SUPPLEMENTARY MATERIAL

UPLC-QTOF-MS-guided isolation of anti-COPD ginsenosides from Wild Ginseng

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Figure S10. Anti-inflammatory effect of petroleum ether soluble extracts (PEe), ethyl acetate soluble extracts(ASe) , n-butanol soluble extracts(BSe) (200 μM)(A), FrA-J(B) and G1-6(C) on the inflammatory cytokine tumor necrosis factor-α (TNF-α), interleukin-1β (IL-1β) and interleukin-6 (IL-6) in CSE-exposed A549 cells.

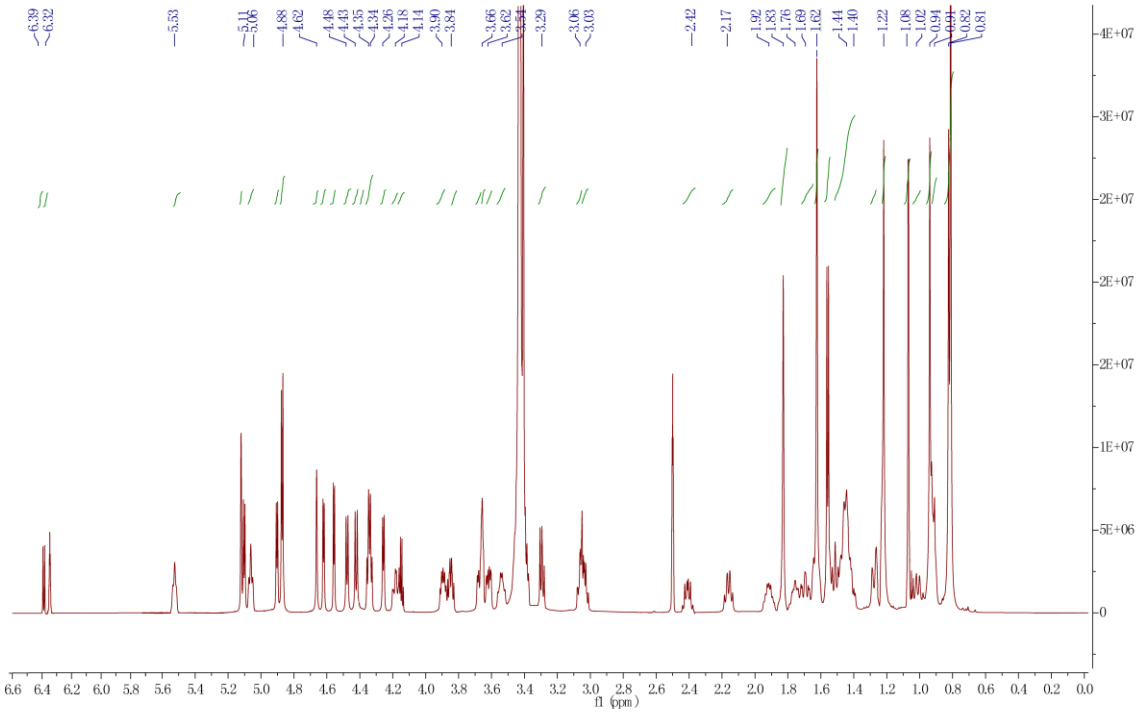


Figure S1-1. ^1H NMR spectrum of Rm1 in DMSO-D_6 (600 MHz).

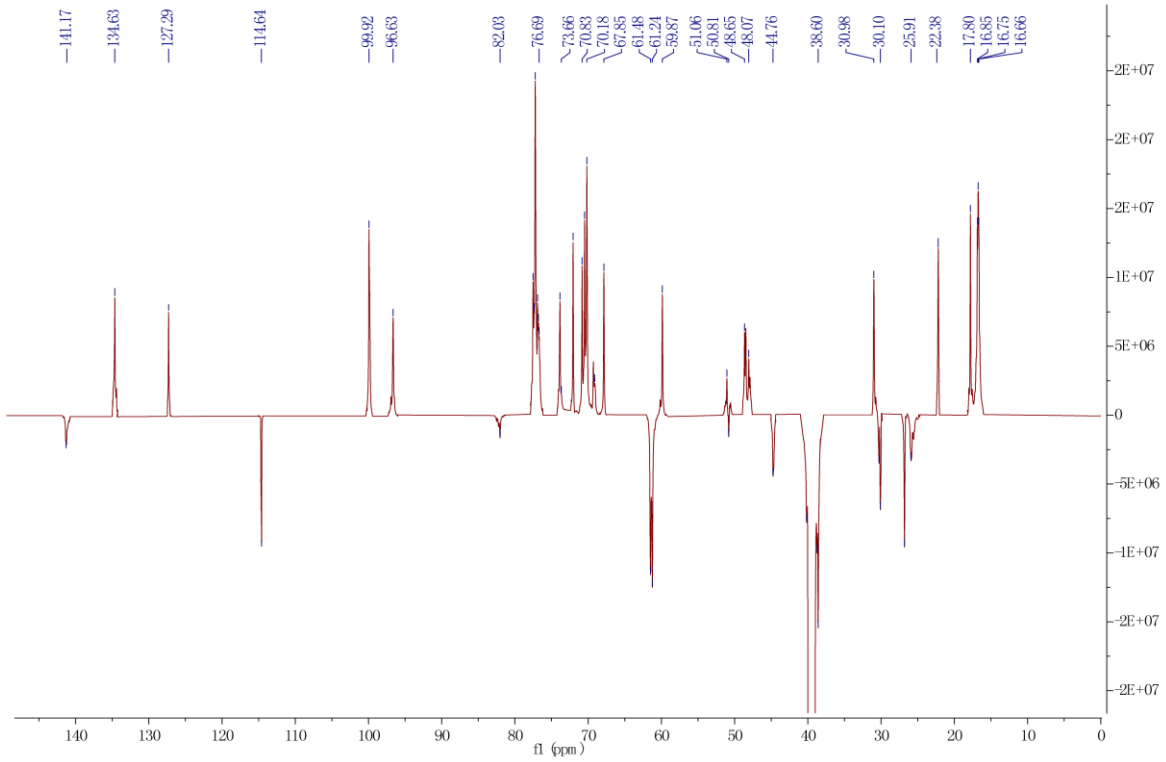


Figure S1-2. ^{13}C-DEPT NMR spectrum of Rm1 in DMSO-D_6 (150 MHz).

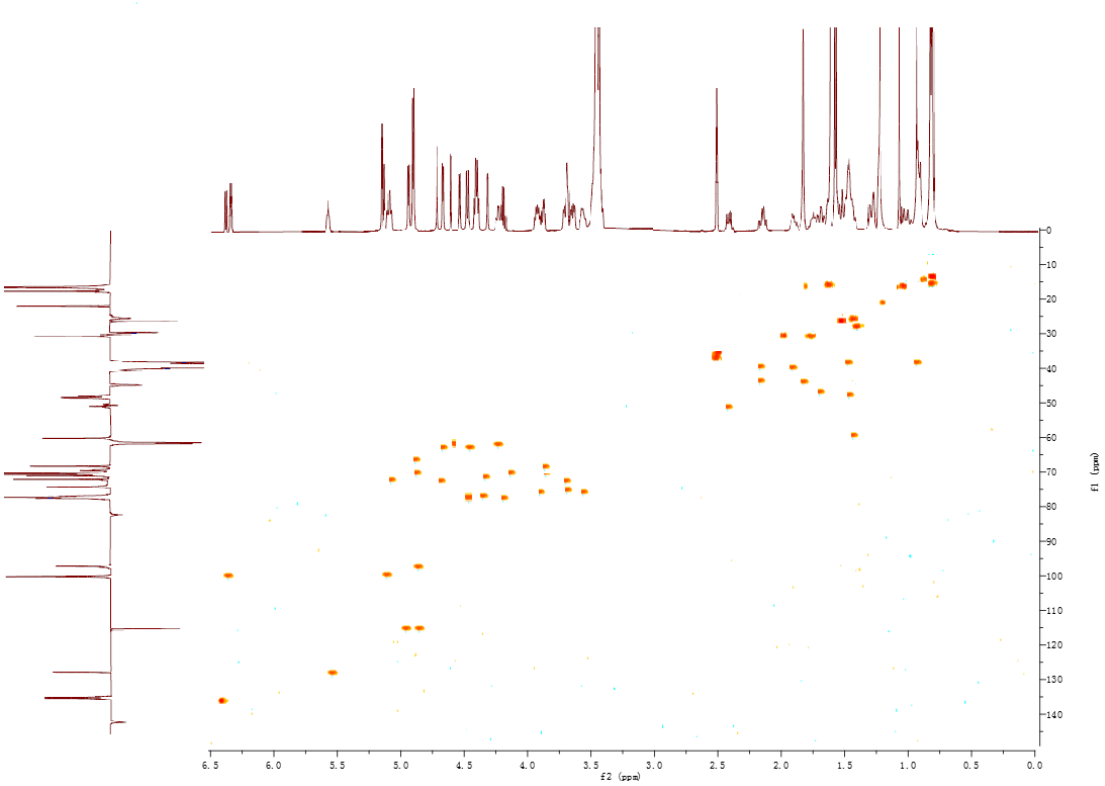


Figure S1-3. Heteronuclear multiple quantum correlation (HMQC) spectrum of Rm1.

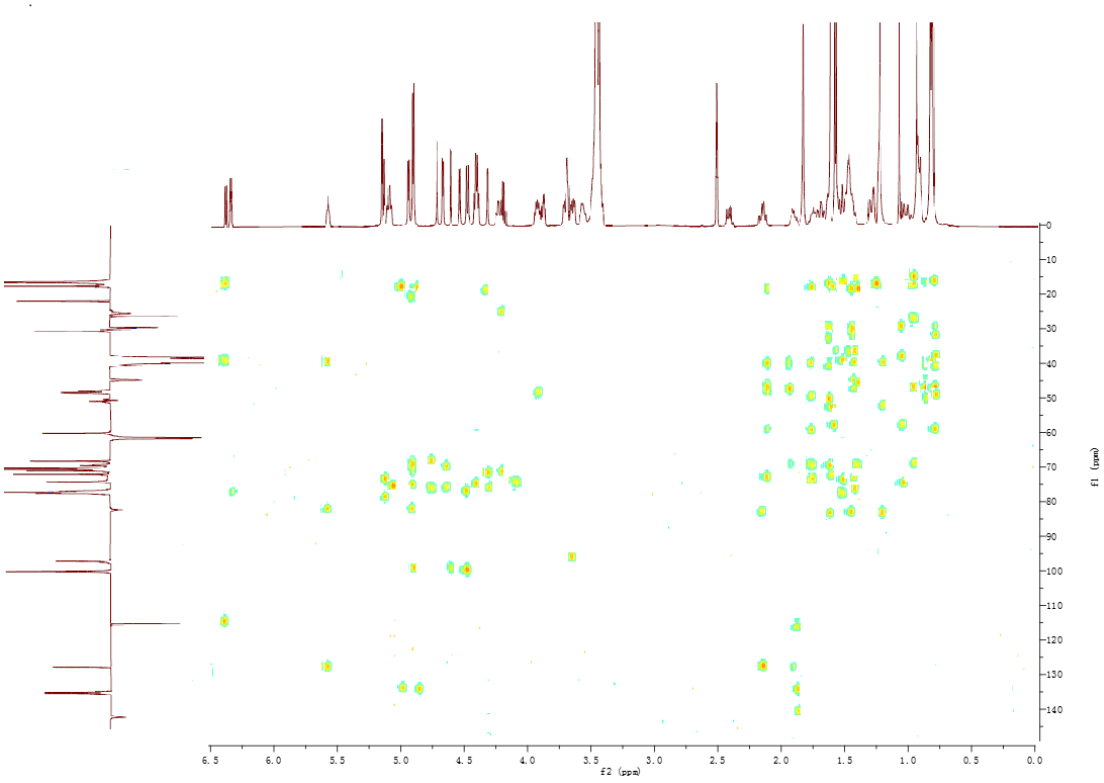


Figure S1-4. Heteronuclear multiple bond coherence (HMBC) spectrum of Rm1.

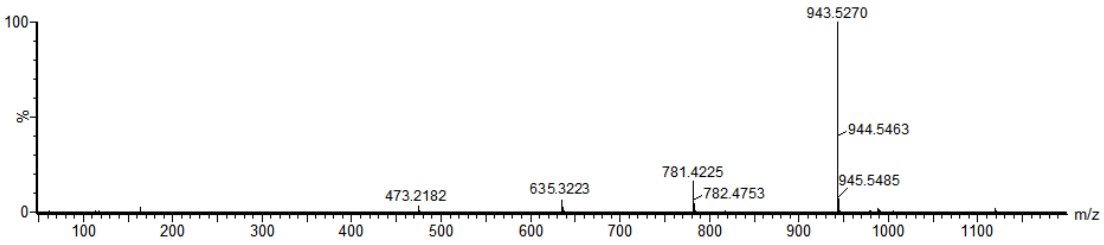


Figure S1-5. High resolution electrospray ionization mass spectroscopy (HRESIMS) spectrum of MS^E fragment ions of Rm1.

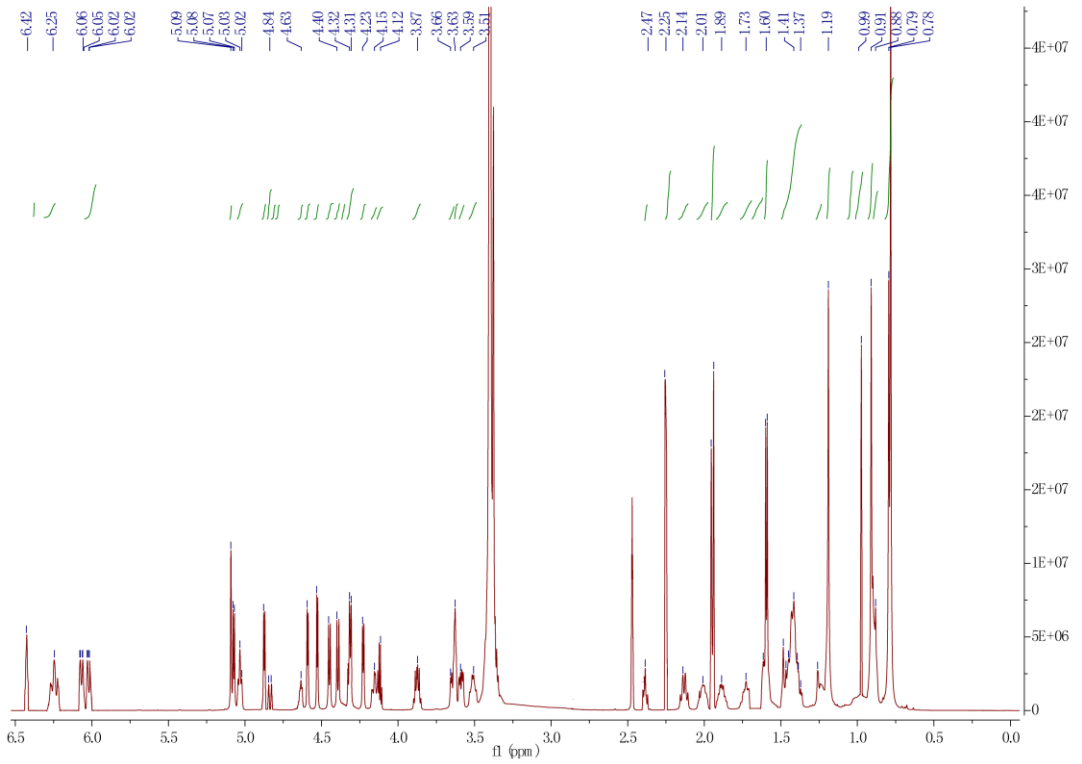


Figure S2-1. ^{1}H NMR spectrum of Rm2 in DMSO-D_6 (600 MHz).

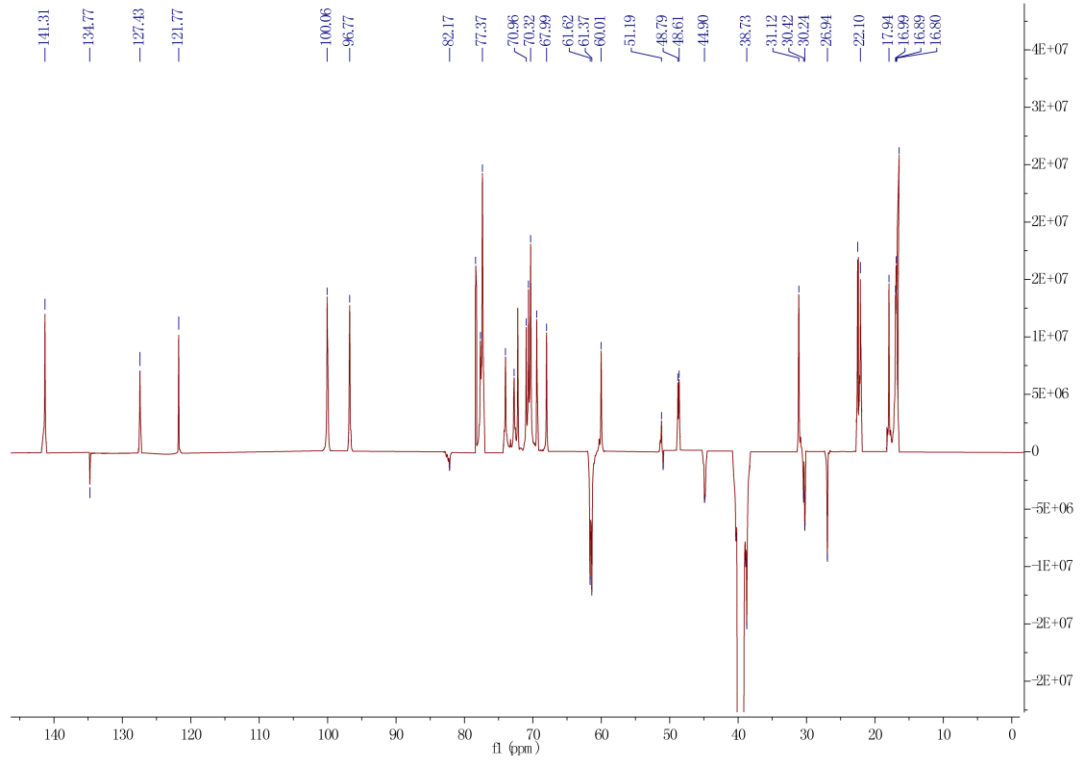


Figure S2-2. ^{13}C-DEPT NMR spectrum of Rm2 in DMSO-D_6 (150 MHz).

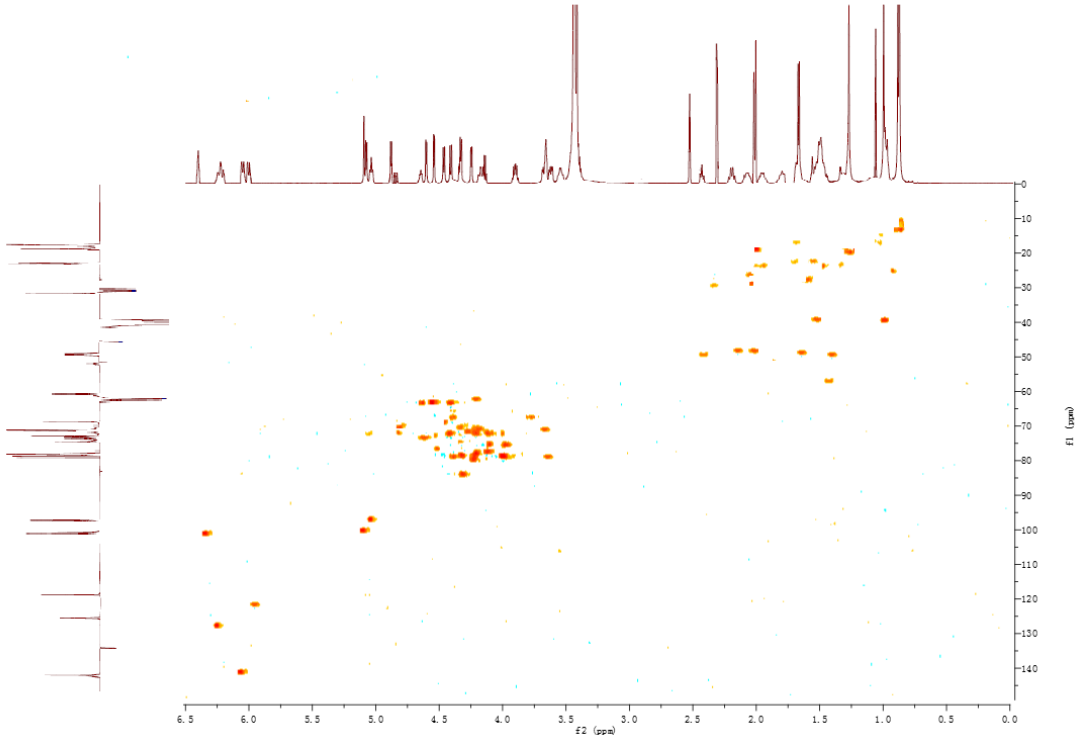


Figure S2-3. Heteronuclear multiple quantum correlation (HMQC) spectrum of Rm2.

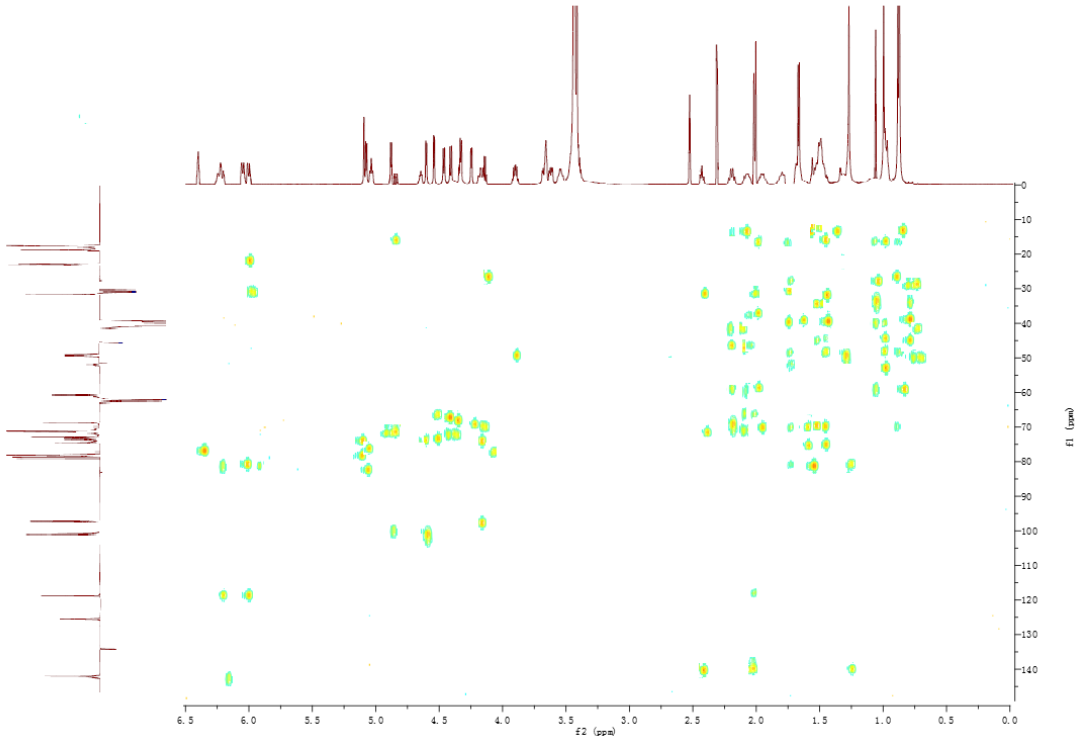


Figure S2-4. Heteronuclear multiple bond coherence (HMBC) spectrum of Rm2.

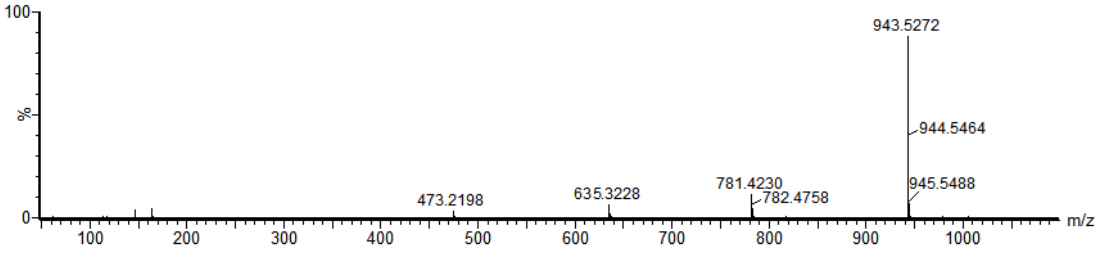


Figure S2-5. High resolution electrospray ionization mass spectroscopy (HRESIMS) spectrum of MS_E fragment ions of Rm2.

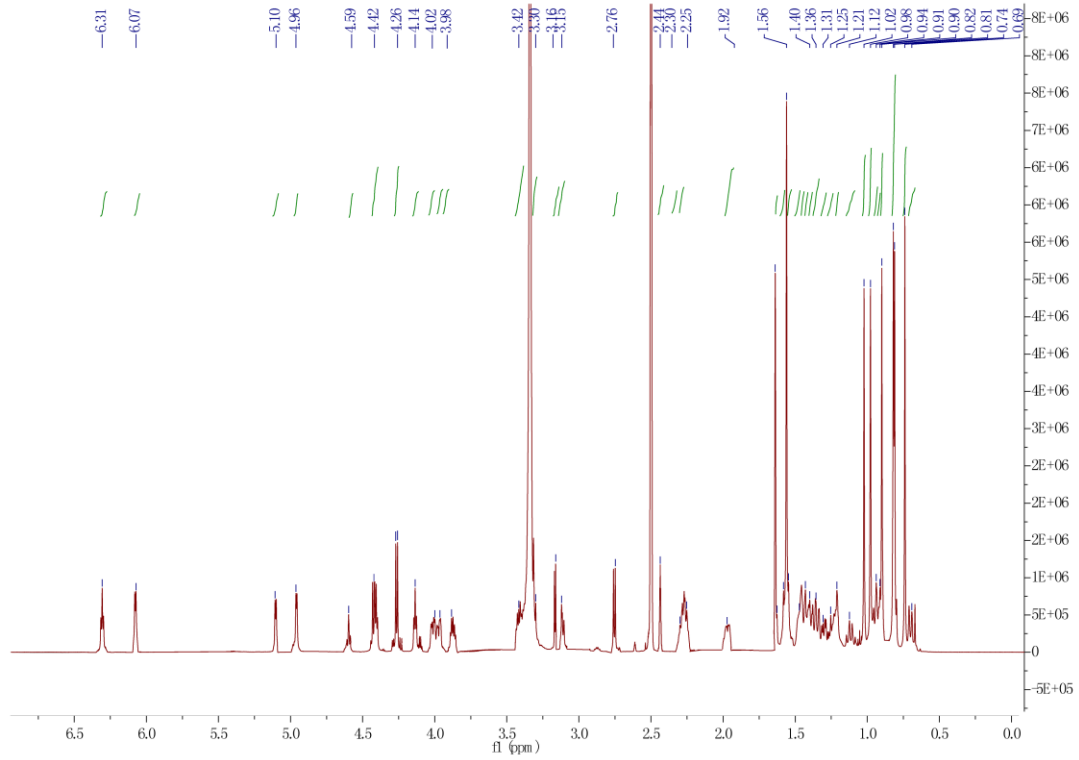


Figure S3-1. ^1H NMR spectrum of Rm3 in DMSO-D_6 (600 MHz).

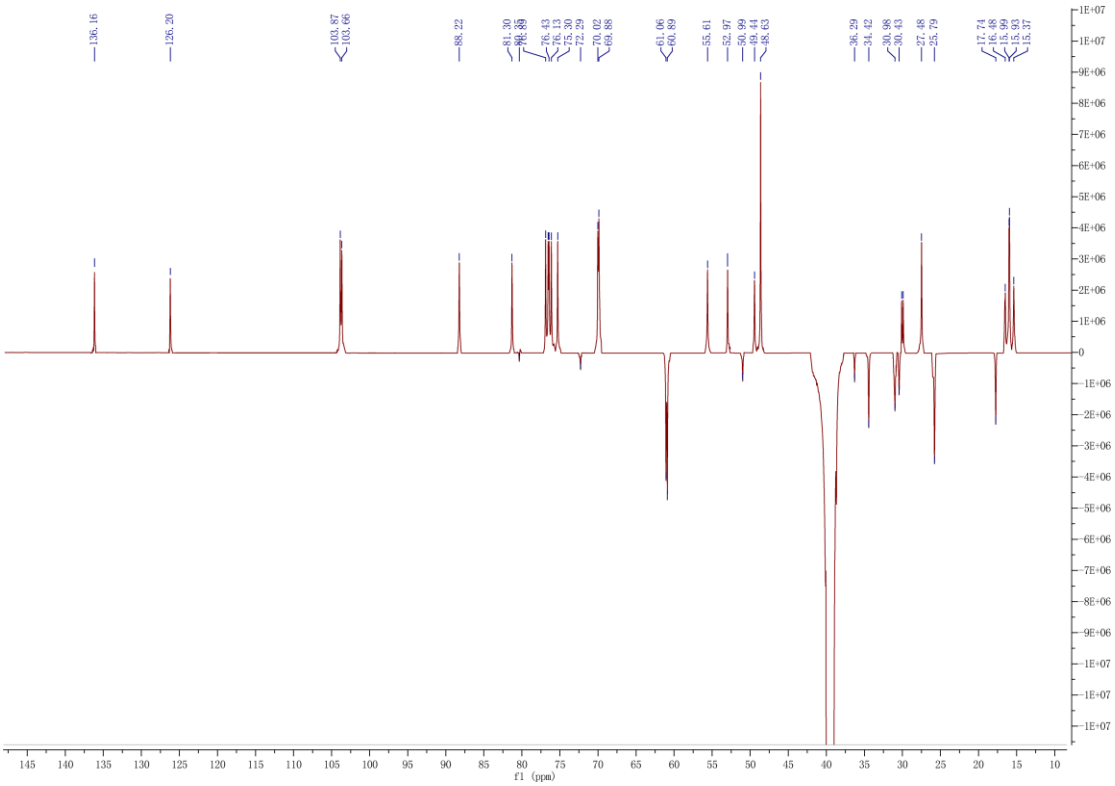


Figure S3-2. ^{13}C-DEPT NMR spectrum of Rm3 in DMSO-D_6 (150 MHz).

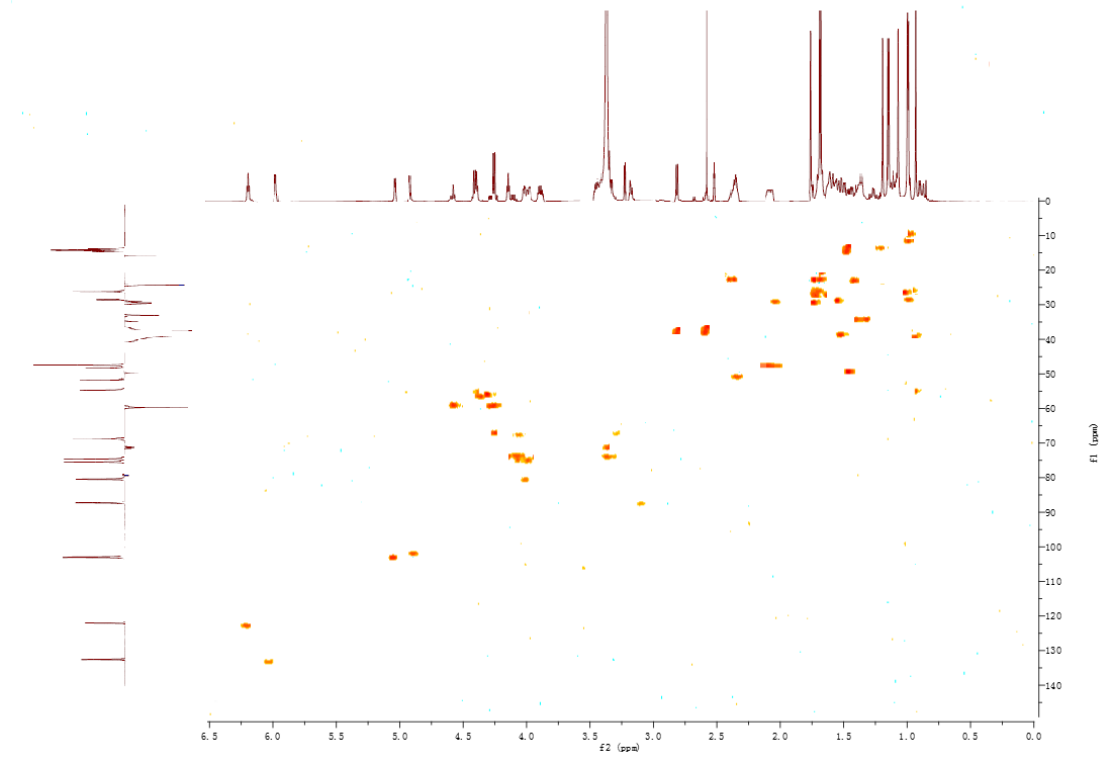


Figure S3-3. Heteronuclear multiple quantum correlation (HMQC) spectrum of Rm3.

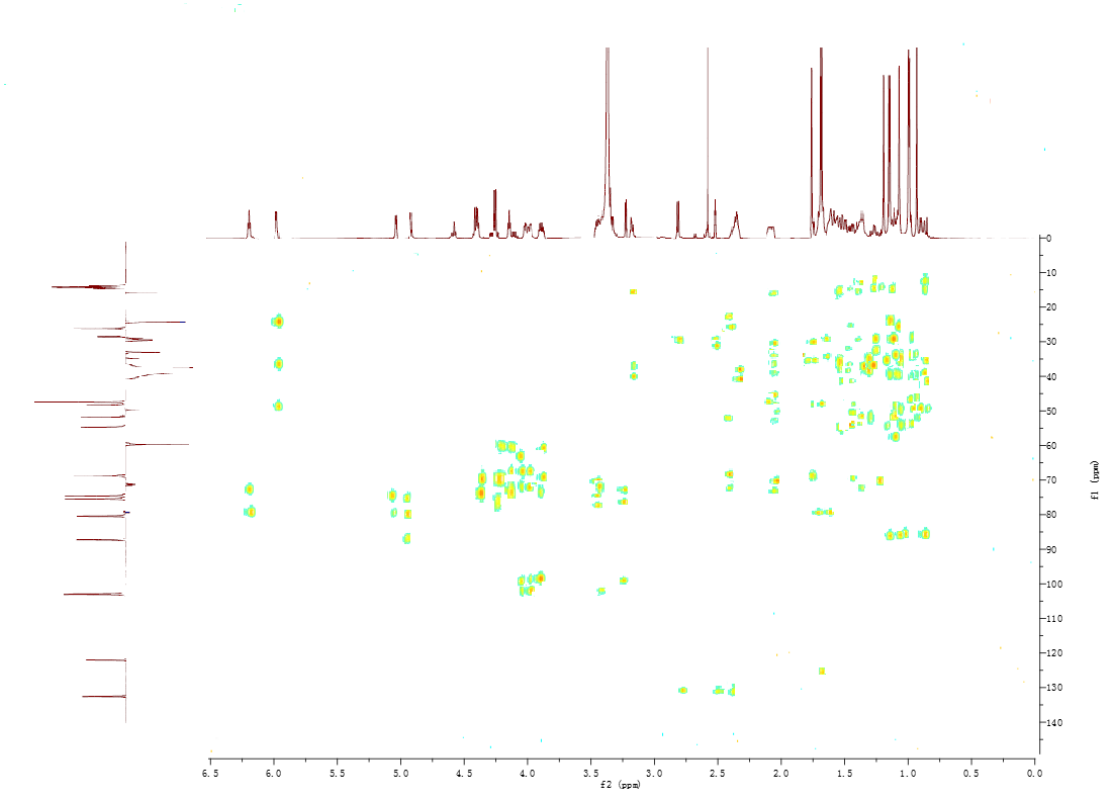


Figure S3-4. Heteronuclear multiple bond coherence (HMBC) spectrum of Rm3.

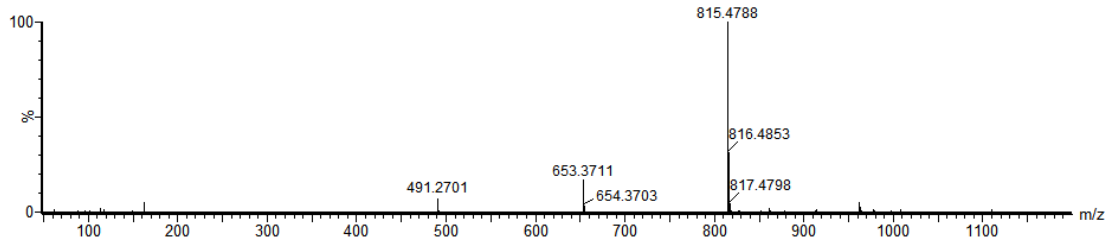


Figure S3-5. High resolution electrospray ionization mass spectroscopy (HRESIMS) spectrum of MS_E fragment ions of Rm3.

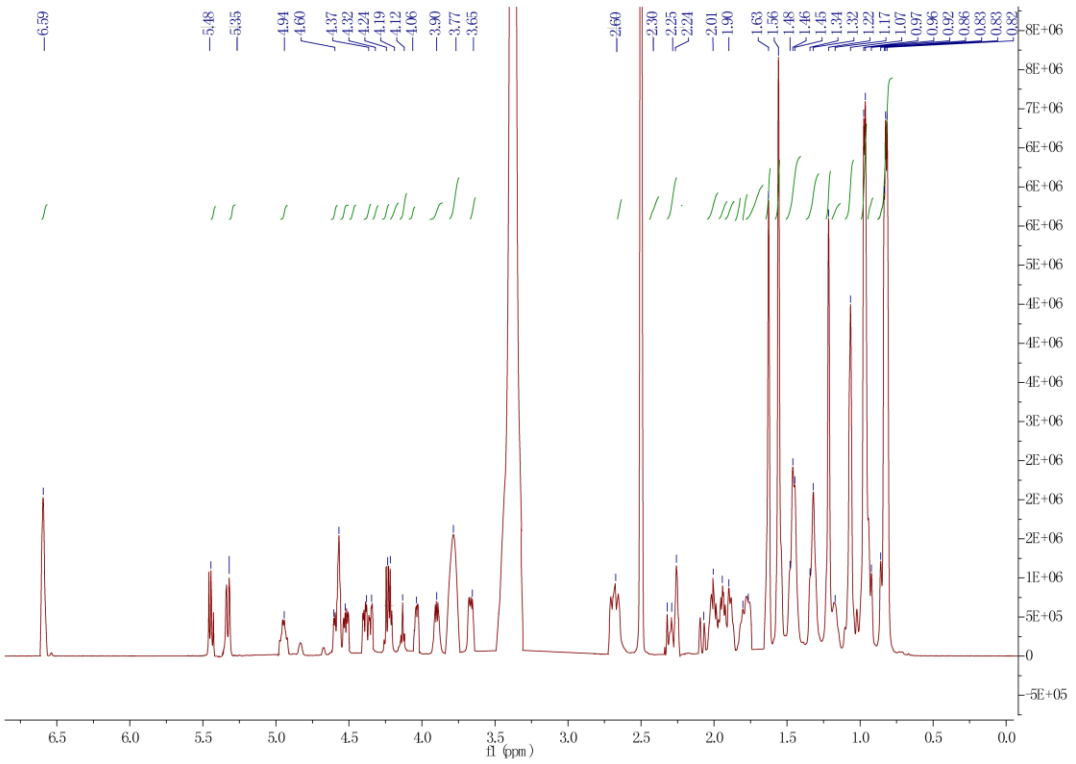


Figure S4-1. ^{1}H NMR spectrum of Rm4 in DMSO-D_6 (600 MHz).

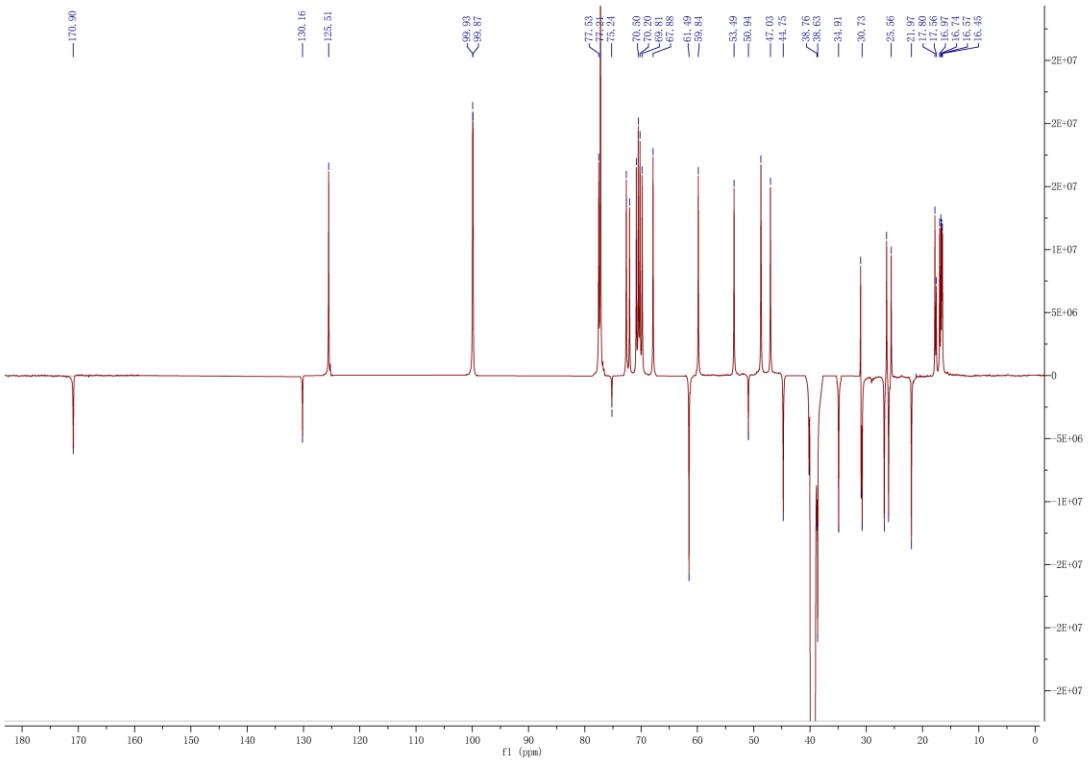


Figure S4-2. ^{13}C-DEPT NMR spectrum of Rm4 in DMSO-D_6 (150 MHz).

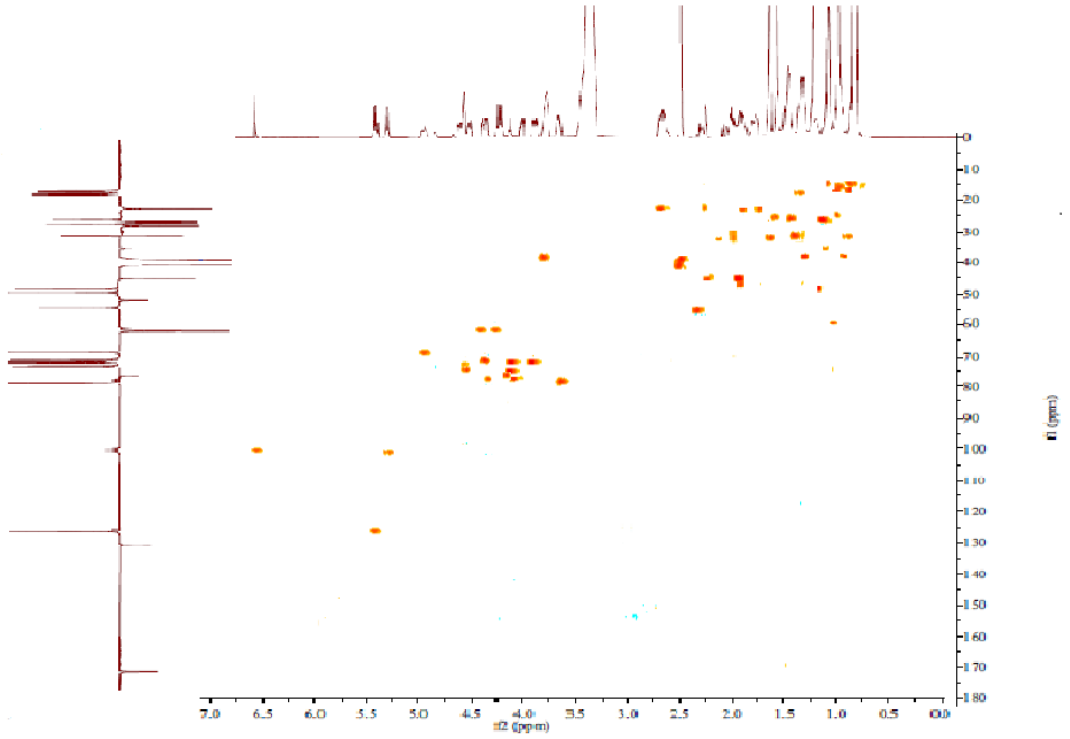


Figure S4-3. Heteronuclear multiple quantum correlation (HMQC) spectrum of Rm4.

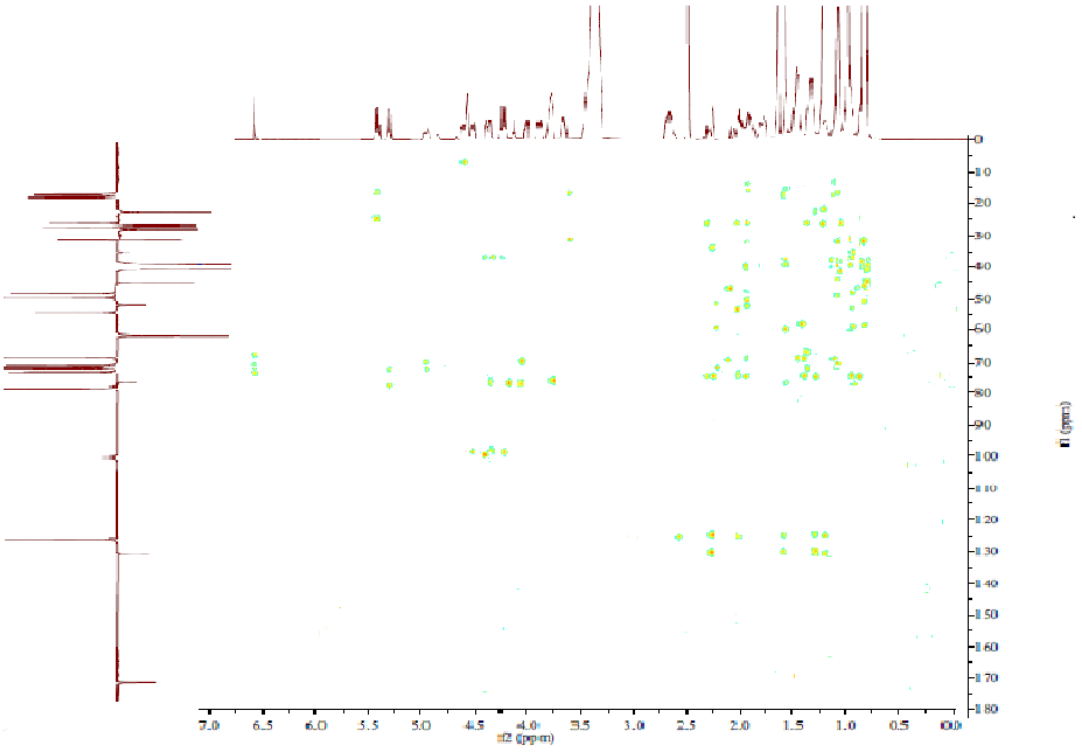


Figure S4-4. Heteronuclear multiple bond coherence (HMBC) spectrum of Rm4.

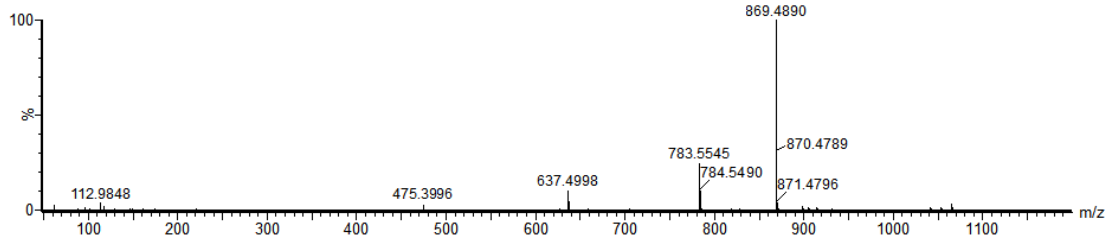


Figure S4-5. High resolution electrospray ionization mass spectroscopy (HRESIMS) spectrum of MS_E fragment ions of Rm4.

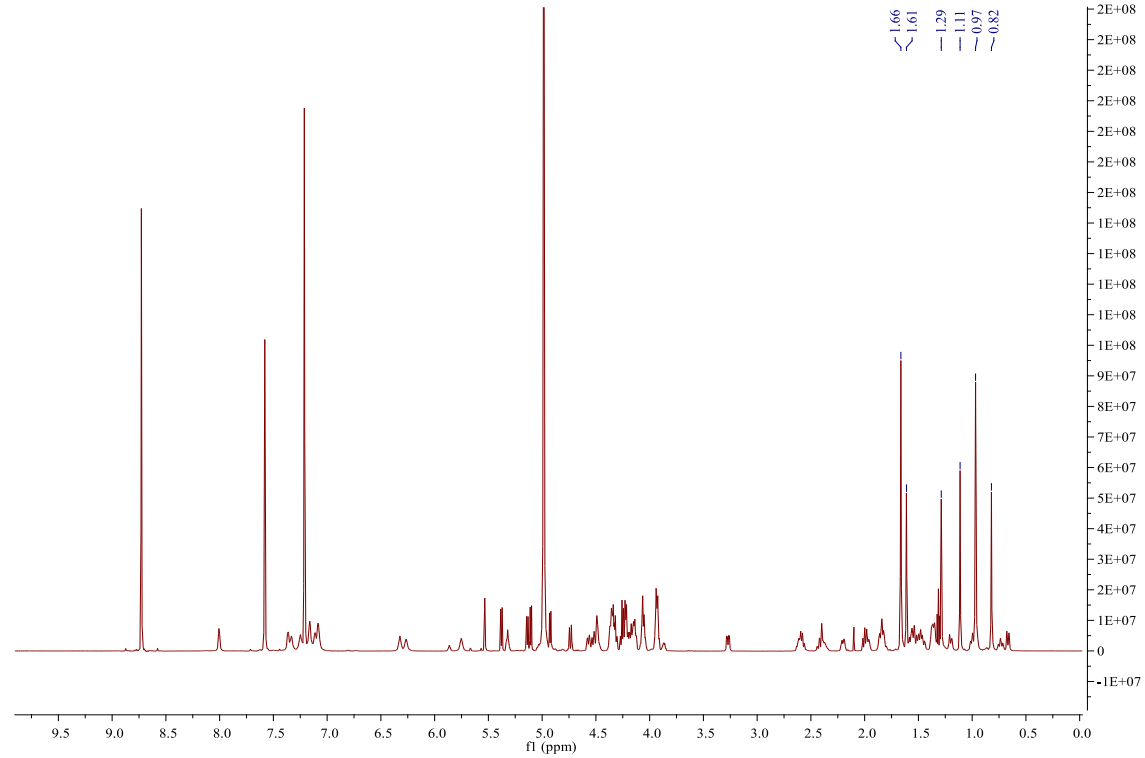


Figure S5-1. ^{1}H NMR spectrum of Rb2 in Pyridine-D_5(600 MHz).

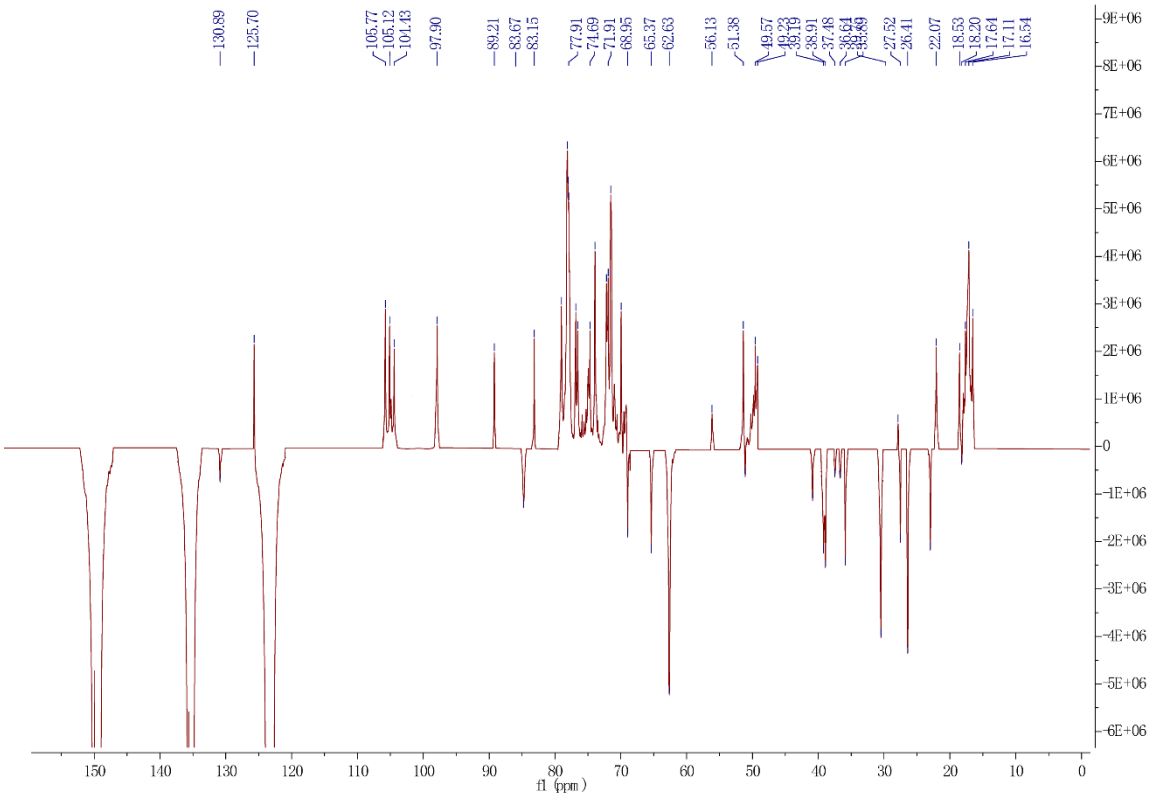


Figure S5-2. ^{13}C-DEPT NMR spectrum of Rb2 in Pyridine-D_5 (150 MHz).

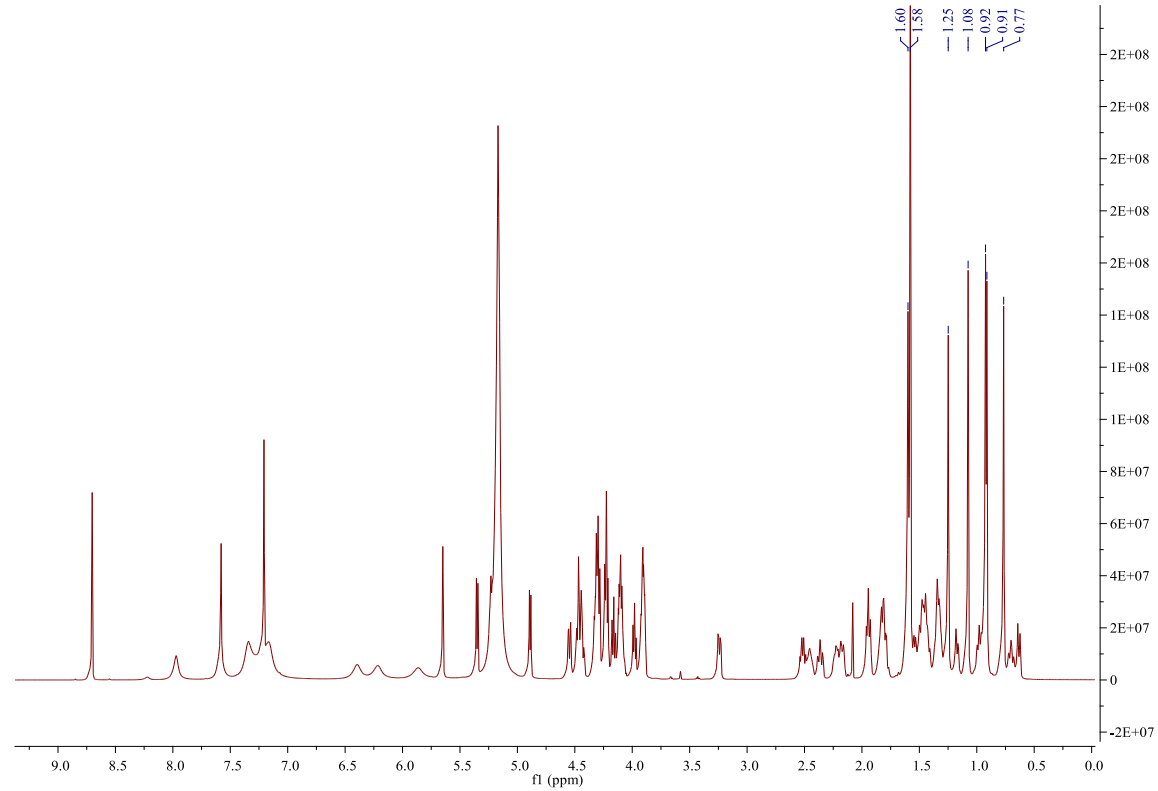


Figure S6-1. ^{1}H NMR spectrum of Rd in Pyridine-D_5(600 MHz).

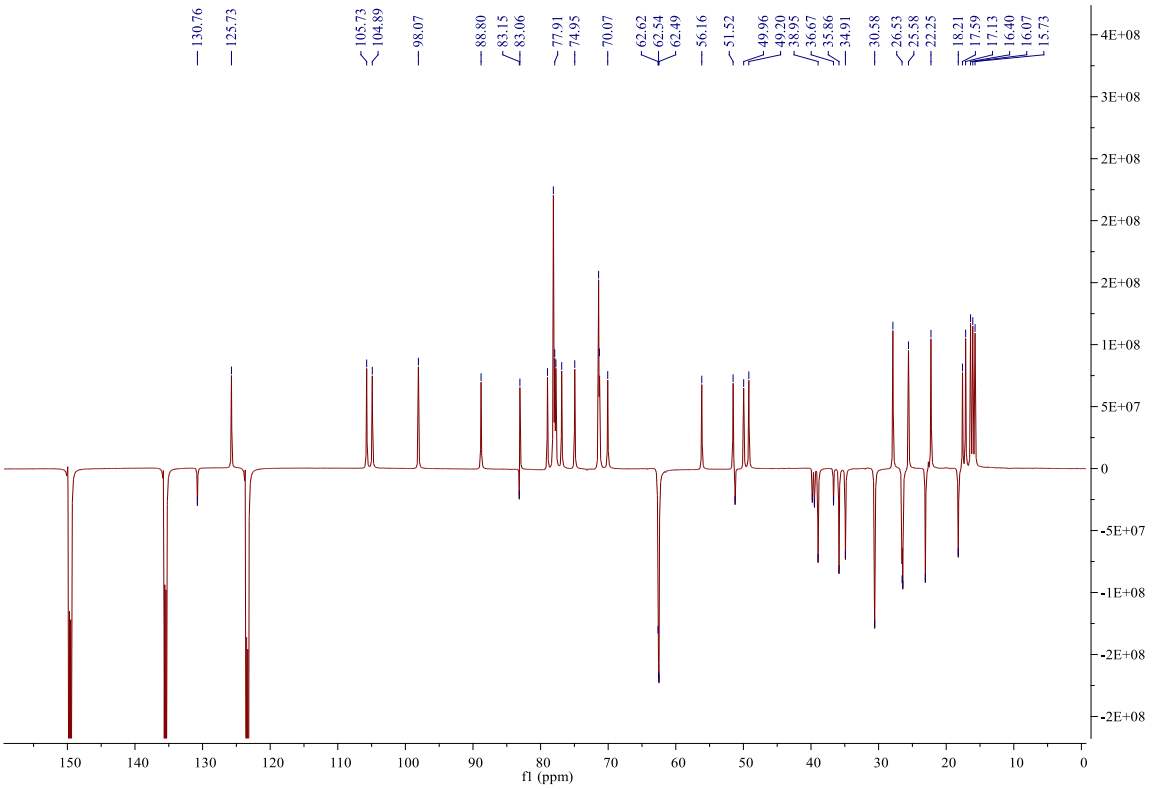


Figure S6-2. ^{13}C-DEPT NMR spectrum of Rd in Pyridine-D_5 (150 MHz).

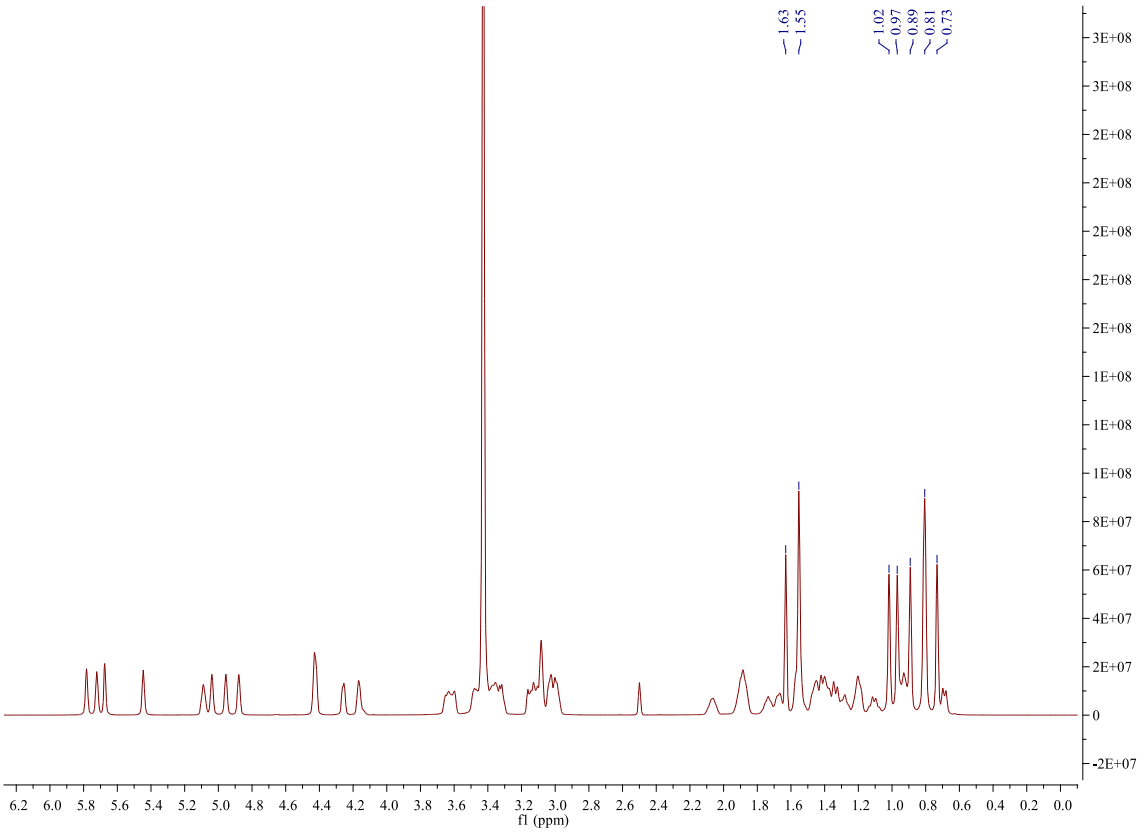


Figure S7-1. ^{1}H NMR spectrum of Rg3 in DMSO-D_6 (600 MHz).

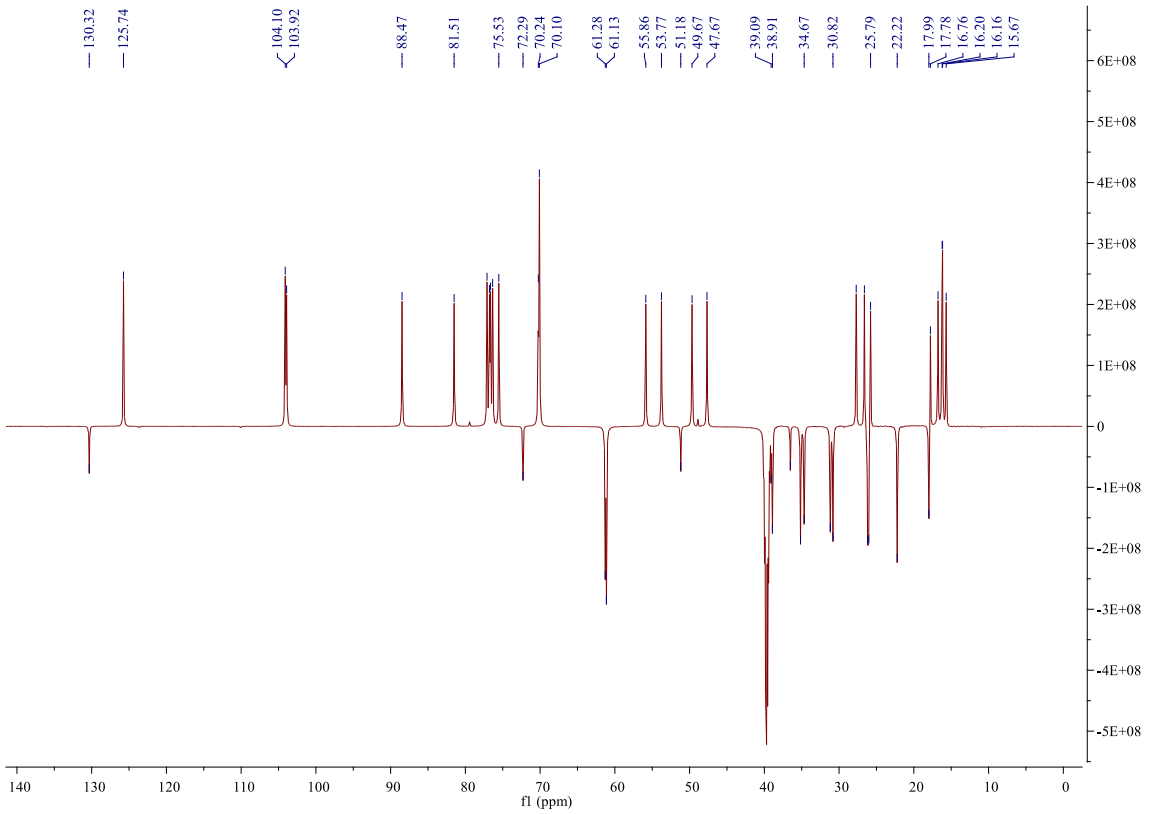


Figure S7-2. ^{13}C-DEPT NMR spectrum of Rd in DMSO-D_6 (150 MHz).

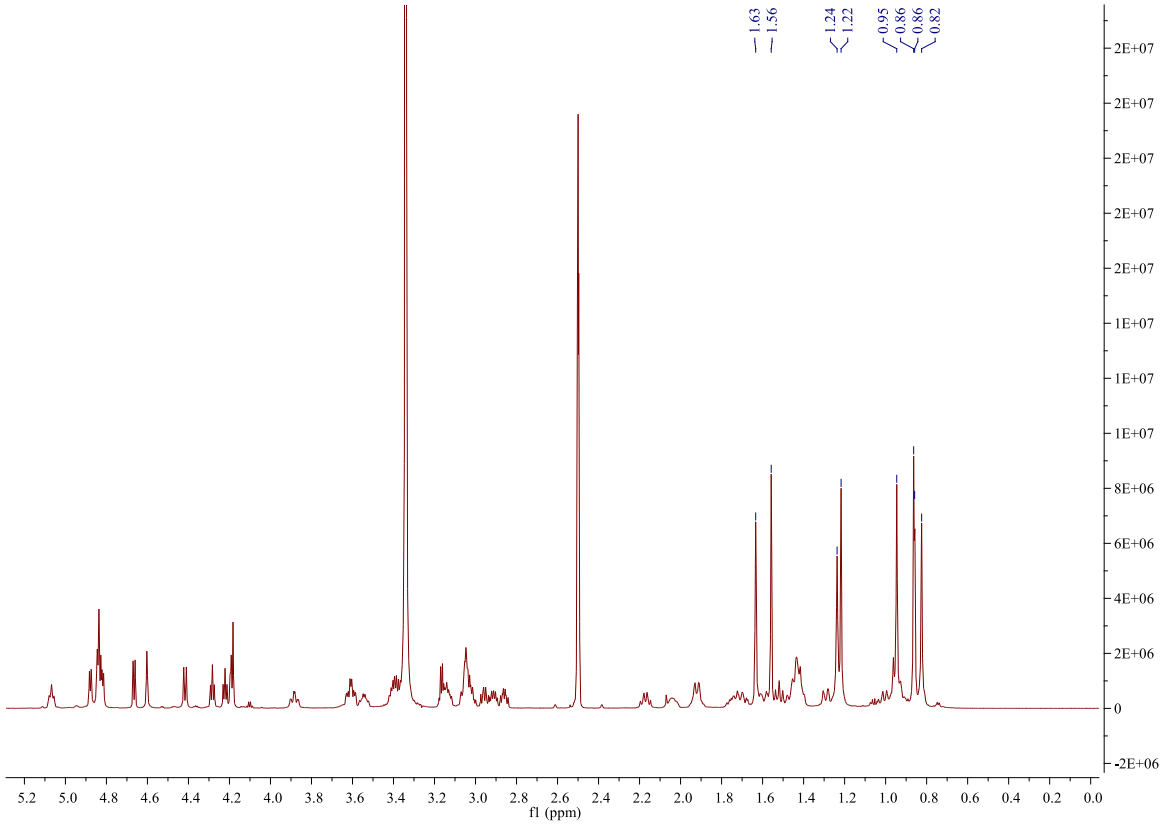


Figure S8-1. ^{1}H NMR spectrum of Rg1 in DMSO-D_6 (600 MHz).

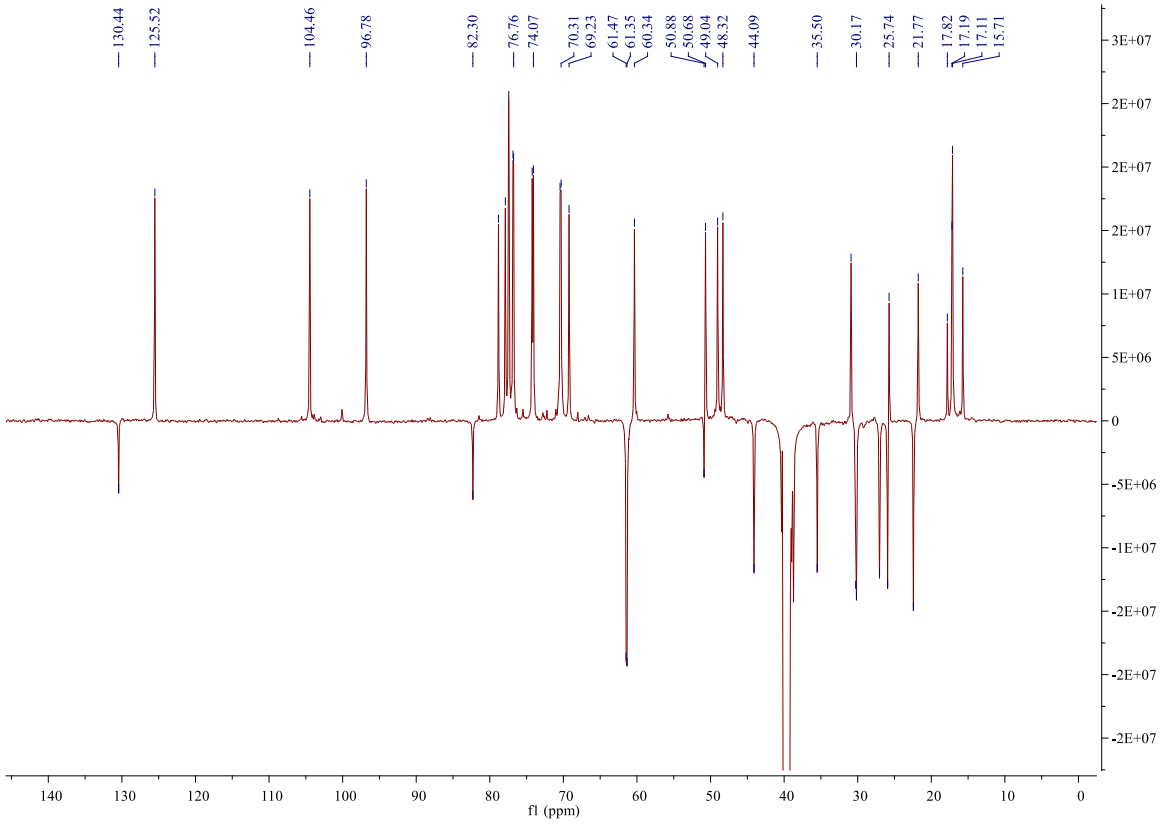


Figure S8-2. ^{13}C-DEPT NMR spectrum of Rg1 in Pyridine-D_6 (150 MHz).

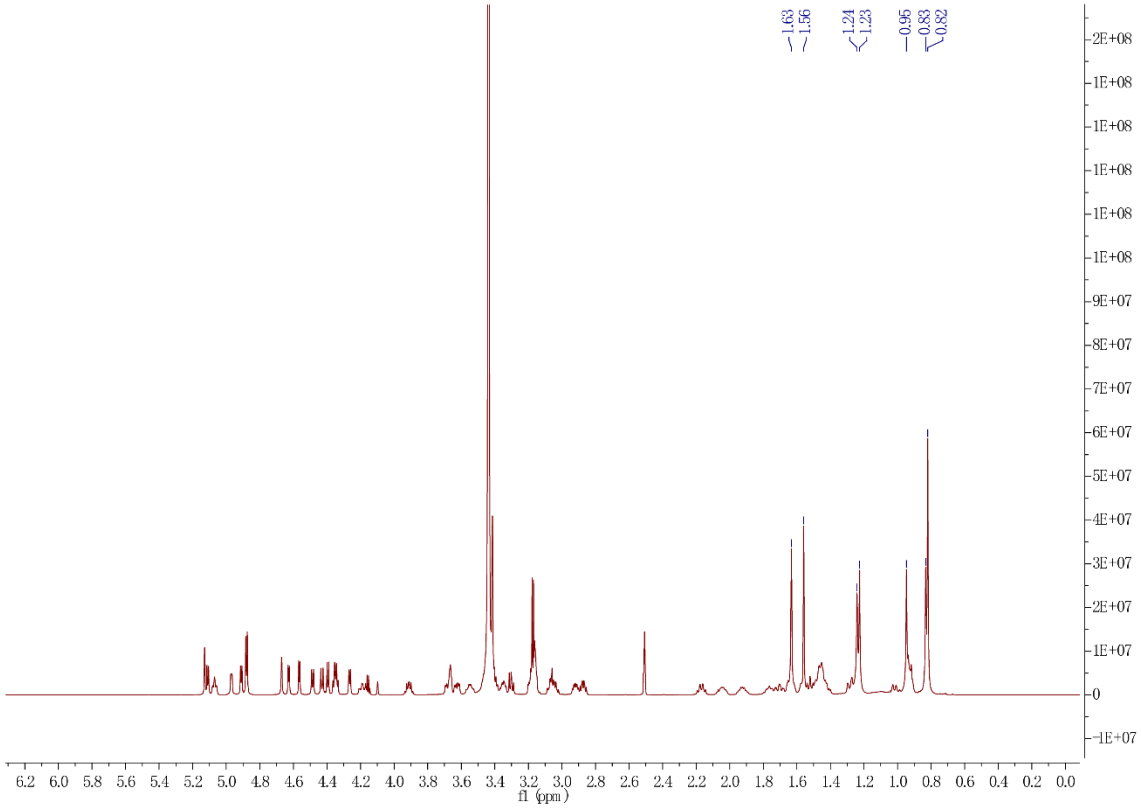


Figure S9-1. ^{1}H NMR spectrum of Rh2 in DMSO-D6 (600 MHz).

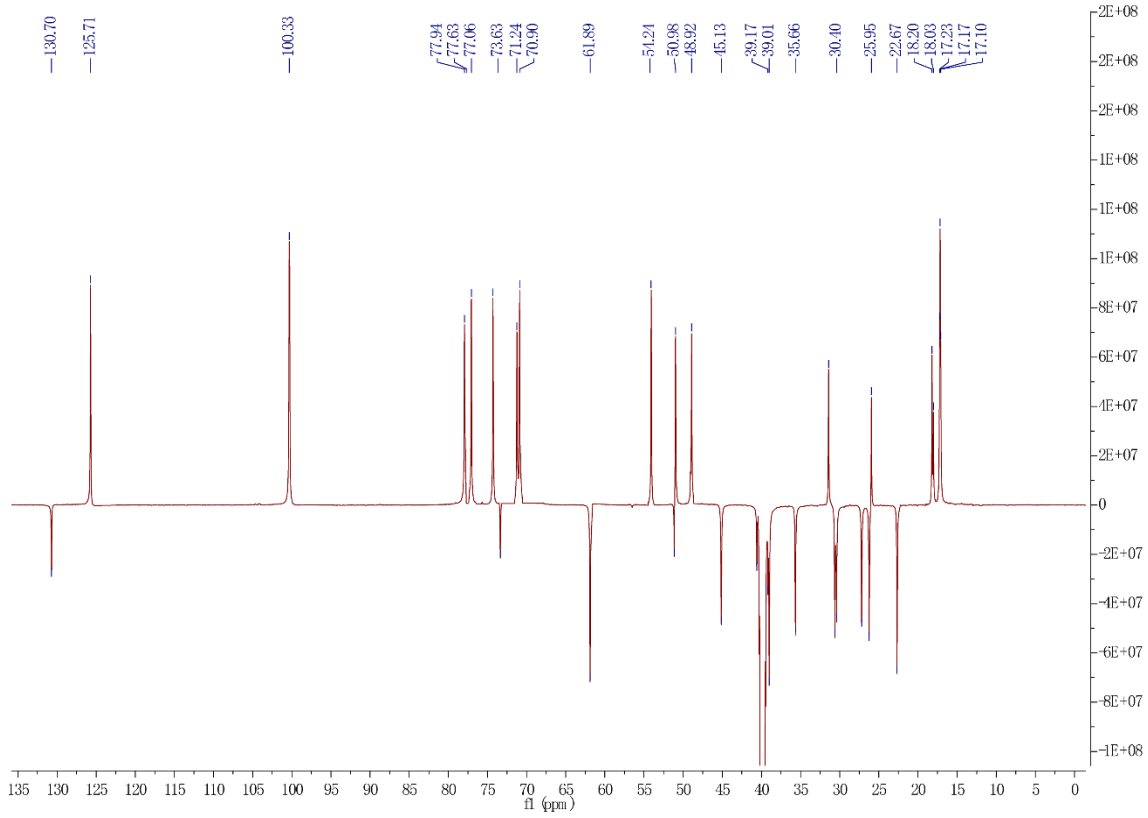
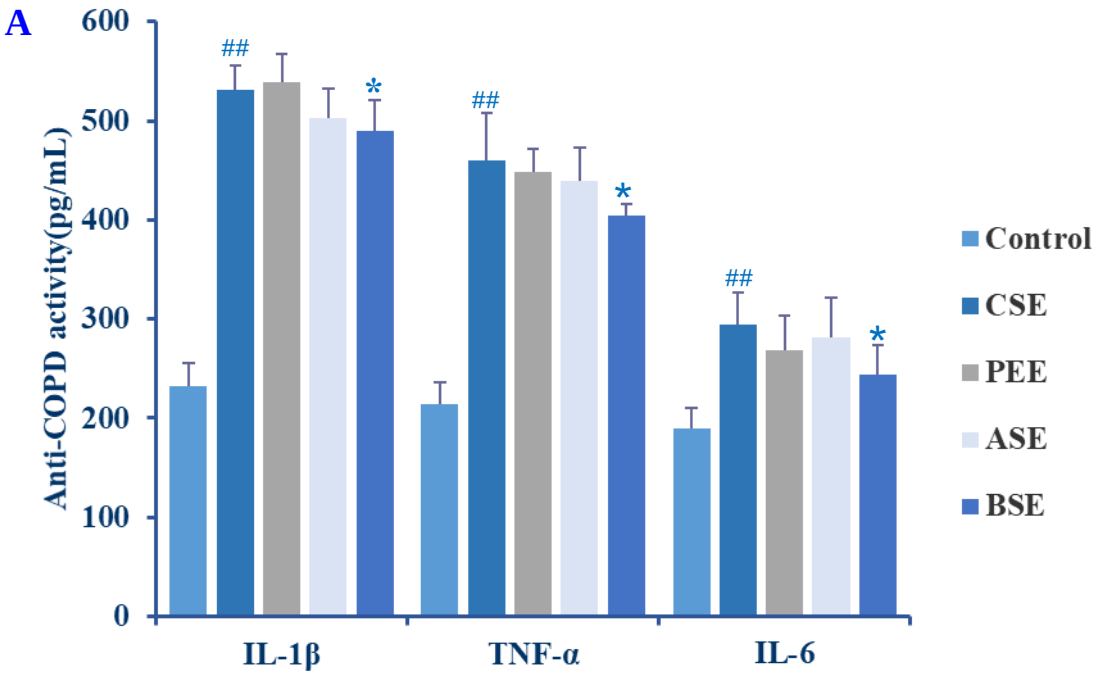


Figure S9-2. ^{13}C-DEPT NMR spectrum of Rh_2 in DMSO-D6 (150 MHz).



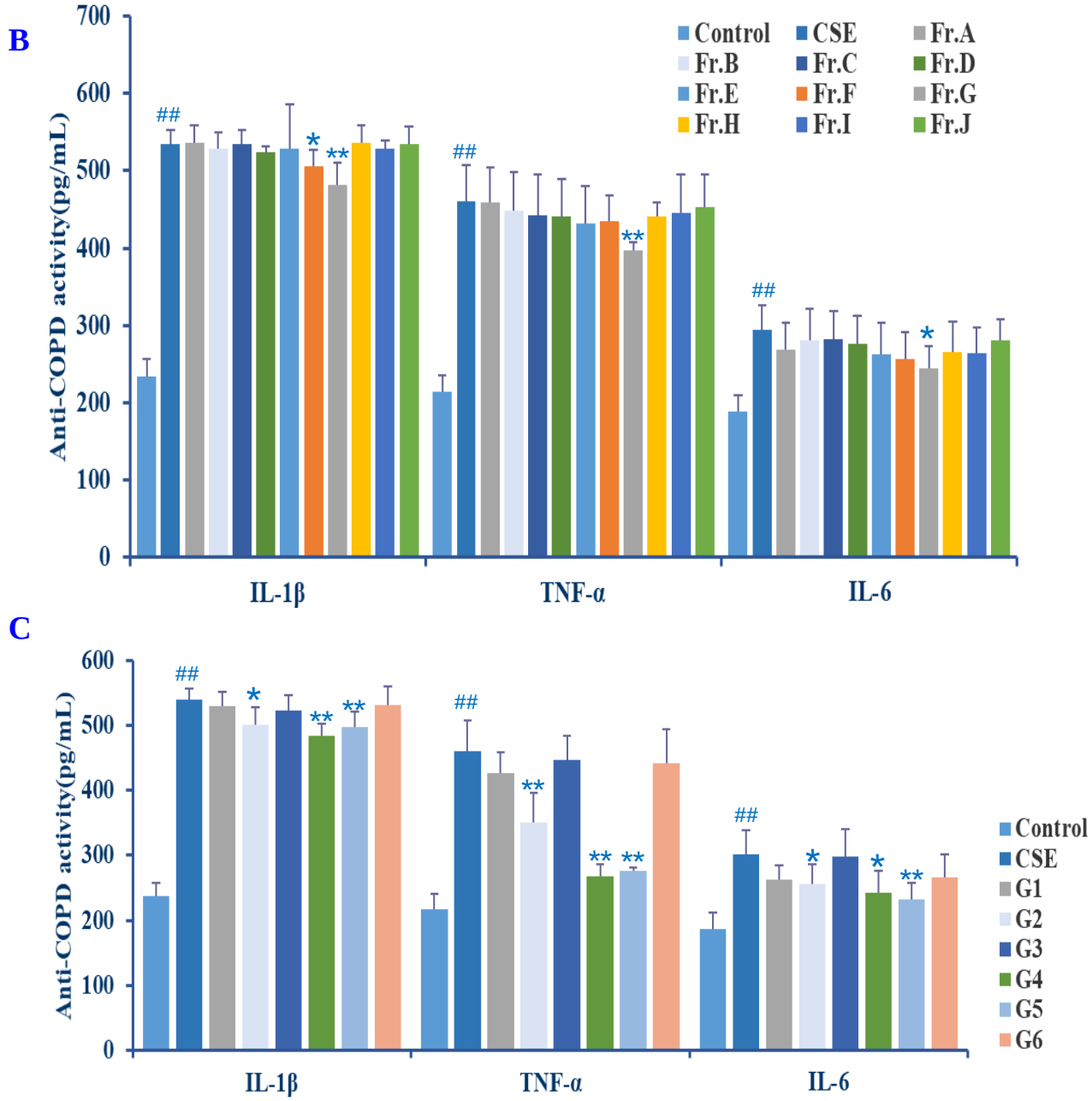


Figure S10. Anti-inflammatory effect of petroleum ether soluble extracts (PEe), ethyl acetate soluble extracts(ASe) , n-butanol soluble extracts(BSe) (200 μM)(A), FrA-J(B) and G1-6(C) on the inflammatory cytokine tumor necrosis factor-α (TNF-α), interleukin-1β (IL-1β) and interleukin-6 (IL-6) in CSE-exposed A549 cells. The results are expressed as mean ± S.D., n=6. ## $p < 0.01$, compared with control group; ** $p < 0.01$, compared with CSE group; * $p < 0.05$, compared with CSE group.