

SUPPLEMENTARY MATERIAL

Inhibitory potential of quercetin derivatives isolated from the aerial parts of *Siegesbeckia pubescens* Makino against bacterial neuraminidase

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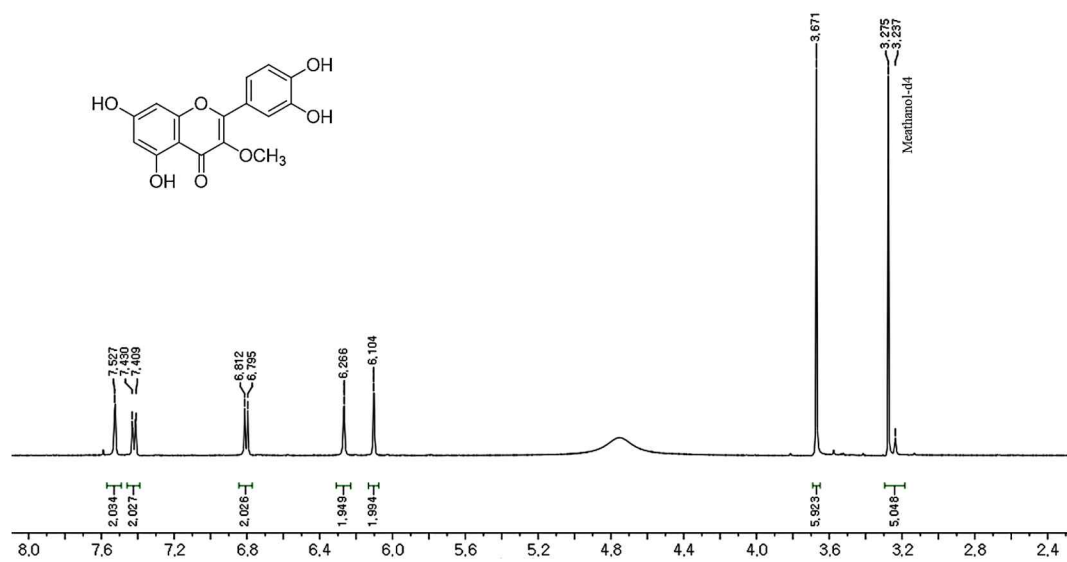


Figure S1. ^1H -NMR spectrum of compound **1** (500 MHz, Methanol- d_4)

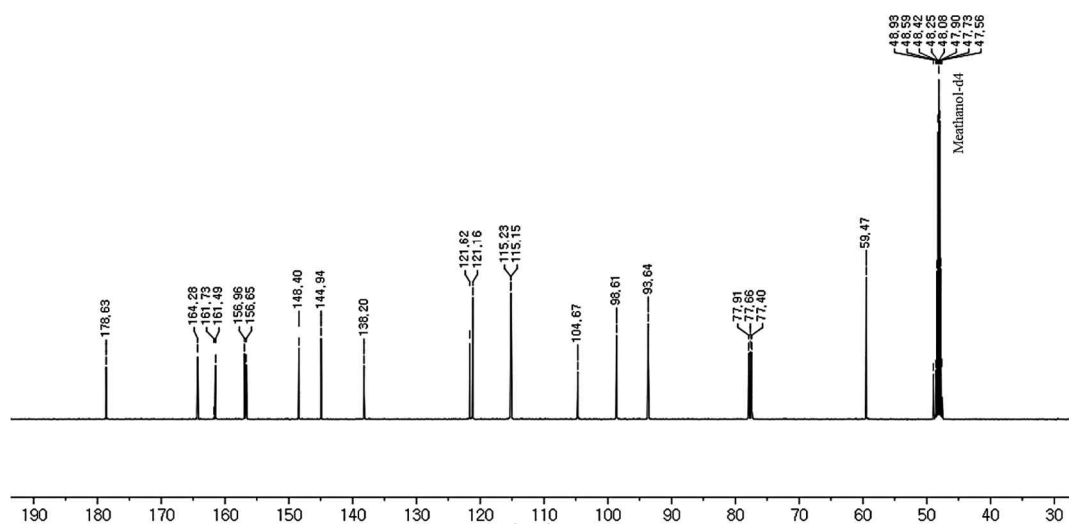


Figure S2. ^{13}C -NMR spectrum of compound **1** (125 MHz, Methanol- d_4)

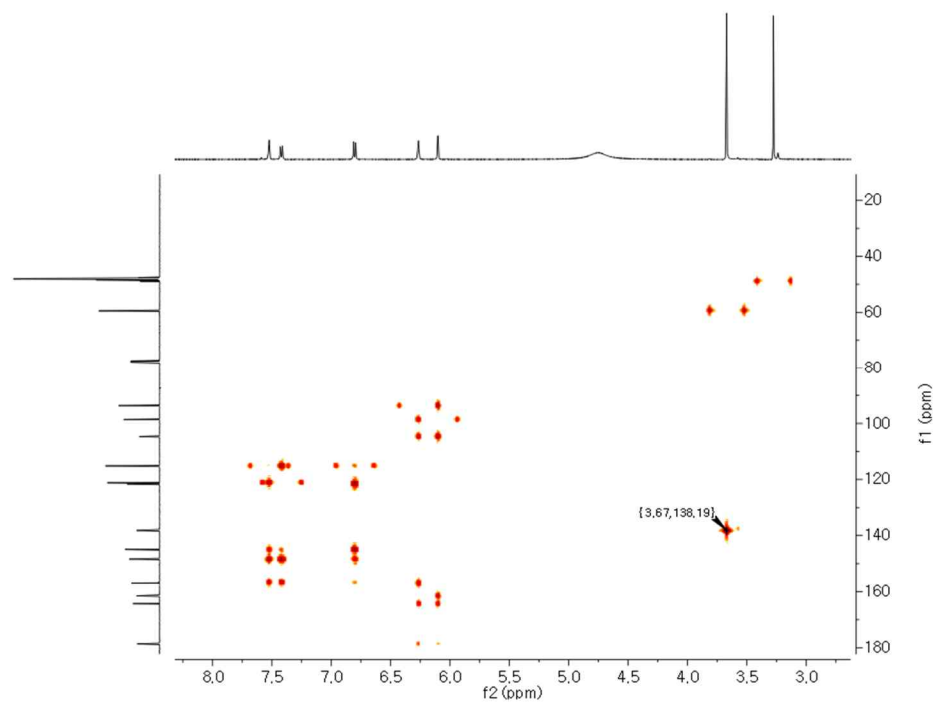


Figure S3. HMBC spectrum of compound **1** (Methanol- d_4)

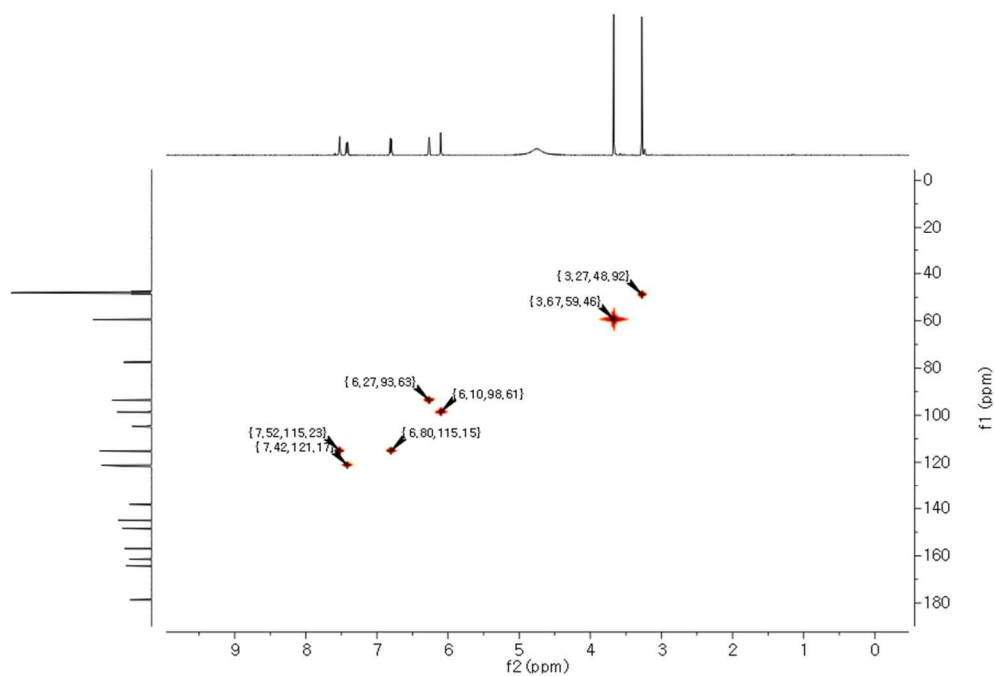


Figure S4. HMQC spectrum of compound **1** (Methanol- d_4)

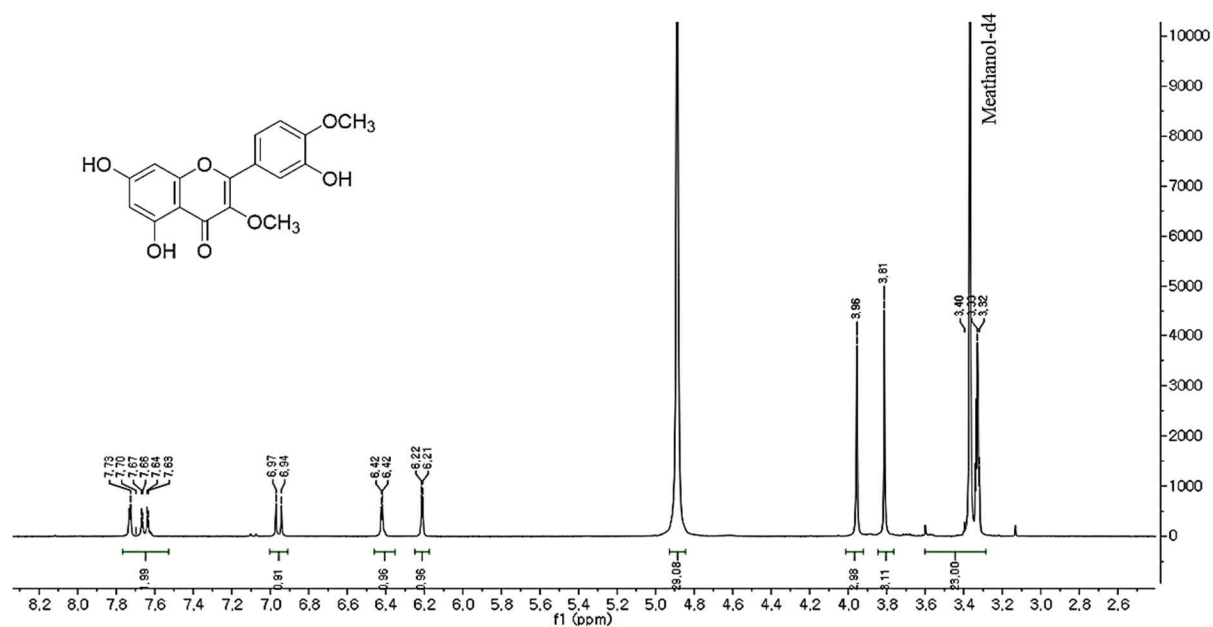


Figure S5. ¹H-NMR spectrum of compound **2** (300 MHz, Methanol-d₄)

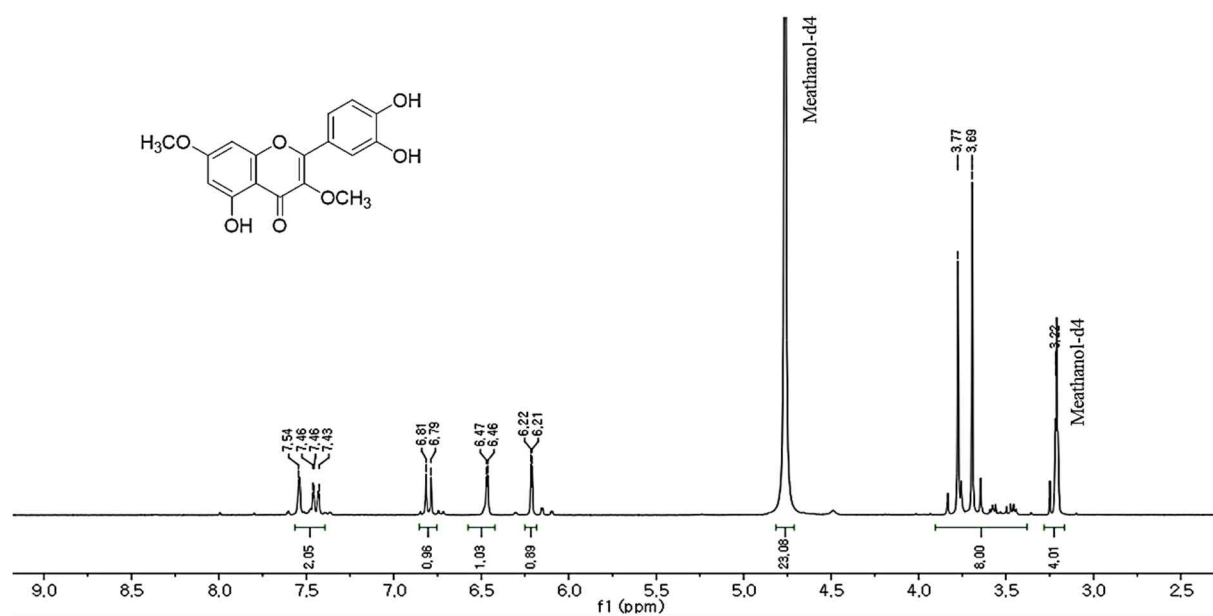


Figure S6. ¹H-NMR spectrum of compound **3** (300 MHz, Methanol-d₄)

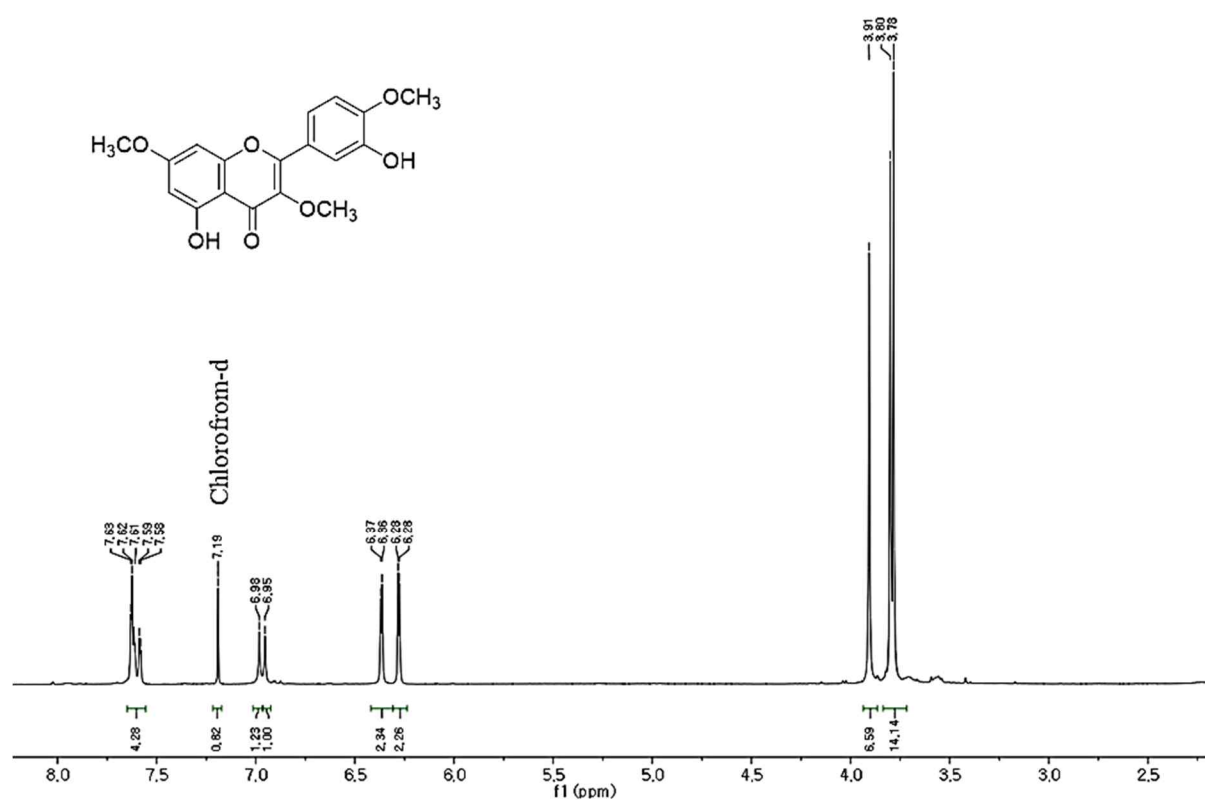


Figure S7. ¹H-NMR spectrum of compound **4** (300 MHz, Chloroform-*d*)

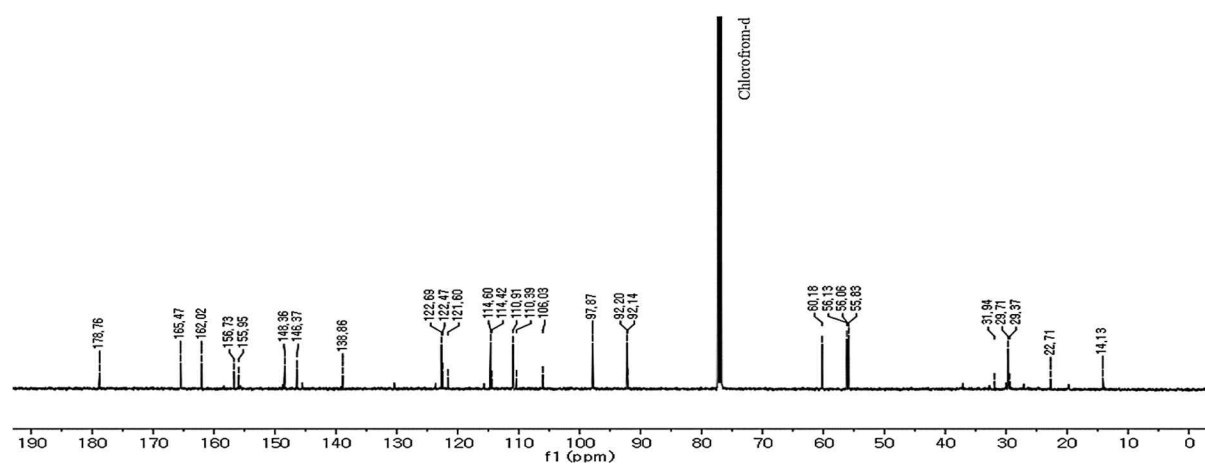


Figure S8. ¹³C-NMR spectrum of compound **4** (125 MHz, Chloroform-*d*)

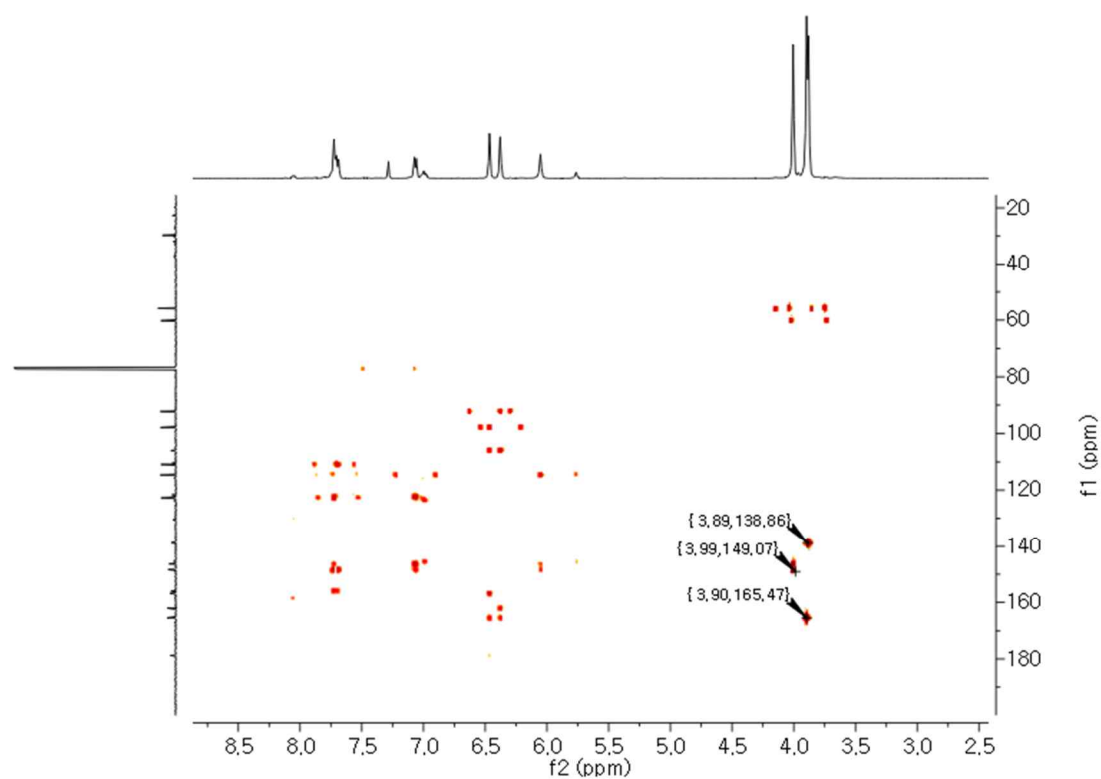


Figure S9. HMBC spectrum of compound 4 (Chloroform-*d*)

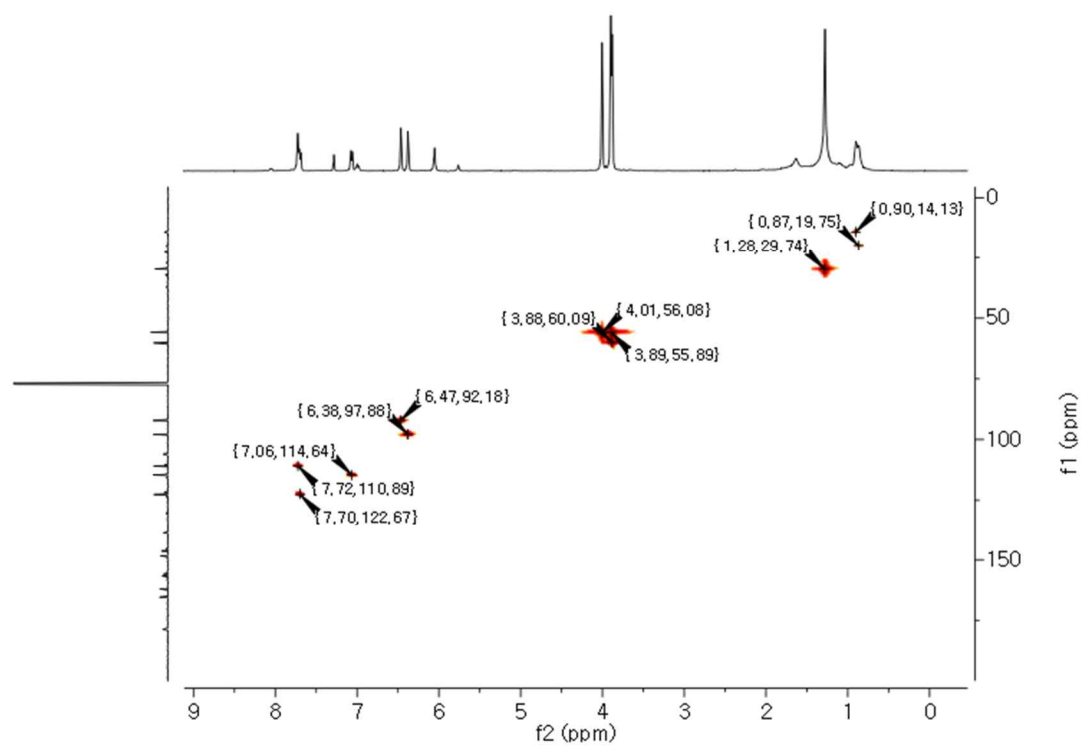


Figure S10. HMQC spectrum of compound 4 (Chloroform-*d*)

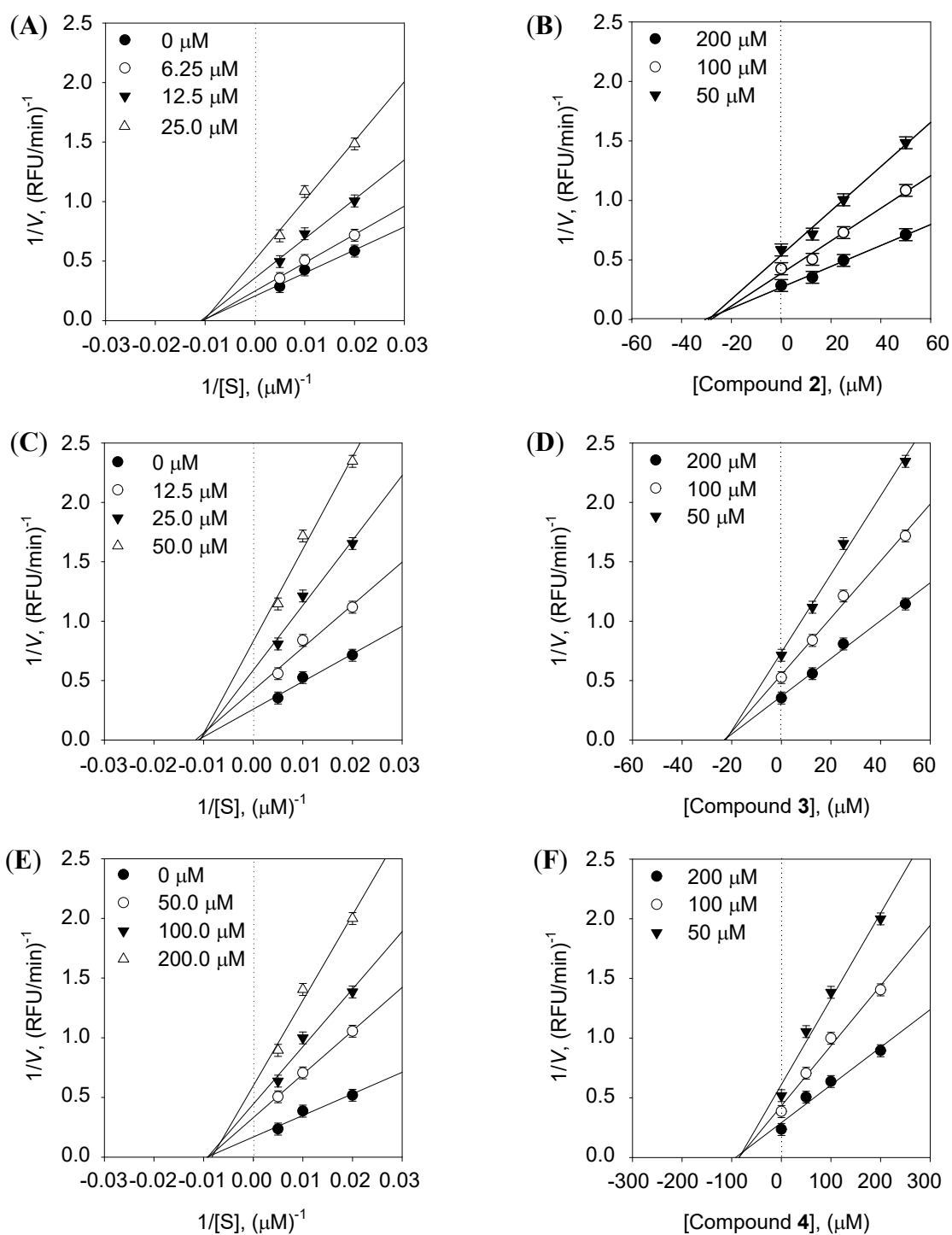


Figure S11. Enzyme kinetics of compounds 2-4 against BNA. Lineweaver-Burk plot of (A) compound 2, (C) compound 3, and (E) compound 4. Dixon plot of (B) compound 2, (D) compound 3, and (F) compound 4.

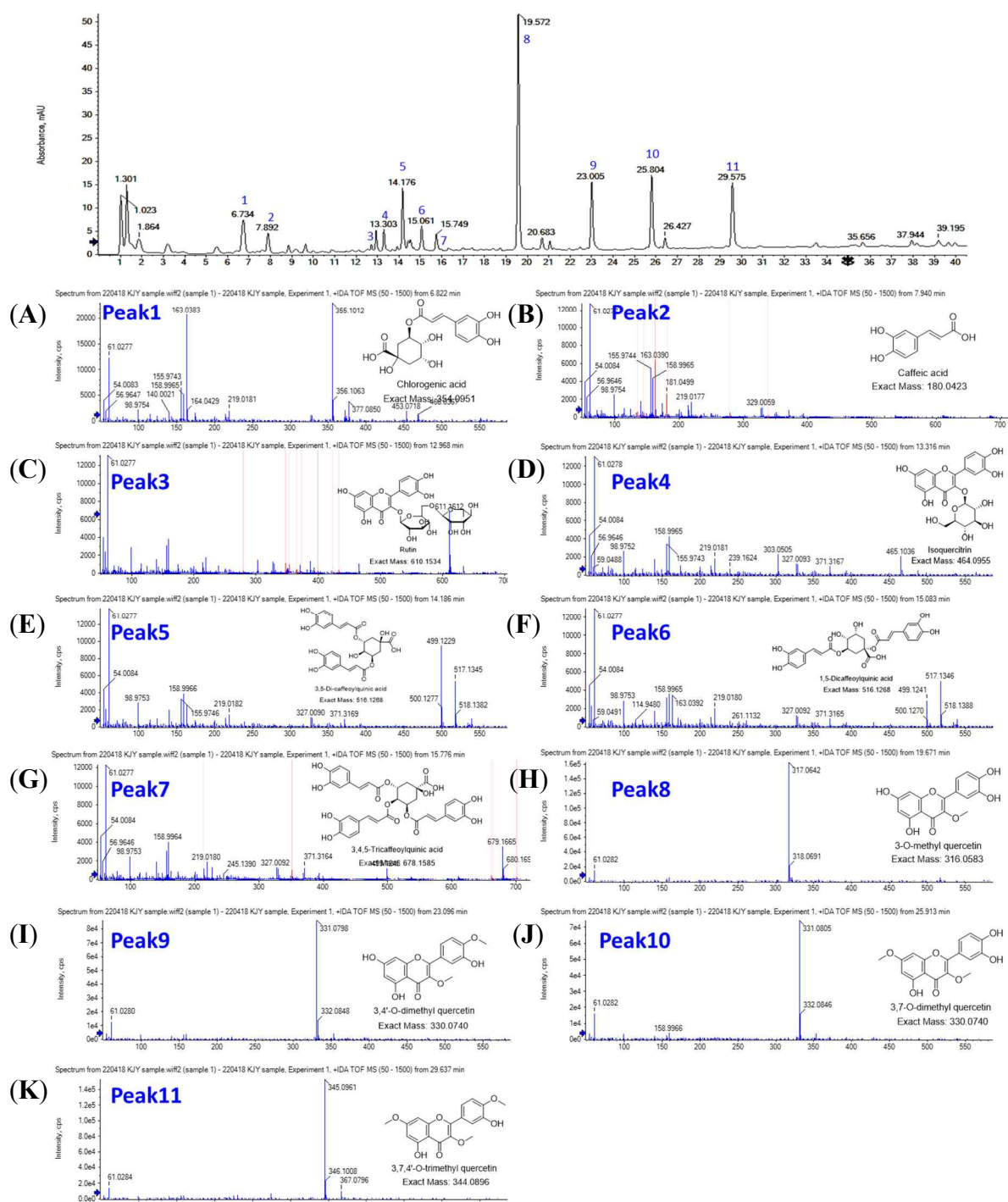


Figure S12. BPI gram of *S. pubescens* extract and individual mass spectra by LC-Q-TOF/MS analysis (A) Chlorogenic acid, (B) Caffeic acid, (C) Rutin, (D) Isoquercitrin, (E) 3,5-Dicaffeoylquinic acid, (F) 1,5-Dicaffeoylquinic acid, (G) 3,4,5-Tricaffeoylquinic acid, (H) 3-O-methyl quercetin, (I) 3,4'-O-dimethyl quercetin, (J) 3,7-O-dimethyl quercetin, and (K) 3,7,4'-O-trimethyl quercetin.