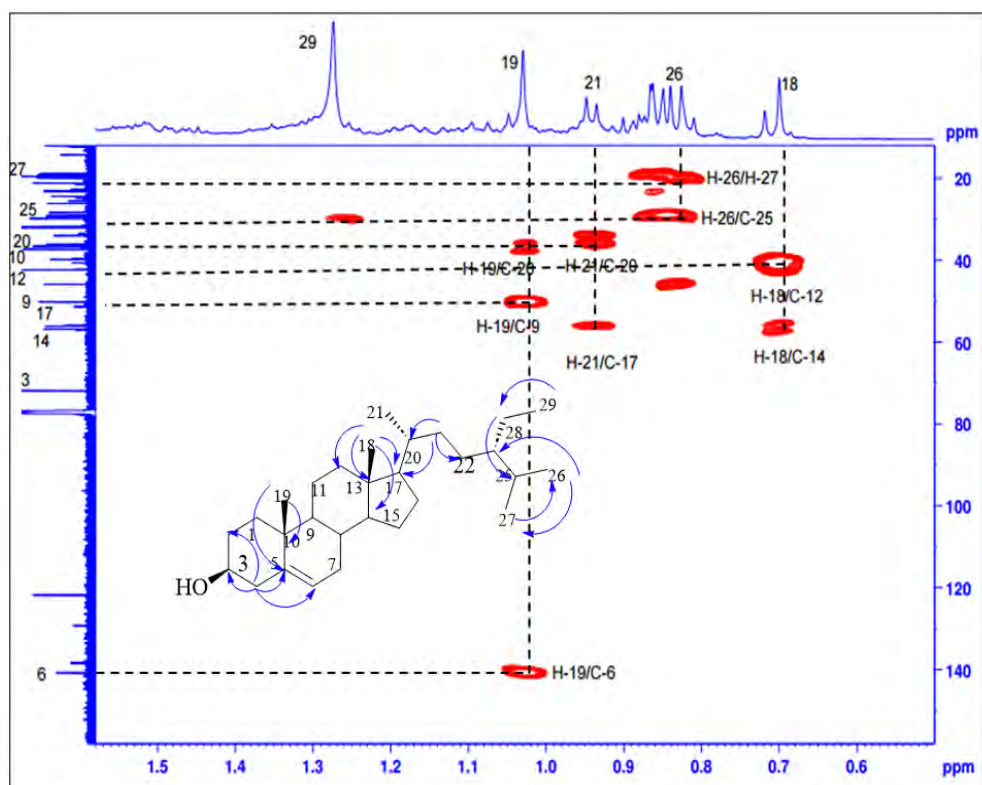
**Figure S17:**  $^1\text{H}$ -NMR (500 MHz in  $\text{CDCl}_3$ ) spectrum of **3**



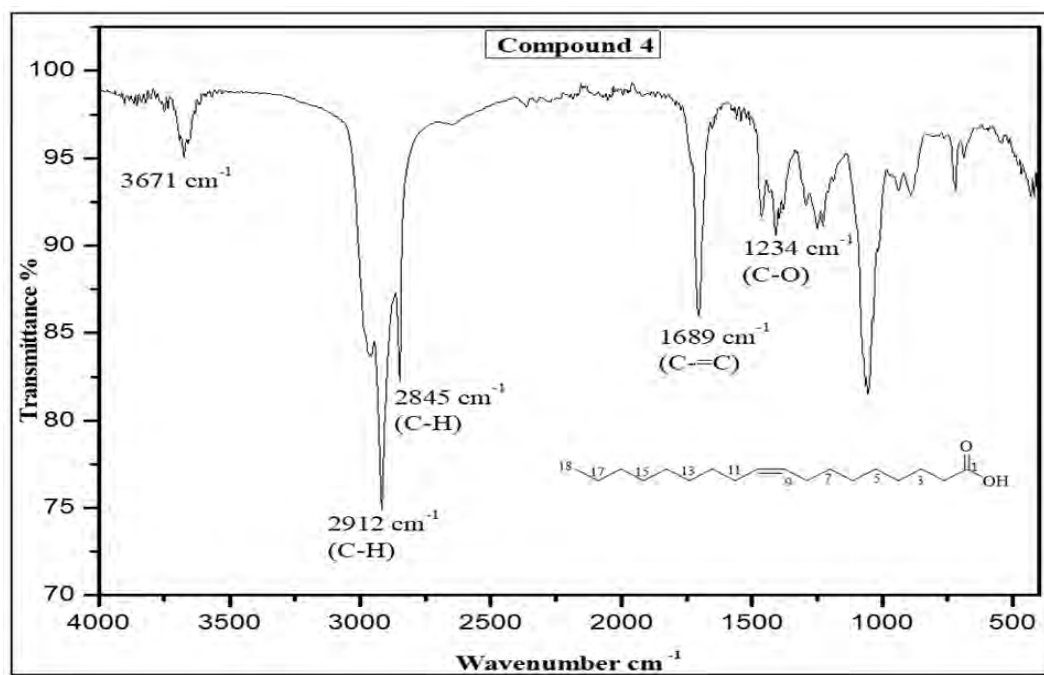
**Figure S18:**  $^{13}\text{C}$ -NMR and DEPT-135 (125 MHz in  $\text{CDCl}_3$ ) spectrum of **3**



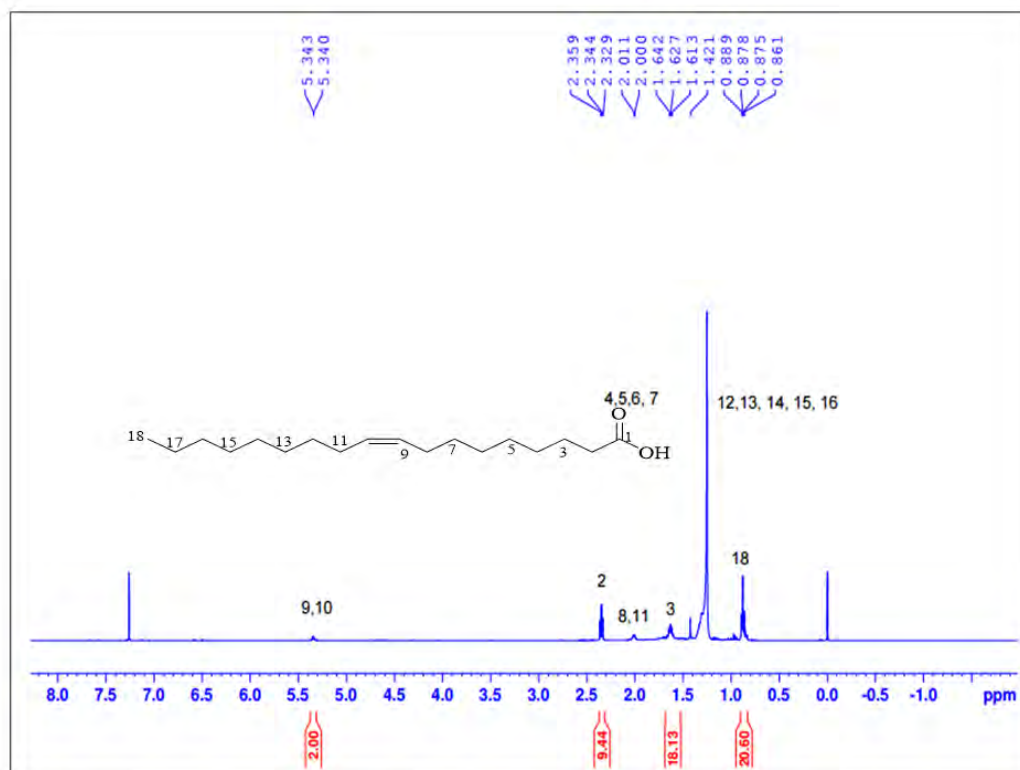
**Figure S19:**  $^1\text{H}$ - $^1\text{H}$  COSY spectrum of **3**



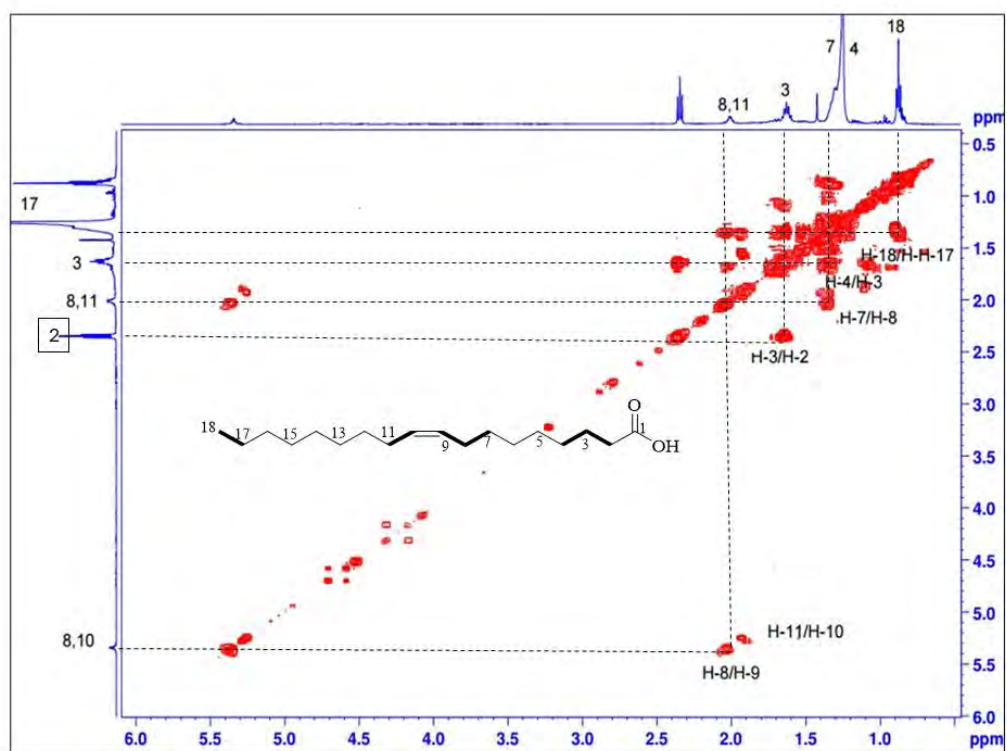
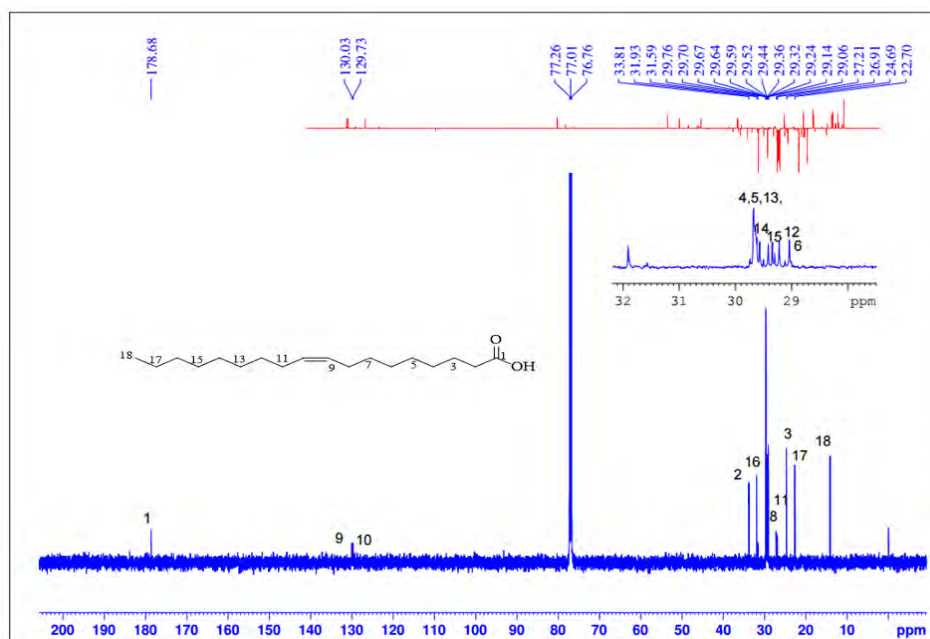
**Figure S20:** HMBC spectrum of **3**



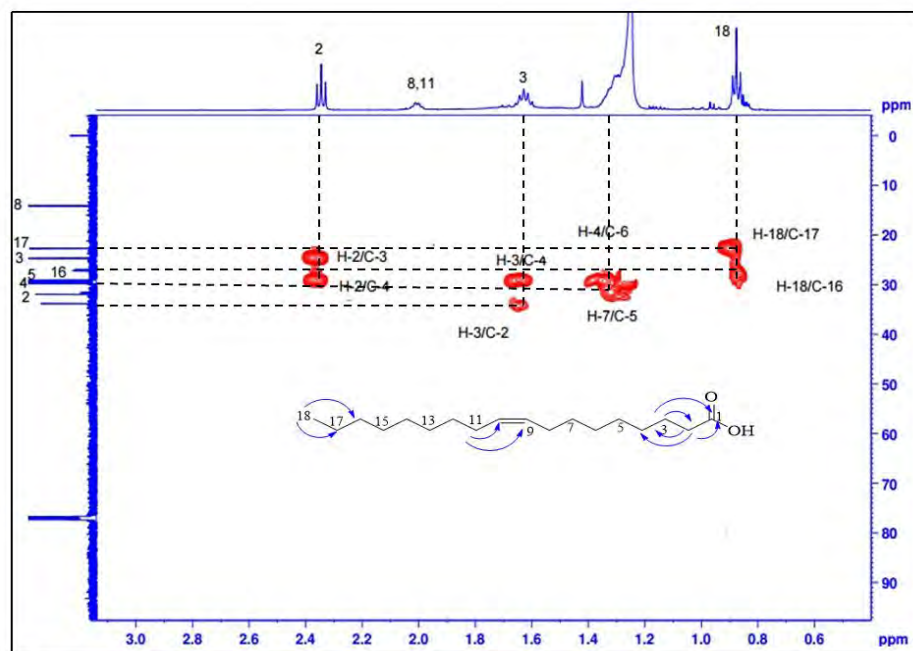
**Figure S21:** FT-IR spectrum of **4**



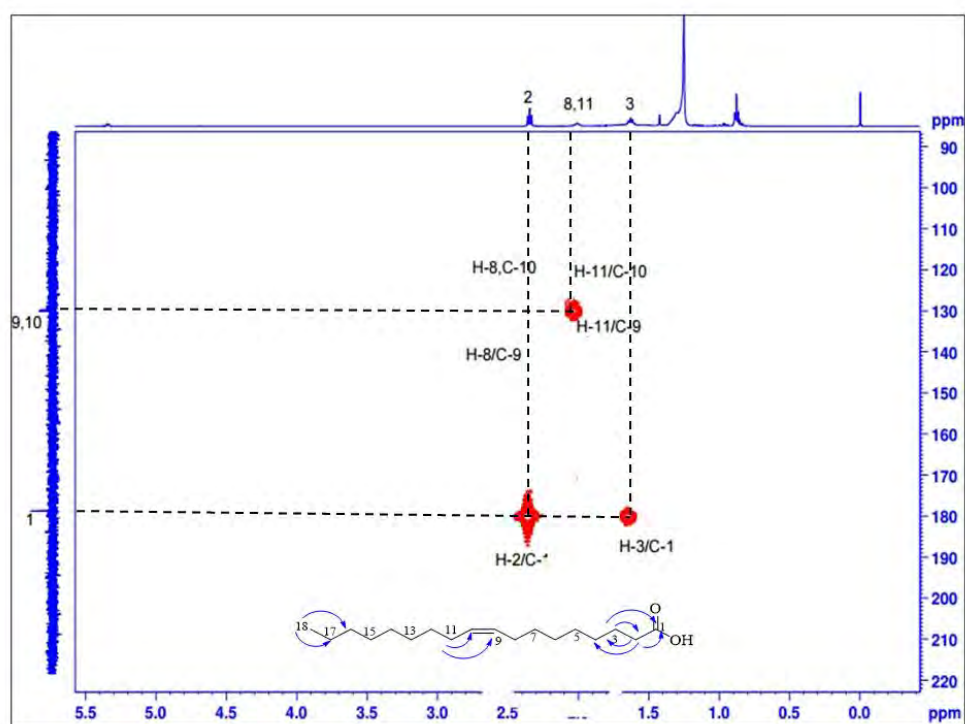
**Figure S22:**  $^1\text{H}$ -NMR (500 MHz in  $\text{CDCl}_3$ ) spectrum of **4**



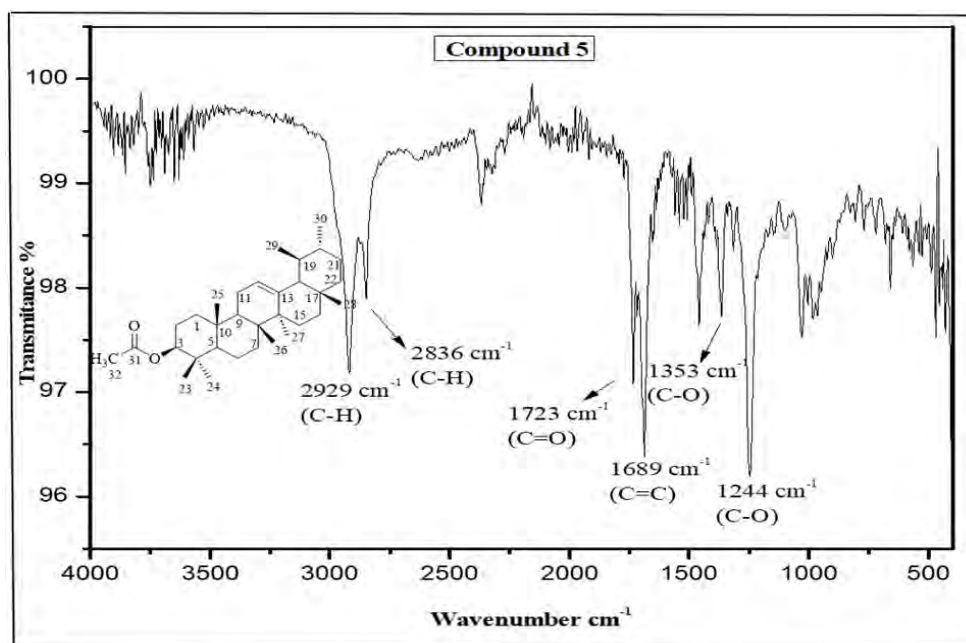
**Figure S24:**  $^1\text{H}$ - $^1\text{H}$  COSY spectrum of **4**



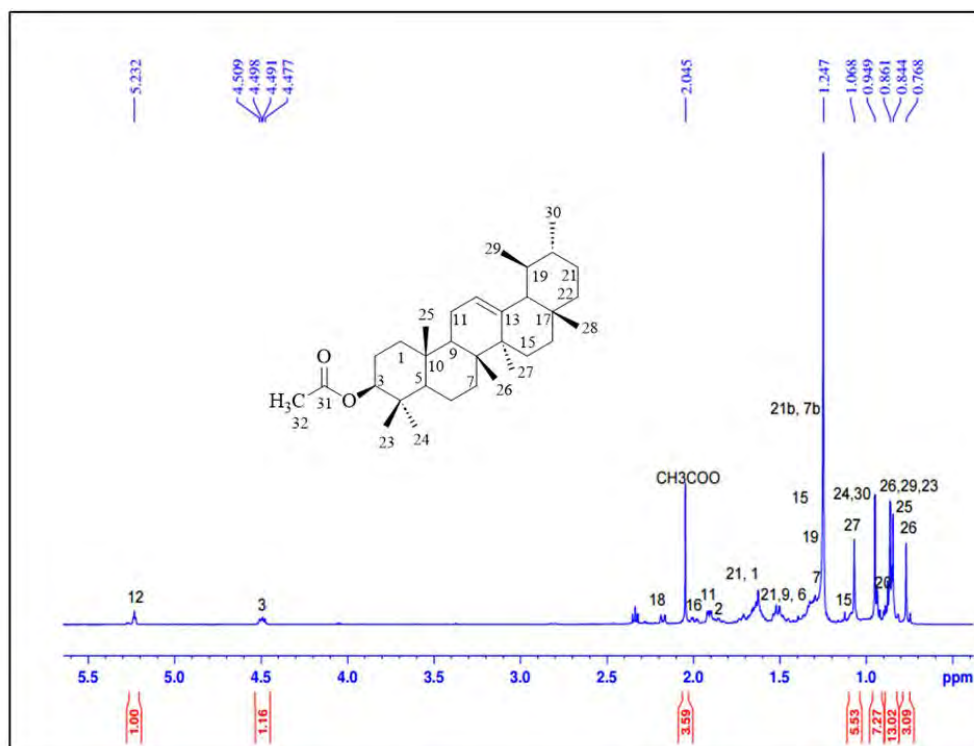
**Figure S25:** HMBC spectrum of **4**



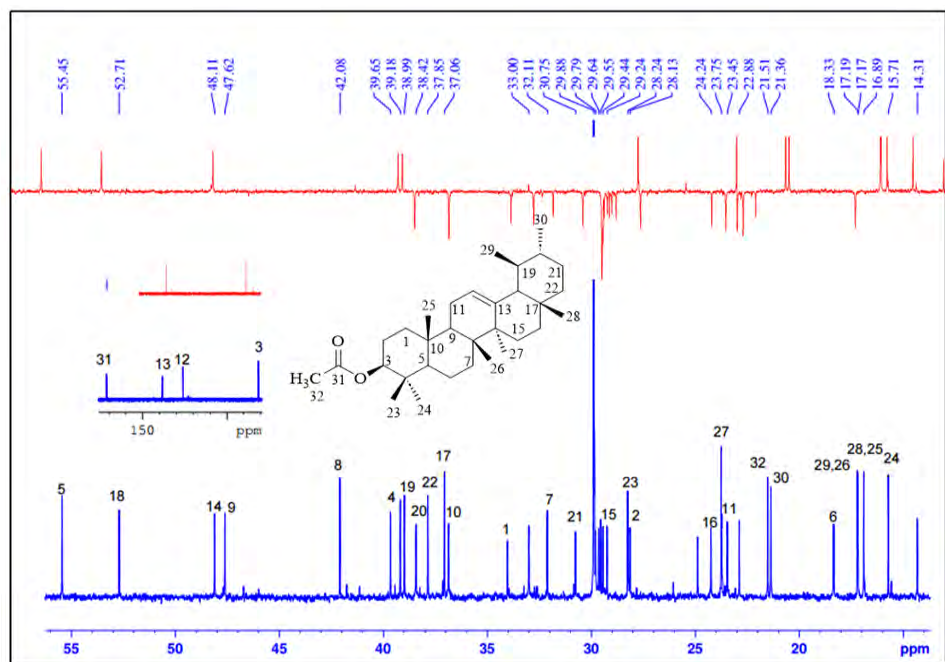
**Figure S26:** HMBC spectrum of **4** (Expanded)



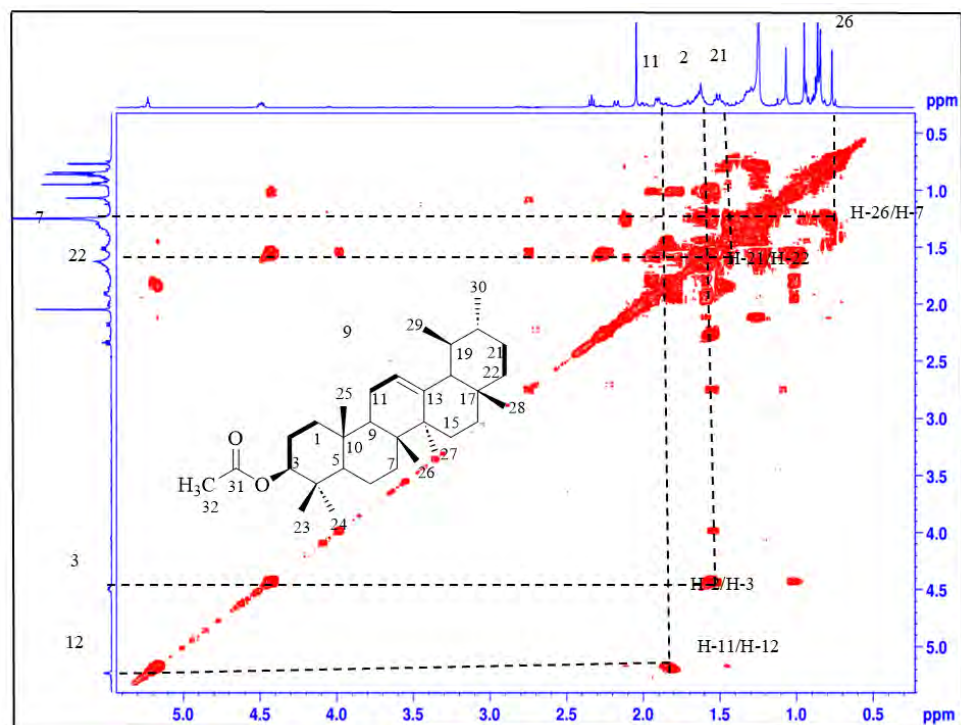
**Figure S27:** FT-IR spectrum of **5**



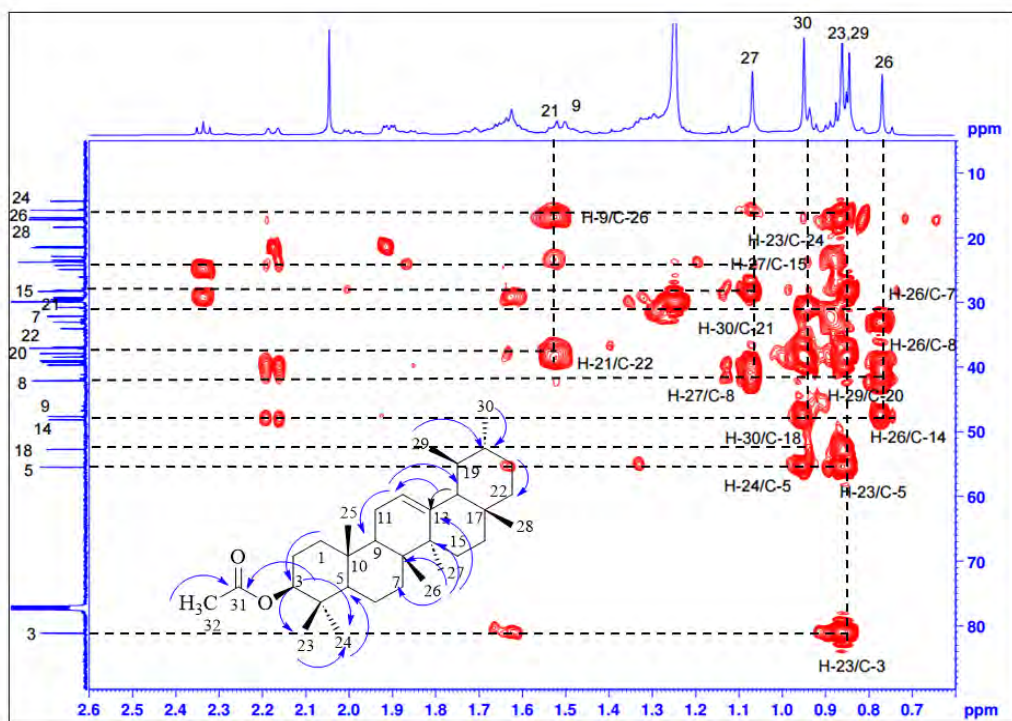
**Figure S28:**  $^1\text{H}$ -NMR spectrum of compound **5**



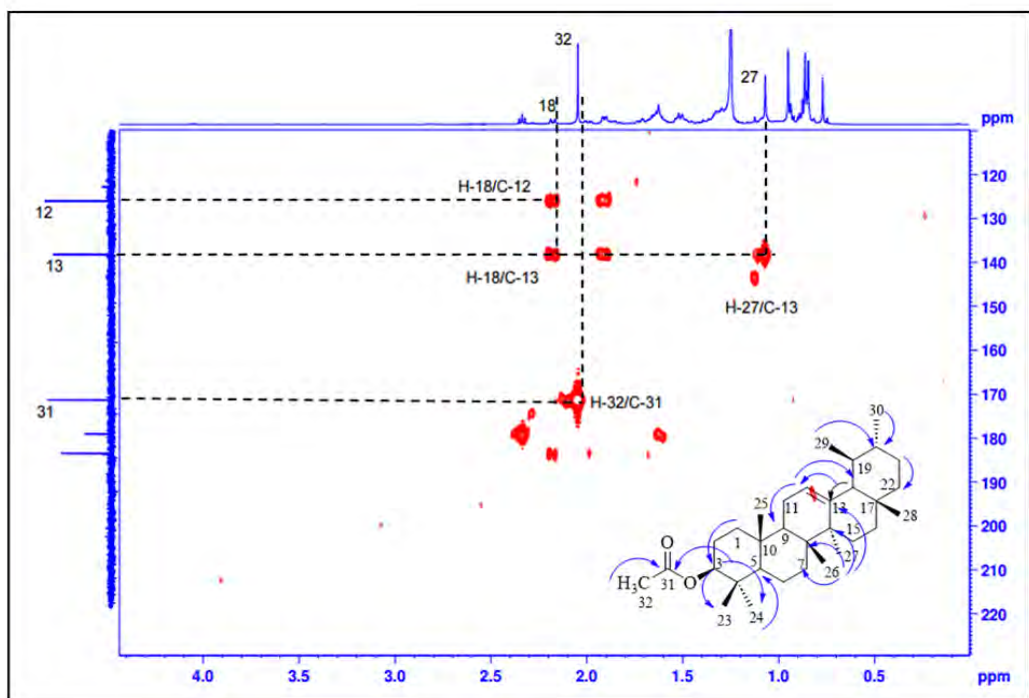
**Figure S29:**  $^{13}\text{C}$ -NMR and DEPT-135 (125 MHz in  $\text{CDCl}_3$ ) spectrum of **5**



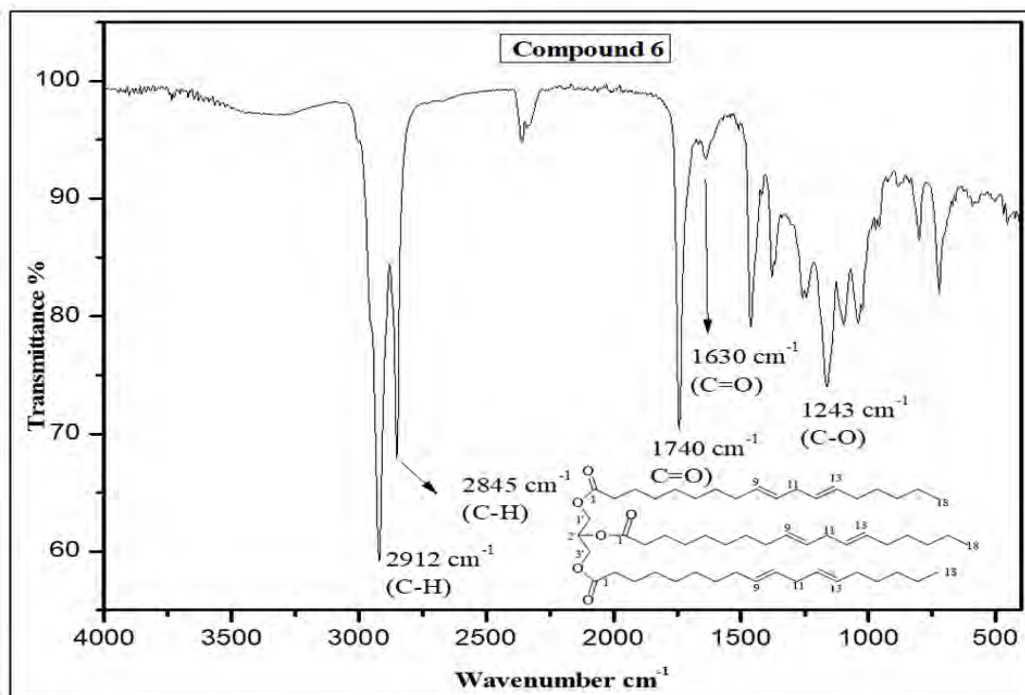
**Figure S30:**  $^1\text{H}$ - $^1\text{H}$  COSY spectrum of **5**



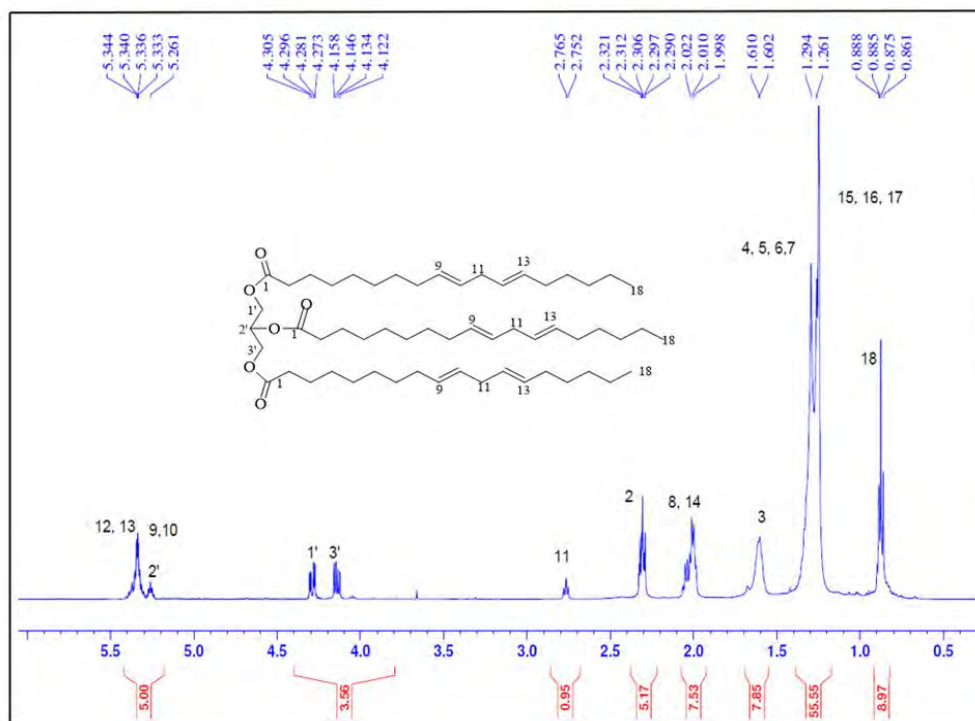
**Figure S31:** HMBC spectrum of compound **5**



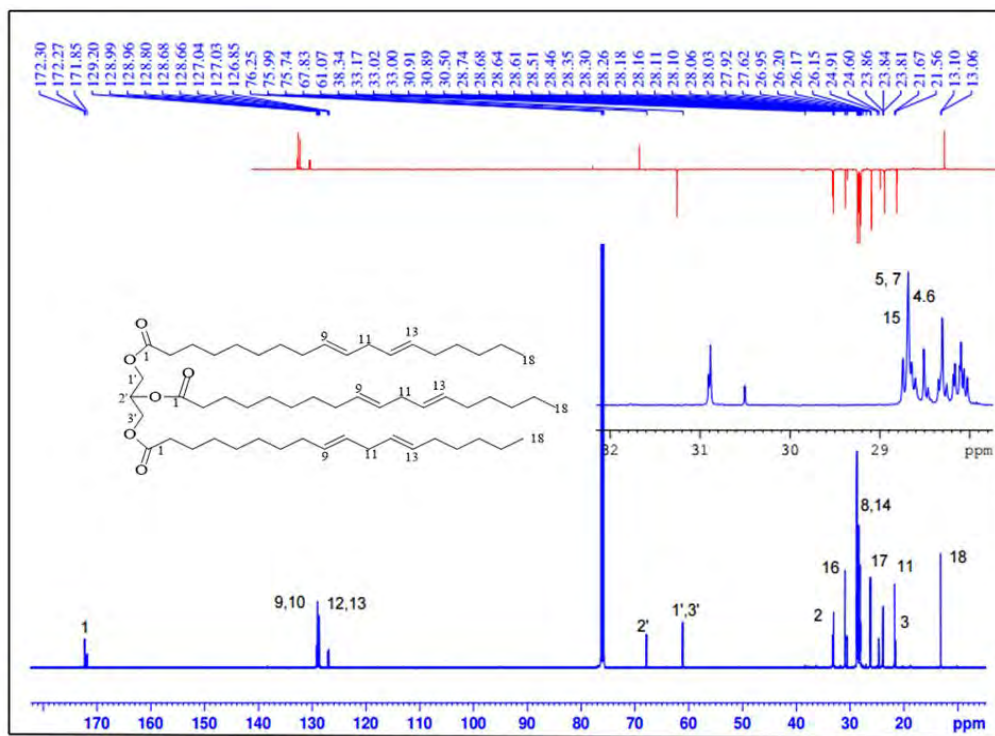
**Figure S32:** HMBC spectrum of **5**



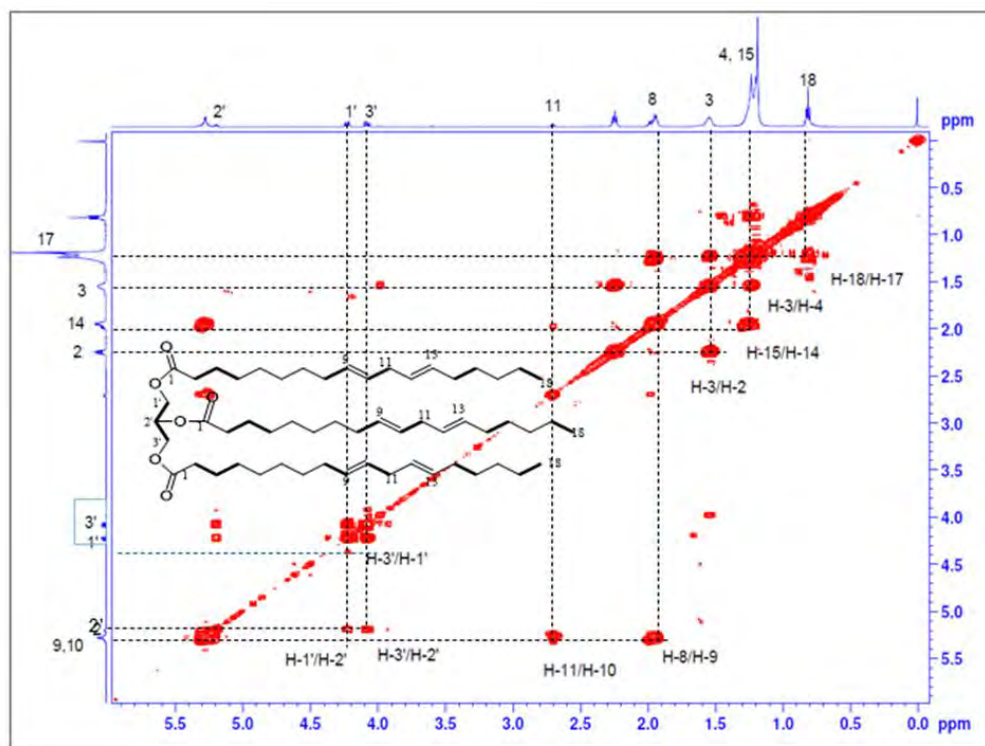
**Figure S33:** FT-IR spectrum of **6**



**Figure S34:**  $^1\text{H}$ -NMR spectrum of **6**



**Figure S35:**  $^{13}\text{C}$ -NMR and DEPT-135 (125 MHz in  $\text{CDCl}_3$ ) spectrum of **6**



**Figure S36:**  $^1\text{H}$ - $^1\text{H}$  COSY spectrum of **6**

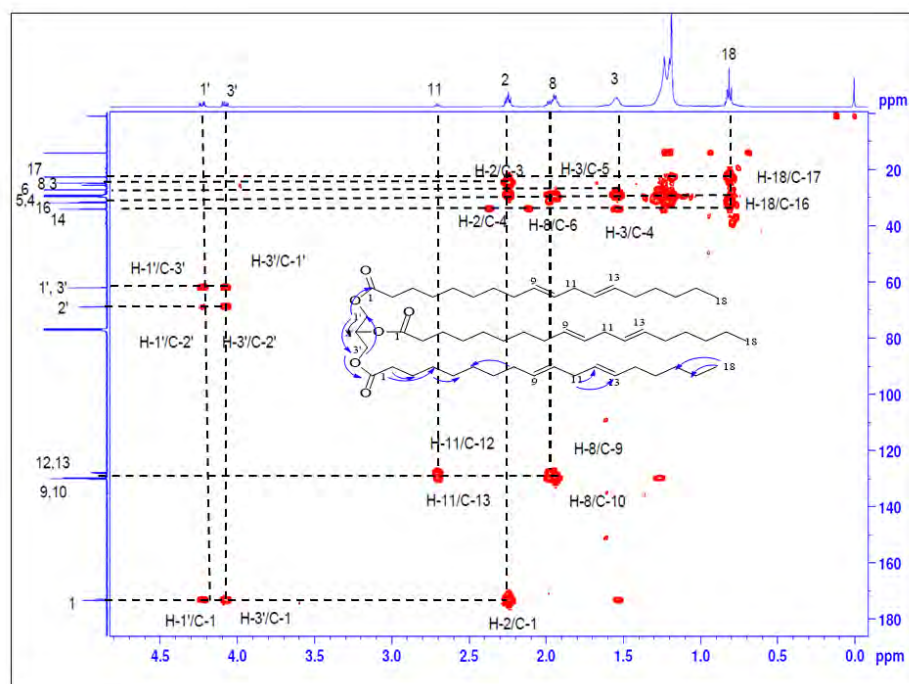


Figure S37: HMBC spectrum of 6

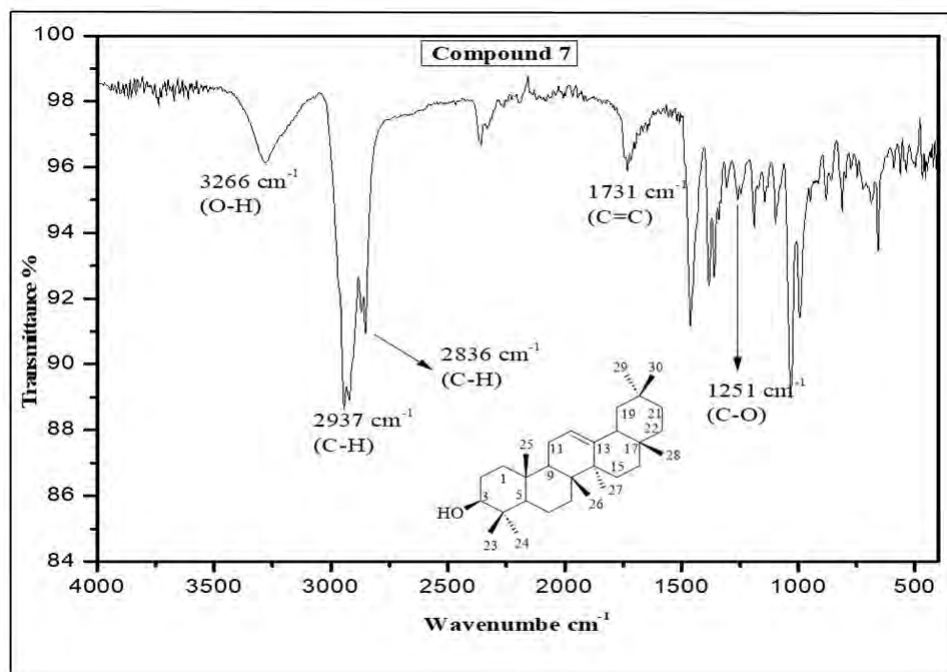
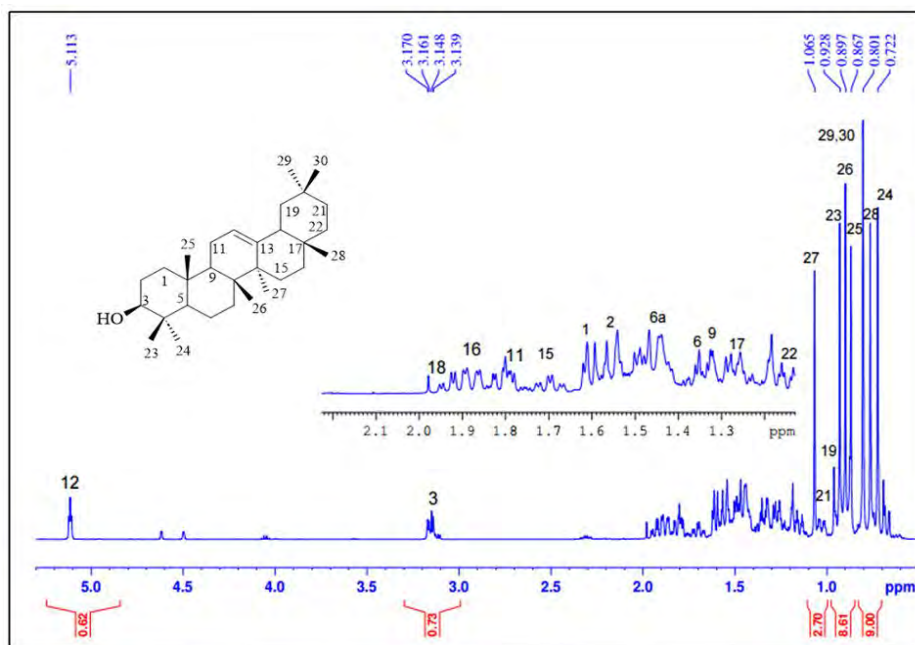
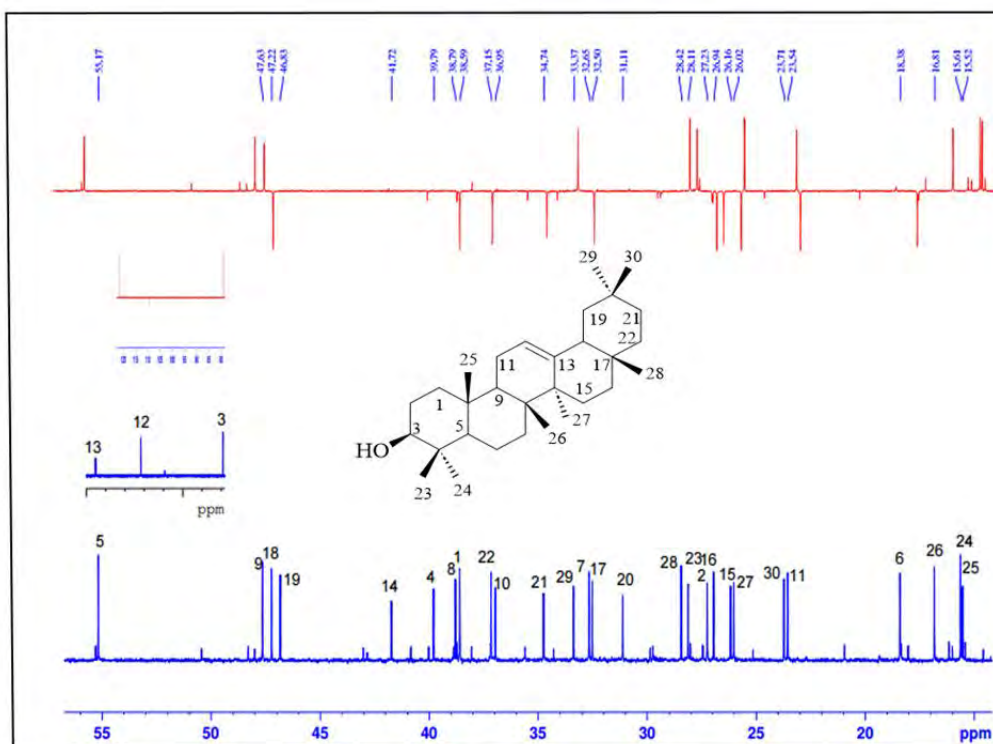


Figure S38: FT-IR spectrum of 7



**Figure S39:**  $^1\text{H}$ -NMR (500 MHz in  $\text{CDCl}_3$ ) spectrum of **7**



**Figure S40:**  $^{13}\text{C}$ -NMR and DEPT-135 (125 MHz in  $\text{CDCl}_3$ ) spectrum of **7**

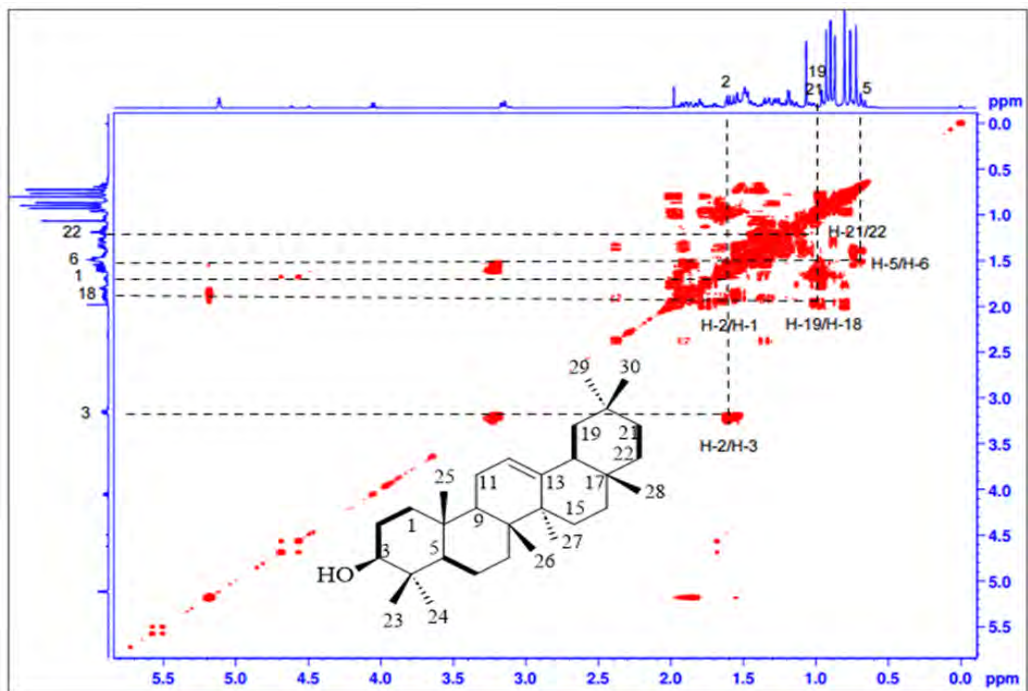


Figure S41:  $^1\text{H}$ - $^1\text{H}$  COSY spectrum of **7**

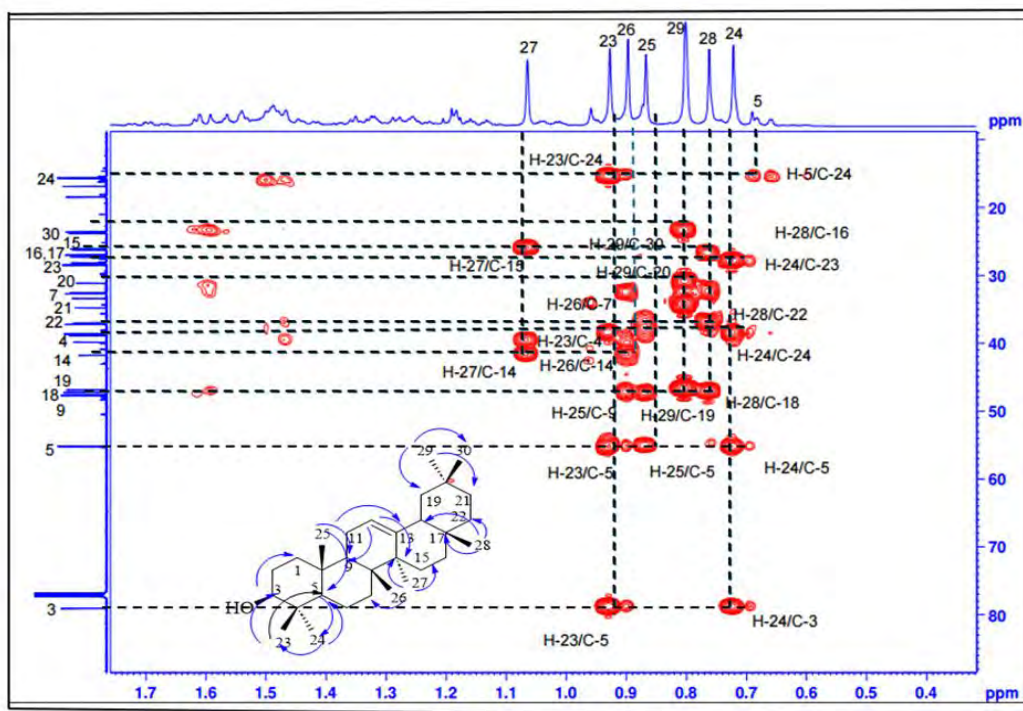
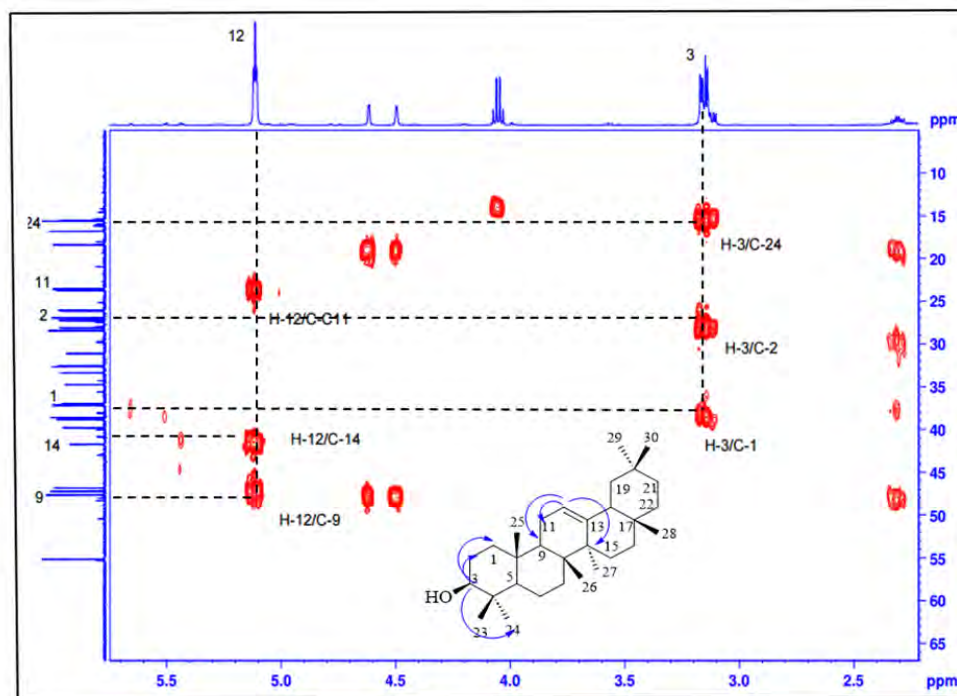
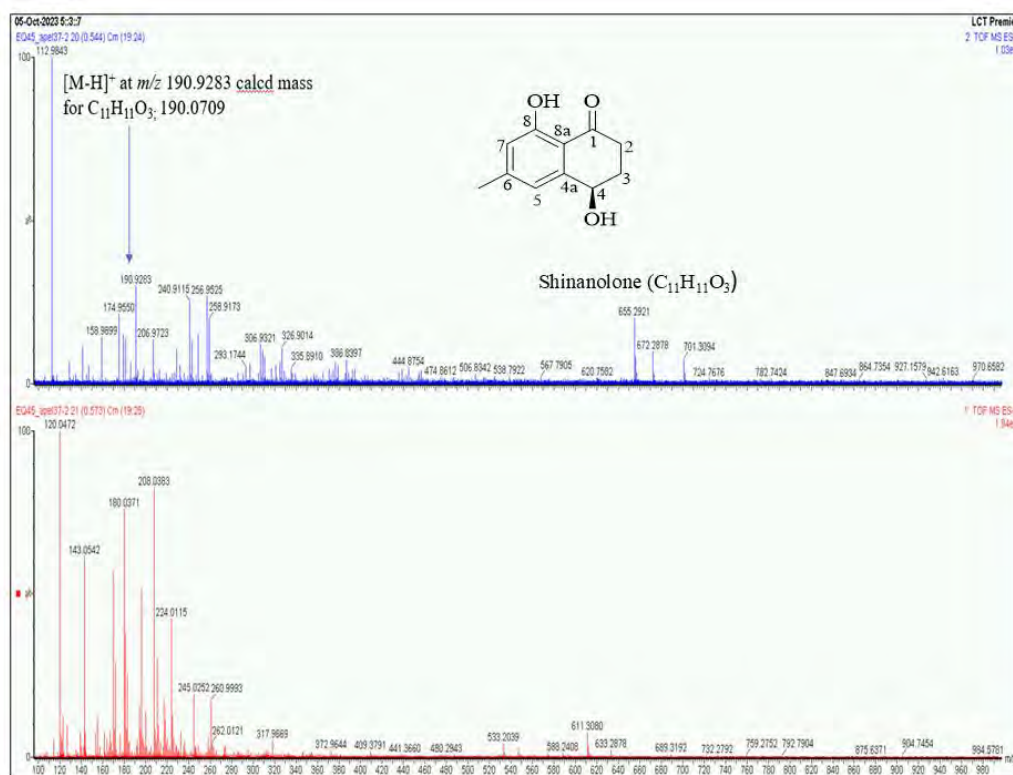


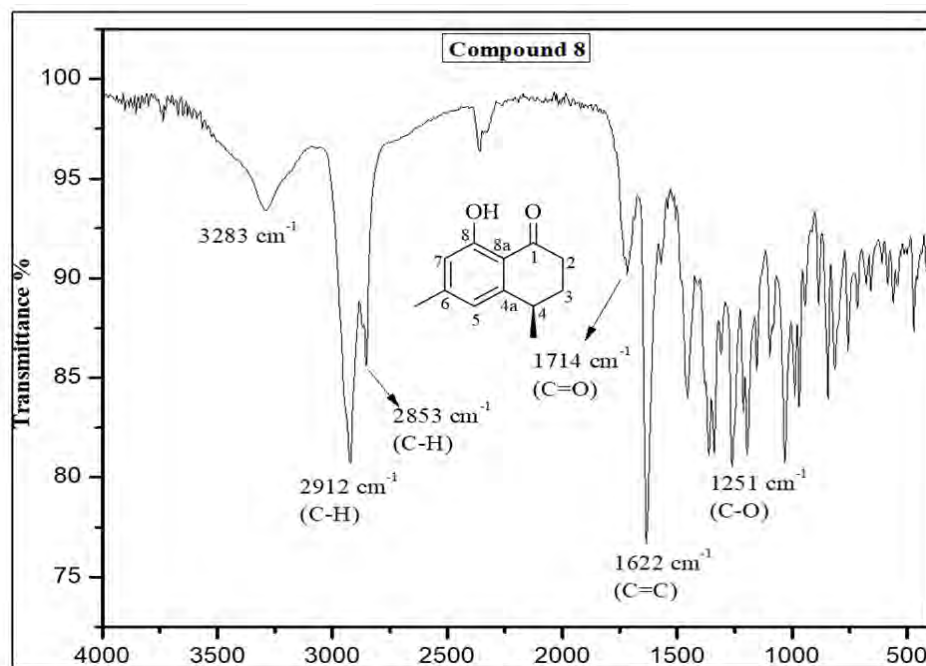
Figure S42: HMBC spectrum of **7**



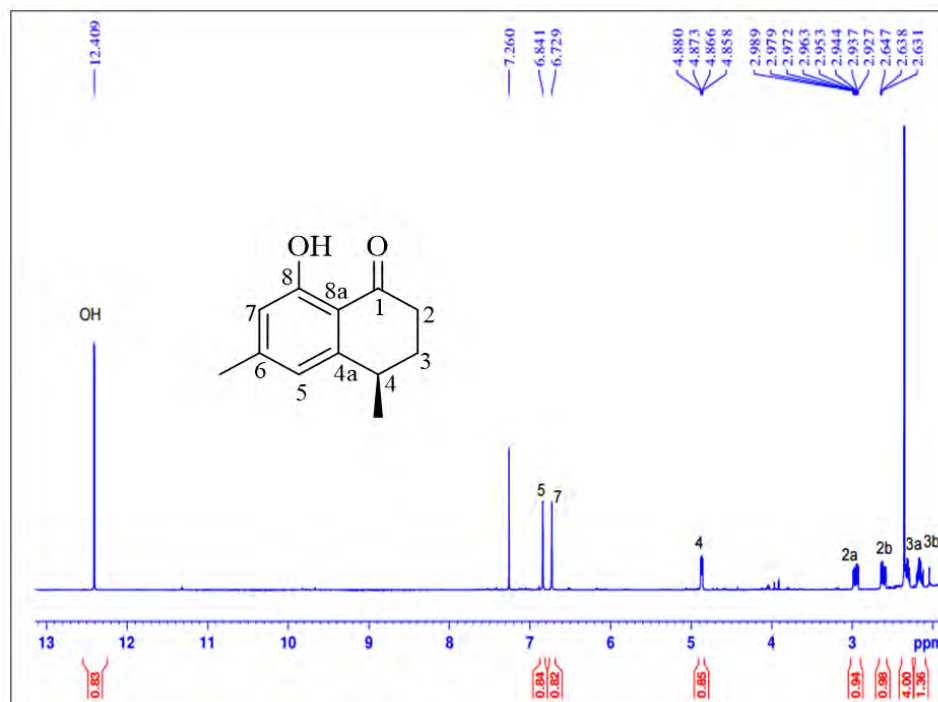
**Figure S43:** HMBC spectrum of **7** (expanded)



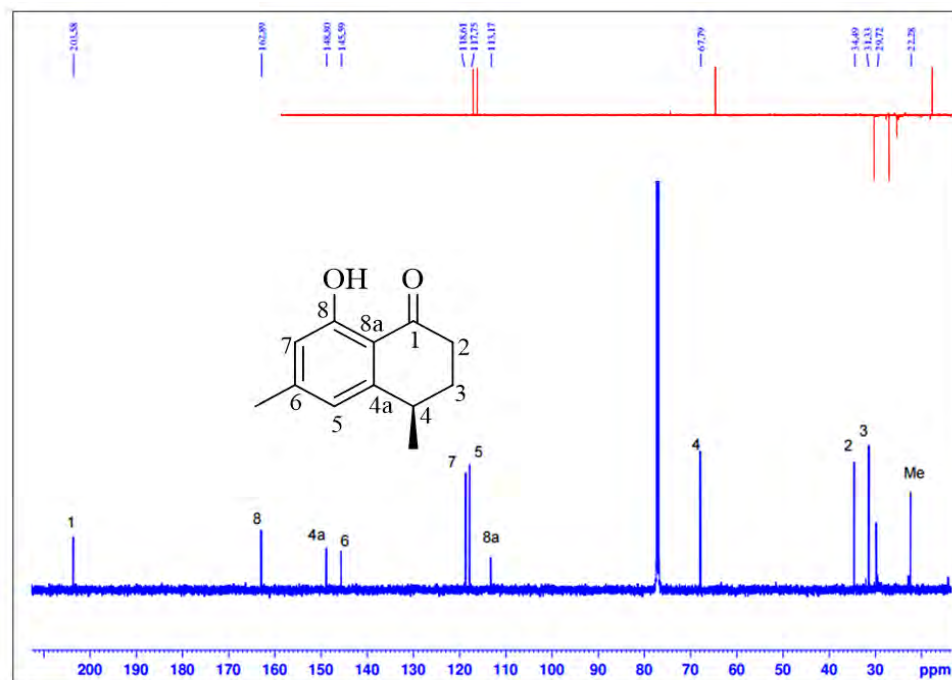
**Figure S44:** HRMS spectrum of **8**



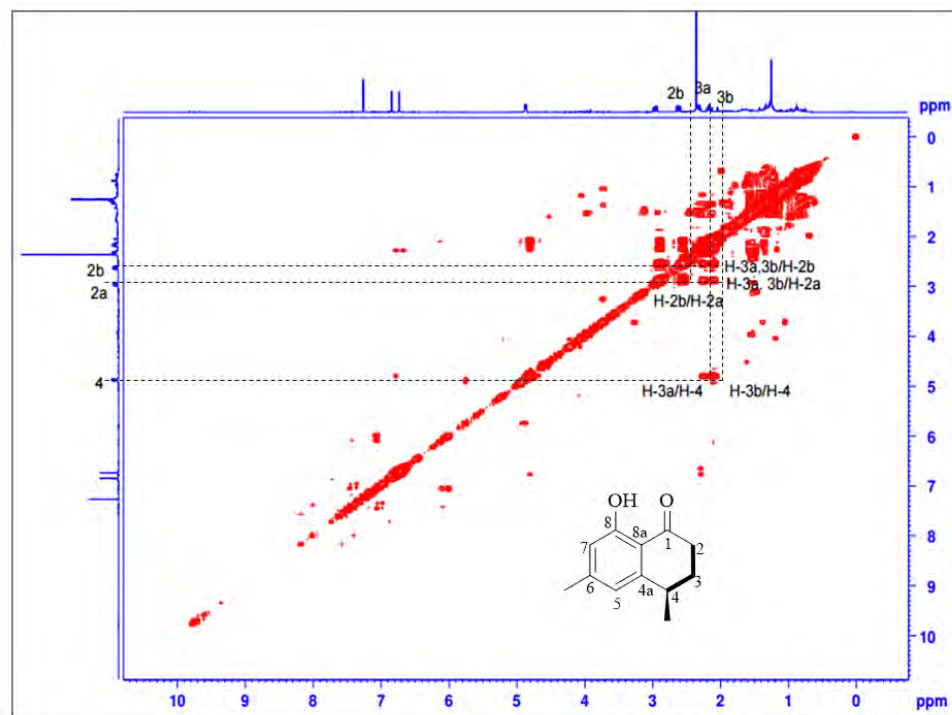
**Figure S45:** FT-IR spectrum of **8**



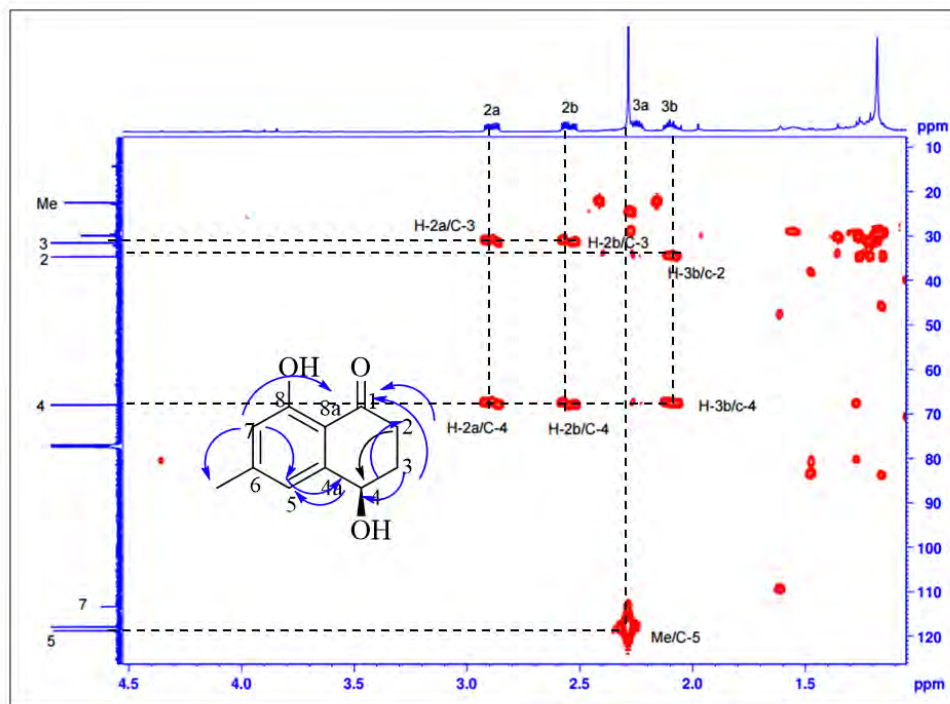
**Figure S46:**  $^1\text{H-NMR}$  (500 MHz in  $\text{CDCl}_3$ ) spectrum of **8**



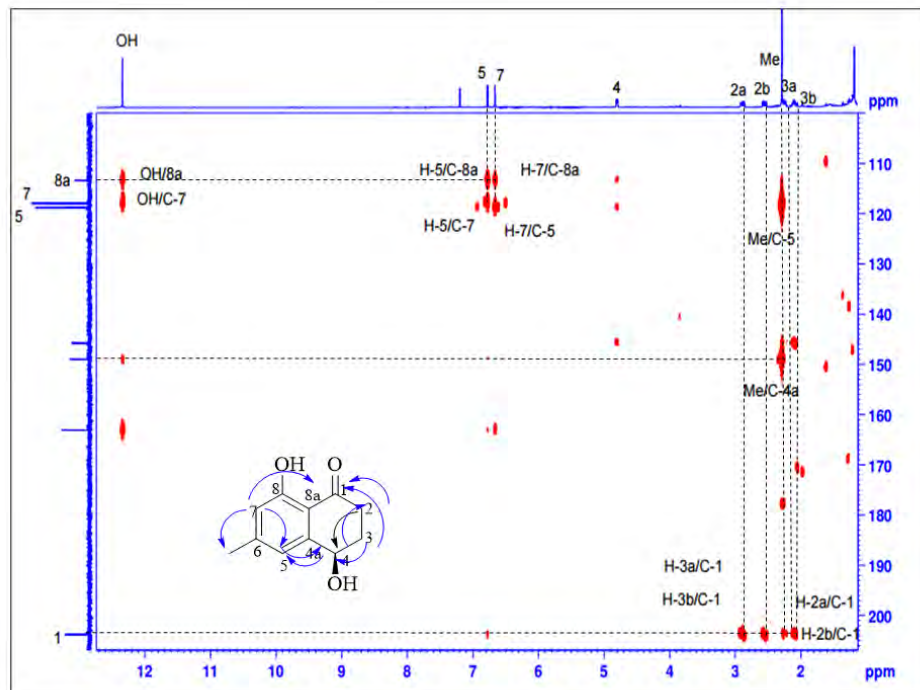
**Figure S47:**  $^{13}\text{C}$ -NMR and DEPT-135 (125 MHz in  $\text{CDCl}_3$ ) spectrum of spectrum of **8**



**Figure S48:**  $^1\text{H}$ - $^1\text{H}$  COSY spectrum of **8**



**Figure S49:** HMBC spectrum of **8**



**Figure S50:** HMBC spectrum of **8** (Expanded)