SUPPLEMENTARY MATERIAL

Analysis summary for 4-hydroxybenzoic acid-d4: ^{1}H NMR (400 MHz, CD_3OD) δ 6.81 (residual signal), 7.87 (residual signal). ^{2}H NMR (61.4 MHz, CD_3OD) δ 6.86 (br s), 7.91 (br s). $^{13}C\{^{1}H\}$ NMR (101 MHz, CD_3OD) δ 115.4–116.0 (m), 122.5–122.7 (m), 132.6 (t), 132.8 (s), 163.3 (s), 170.1 (s). $^{13}C\{^{1}H, ^{2}H, d1 = 20 s\}$ NMR (101 MHz, CD_3OD) δ 115.7 (s), 115.8 (s), 122.5 (s), 122.6 (s), 132.6 (s), 132.9 (s), 163.3 (s), 170.1 (s). MS (ESI-): 36.1%, d_4; 42.6%, d_3; 18.9%, d_2; 2.4%, d_1.

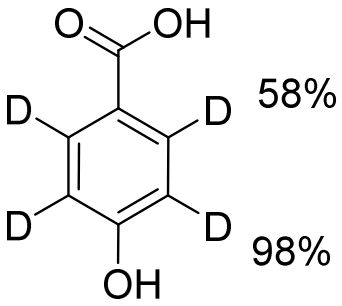

Figure S1. Site-specific deuteration of the prepared sample of 4-hydroxybenzoic acid-d4.

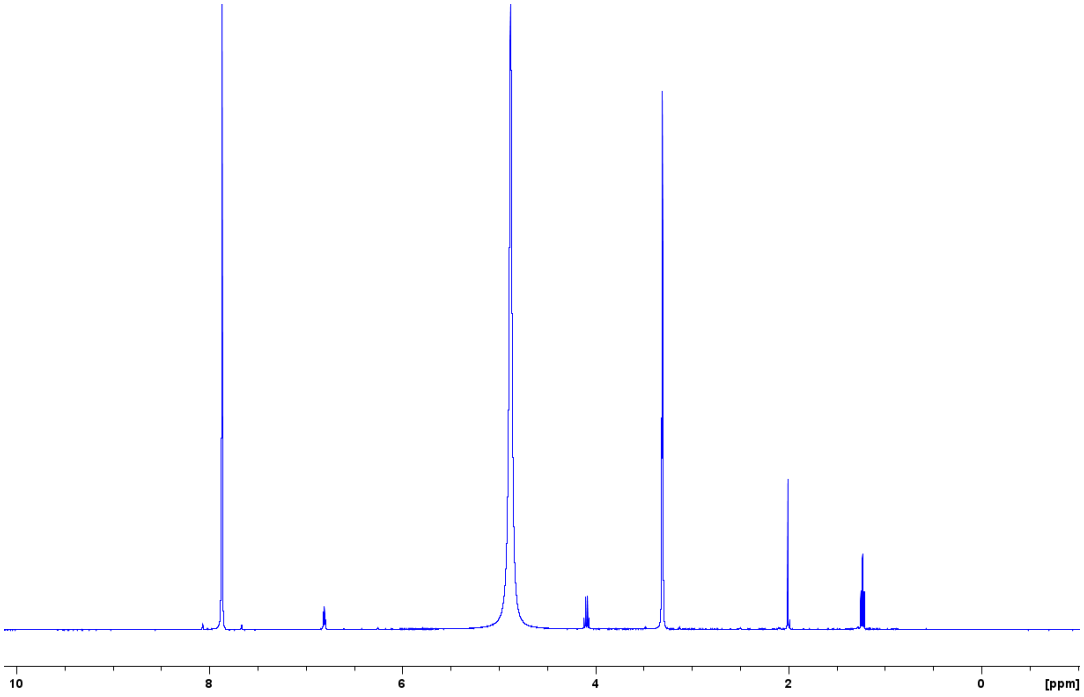

Figure S2. ^{1}H NMR (400 MHz, CD_3OD) of deuterated 4-hydroxybenzoic acid-d_4.

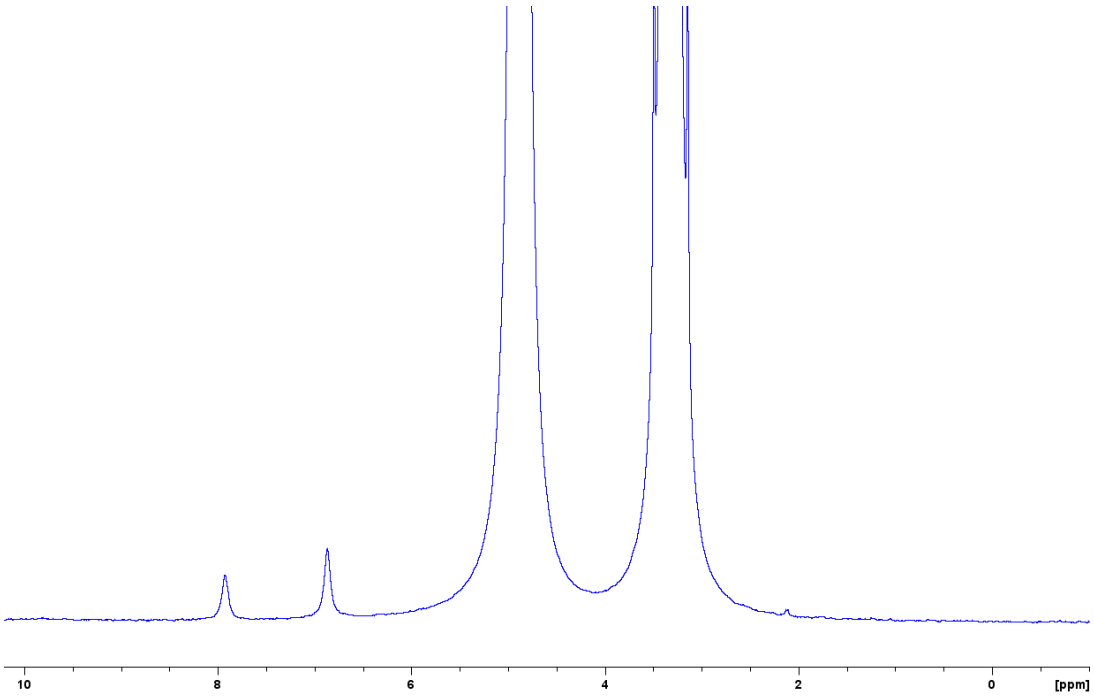

Figure S3. ^{2}H NMR (61.4 MHz, CD_3OD) of deuterated 4-hydroxybenzoic acid-d_4.

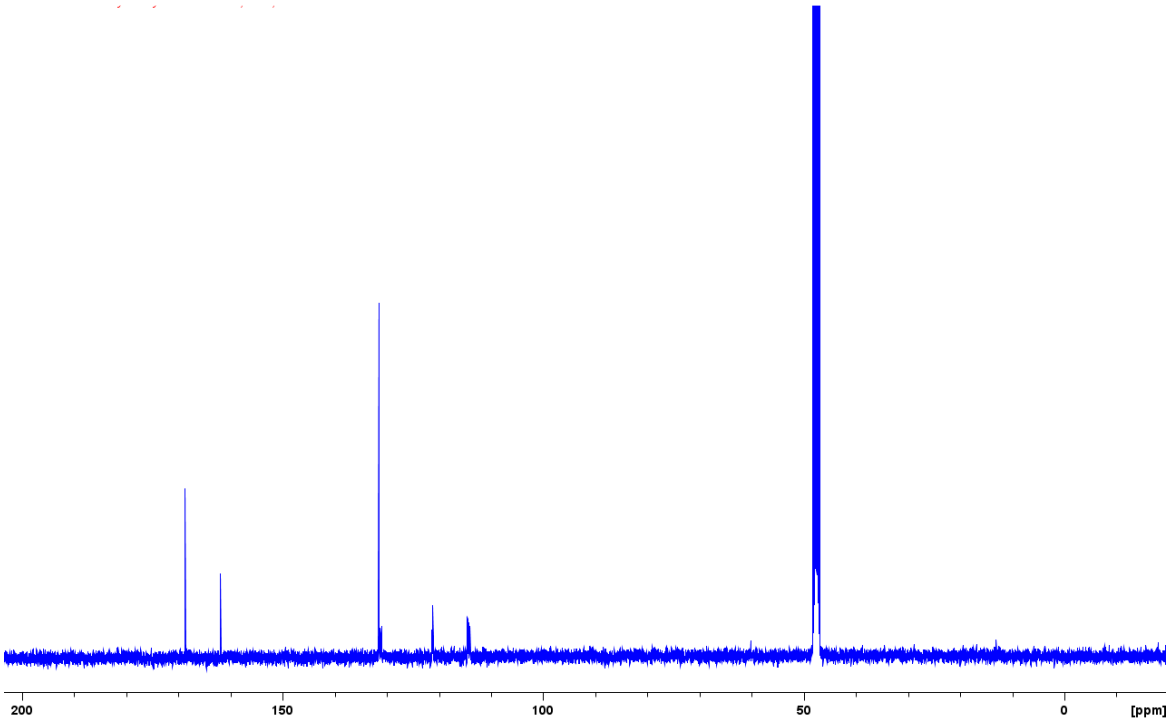

Figure S4. $^{13}C\{^{1}H\}$ NMR (101 MHz, CD_3OD) of deuterated 4-hydroxybenzoic acid-d_4.

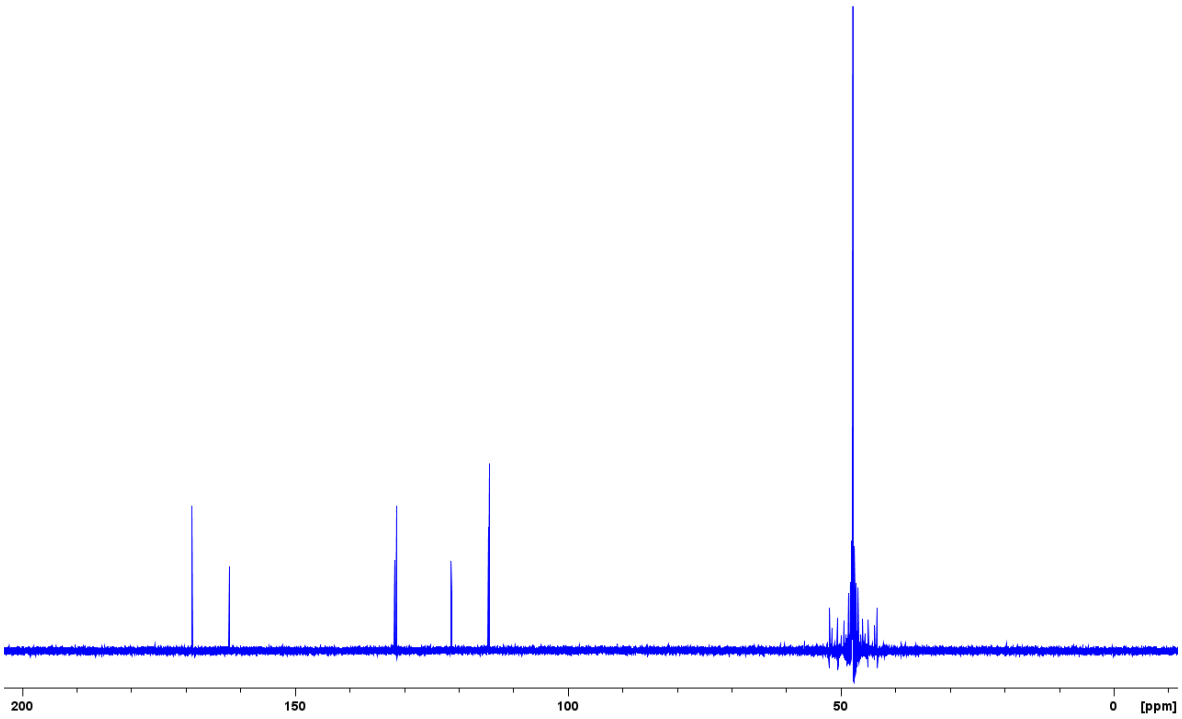

Figure S5. $^{13}C\{^{1}H, ^{2}H\}$ NMR (101 MHz, CD_3OD) of deuterated 4-hydroxybenzoic acid-d_4.

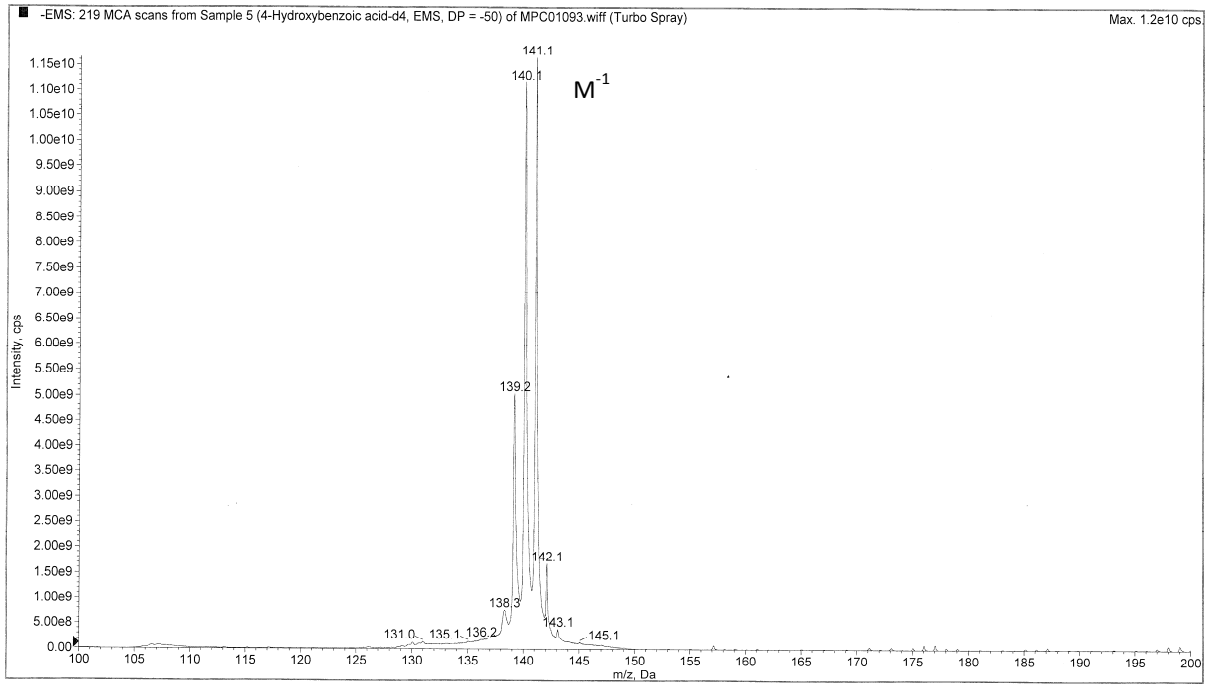

Figure S6. MS ESI m/z 141 [M^{-1}] (78% D).