

## Supporting Information

# N-methyl Benzimidazole Tethered Cholic Acid Amphiphiles Can Eradicate *S. aureus*-Mediated Biofilms and Wound Infections

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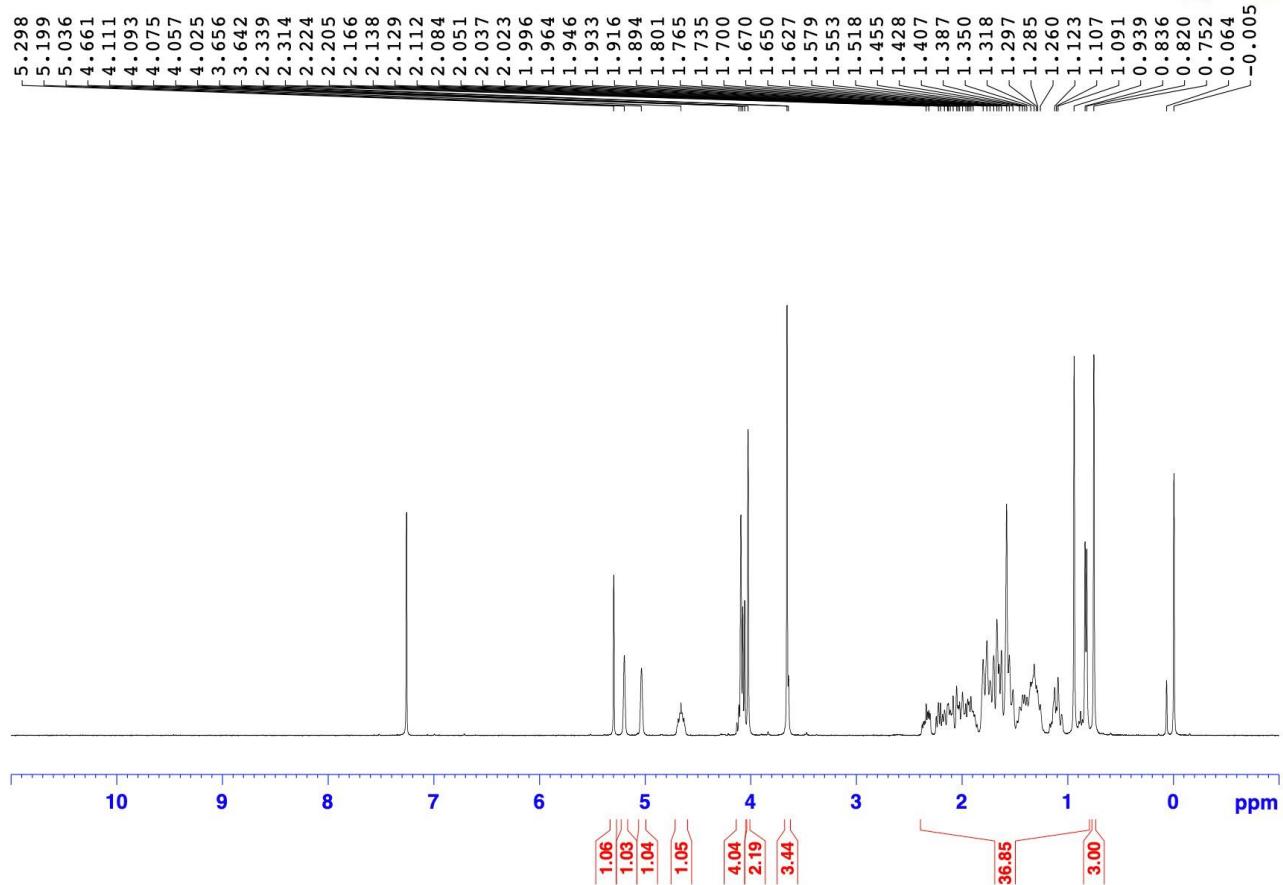
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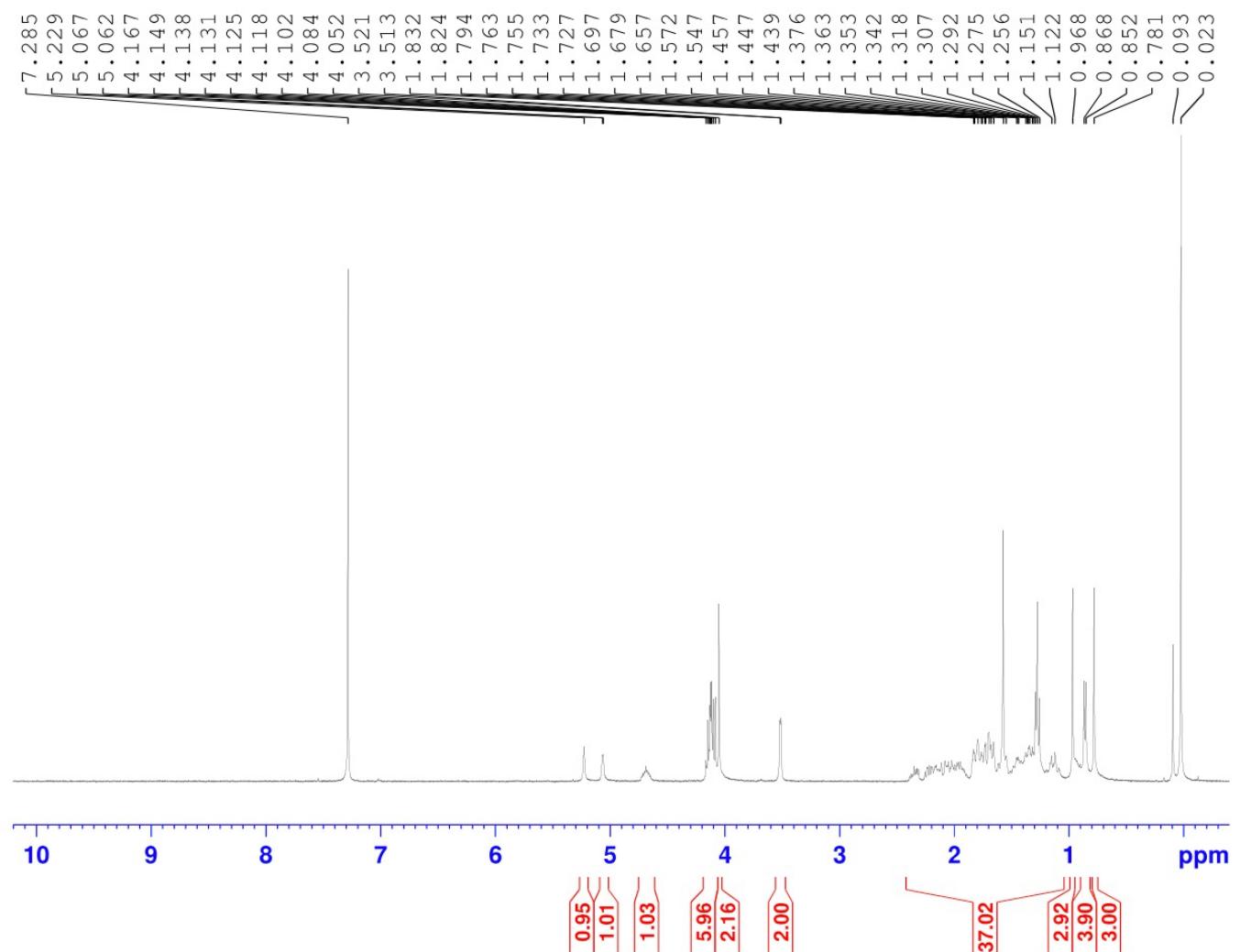
CA-O-ME-ACCL

**BRUKER**



**Figure S1.**  $^1\text{H}$  NMR spectrum of **11a**.

Ca-Ethyl-AcCl3



**Figure S2.** <sup>1</sup>H NMR spectrum of 11b.

CA PROP ACCL3

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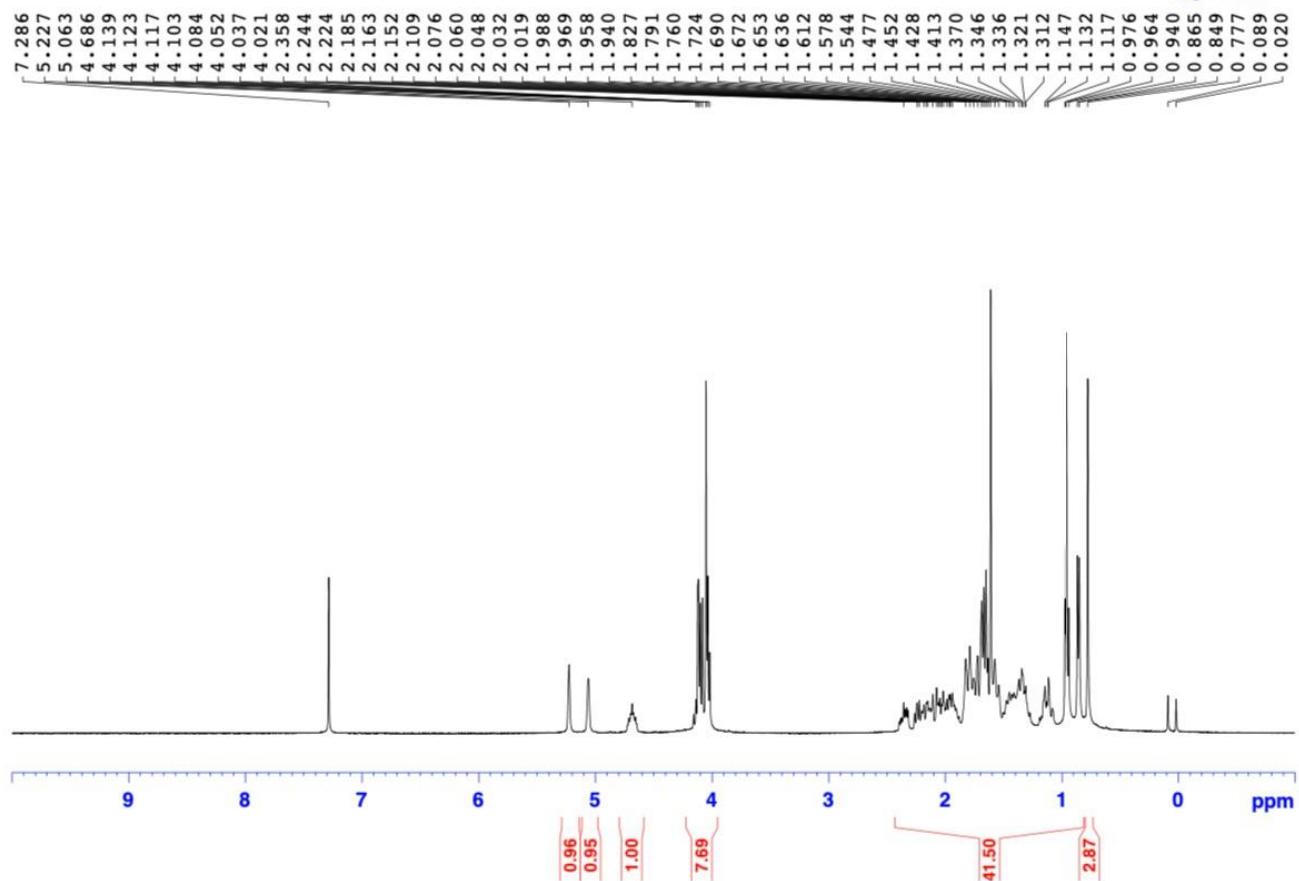
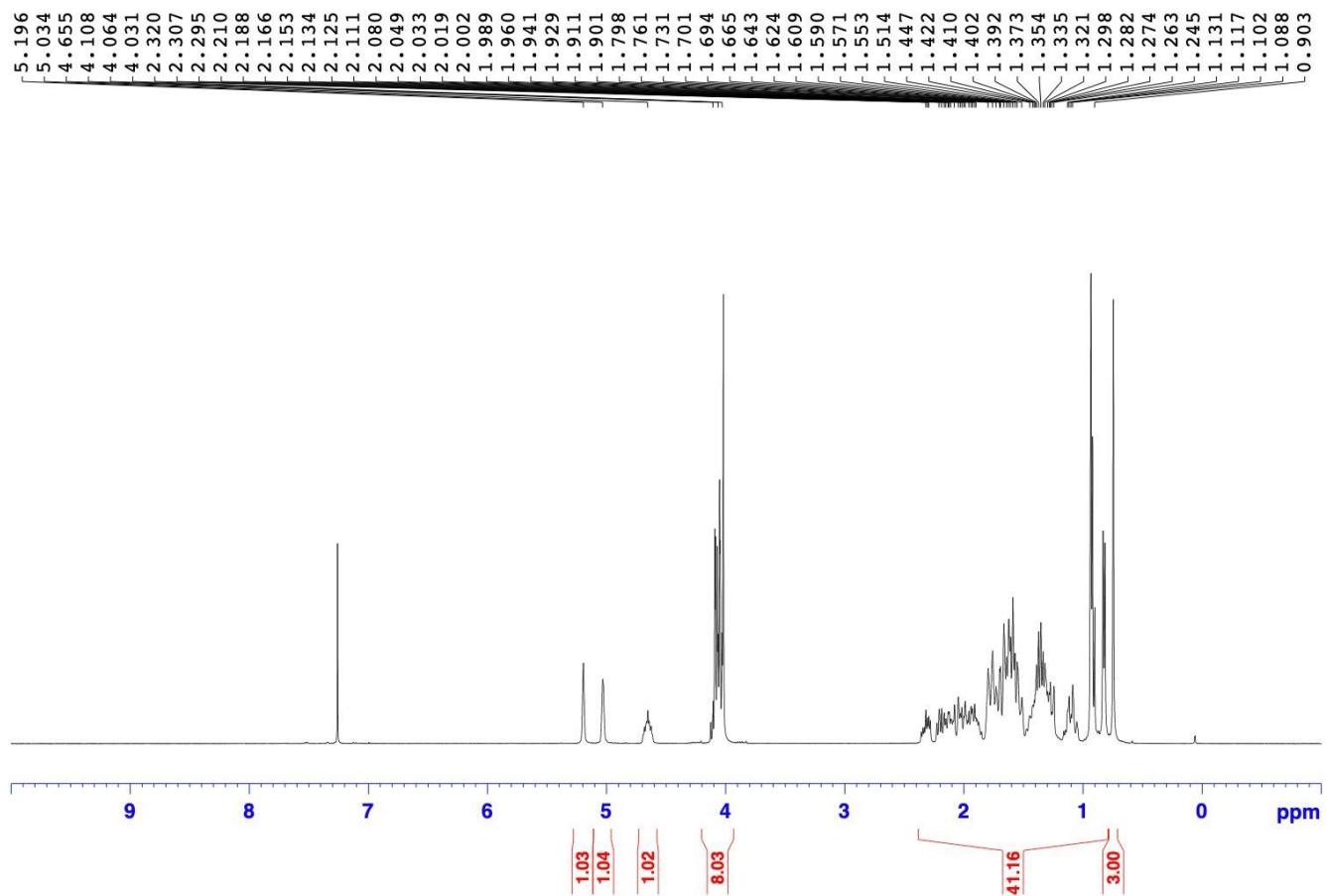


Figure S3.  $^1\text{H}$  NMR spectrum of 11c.

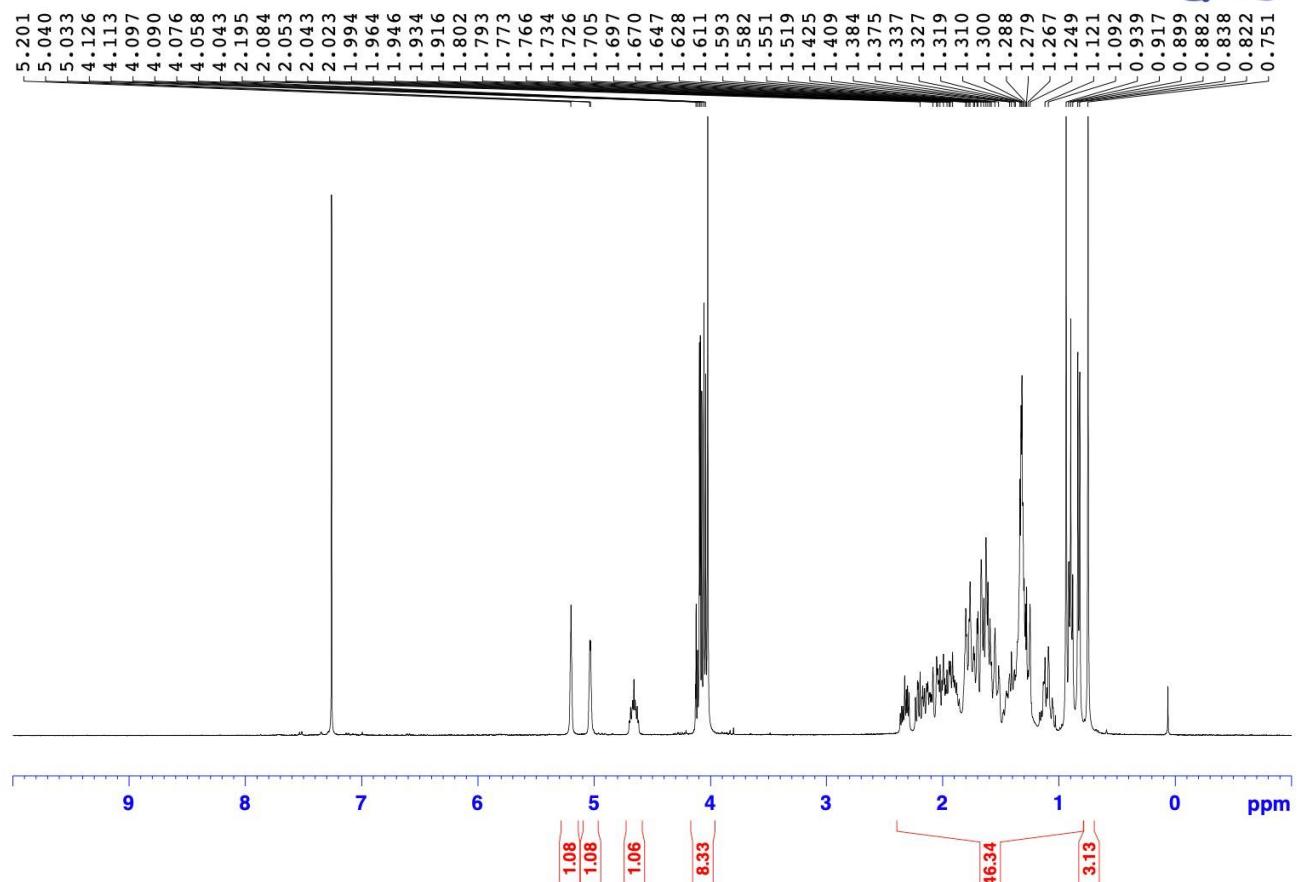
CA-O-N-BUTYL-ACCL3



**Figure S4.** <sup>1</sup>H NMR spectrum of 11d.

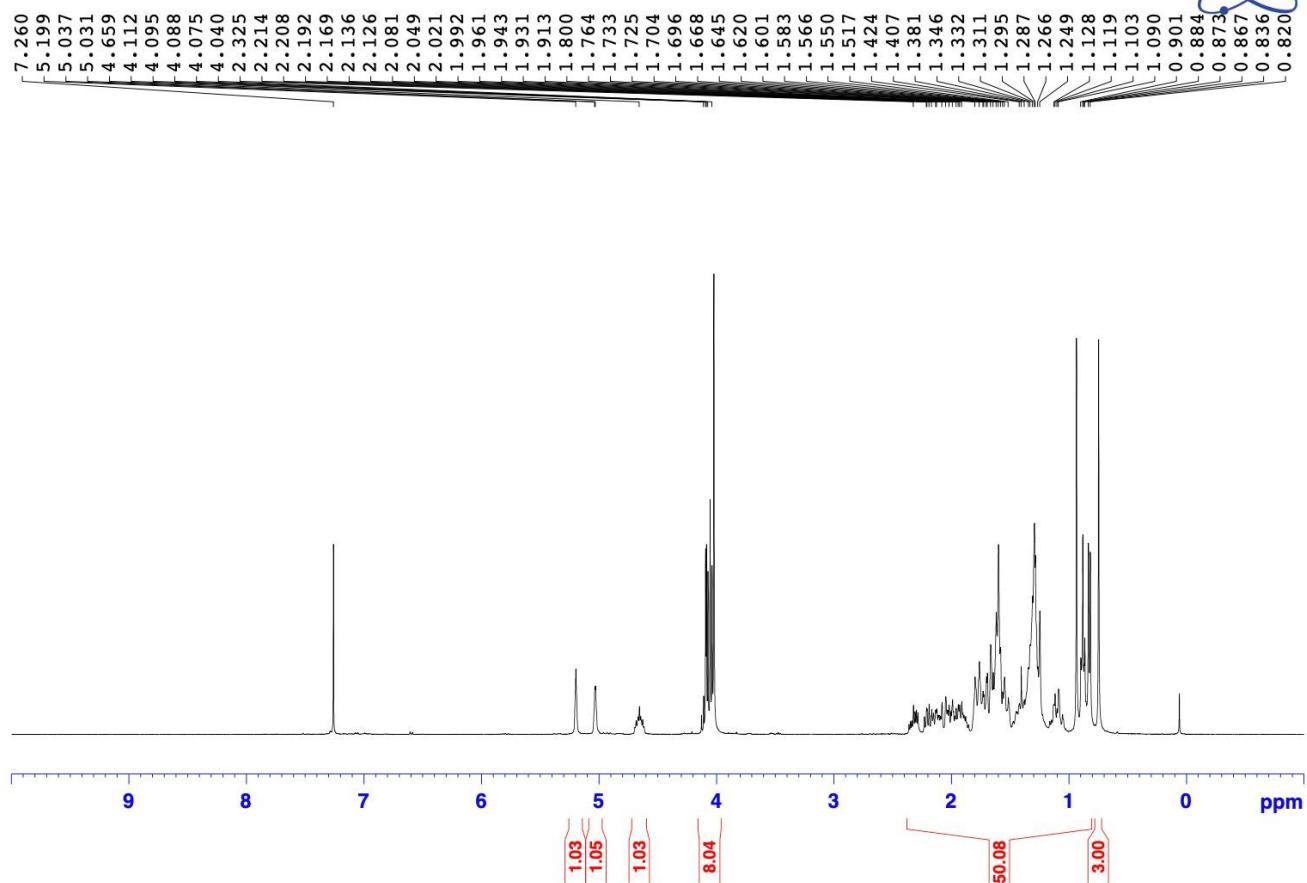
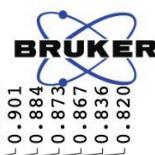
CA-O-PENTYL-ACCL3

**BRUKER**



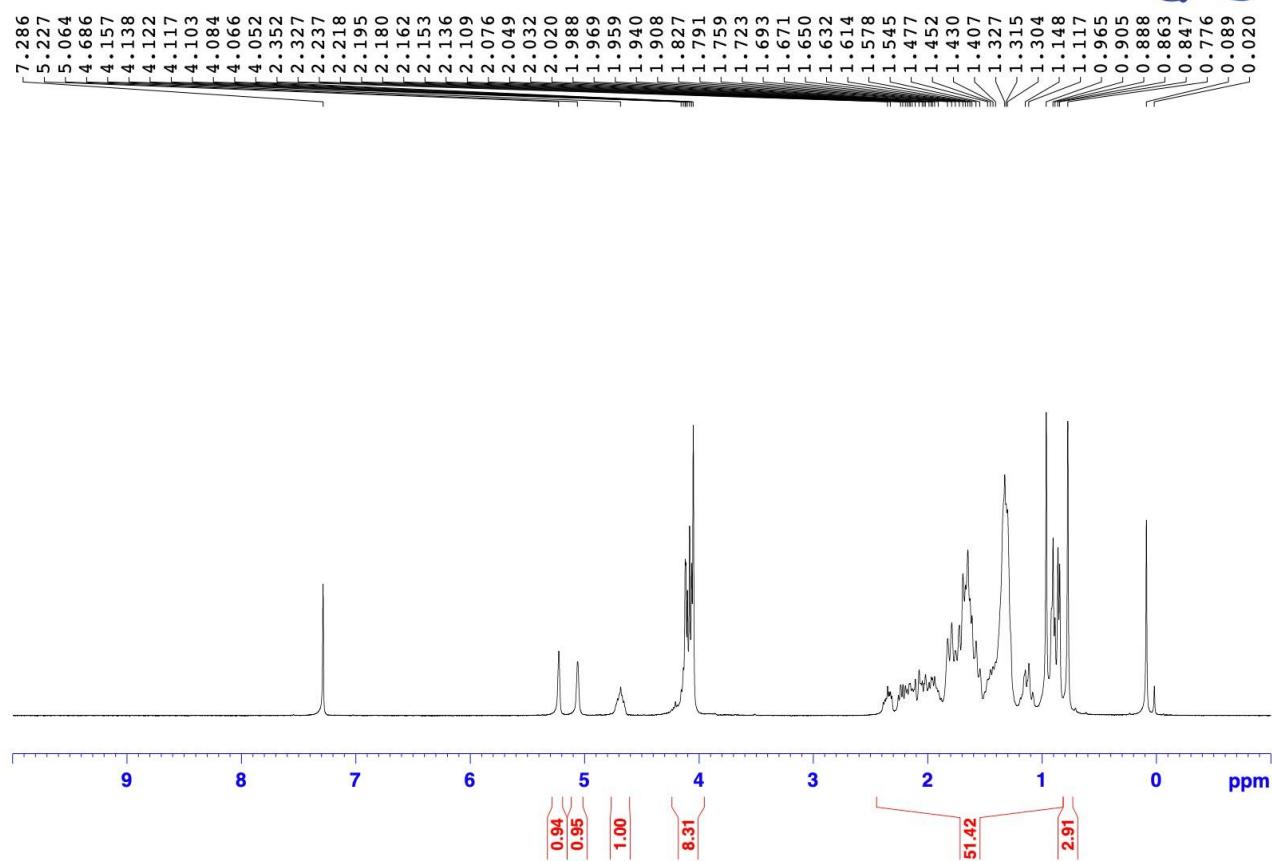
**Figure S5.**  $^1\text{H}$  NMR spectrum of **11e**.

CA-O-HEX-ACCL3



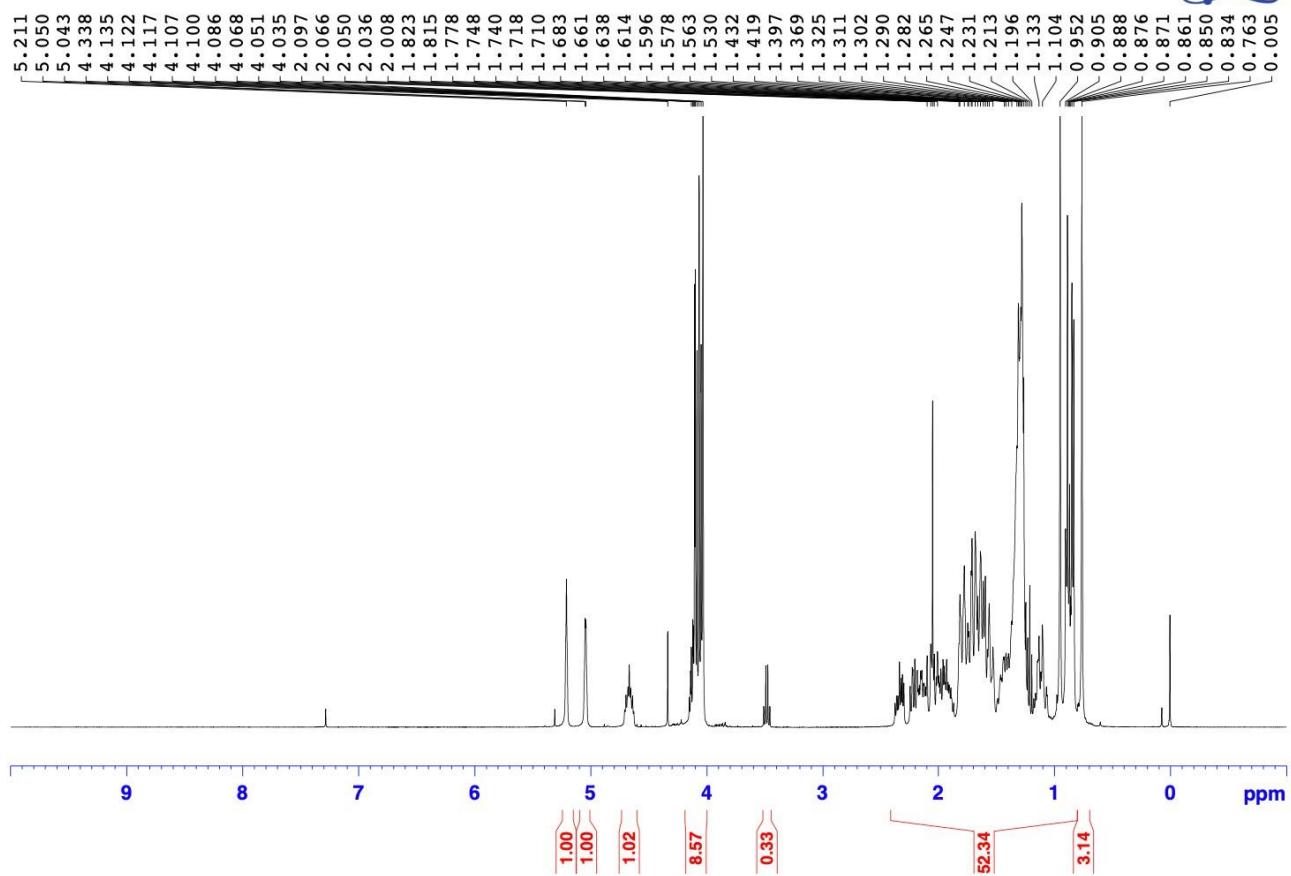
**Figure S6.** <sup>1</sup>H NMR spectrum of **11f**.

CA HEP ACCL3

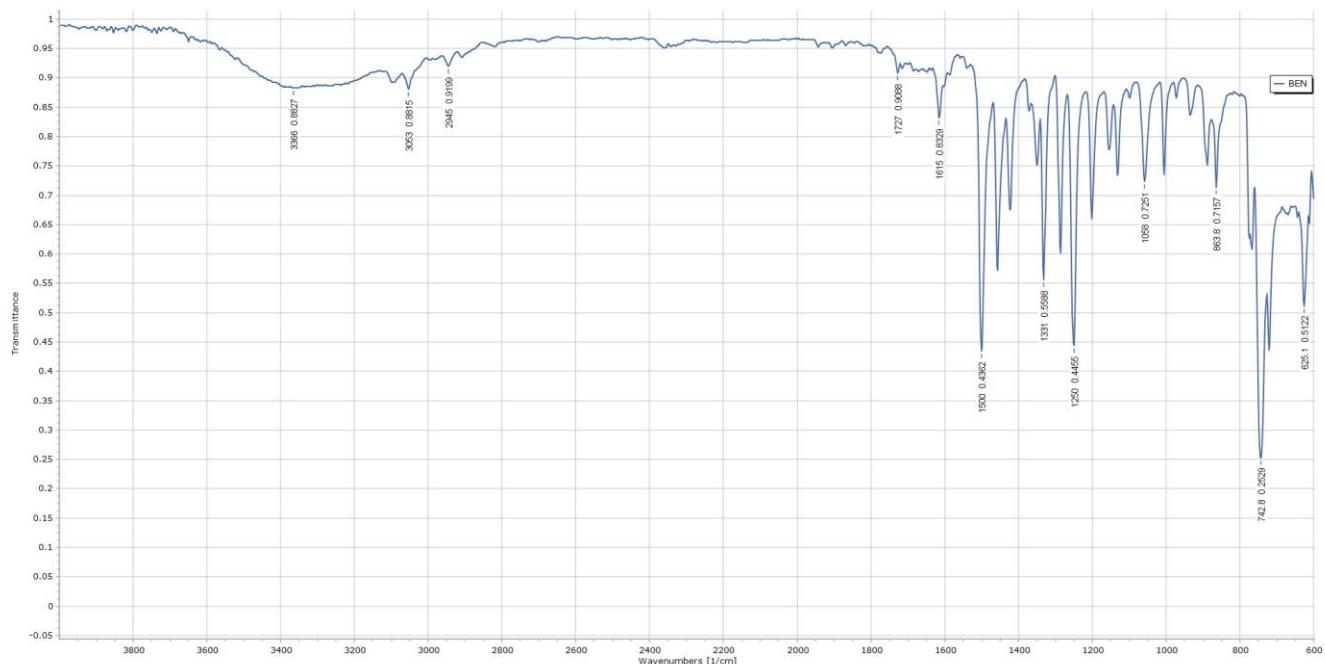


**Figure S7.** <sup>1</sup>H NMR spectrum of **11g**.

Ca-OC8-ACC13

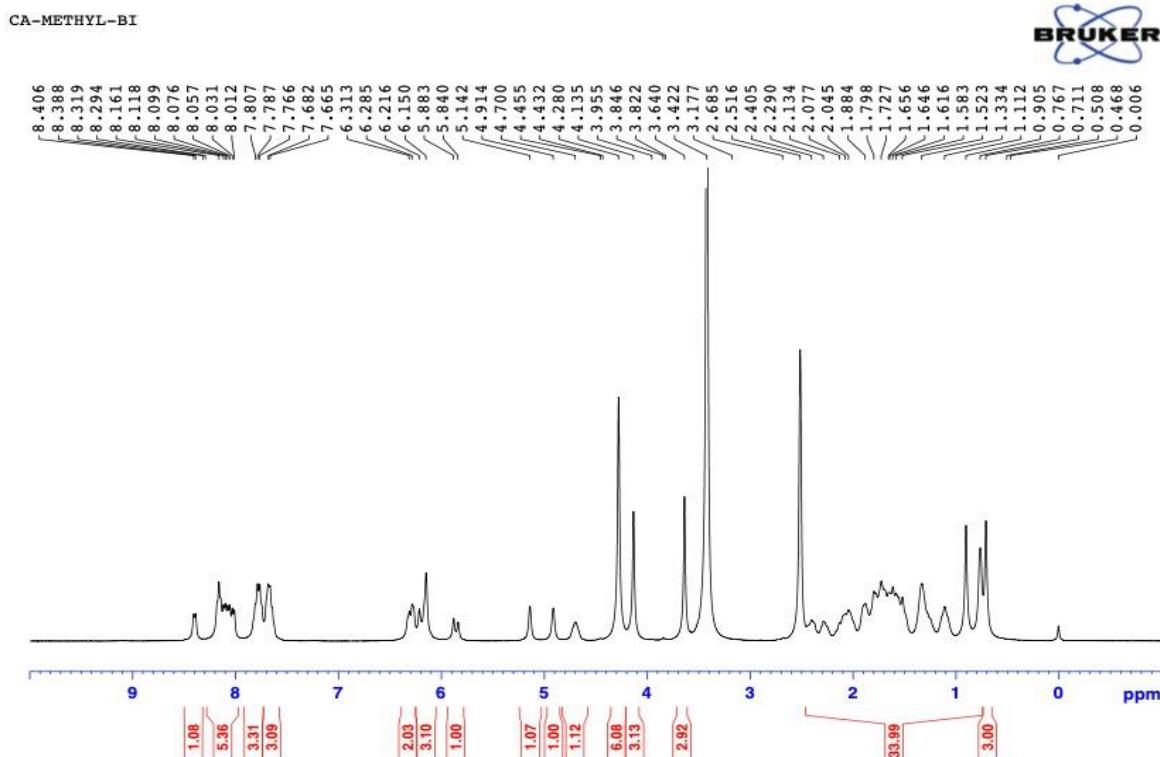


**Figure S8.**  $^1\text{H}$  NMR spectrum of **11h**.

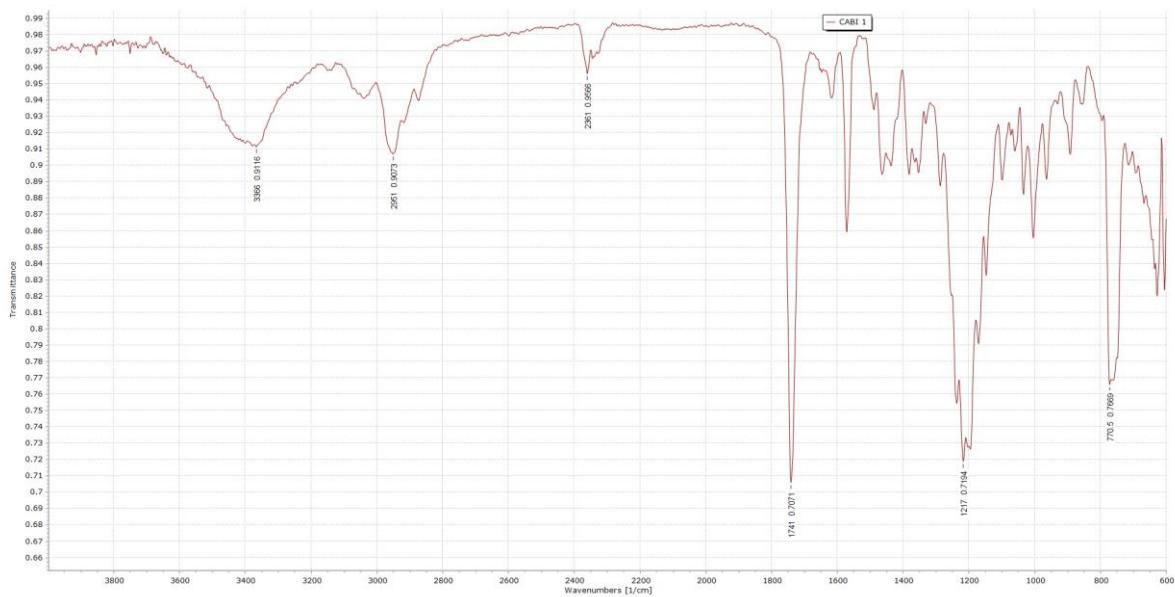


**Figure S9.** IR spectrum of *N*-methyl benzimidazole.

A

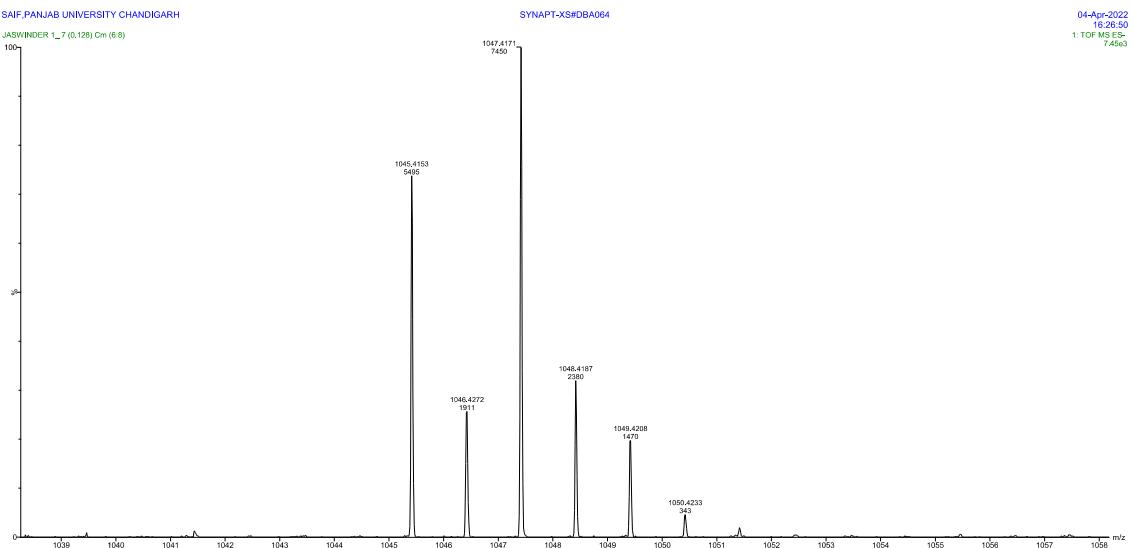


B

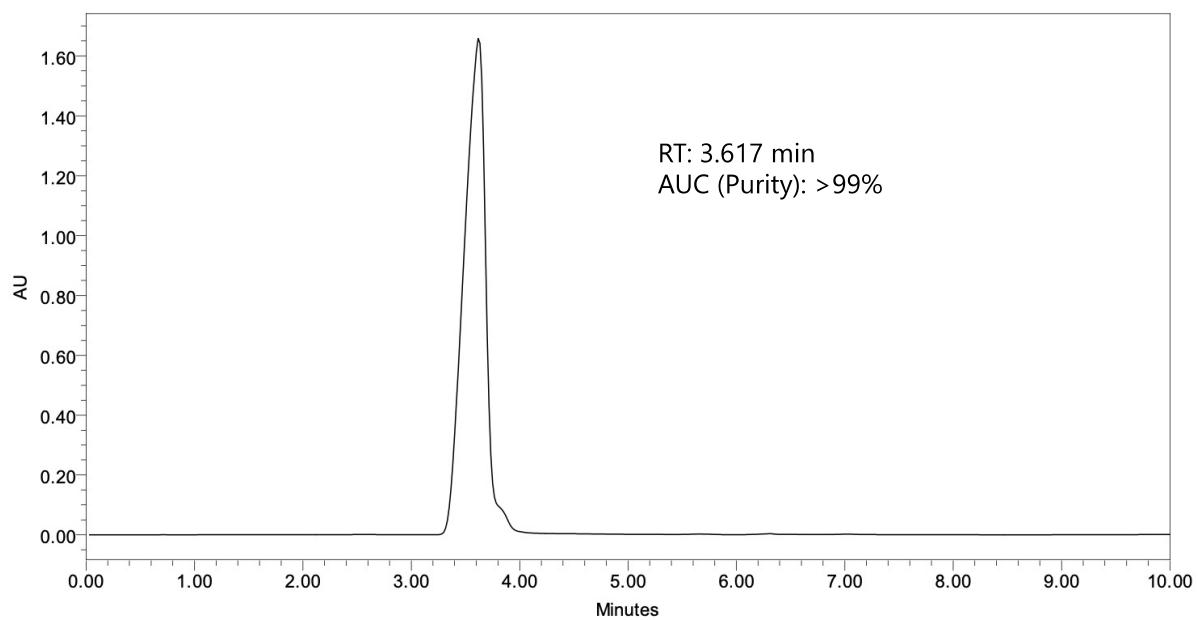


**Figure S10. (A)** <sup>1</sup>H NMR spectrum of CABI-1. **(B)** IR spectrum of CABI-1.

A

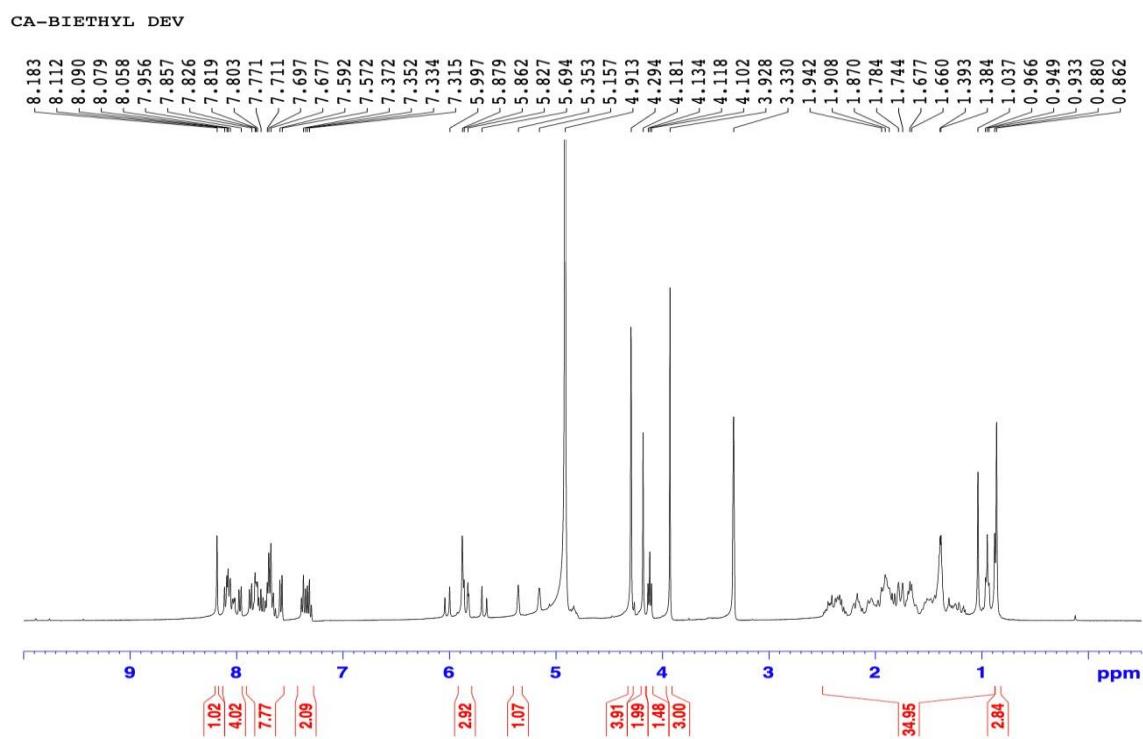


B



**Figure S11.** (A) Mass spectrum of CABI-1. (B) HPLC chromatograph of CABI-1.

A



B

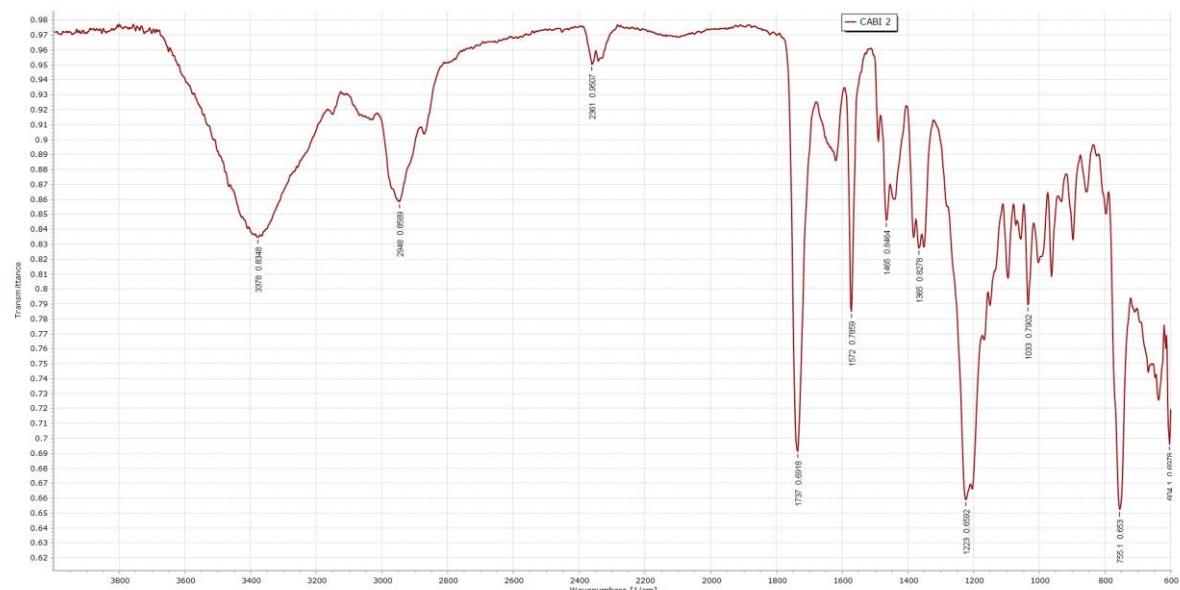
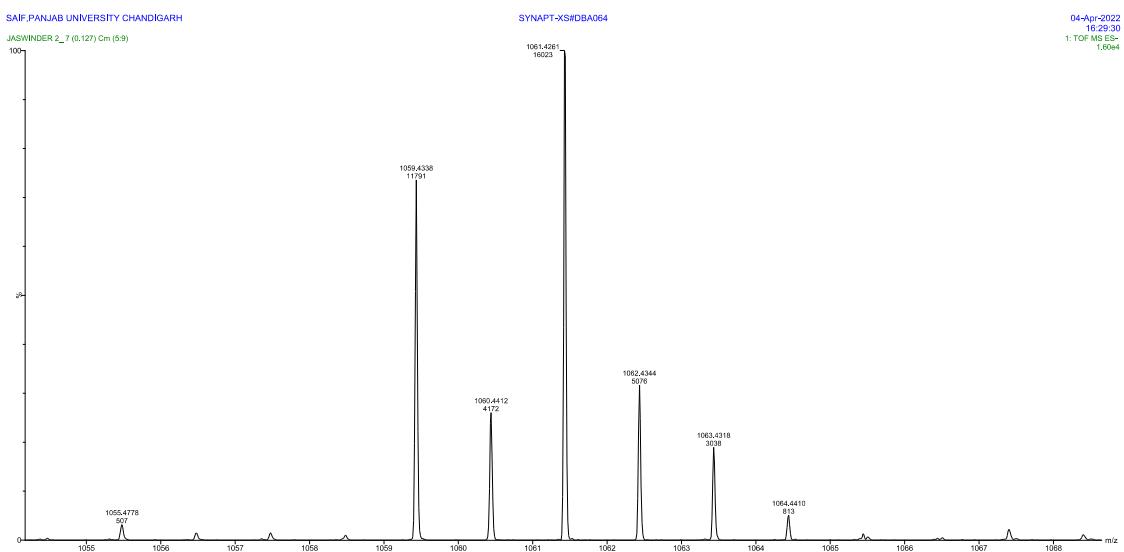
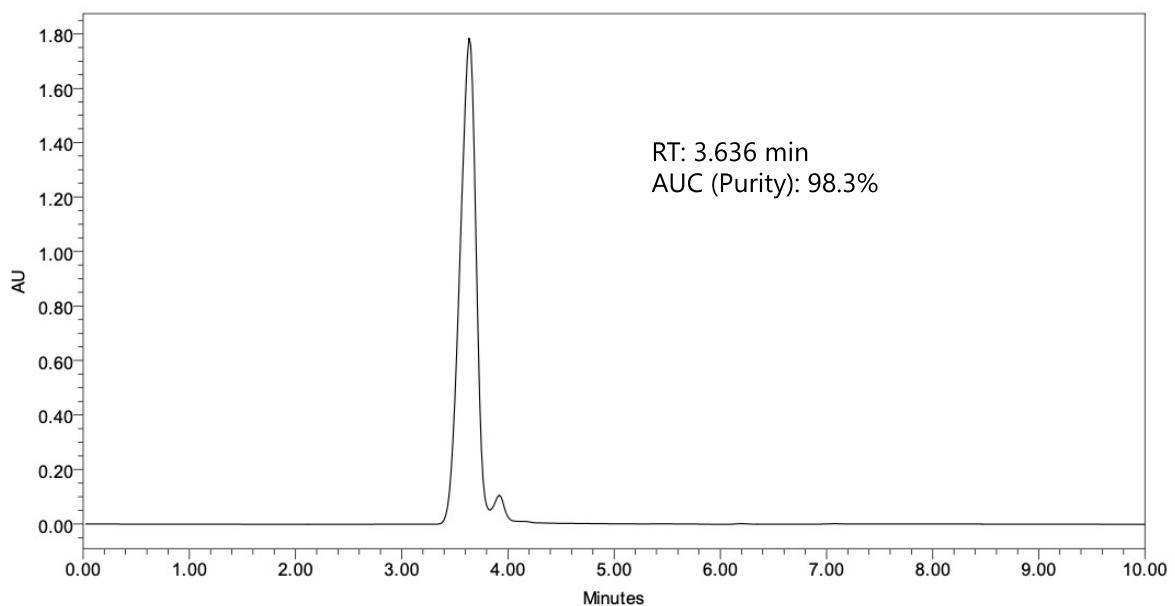


Figure S12. (A) <sup>1</sup>H NMR spectrum of CABI-2. (B) IR spectrum of CABI-2.

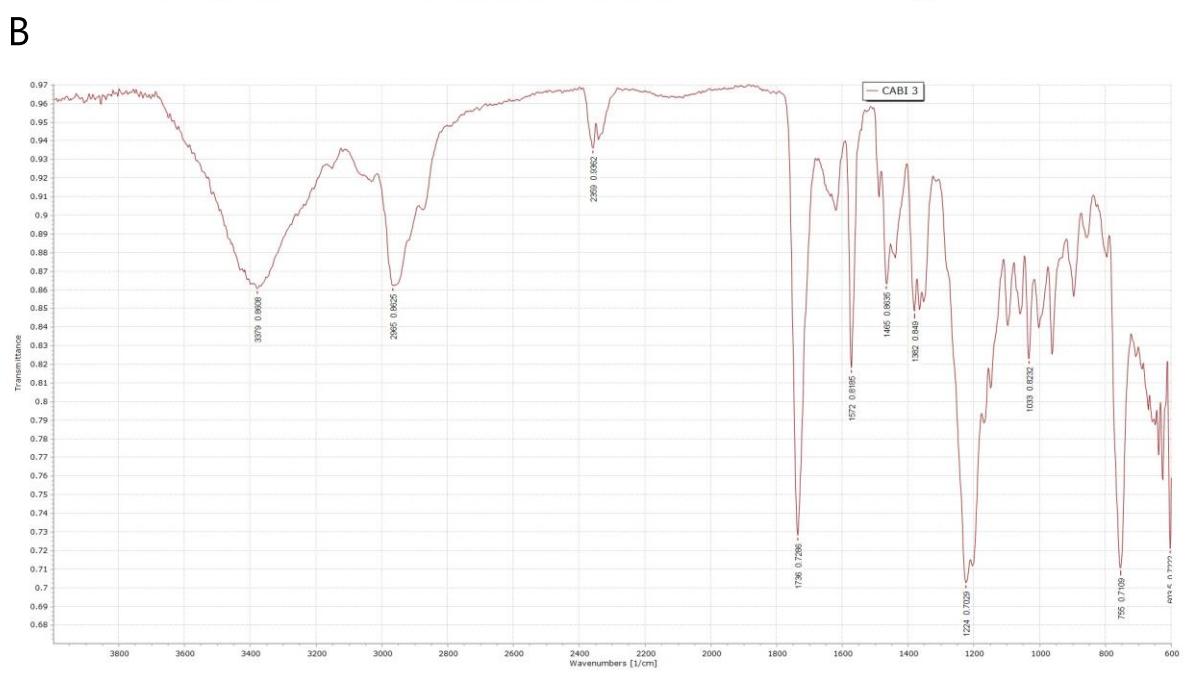
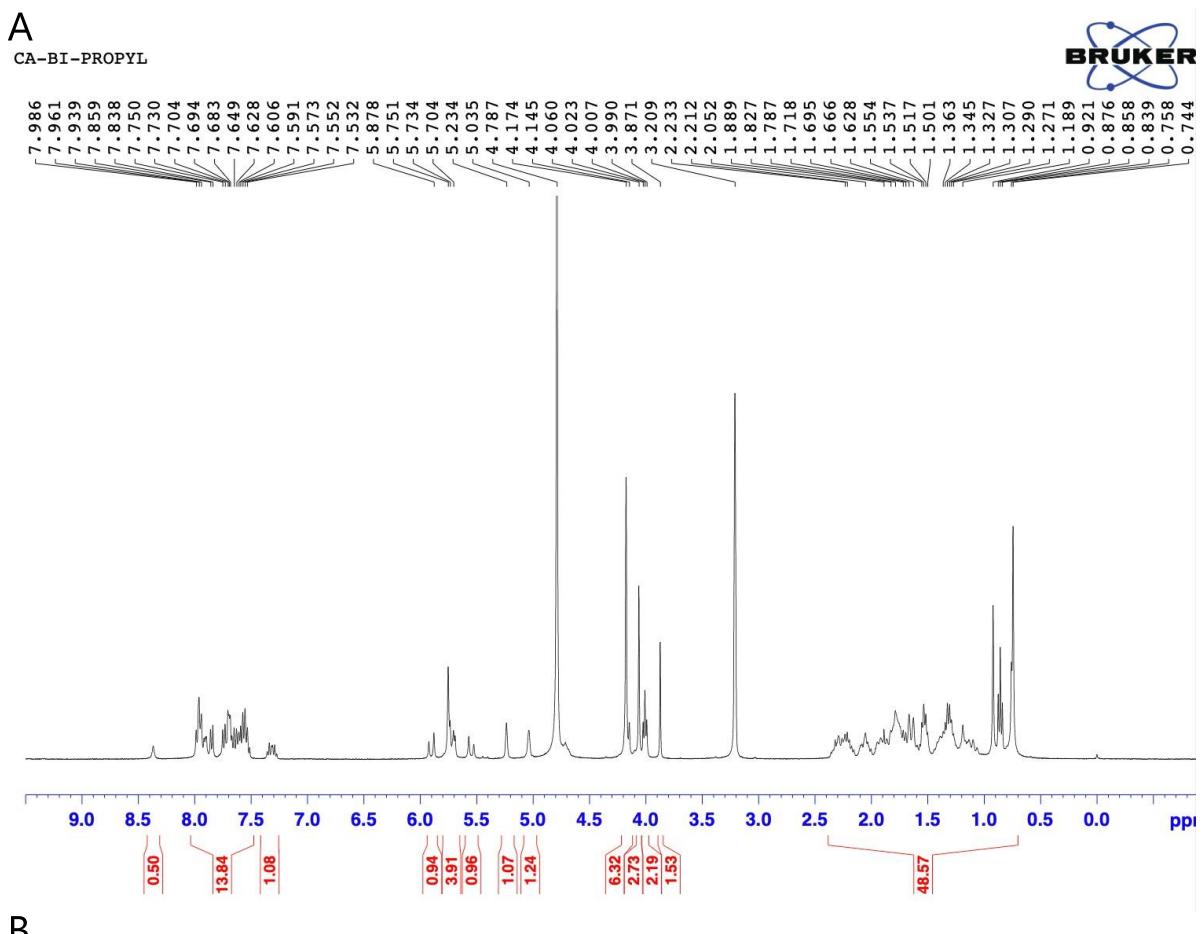
A



B

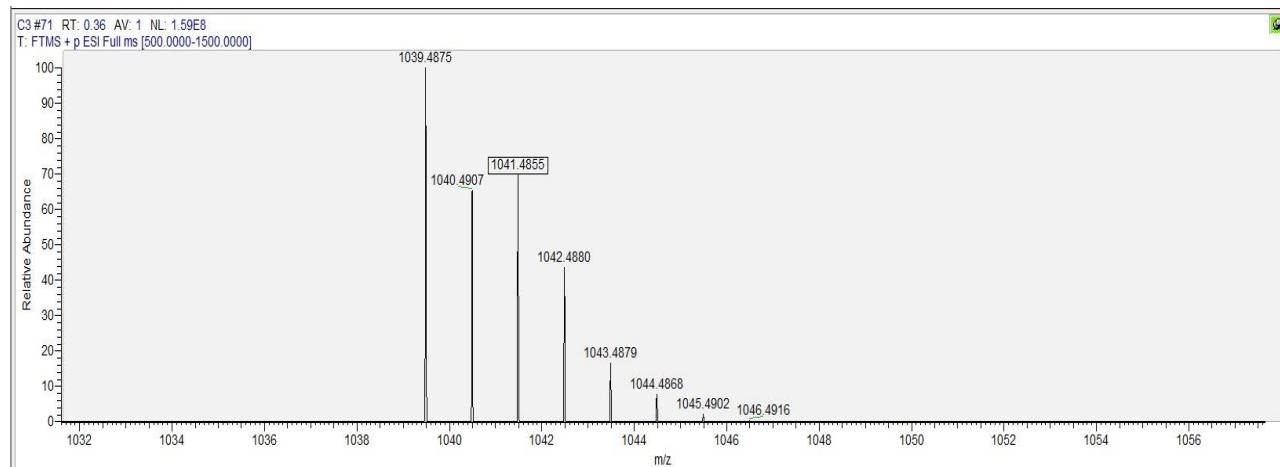


**Figure S13.** (A) Mass spectrum of CABI-2. (B). IR spectrum of CABI-2.

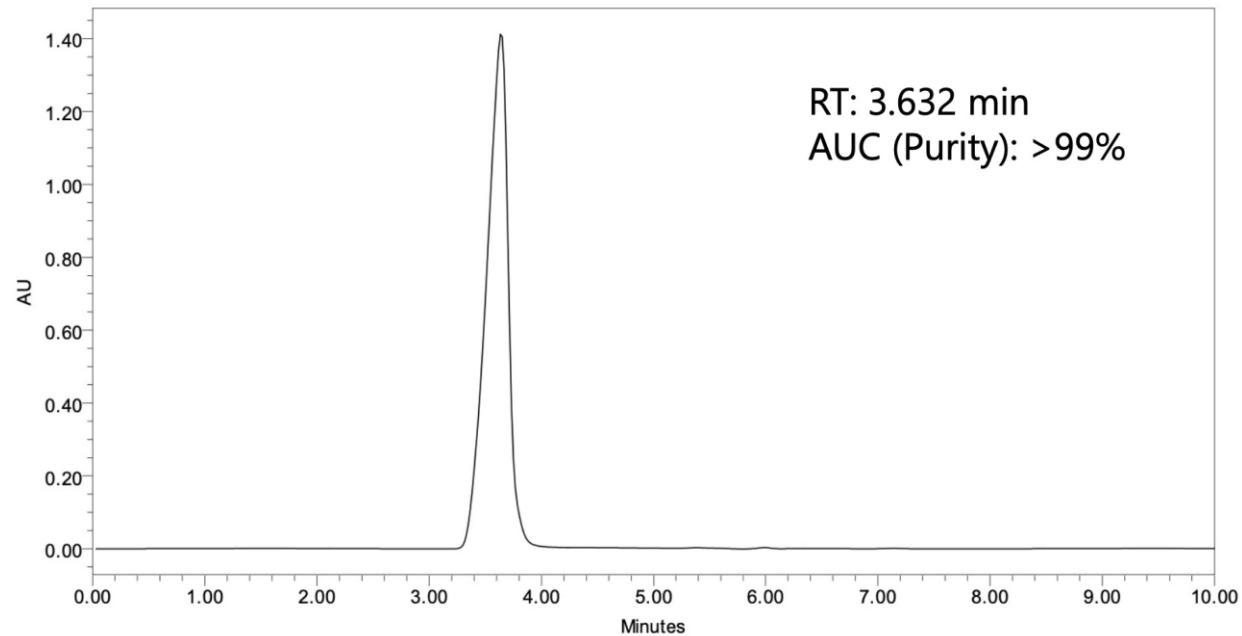


**Figure S14.** (A)  $^1\text{H}$  NMR spectrum of CABI-3. (B). IR spectrum of CABI-3.

A



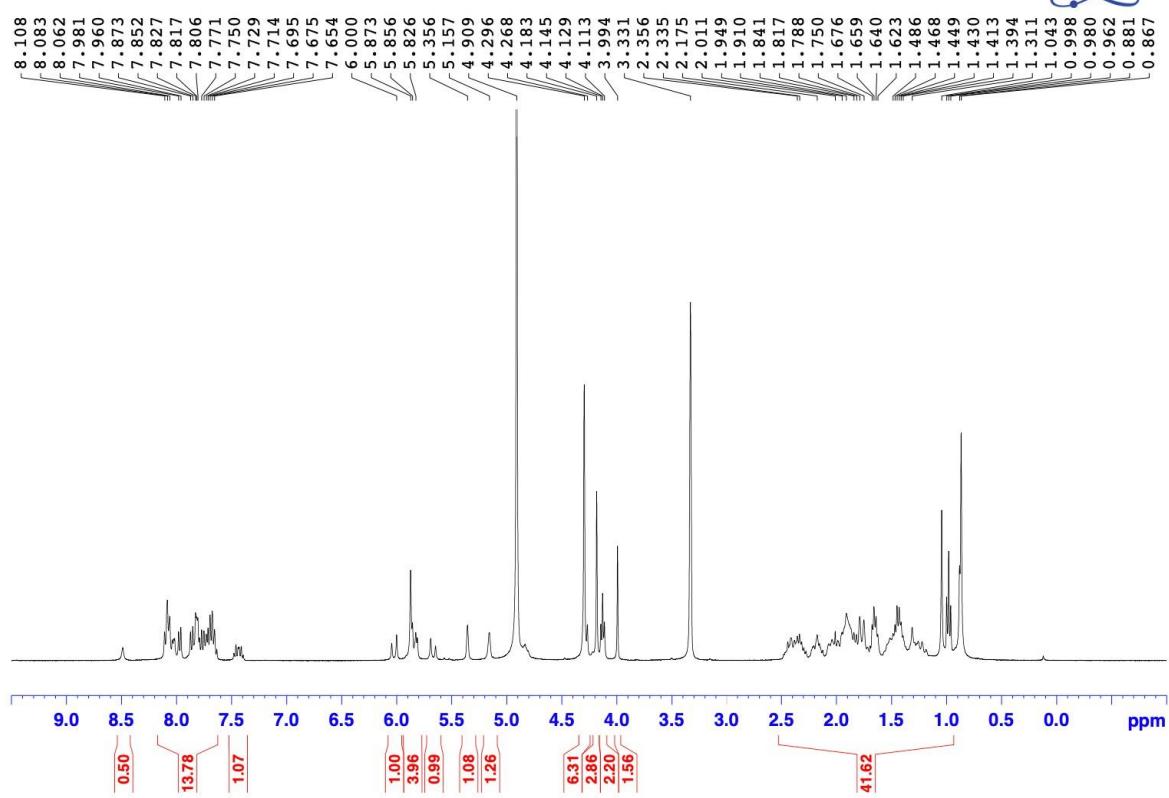
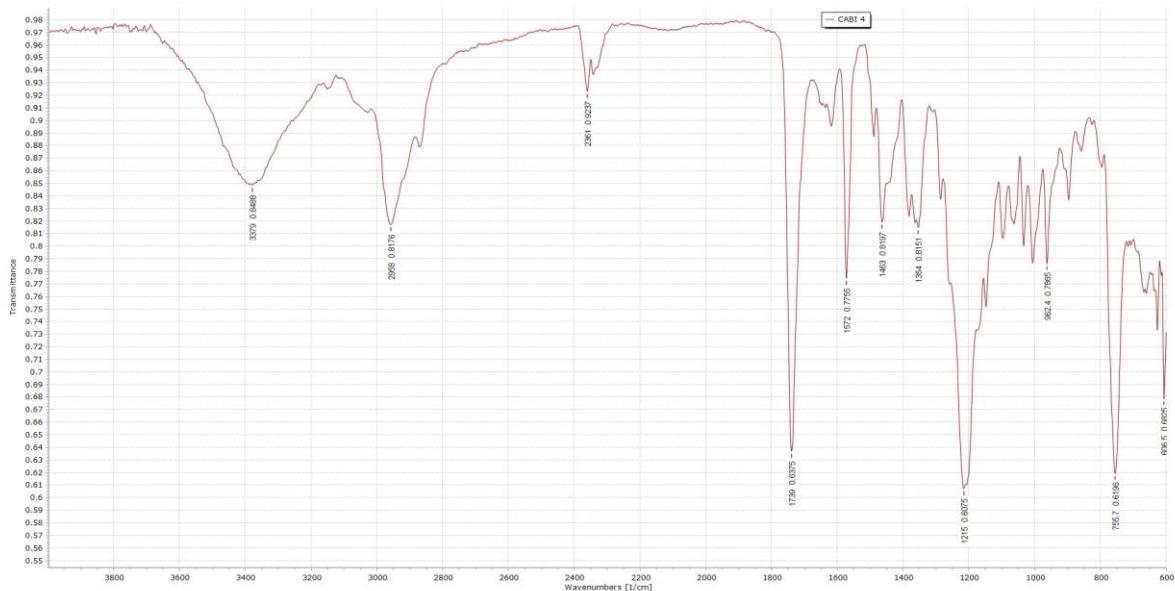
B



**Figure S15.** (A) Mass spectrum of CABI-3. (B) HPLC chromatograph of CABI-3.

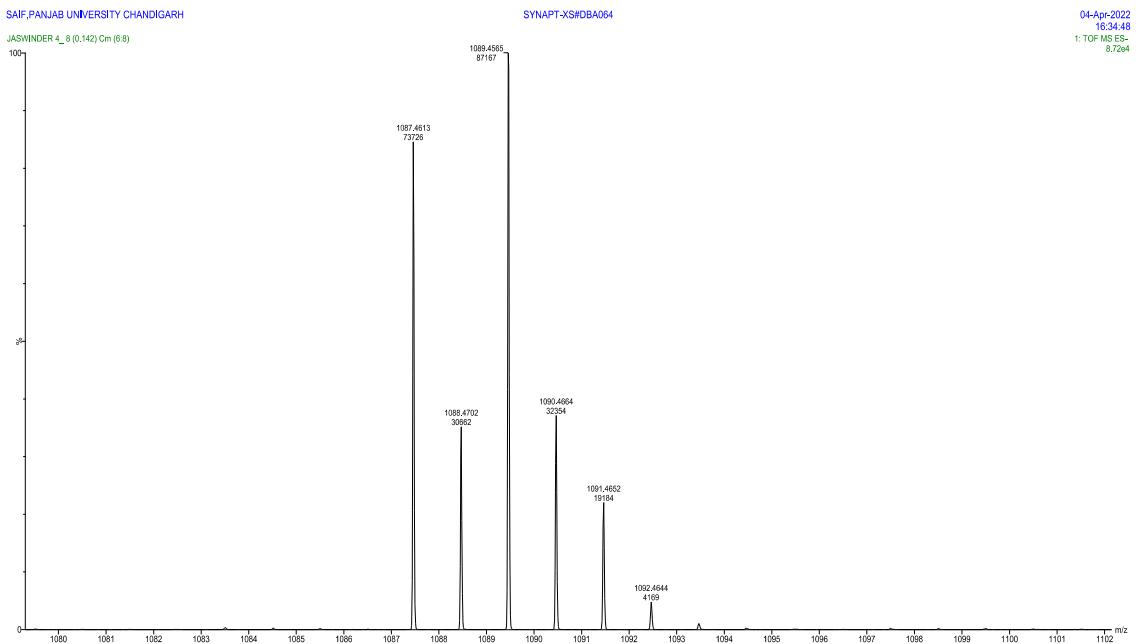
**A**

CA-BI-BUTYL

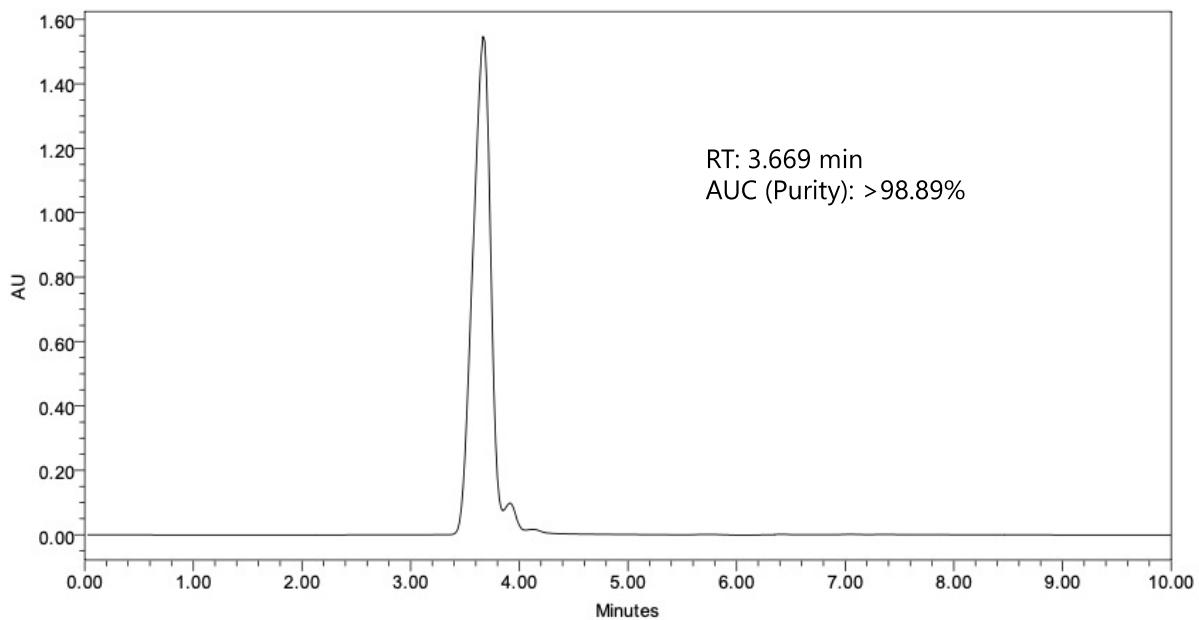
**B**

**Figure S16.** (A)  $^1\text{H}$  NMR spectrum of CABI-4. (B) IR spectrum of CABI-4.

A

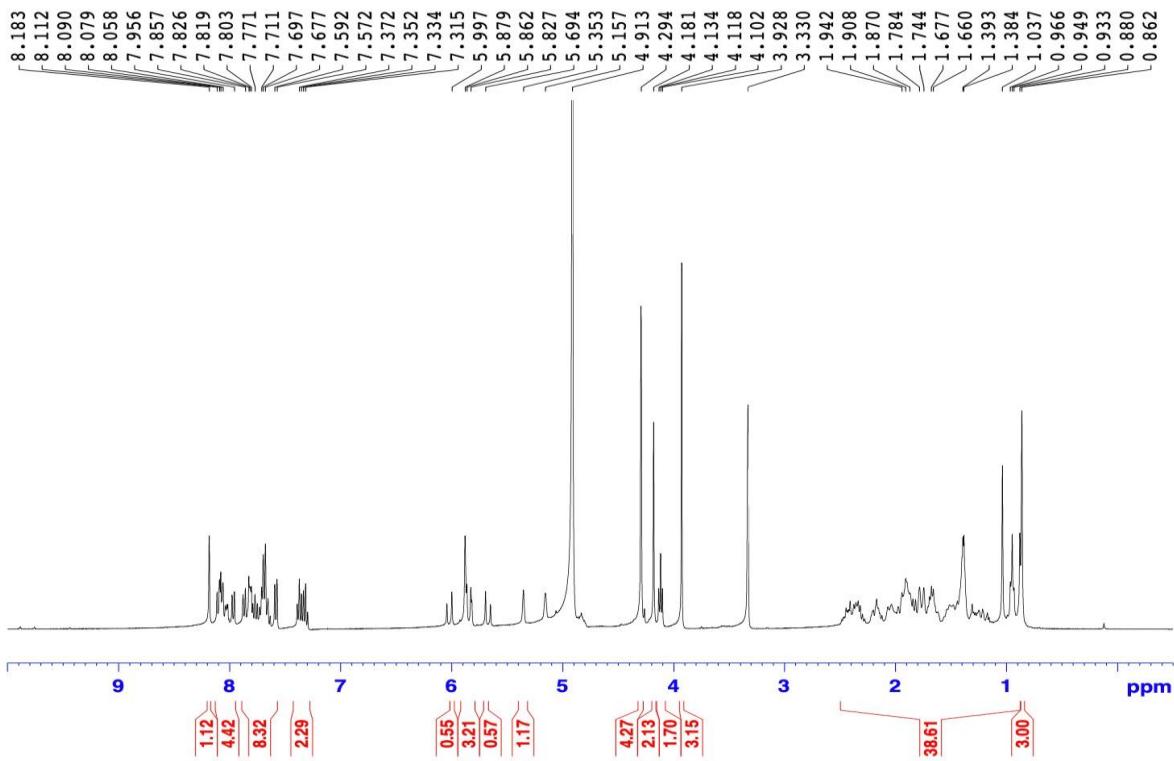


B

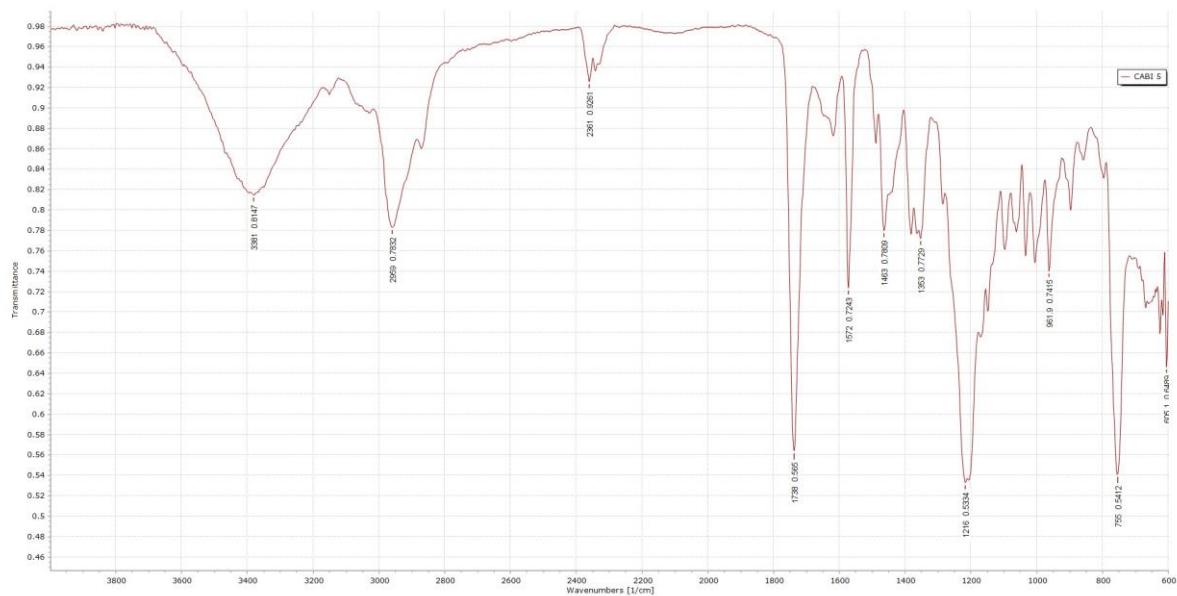


**Figure S17.** (A) Mass spectrum of CABI-4. (B) HPLC chromatograph of CABI-4.

**A**  
CA-BI PENTYL DEV

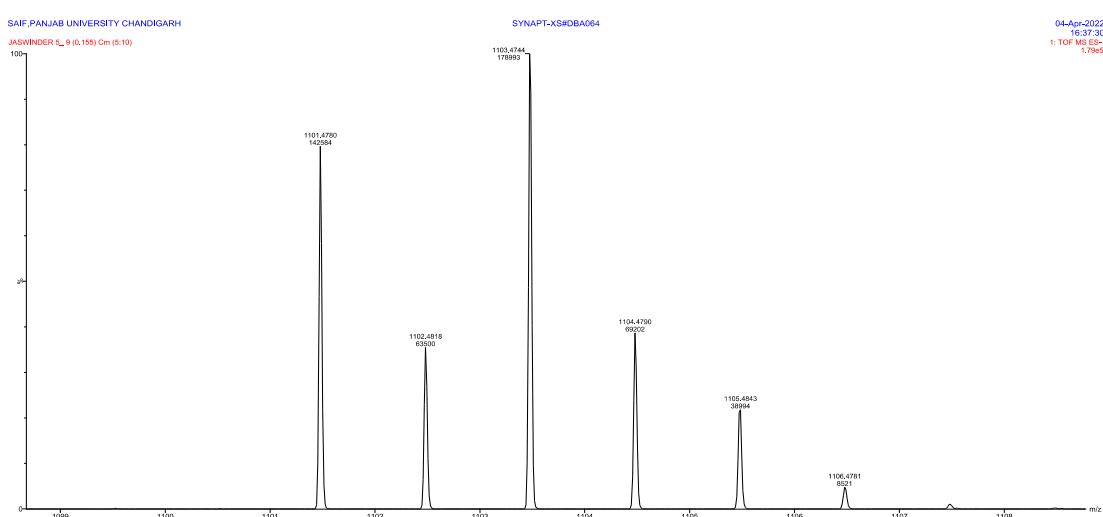


**B**

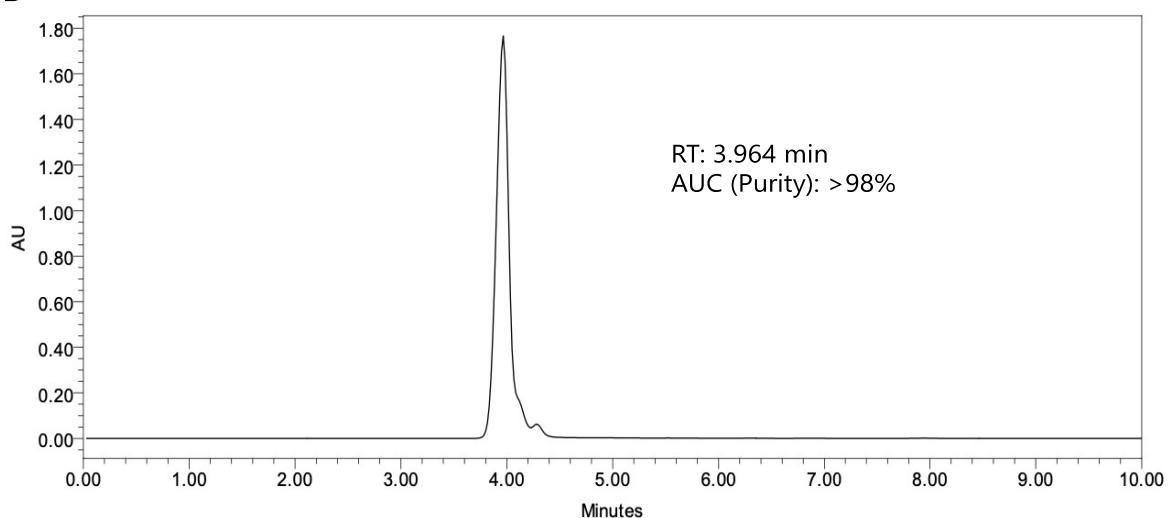


**Figure S18.** (A) <sup>1</sup>H NMR spectrum of CABI-5. (B) IR spectrum of CABI-5.

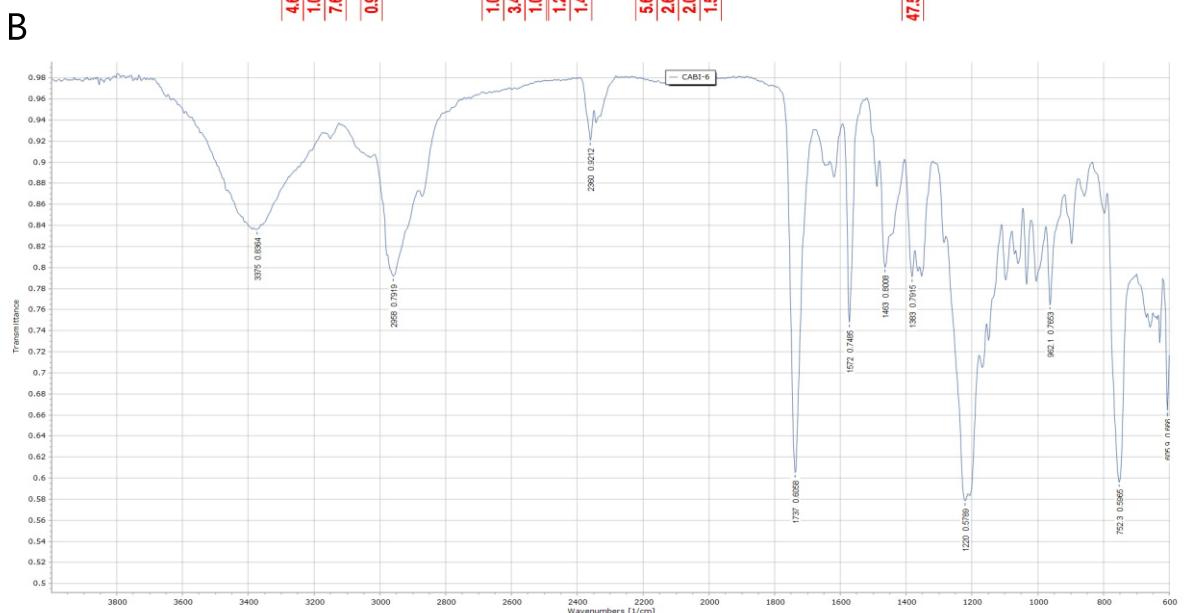
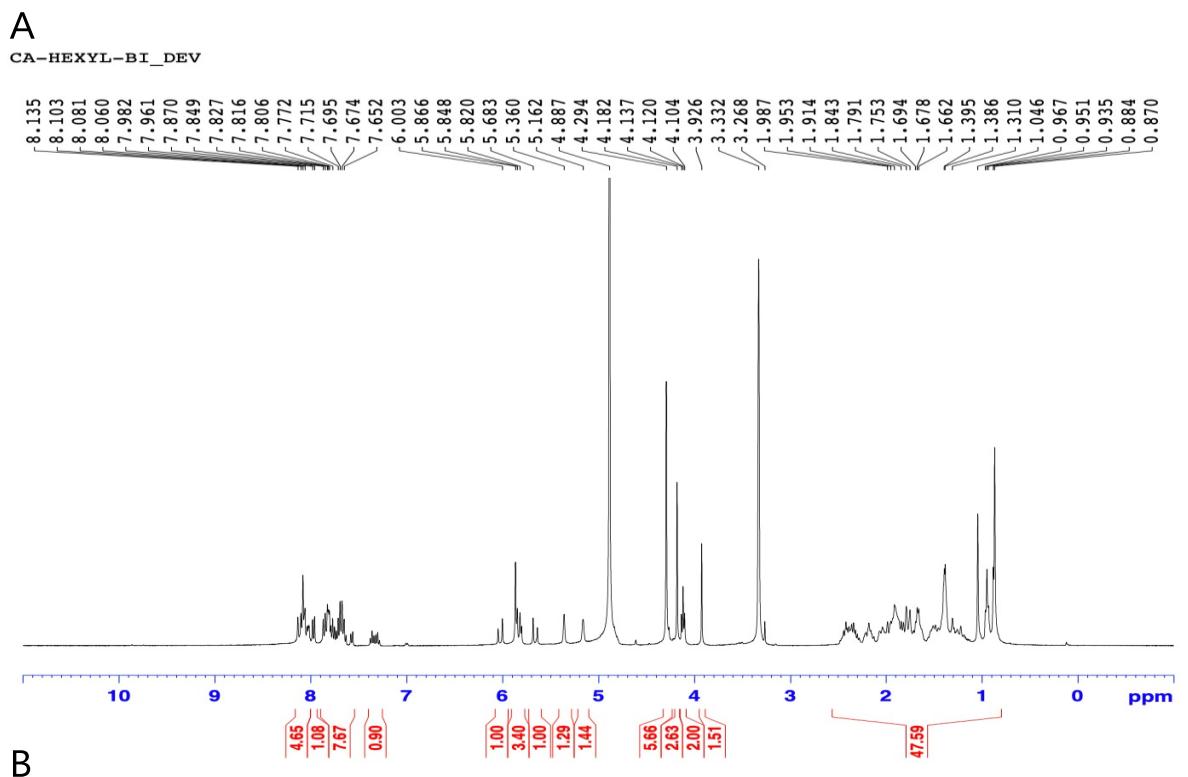
A



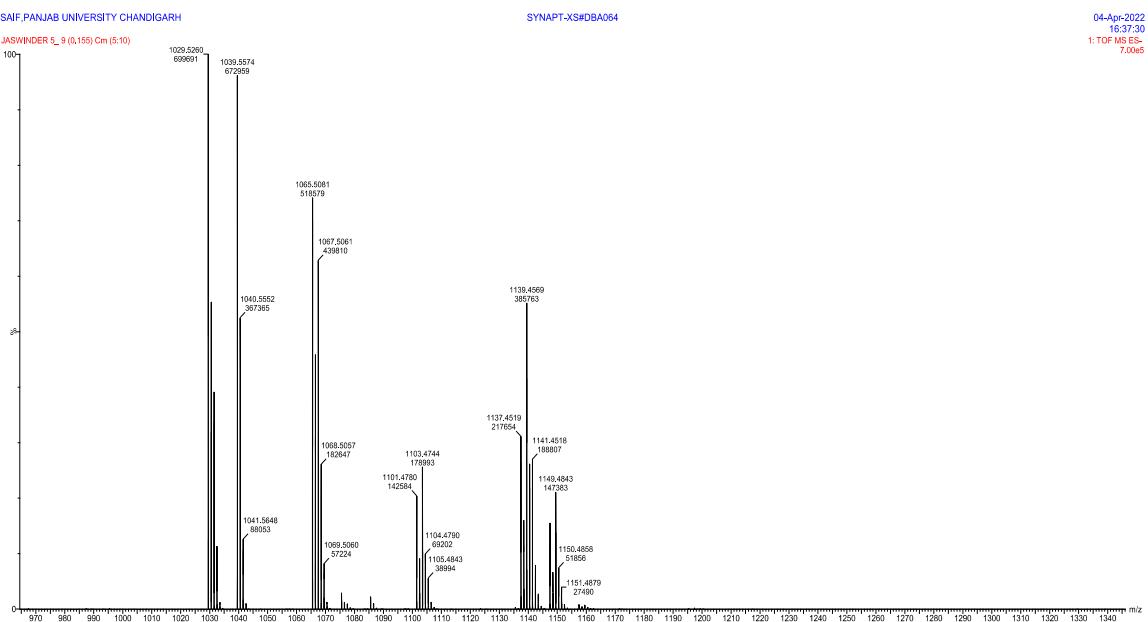
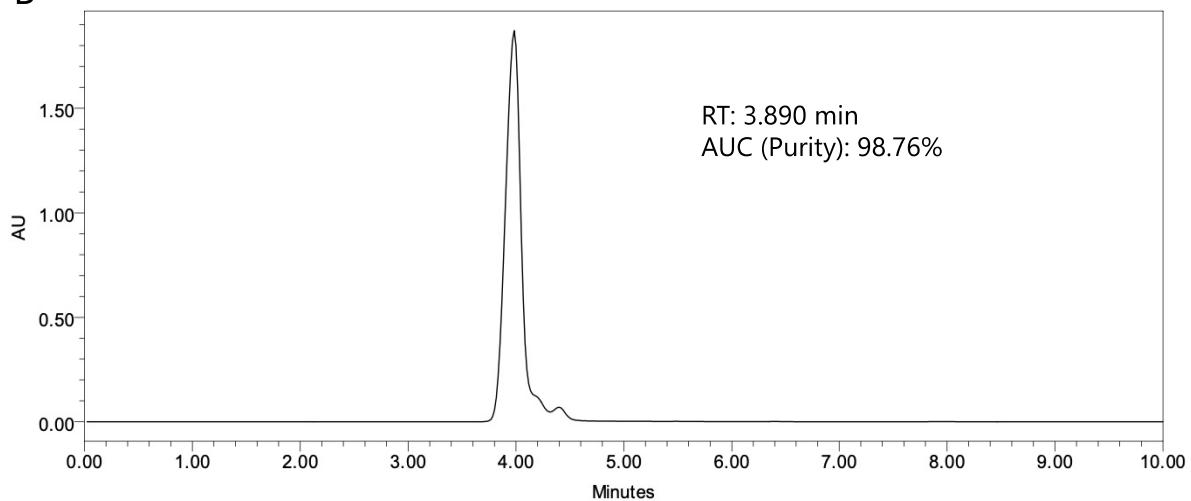
B



**Figure S19.** (A) Mass spectrum of CABI-5. (B) HPLC chromatograph of CABI-5.



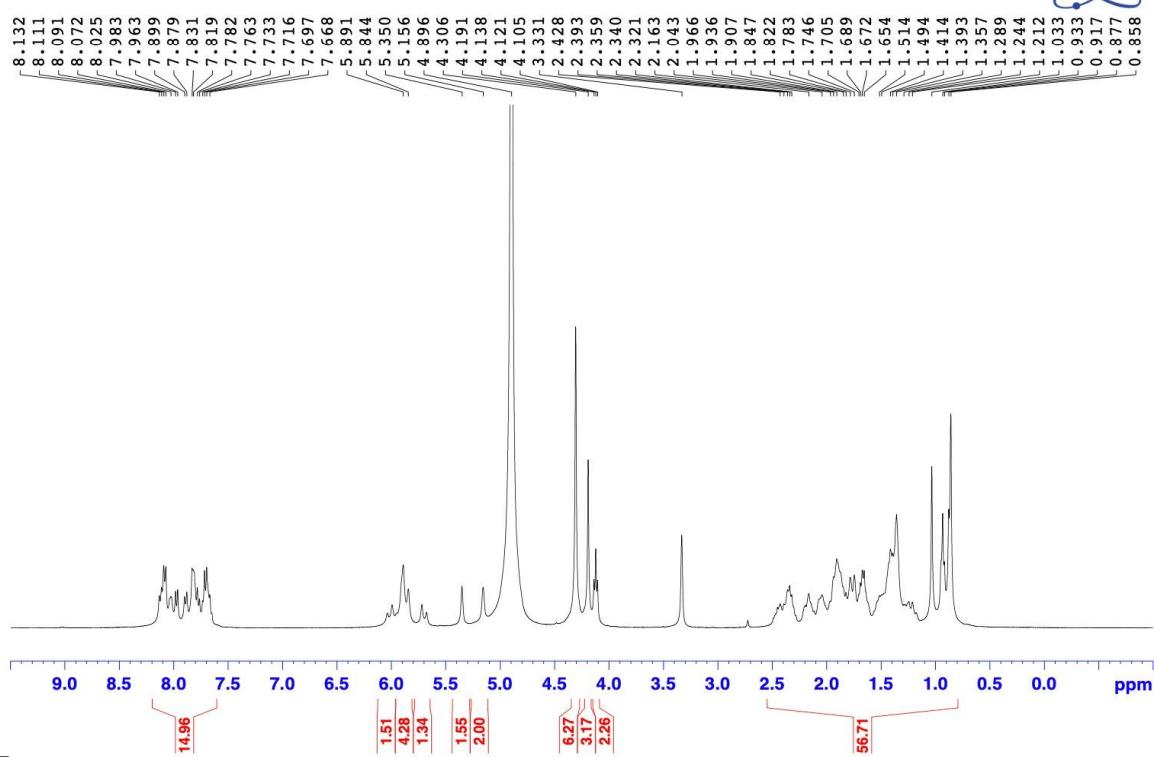
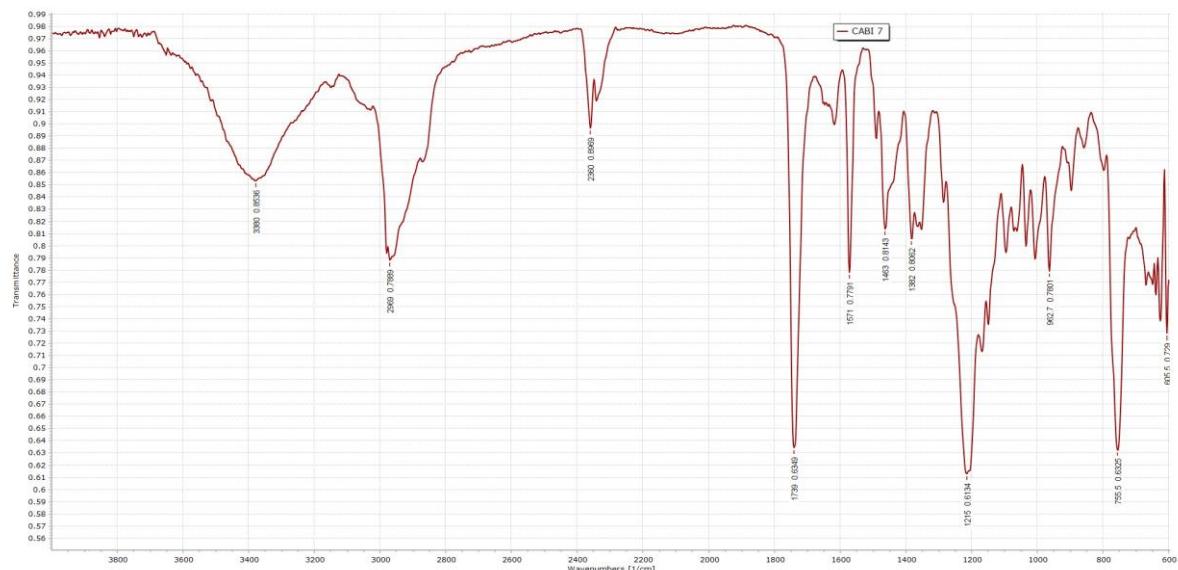
**Figure S20.** (A)  $^1\text{H}$  NMR spectrum of CABI-6. (B) IR spectrum of CABI-6.

**A****B**

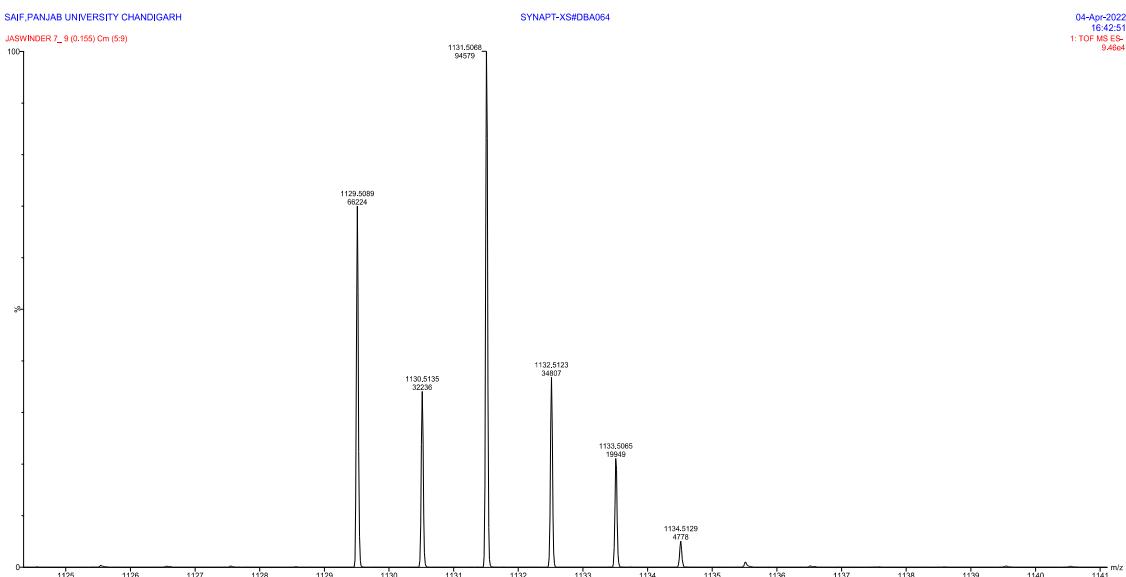
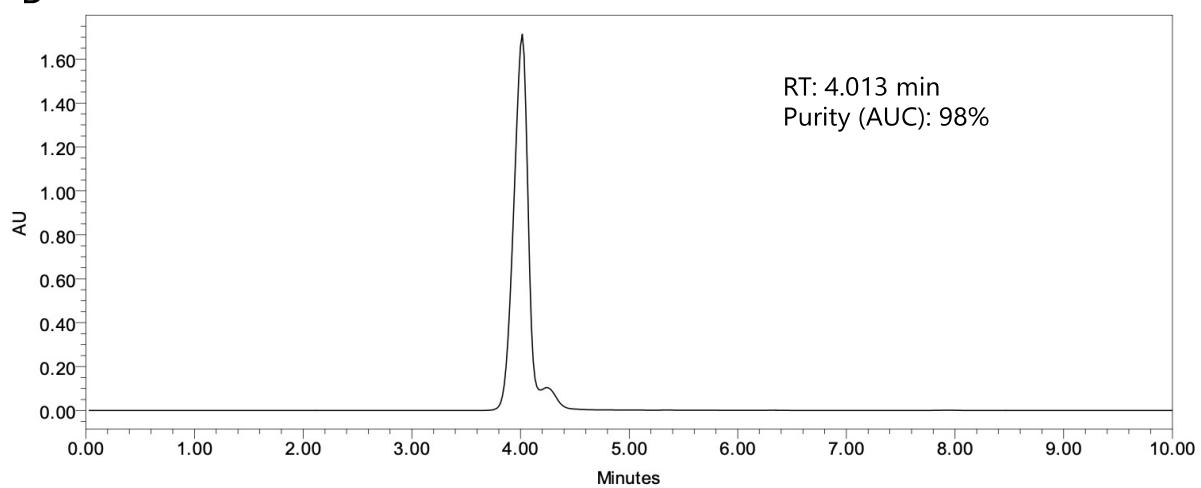
**Figure S21.** (A) Mass spectrum of CABI-6. (B) HPLC chromatograph of CABI-6.

**A**

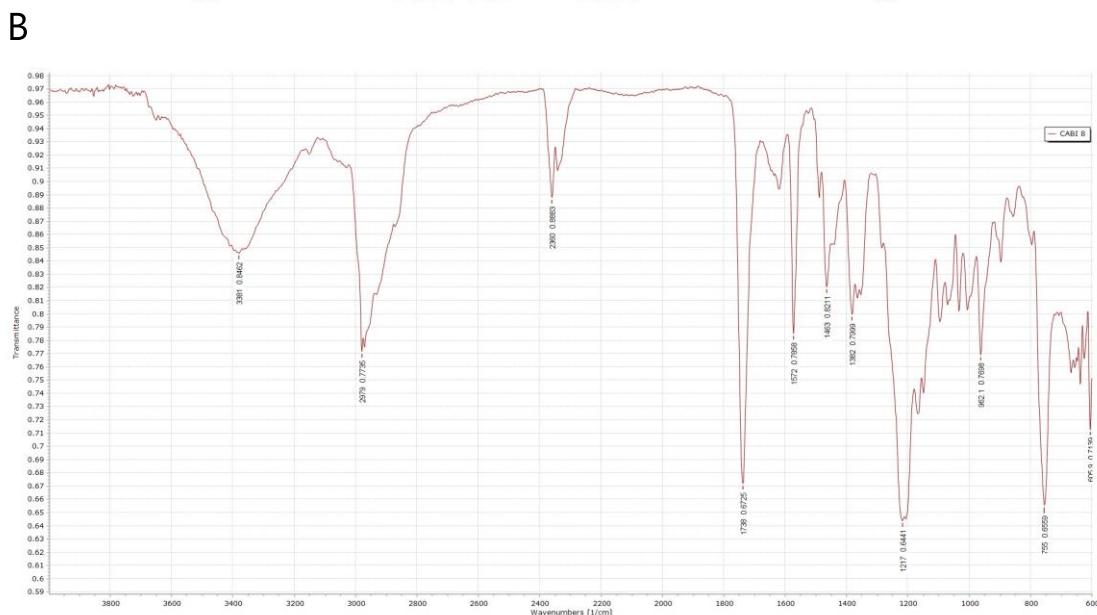
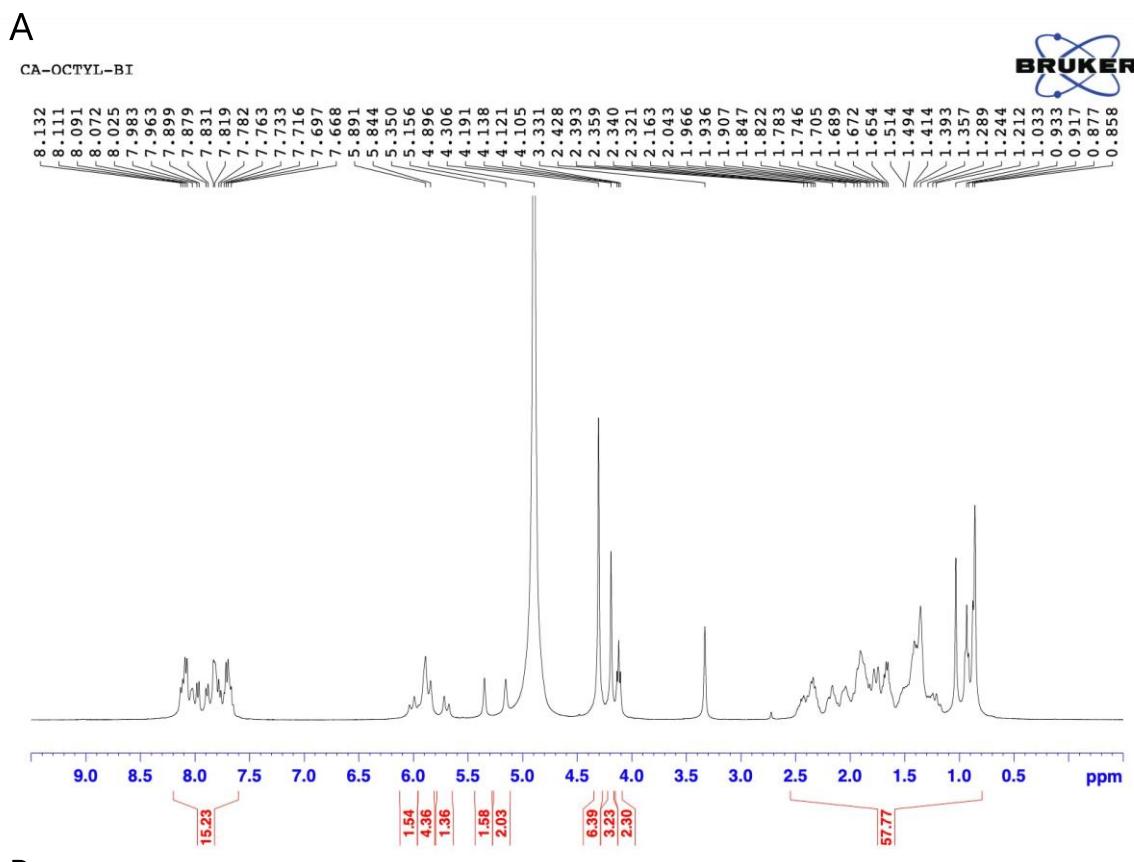
CA-HEPTYL-BI

**B**

**Figure S22.** (A)  $^1\text{H}$  NMR spectrum of CABI-7. (B) IR spectrum of CABI-7.

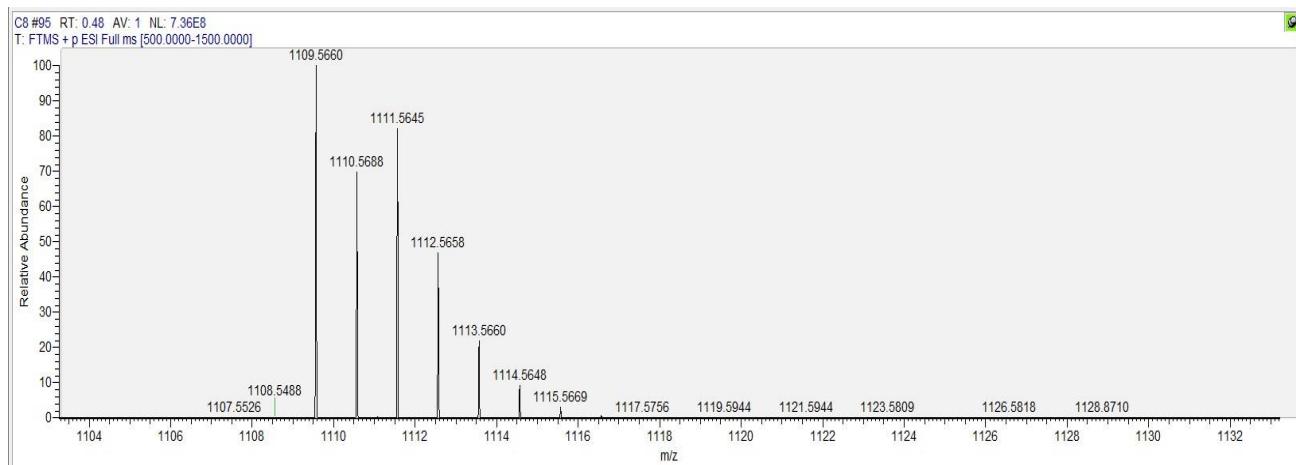
**A****B**

**Figure S23.** (A) Mass spectrum of CABI-7. (B) HPLC chromatograph of CABI-7.

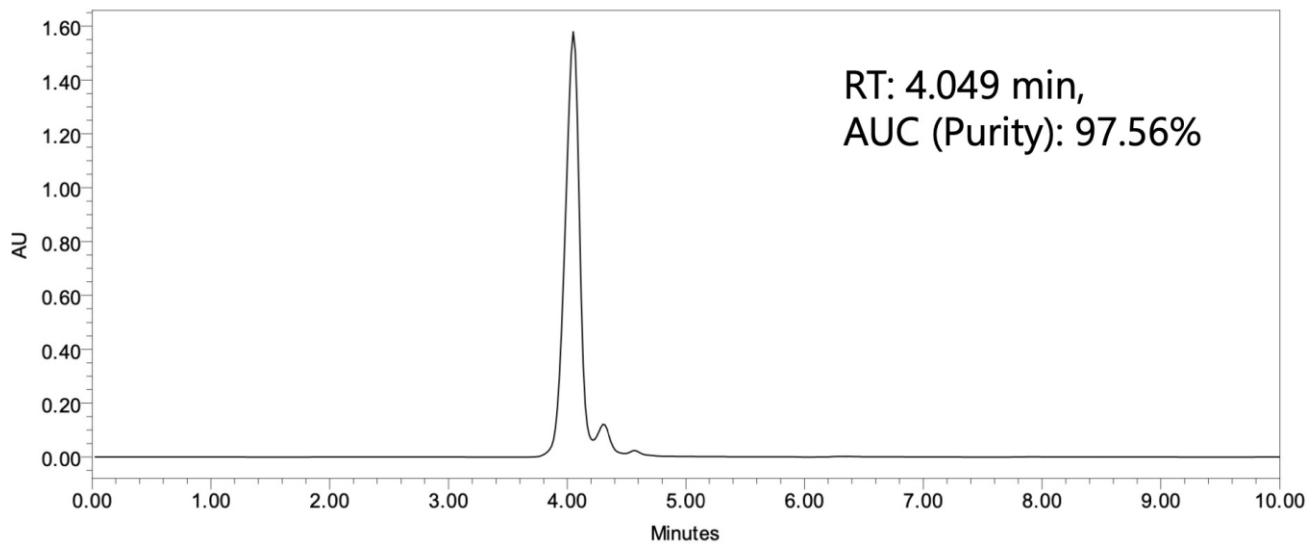


**Figure S24.** (A)  $^1\text{H}$  NMR spectrum of CABI-8. (B) IR spectrum of CABI-8.

A



B



**Figure S25.** (A) Mass spectrum of CABI-8. (B) HPLC chromatograph of CABI-8.