

## Supplementary information:

s1\_160711091922 #22 RT: 0.17 AV: 1 NL: 4.53E6  
T: FTMS + p ESI Full ms [150.00-400.00]

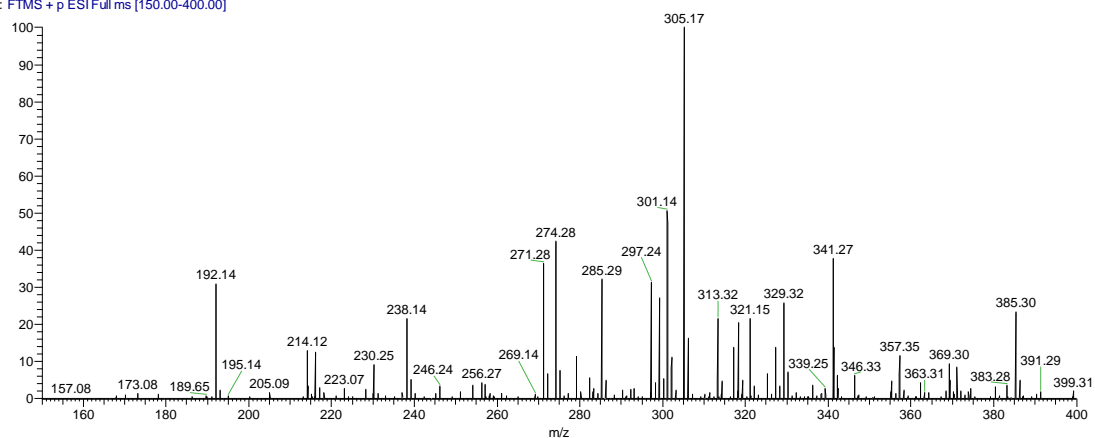


Figure S1 MS spectra a of DLD

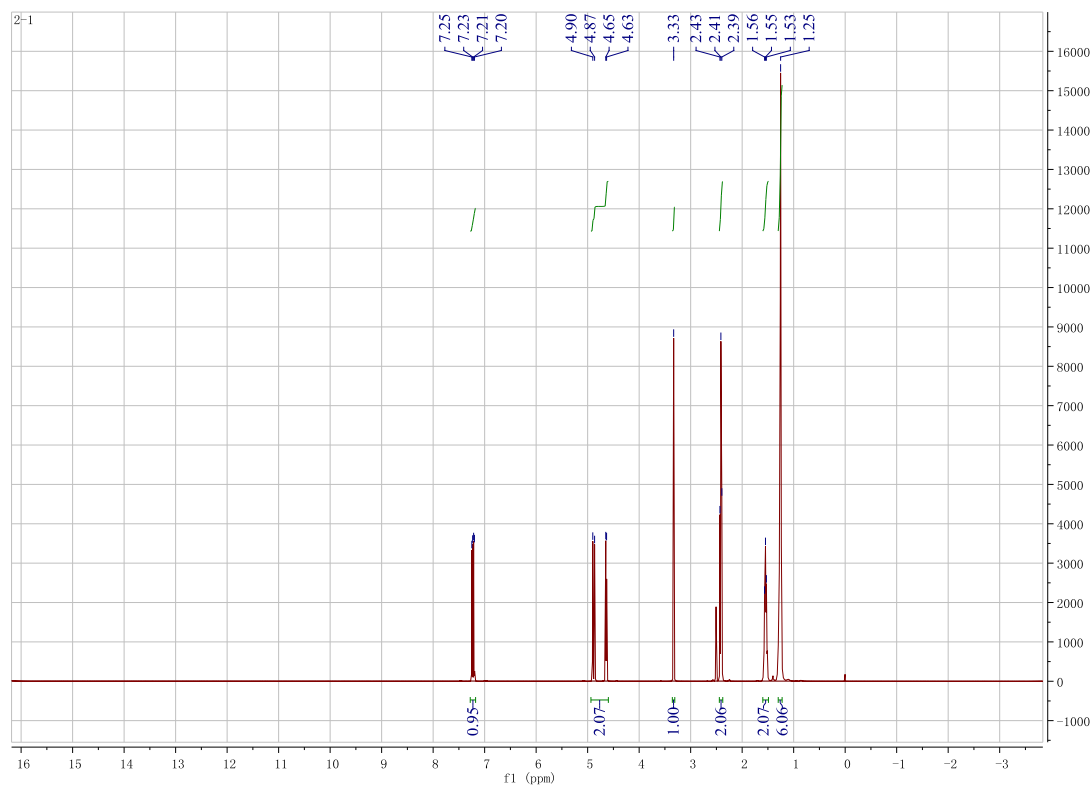


Figure S2 <sup>1</sup>H NMR spectra of DLD

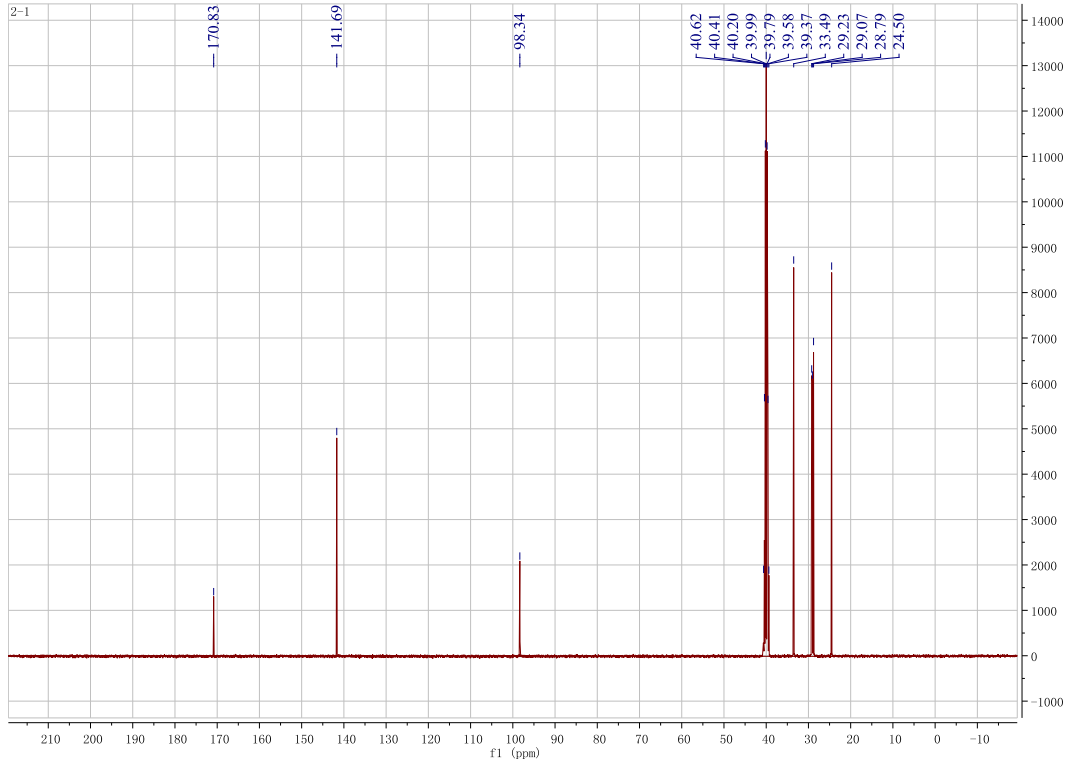


Figure S3  $^{13}\text{C}$  NMR spectra of DLD

胆固醇-月桂二酸乙酯 #10 RT: 0.08 AV: 1 NL: 2.06E7  
T: FTMS + c ESI Full ms [400.00-800.00]

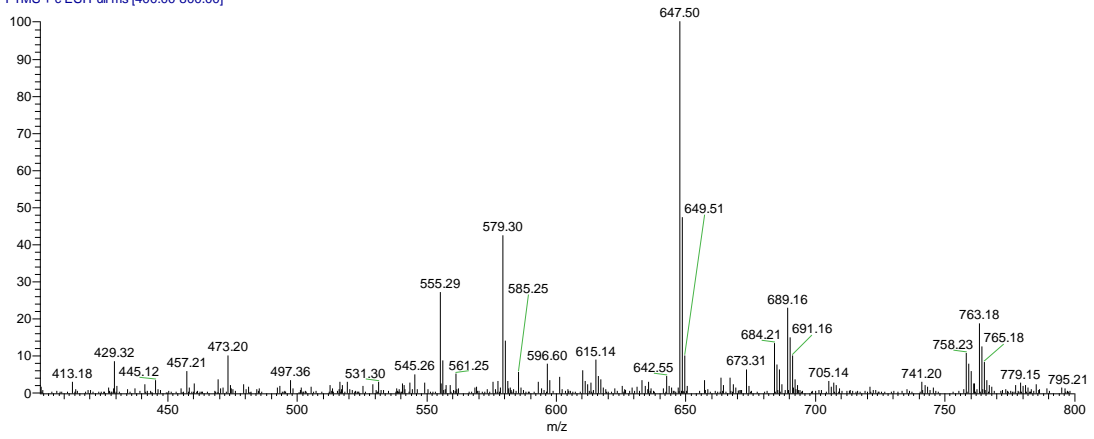


Figure S4 MS spectra of DLD-Chol

(B)

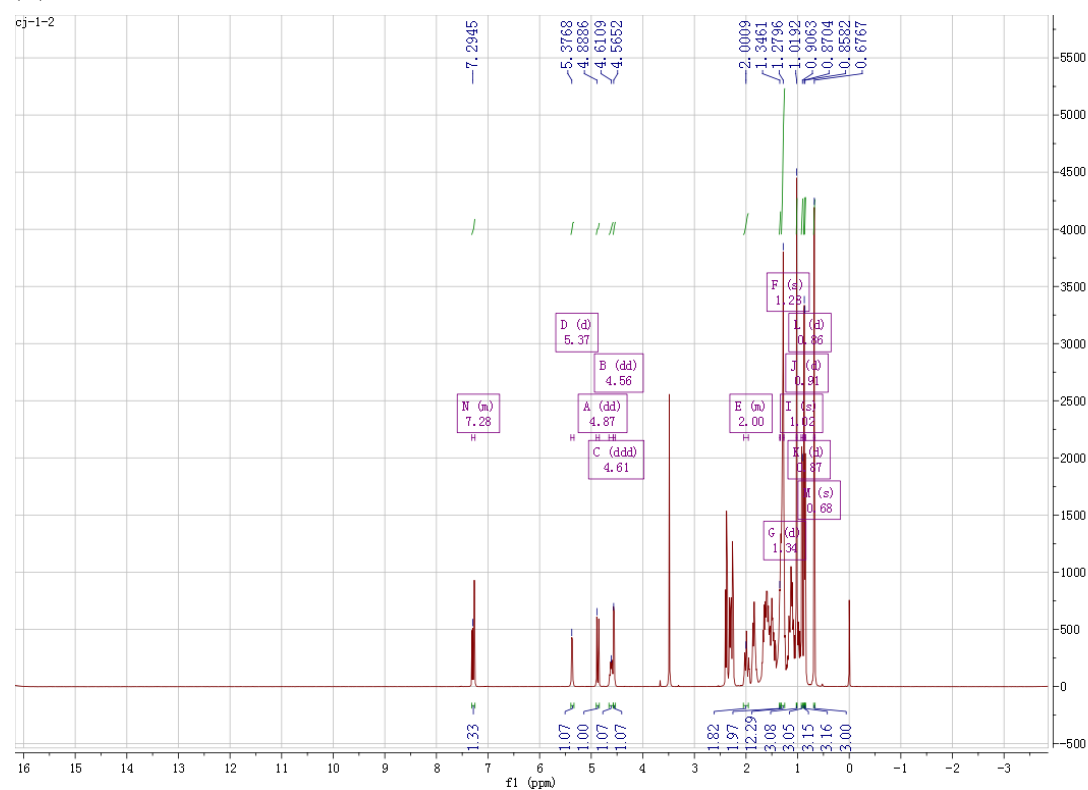


Figure S5  $^1\text{H}$  NMR spectra of DLD-Chol

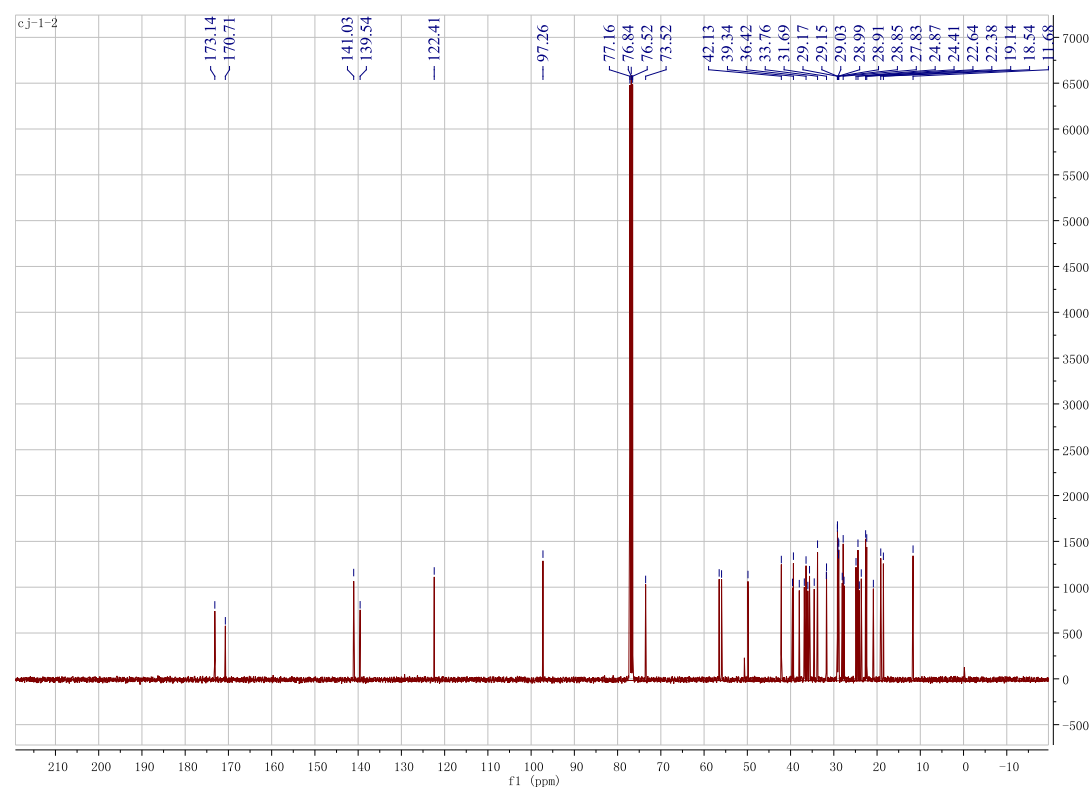


Figure S6  $^{13}\text{C}$  NMR spectra of DLD-Chol

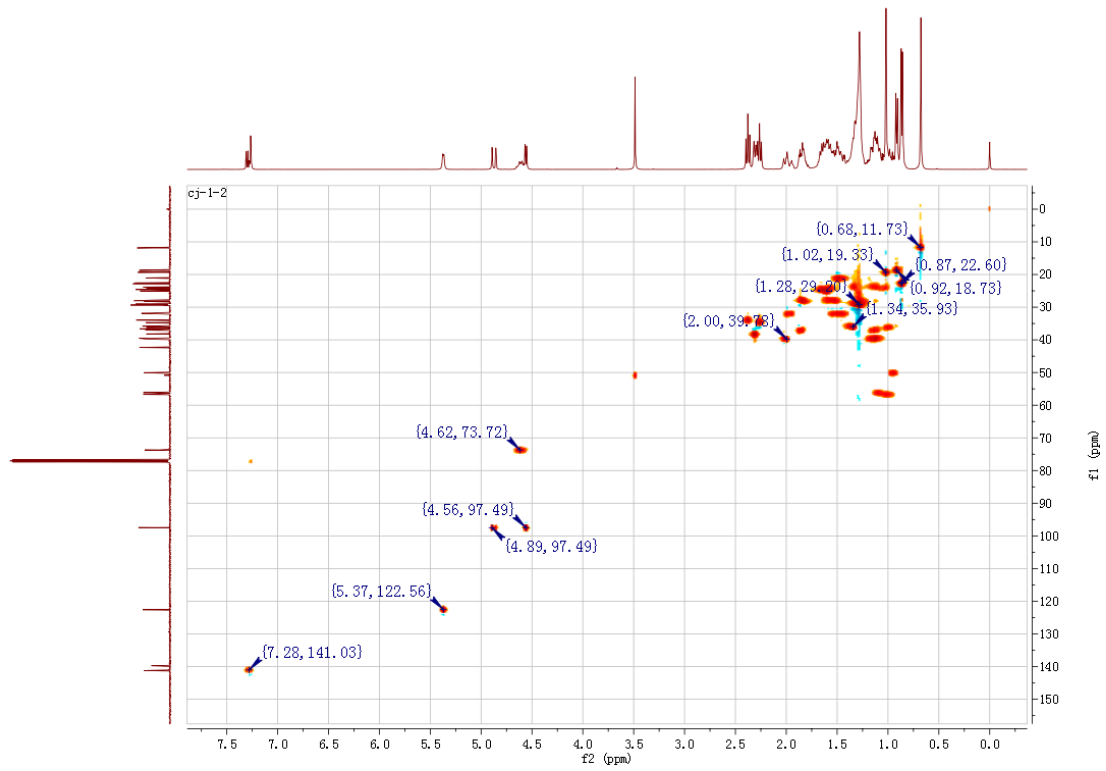


Figure S7 HMQC spectra of DLD-Chol

甘露糖-月桂二酸-胆固醇MS图谱 #31 RT: 0.14 AV: 1 NL: 1.22E7  
T: FTMS + c ESI Full ms [500.00-1000.00]

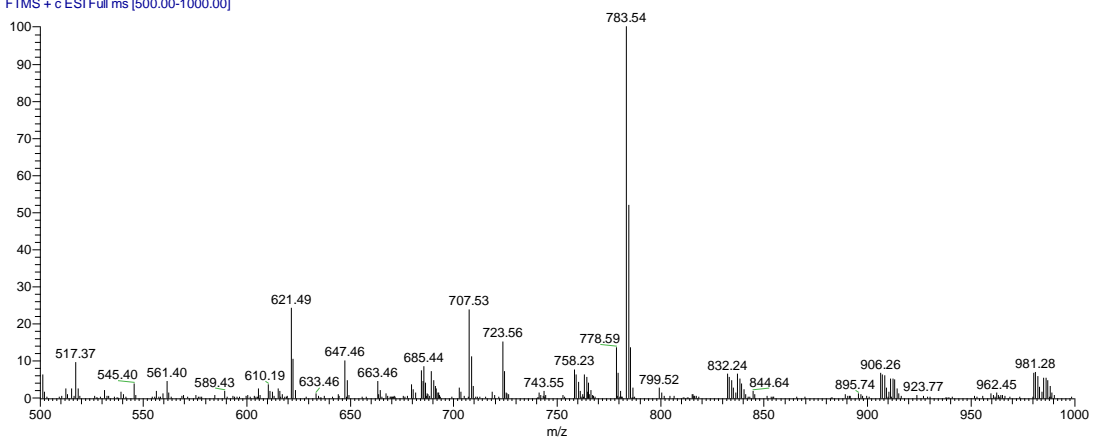


Figure S8 MS spectra of Man-DLD-Chol

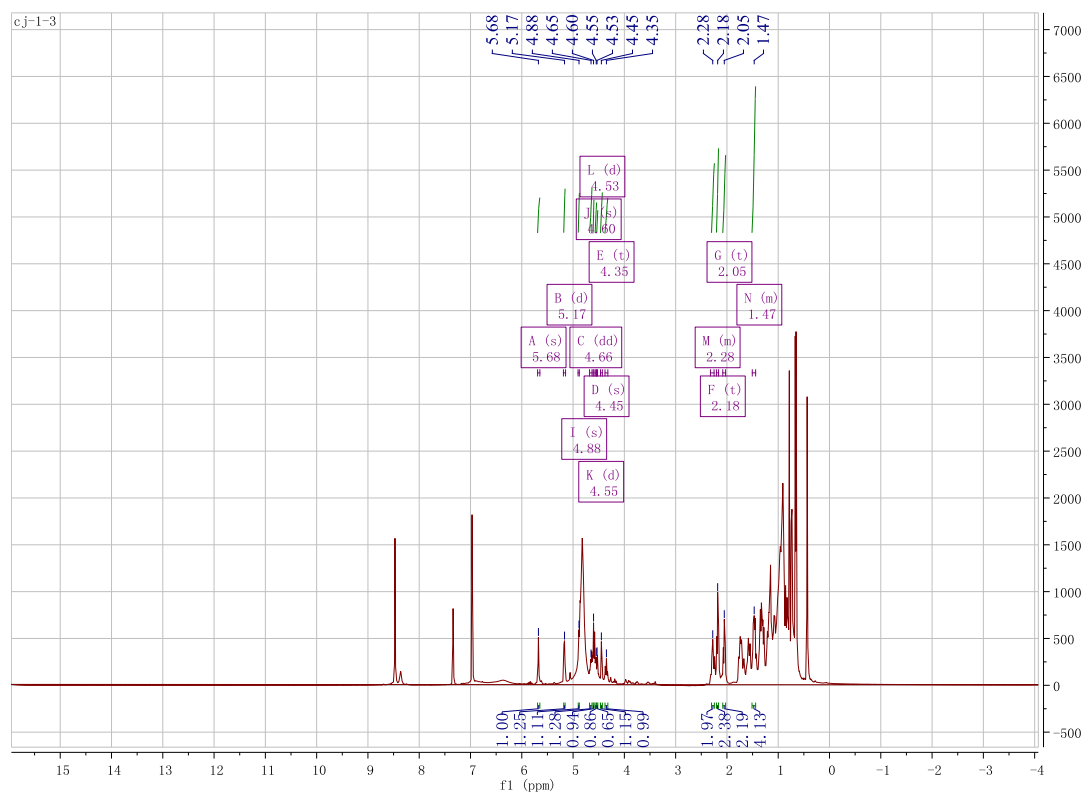


Figure S9  $^1\text{H}$  NMR spectra of Man-DLD-Chol

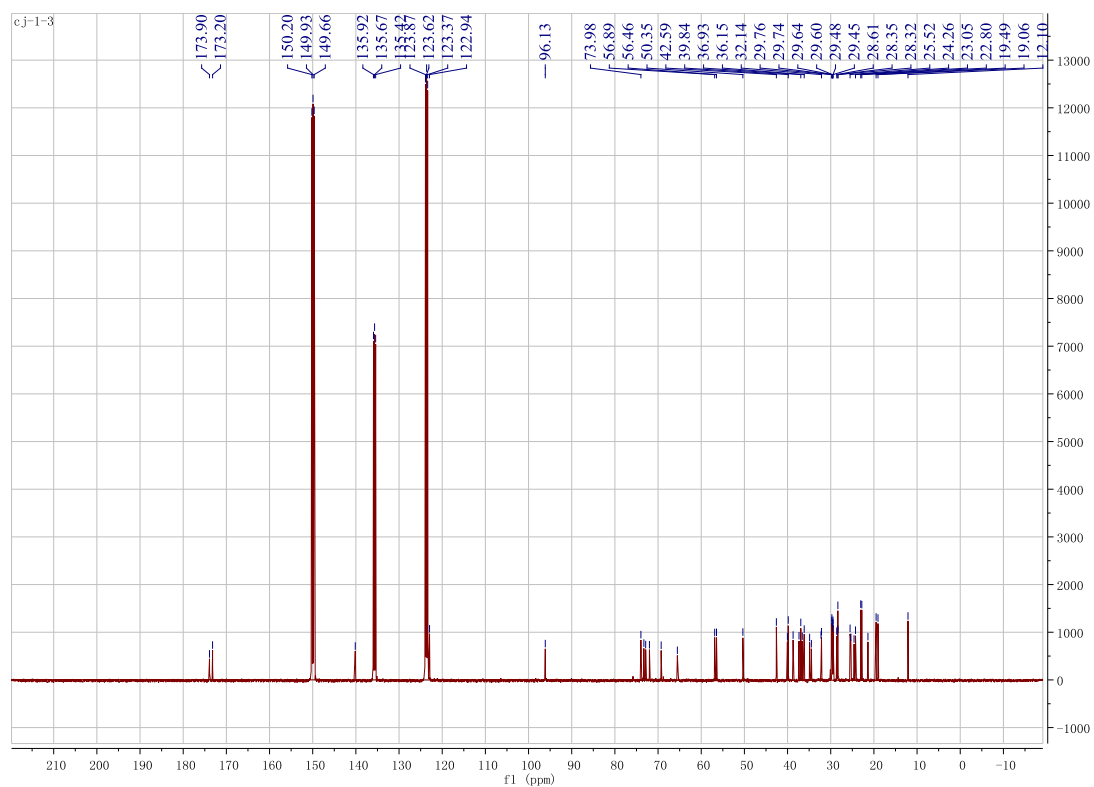


Figure S10  $^{13}\text{C}$  NMR spectra of Man-DLD-Chol

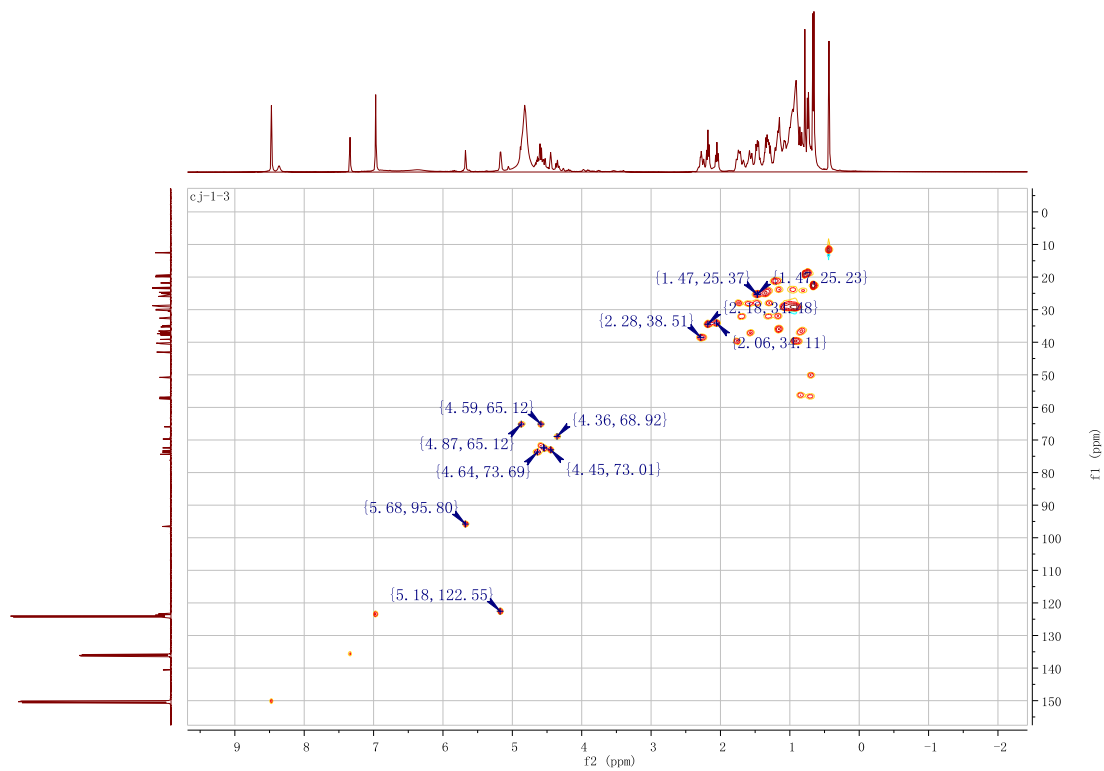


Figure S11 HMQC spectra of Man-DLD-Chol

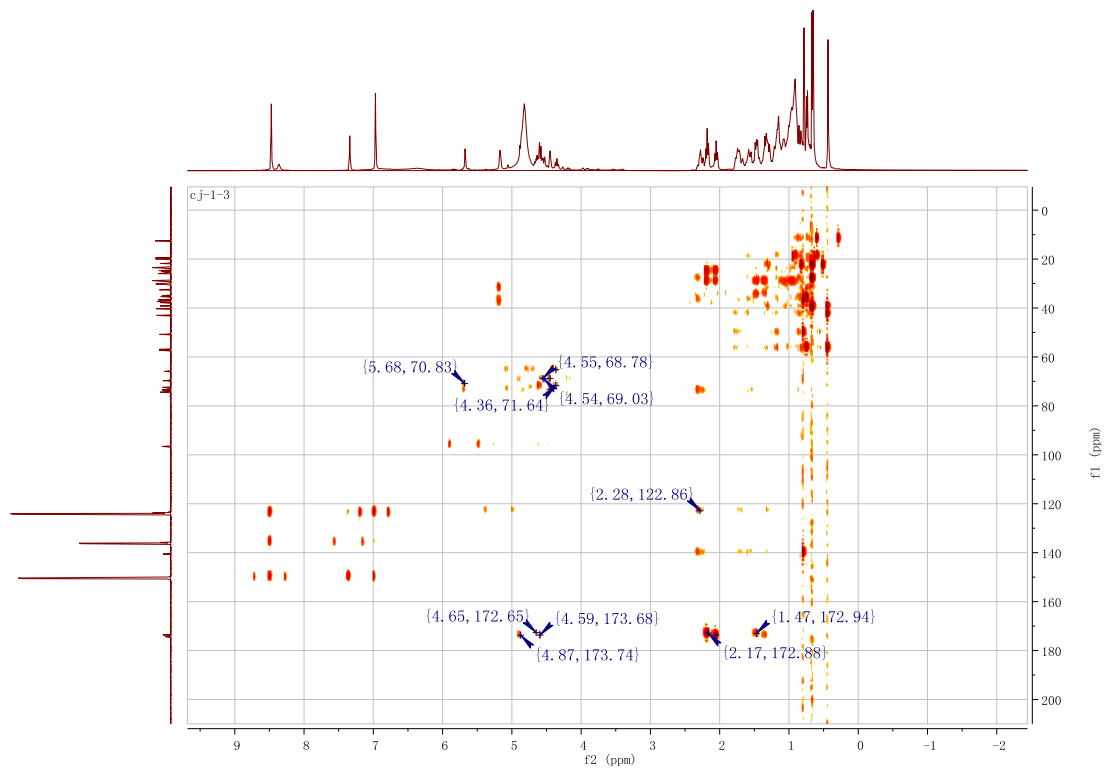


Figure S12 HMBC spectra of Man-DLD-Chol