

Figure S1. <sup>1</sup>H and <sup>13</sup>C NMR spectrum of 2-Methoxy-4-methyl-6-*tert*-butyl phenol

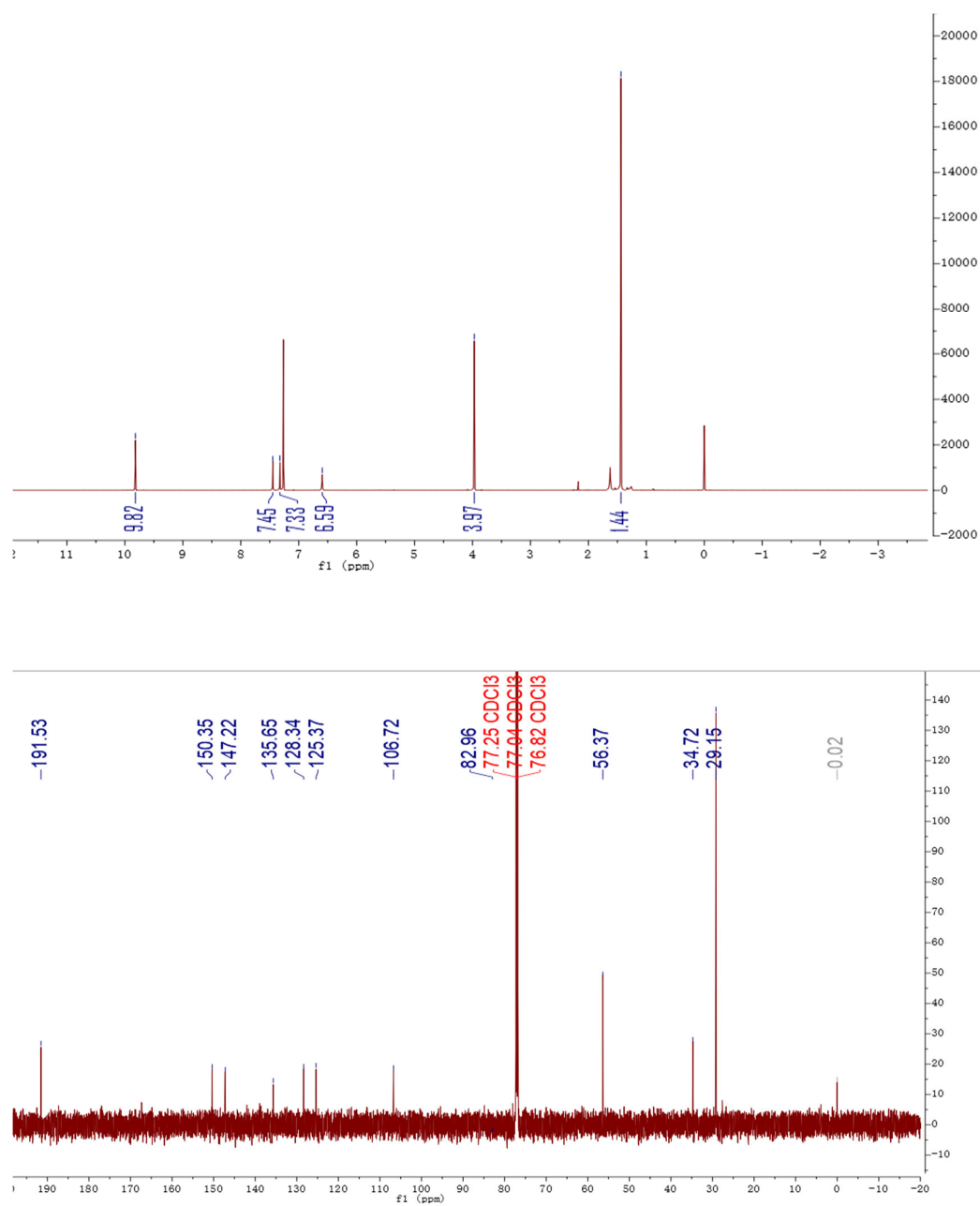


Figure S2.  $^1\text{H}$  and  $^{13}\text{C}$  NMR spectrum of *tert*-butyl vanillin

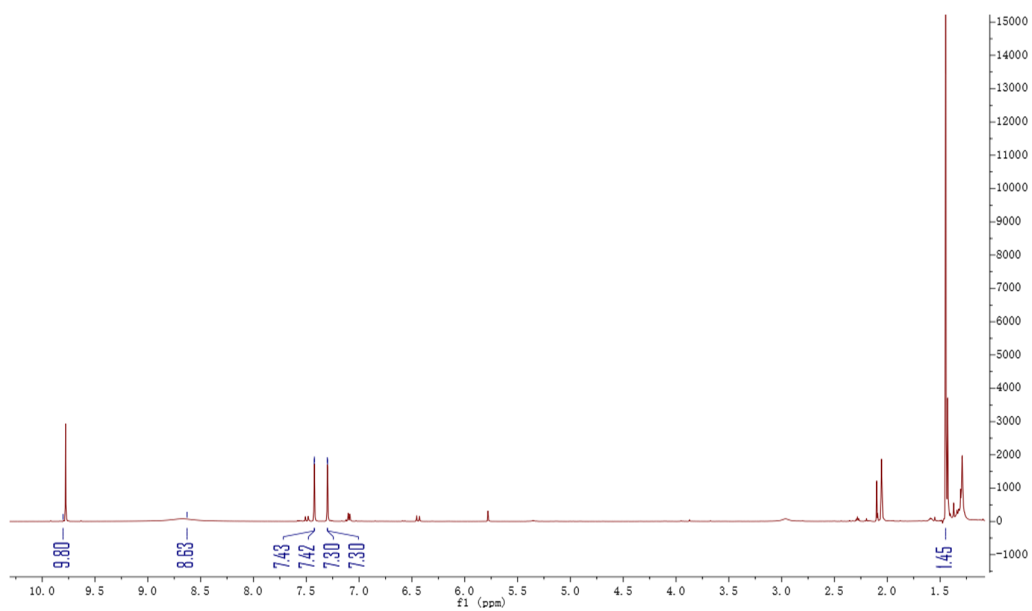


Figure S3.  $^1\text{H}$  and  $^{13}\text{C}$  NMR spectrum of 3-*tert*-butyl-4,5-dihydroxybenzaldehyde

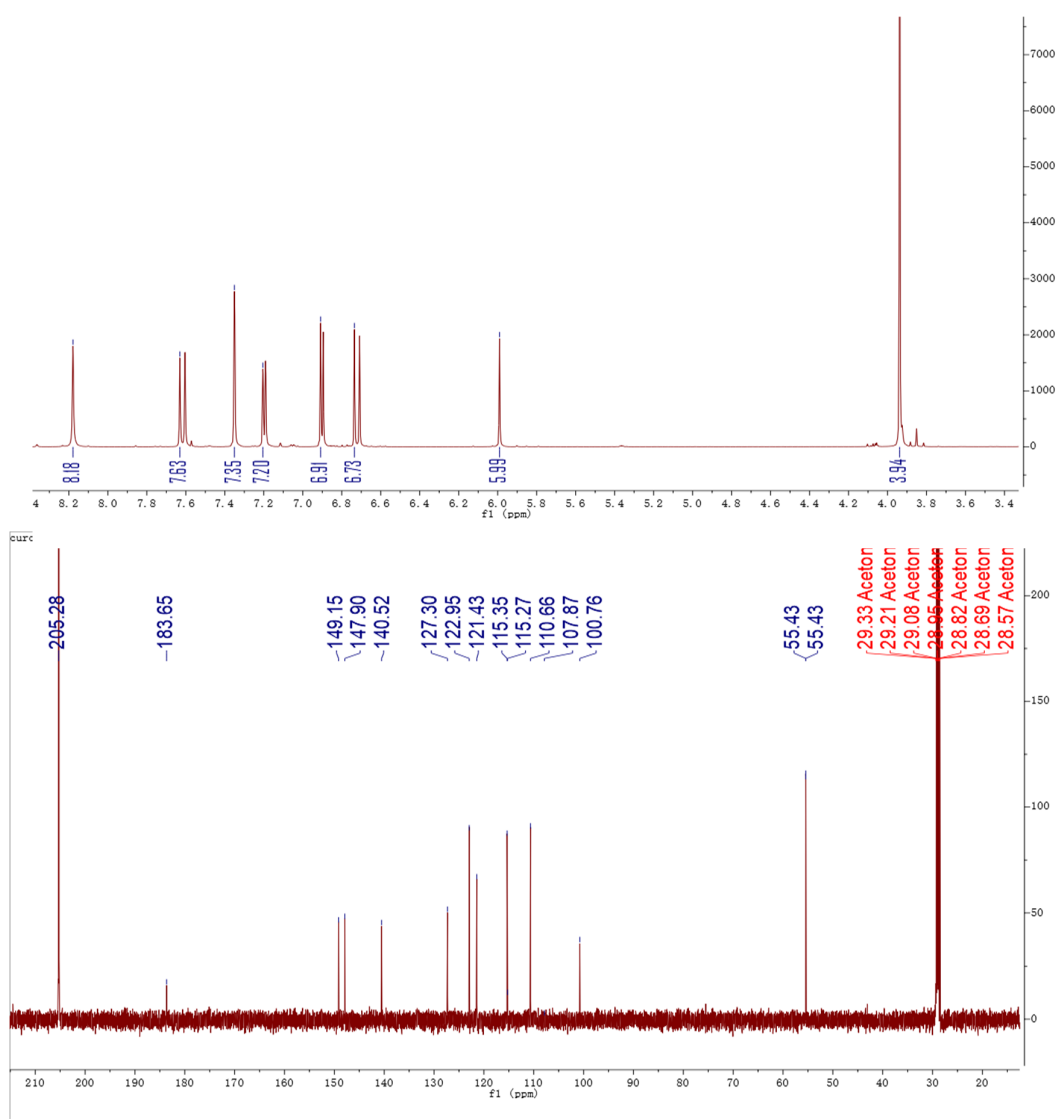


Figure S4.  $^1\text{H}$  and  $^{13}\text{C}$  NMR spectrum of curcumin



MS Zoomed Spectrum

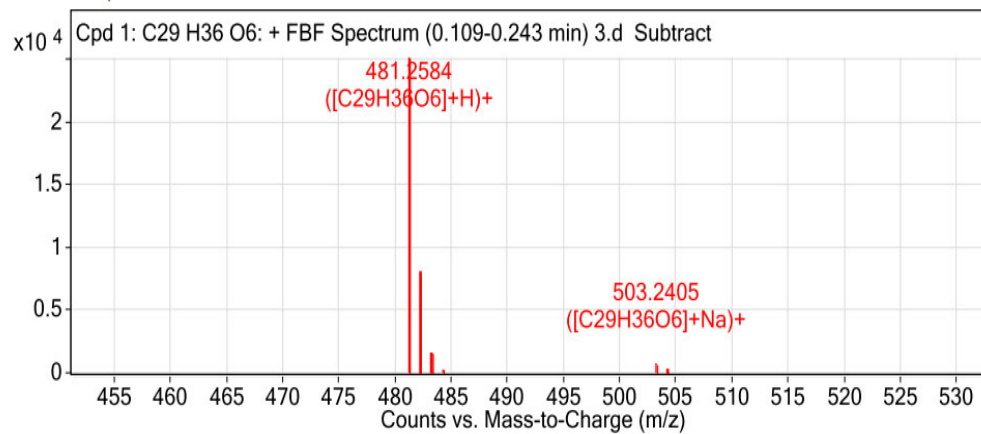


Figure S6. The high resolution mass spectrometry of *tert-butyl* curcumin

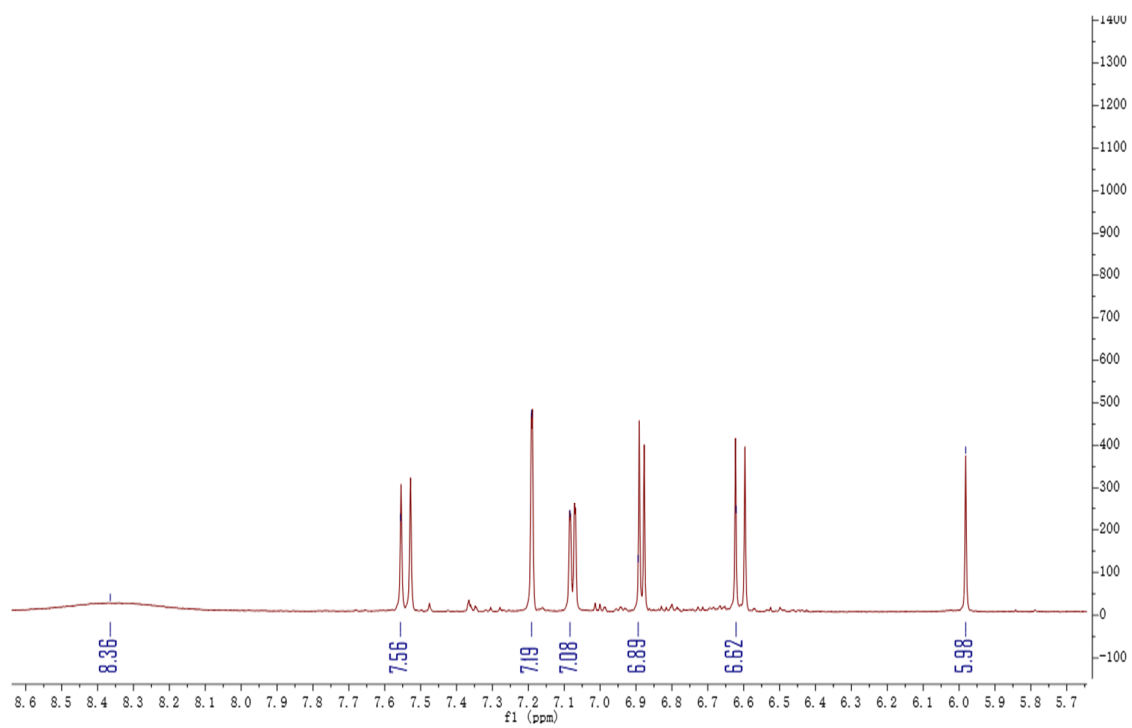


Figure S7.  $^1\text{H}$  and  $^{13}\text{C}$  NMR spectrum of demethylated curcumin

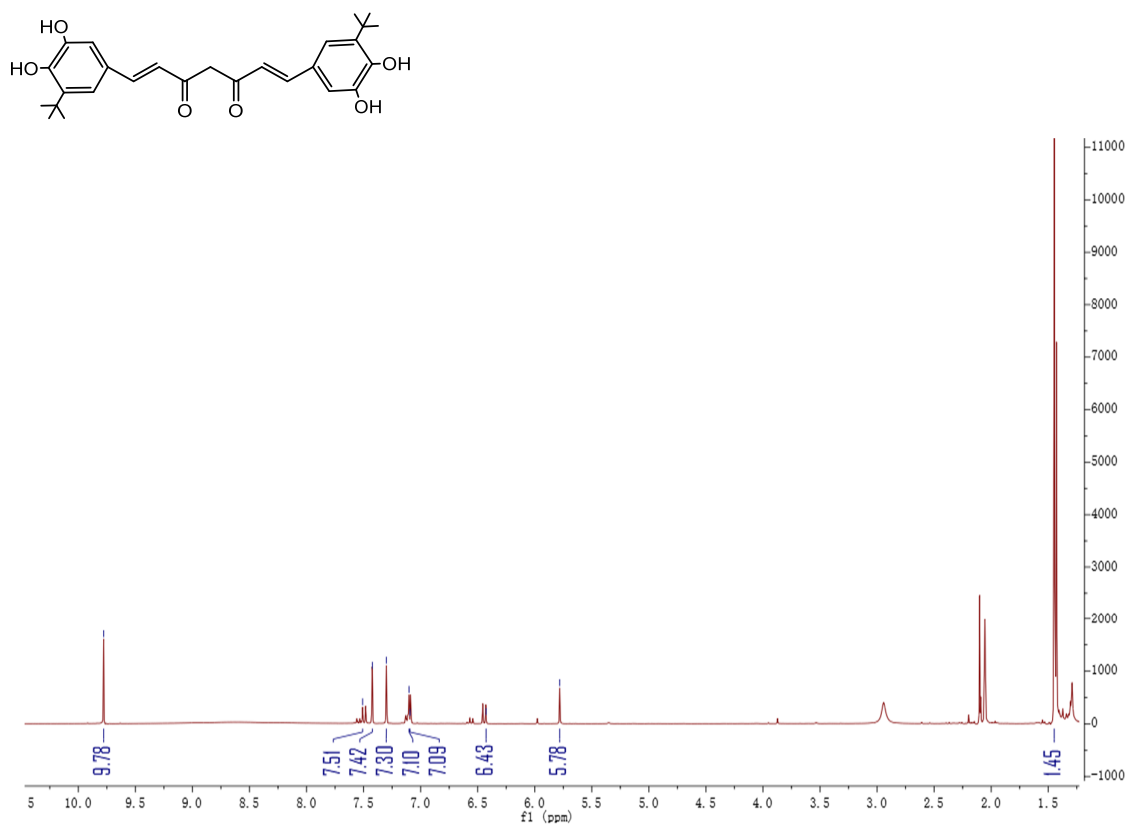


Figure S8. <sup>1</sup>H and <sup>13</sup>C NMR spectrum of 1E,6E-1,7-bis(3-*tert*-butyl-4,5-dihydroxyphenyl)hepta-1,6-diene-3,5-dione