

Supporting Information

Rec. Nat. Prod. 10:2 (2016) 148-153

Pancreatic Lipase Inhibitory Phthalide Derivatives from the Rhizome of *Cnidium officinale*

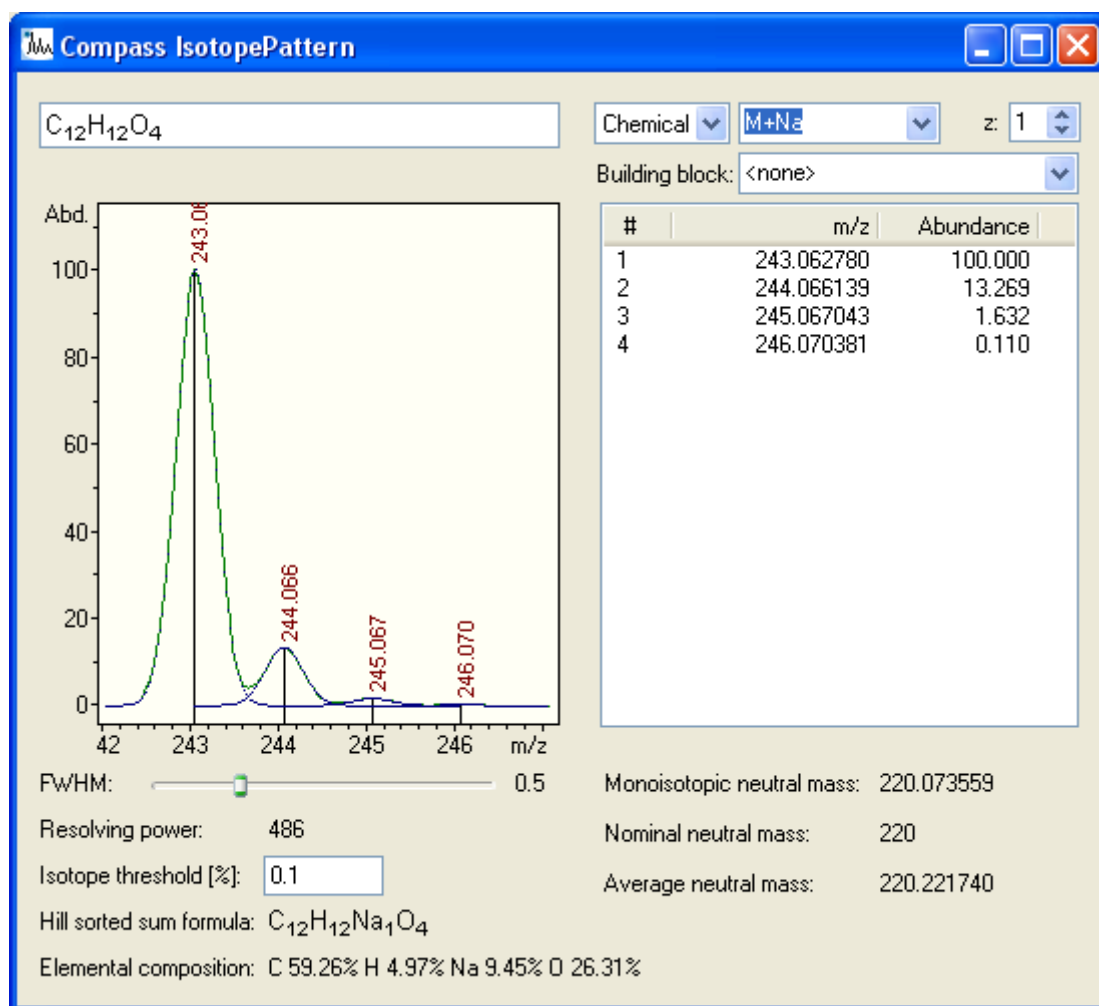
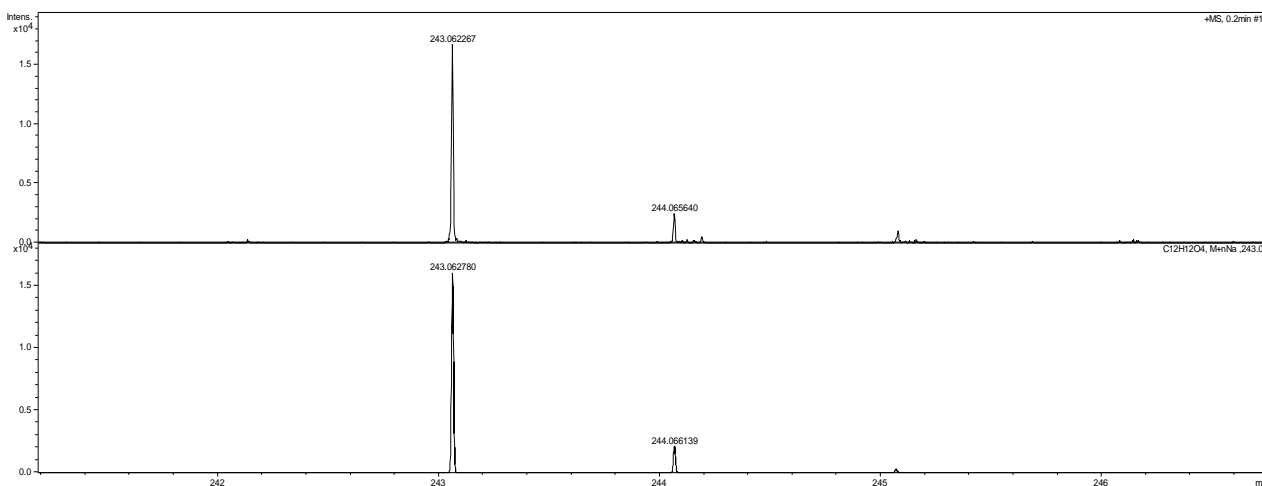
Eun Jin Mo, Yang Hee Jo, Ji Yeon Jeong, Seon Beom Kim, Qing Liu,

Bang Yeon Hwang and Mi Kyeong Lee *

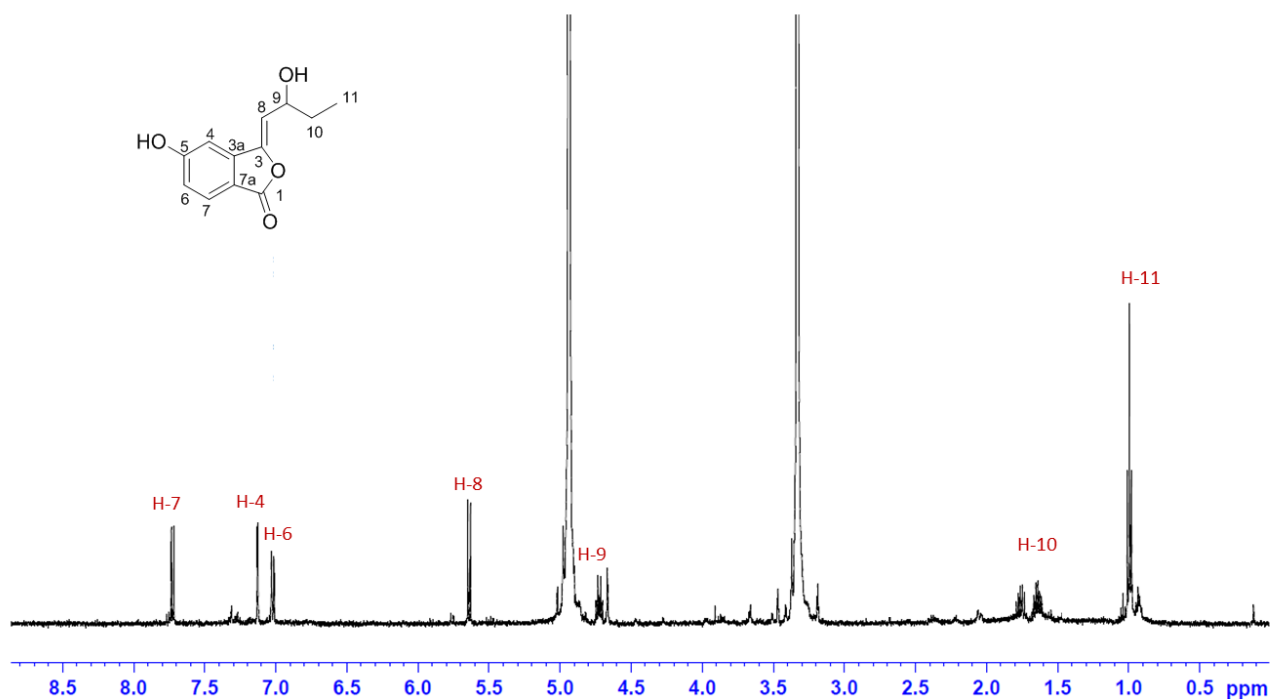
College of Pharmacy, Chungbuk National University, Cheongju 362-763, Korea

Table of Contents	Page
S1: HRESI-MS Spectrum of Compound 1 (senkyunolide Z)	2
S2: ¹ H-NMR (500 MHz, CD ₃ OD) Spectrum of Compound 1 (senkyunolide Z)	3
S3: ¹³ C-NMR (125 MHz, CD ₃ OD) Spectrum of Compound 1 (senkyunolide Z)	4
S4: ¹ H- ¹ H COSY (500 MHz) Spectrum of Compound 1 (senkyunolide Z)	5
S5: HSQC (125 MHz) Spectrum of Compound 1 (senkyunolide Z)	6
S6: HMBC (125 MHz) Spectrum of Compound 1 (senkyunolide Z)	7

* Corresponding author: E-Mail: mklee@chungbuk.ac.kr; Phone:82-43-261-2818 Fax:82-73-268-2732

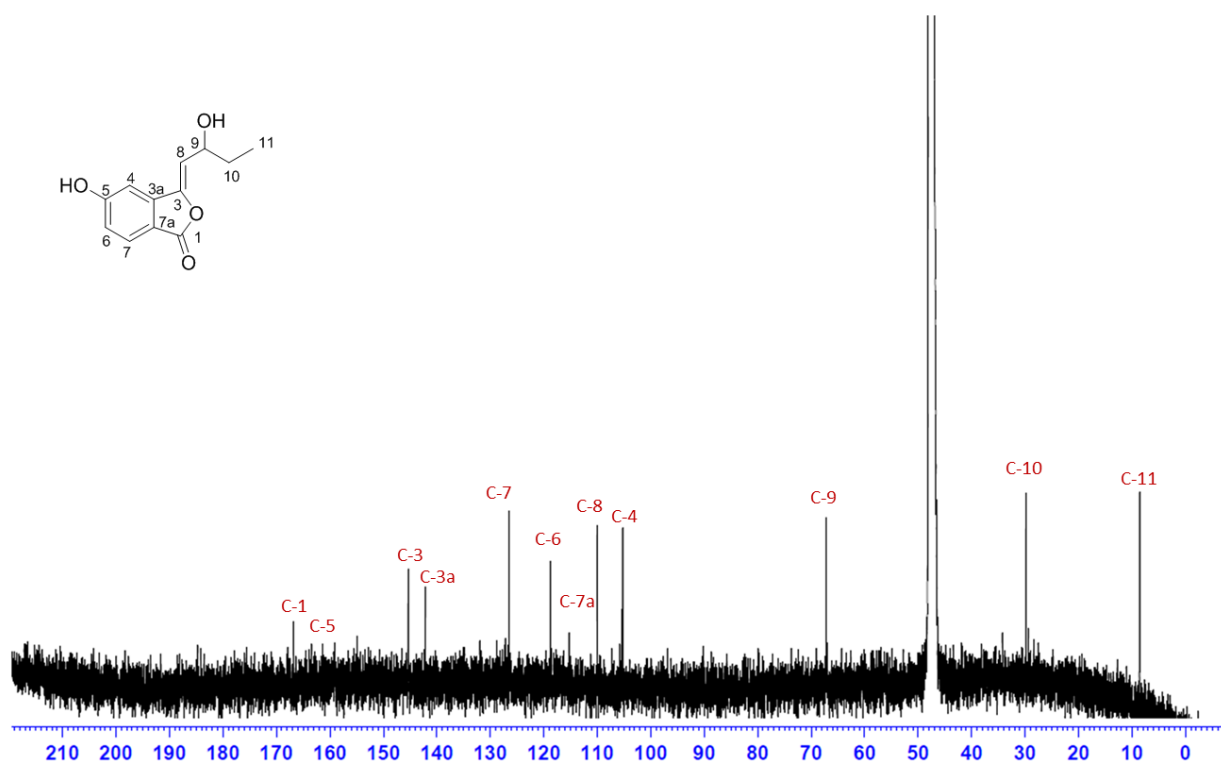
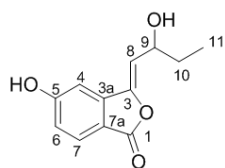


S1: HRESI-MS Spectrum of Compound 1 (senkyunolide Z)

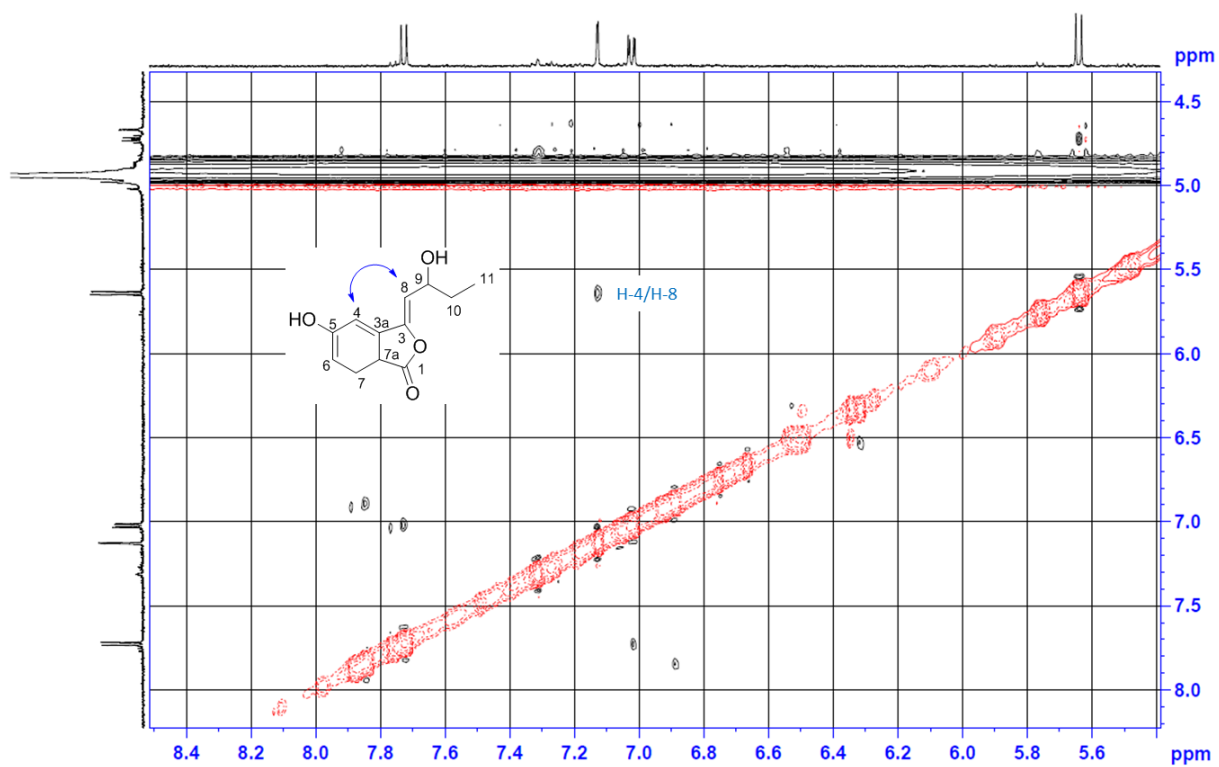


S2: $^1\text{H-NMR}$ (500 MHz, CD_3OD) Spectrum of Compound **1** (senkyunolide Z)

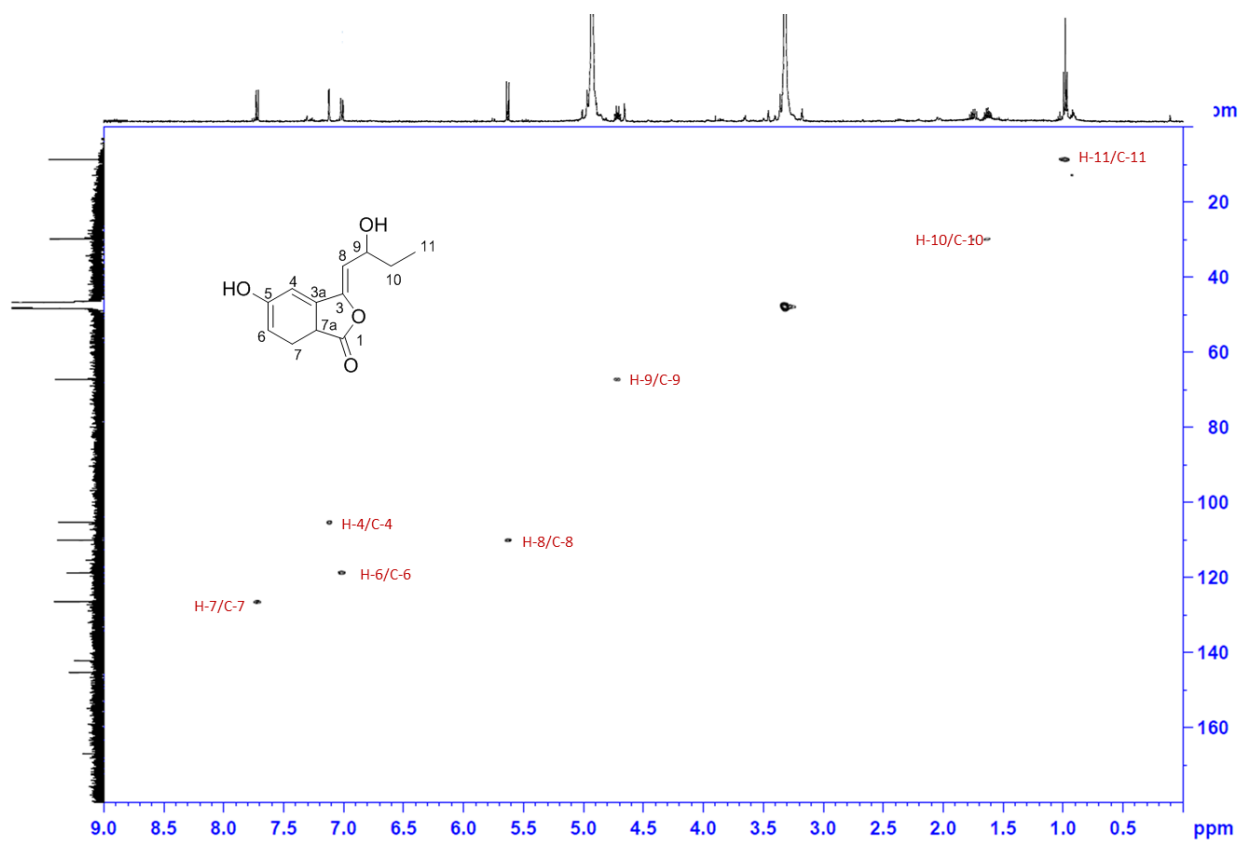
Senkyunolide Z (1): colorless syrup; $[\alpha]_{\text{D}}^{25}$ -7.0 (c 0.2, MeOH); $^1\text{H NMR}$ (500 MHz, CD_3OD) δ : 7.73 (1H, d, $J = 8.5$ Hz, H-7), 7.13 (1H, d, $J = 1.5$ Hz, H-4), 7.02 (1H, dd, $J = 8.5, 2.0$ Hz, H-6), 5.64 (1H, d, $J = 9.0$ Hz, H-8), 4.73 (1H, m, H-9), 1.76 (1H, m, H-10b), 1.64 (1H, m, H-10a), 0.99 (3H, t, $J = 7.5$ Hz, H-11). $^{13}\text{C NMR}$ (125 MHz, CD_3OD) δ 166.8 (C-1), 164.5 (C-5), 145.3 (C-3), 142.1 (C-3a), 126.5 (C-7), 118.7 (C-6), 115.3 (C-7a), 110.0 (C-8), 105.3 (C-4), 67.2 (C-9), 29.8 (C-10), 8.6 (C-11). IR_{max} cm^{-1} 3324, 1646. UV λ_{max} (MeOH) nm 254. HRESIMS m/z : 243.0627 (Calcd for $\text{C}_{12}\text{H}_{12}\text{O}_4\text{Na}$: 243.0633). ESI-MS m/z : 219 (M-H) $^-$.



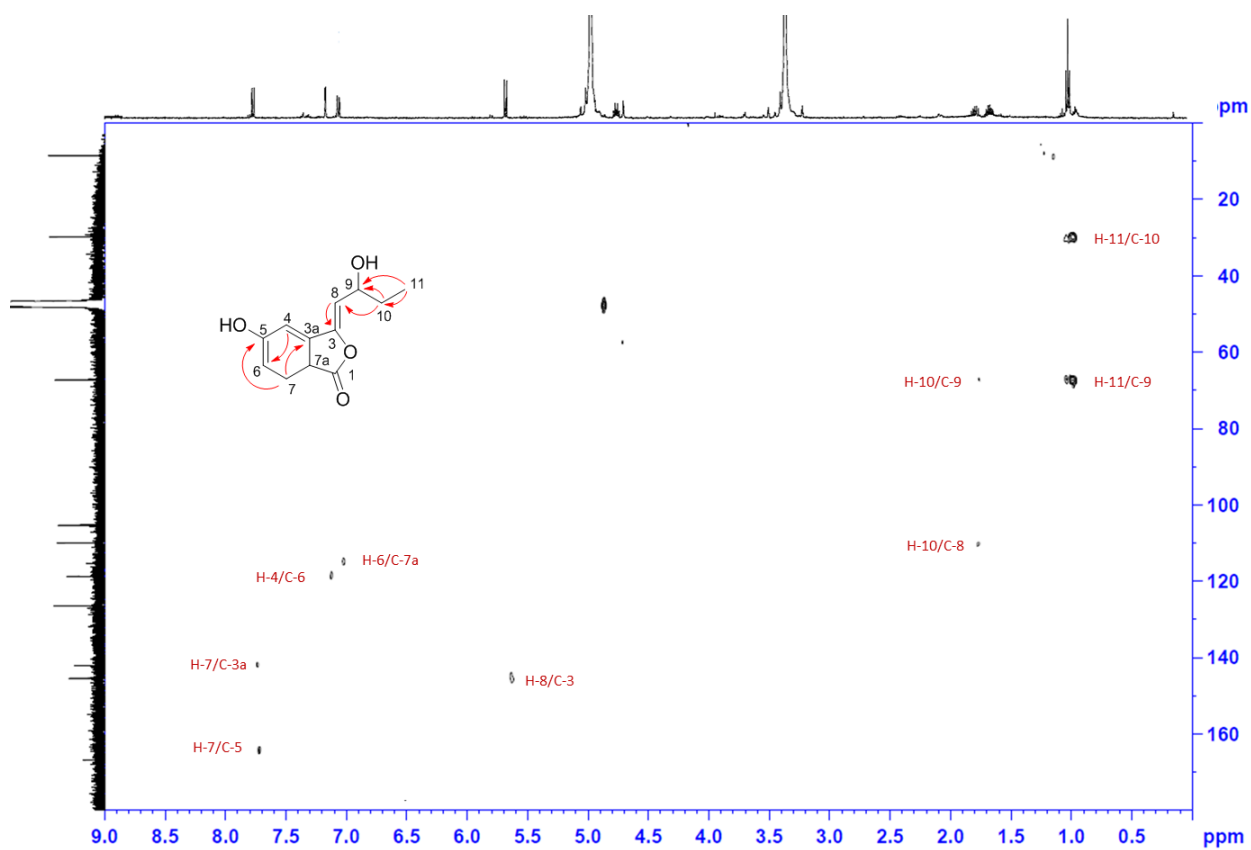
S3: ^{13}C -NMR (125 MHz, CD_3OD) Spectrum of Compound **1** (senkyunolide Z)



S4: ^1H - ^1H COSY (500 MHz) Spectrum of Compound **1** (senkyunolide Z)



S5: HSQC (125 MHz) Spectrum of Compound **1** (senkyunolide Z)



S6: HMBC (125 MHz) Spectrum of Compound **1** (senkyunolide Z)