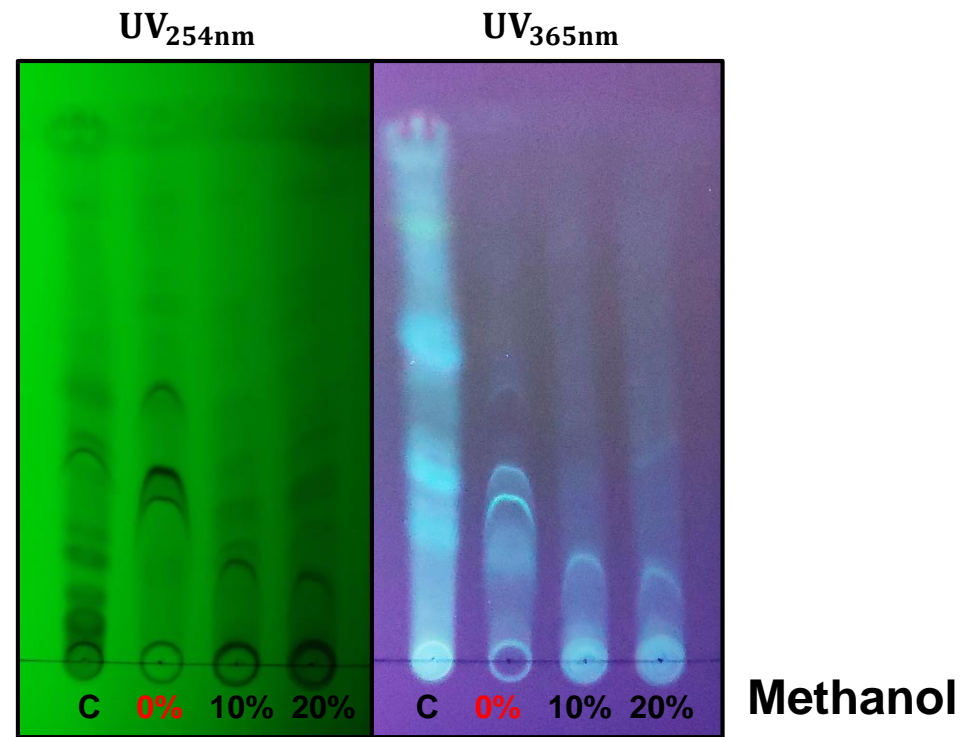
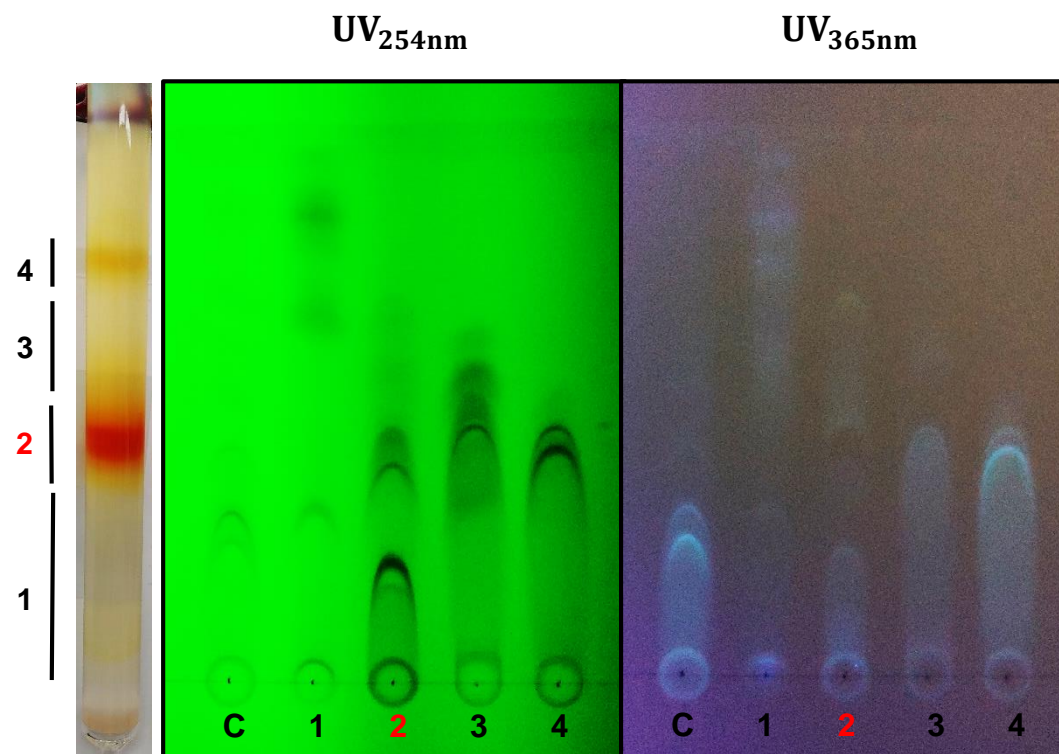


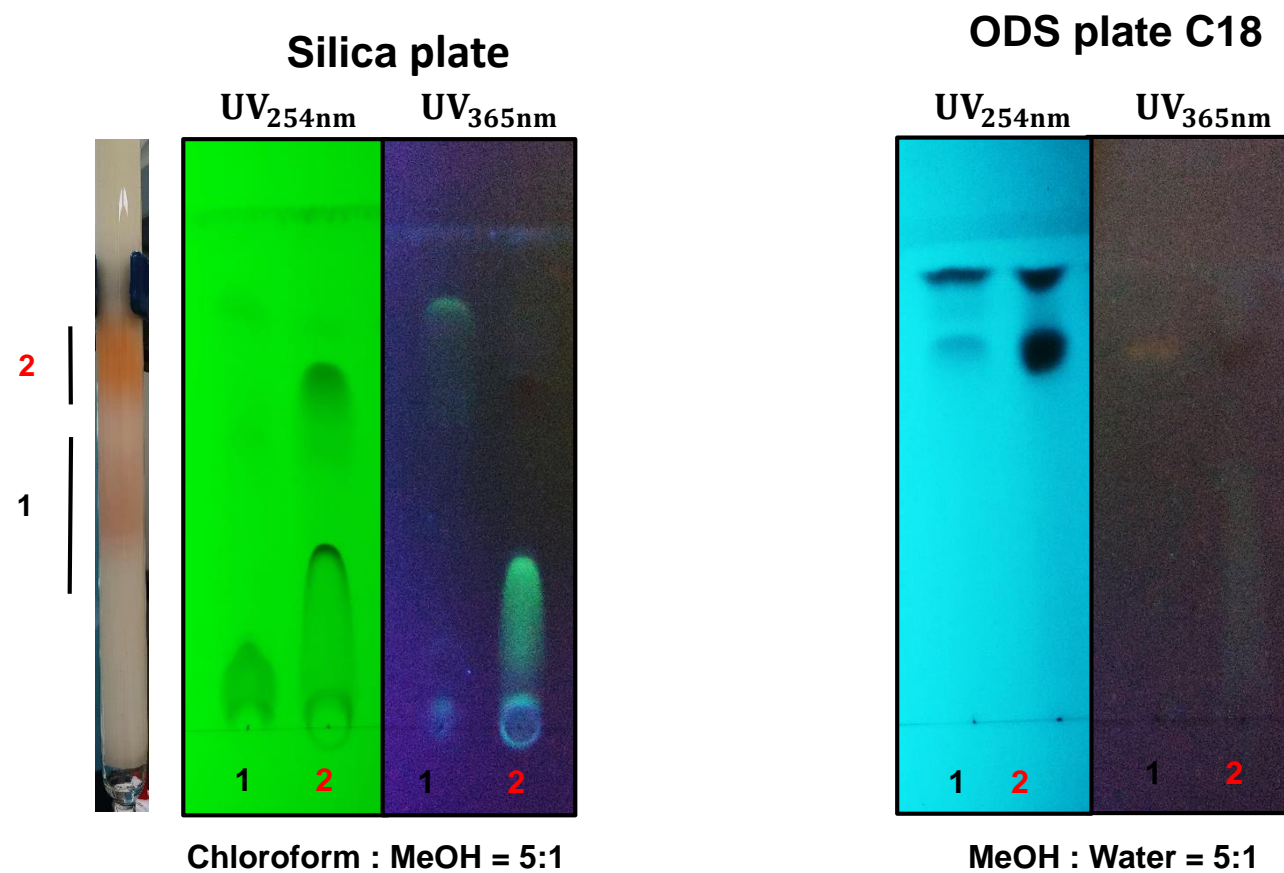
Supplementary Figure S1. Purification procedure of antioxidant from beet fermentation by *Lactobacillus* using ethylacetate extraction (fermentated solution: ethylacetate=1:1)



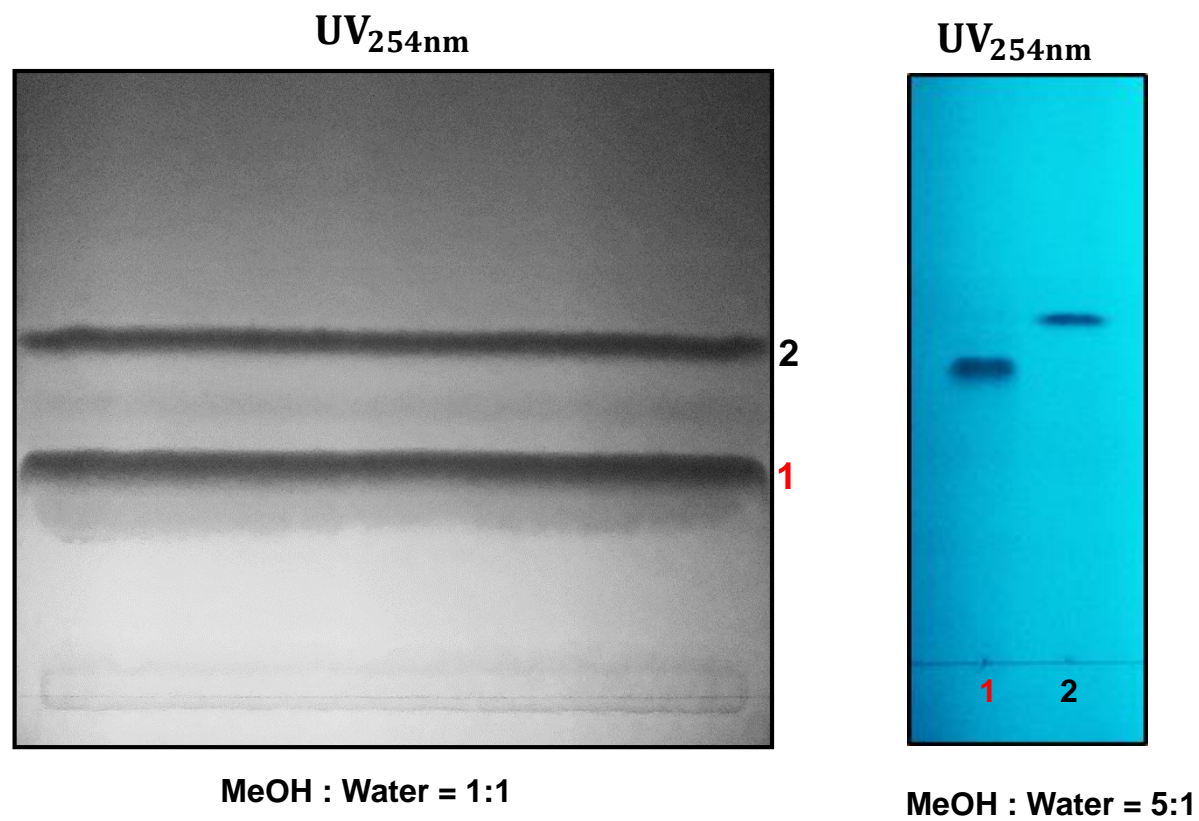
Supplementary Figure S2. Purification procedure of antioxidant from beet fermentation by *Lactobacillus* using ODS (C-18) chromatography. TLC plate analysis of the purified sample. Active fraction; 0% methanol.



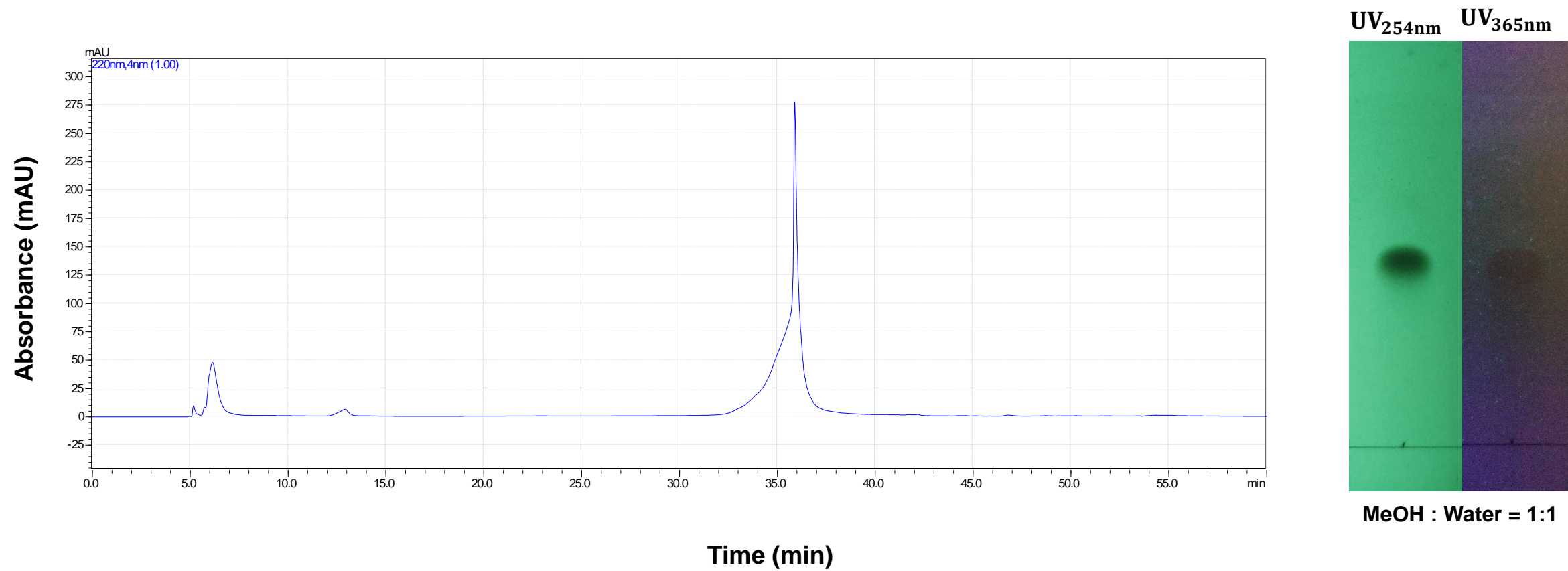
Supplementary Figure S3. Purification procedure of antioxidant from beet fermentation by *Lactobacillus* using Silica gel chromatography eluted with $CHCl_3$: MeOH (10:1). TLC plate analysis of the purified sample. Active fraction; #2.



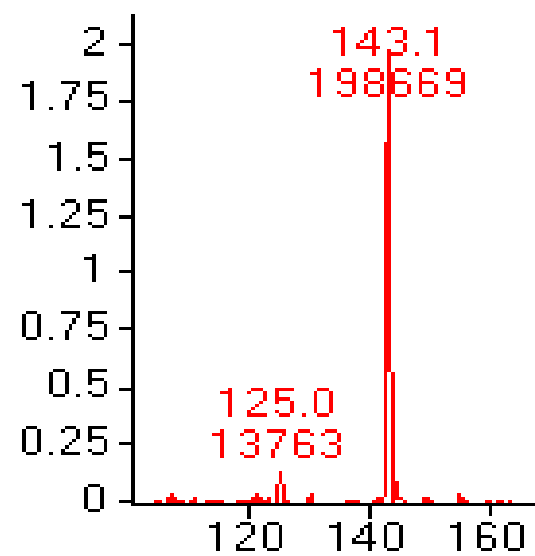
Supplementary Figure S4. Purification procedure of antioxidant from beet fermentation by *Lactobacillus* using Sephadex G-10 with water. TLC plate analysis of the purified sample. Active fraction; #2.



Supplementary Figure S5. Purification procedure of antioxidant from beet fermentation by *Lactobacillus* using C-18 Prep TLC. TLC plate analysis of the purified sample. Active fraction; #1.

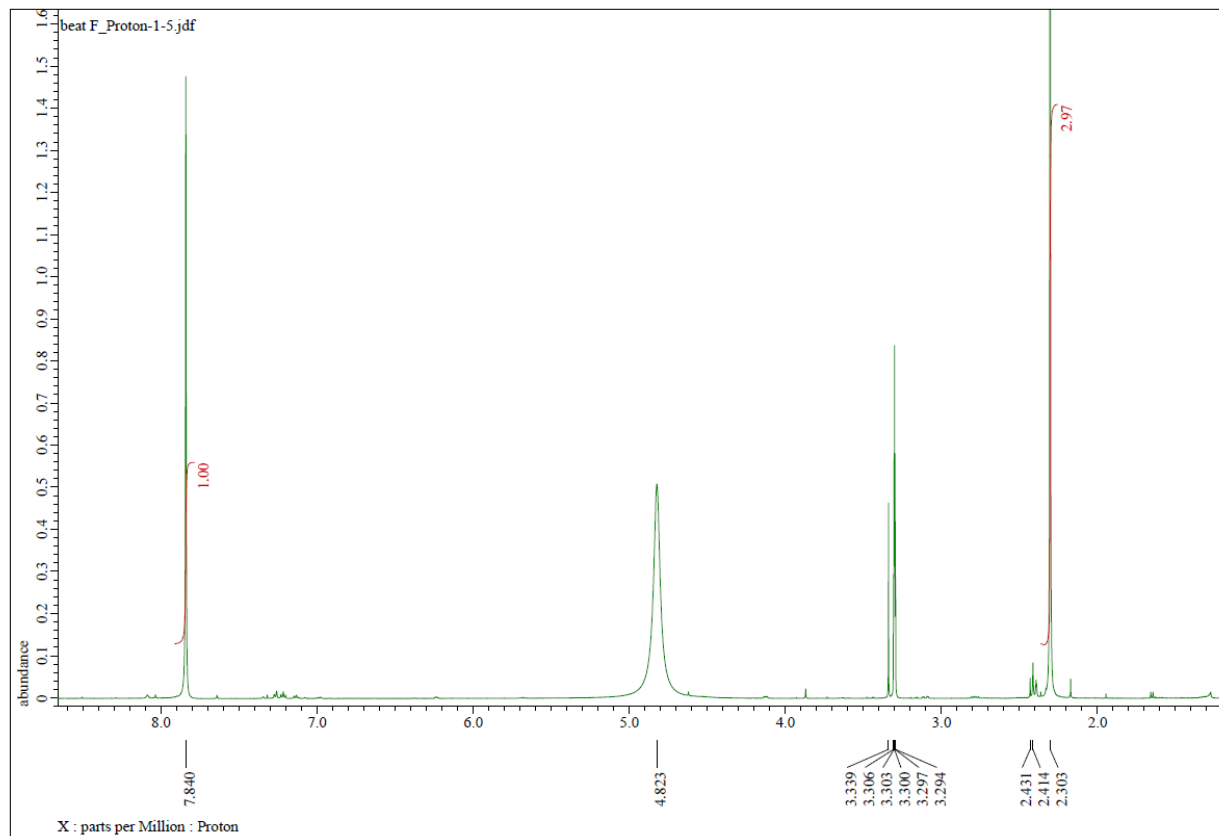


Supplementary Figure S6. Purification procedure of antioxidant from beet fermentation by *Lactobacillus* using Prep HPLC with ACN.

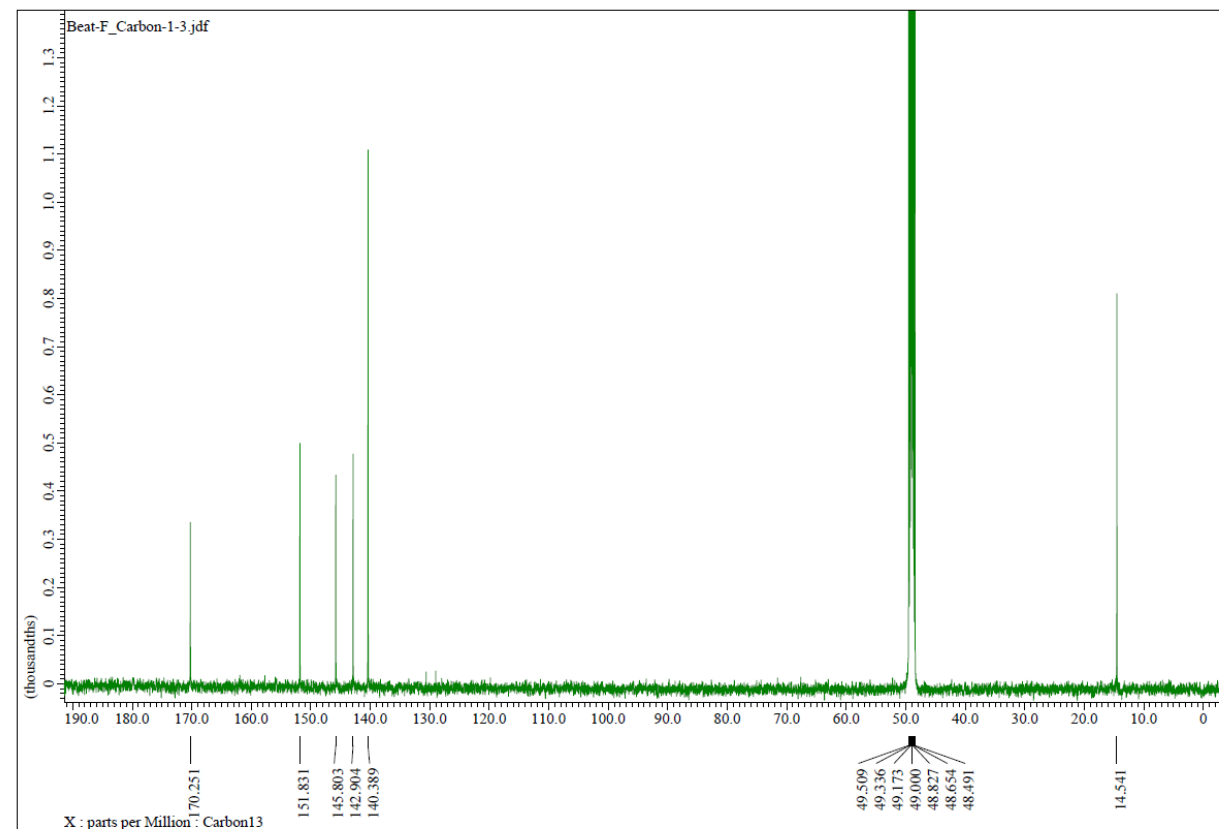


Supplementary Figure S7. ESI-mass spectrometry of the purified sample.

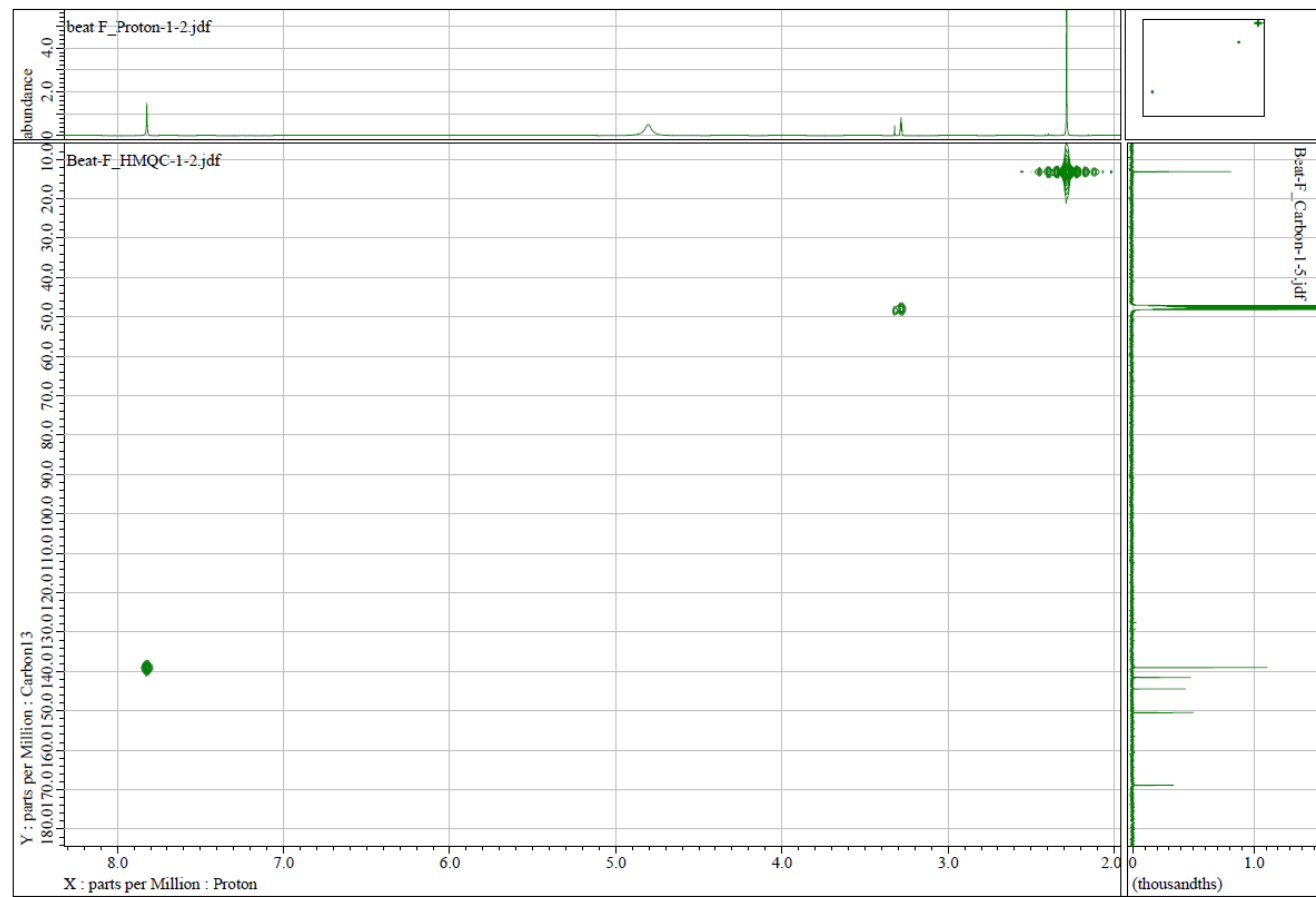
^1H NMR



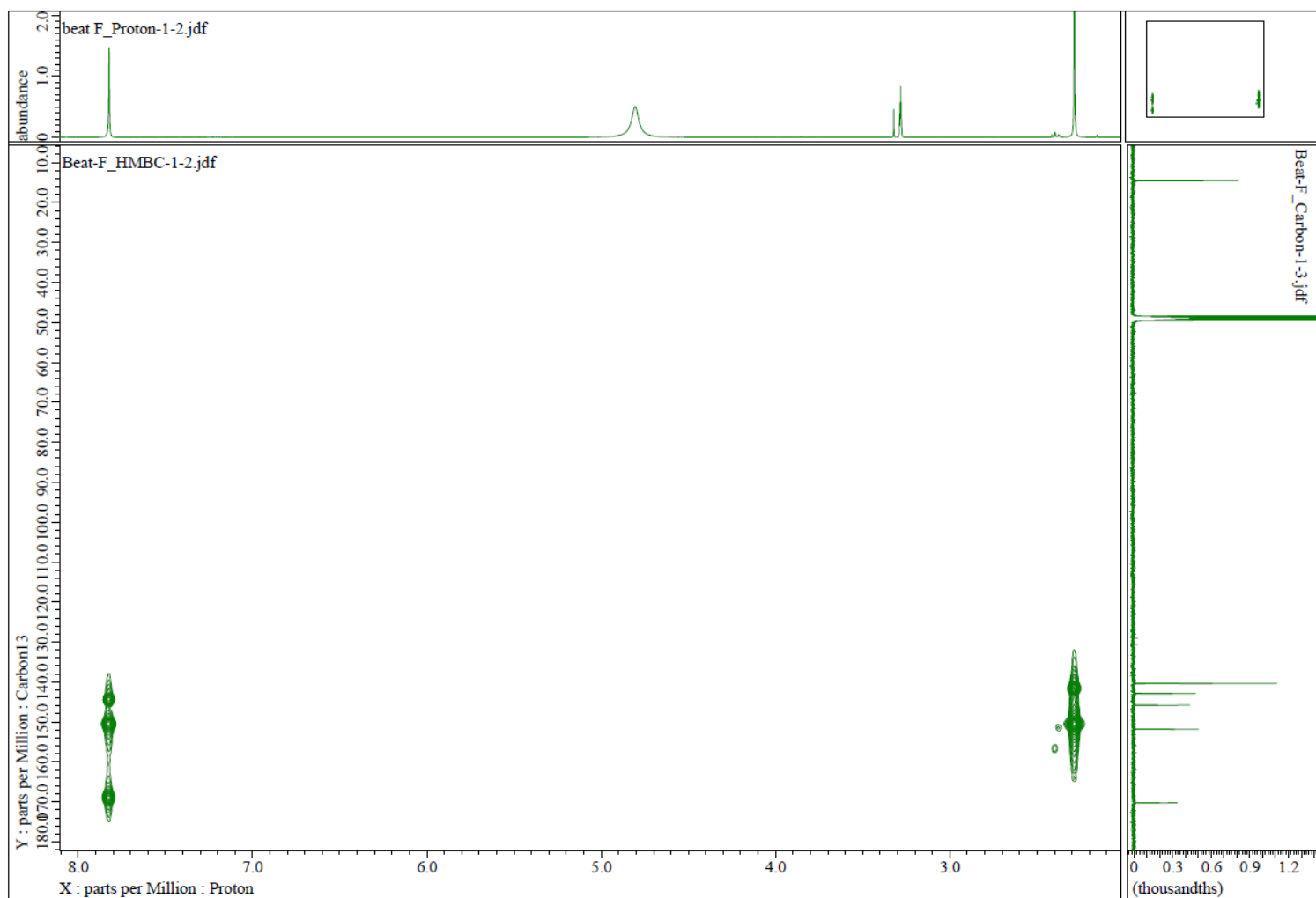
^{13}C NMR



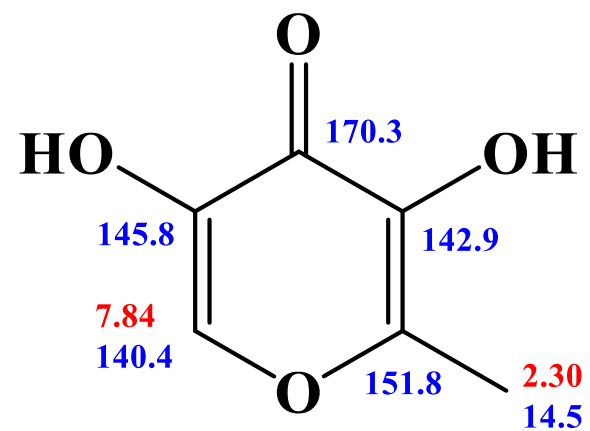
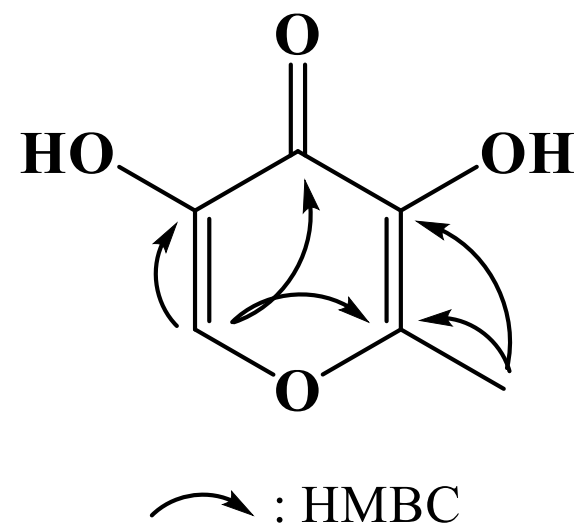
Supplementary Figure S8. ^1H NMR and ^{13}C NMR spectra of the purified sample.



Supplementary Figure S9. HMQC spectrum of the purified sample



Supplementary Figure S10. HMBC spectrum of the purified sample.



Supplementary Figure S11. HMBC correlations and ^1H (red) and ^{13}C (blue) peaks assignments of the purified sample.