

Supplementary Material

Physical and spectroscopic data of compounds 1-9

Cholest-4-en-3-one (**1**). White amorphous solid.

¹H NMR (300 MHz, CDCl₃): 5.74 (s, H-4), 1.19 (s, H-19), 0.93 (d, J = 6.6, H-21), 0.82 (d, J = 6.6, H-27), 0.84 (d, J = 6.6, H-26), 0.72 (s, H-18). ¹³C NMR (75 MHz, CDCl₃): 199.8 (C-3), 171.9 (C-5), 123.7 (C-4), 56.0 (C-17), 55.9 (C-14), 53.8 (C-9), 45.8 (C-24), 42.4 (C-13), 39.6 (C-12), 38.6 (C-10), 36.1 (C-8), 35.6 (C-1), 35.7 (C-20), 33.9 (C-2), 34.0 (C-22), 33.0 (C-6), 32.0 (C-7), 29.1 (C-25), 28.2 (C-16), 24.1 (C-15), 23.0 (C-23), 21.0 (C-11), 19.8 (C-27), 19.0 (C-26), 18.7 (C-21), 17.4 (C-19), 11.9 (C-18).

Stigmast-4-ene-3,6-dione (**2**). Colorless needles.

¹H NMR (400 MHz, CDCl₃): 6.17 (s, H-4), 1.17 (s, H-19), 0.94 (d, J = 6.5; H-21), 0.89 (d, J = 7.6, H-29), 0.84 (d, J = 6.9, H-26), 0.82 (d, J = 6.9, H-27), 0.73 (s, H-18). ¹³C NMR (100 MHz, CDCl₃): 202.4 (C-6), 199.5 (C-3), 161.1 (C-5), 125.5 (C-4), 56.6 (C-14), 55.9 (C-17), 51.0 (C-9), 46.8 (C-7), 45.8 (C-24), 42.5 (C-13), 39.8 (C-10), 39.1 (C-12), 36.1 (C-20), 35.6 (C-1), 34.2 (C-8), 34.0 (C-2), 33.8 (C-22), 29.1 (C-25), 28.0 (C-16), 26.1 (C-23), 24.0 (C-15), 23.1 (C-28), 20.9 (C-11), 19.8 (C-26), 19.0 (C-27), 18.7 (C-21), 17.5 (C-19), 12.0 (C-29), 11.9 (C-18).

β-sitosterol and stigmasterol (**3a** and **3b**). Colorless needles.

¹H NMR (300 MHz, CDCl₃): 3.54 (m, H-3, **3a**), 5.37 (d, J = 5.2, H-6, **3a**), 3.53 (m, H-3, **3b**), 5.37 (d, J = 5.2, H-6, **3b**), 5.16 (dd, J = 15.1, 8.4, H-22, **3b**), 5.02 (dd, J = 15.1, 8.4, H-23, **3b**).

des-O-methyl-Lasiodiplodin (**4**) - White solid

¹H NMR (500 MHz, CDCl₃): 11.90 (s, H-O), 6.20 (d, J = 2.6, H-11), 6.25 (d, J = 2.6, H-13), 5.15 (m, H-3), 5.08 (sl, H-O), 3.26 and 2.48 (m, H-10a and 10b), 1.91 and 1.76 (m, H-

4a and 4b), 1.64-1.46 (m, H-5), 1.60-1.42 (m, H-6), 1.59-1.47 (m, H-9), 1.56-1.49 (m, H-7), 1.44 (m, H-8), 1.30 (d, $J = 6.1$, H-17). ^{13}C NMR (125 MHz, CDCl_3): 171.8 (C-1), 165.5 (C-12), 159.9 (C-14), 149.5 (C-16), 110.7 (C-11), 105.7 (C-15), 101.4 (C-13), 75.1 (C-3), 33.5 (C-10), 31.1 (C-4), 30.4 (C-9), 27.2 (C-8), 24.7 (C-7), 24.1 (C-6), 21.2 (C-5), 20.1 (C-17).

Palmitic acid, oleic acid and stearic acid (**5a**, **5b** and **5c**). White solid.

^1H NMR (400 MHz, CDCl_3): 2.21 (t, $J = 7.7$, H-2, **5a**), 1.28 (s, H-n', **5a**), 0.90 (t, $J = 6.8$, H-16, **5a**), 5.37 (m, H- $\Delta 9$, **5b**), 2.21 (t, $J = 7.7$, H-2, **5b**), 2.04 (m, H- 11, **5b**), 1.60 (m, H- 3, **5b**), 1.28 (s, H- n', **5b**), 0.90 (t, $J = 6.8$, H-18, **5b**), 2.2 (t, $J = 7.7$, H-2, **5c**), 1.60 (m, H- 3, **5c**), 1.28 (s, H- n', **5c**), 0.90 (t, $J = 6.8$, H-18, **5c**).

Linoleic acid and methyl dihydrosterculate (**6a** and **6b**). White solid.

^1H NMR (500 MHz, CDCl_3): 5.38 – 5.32 (m, H- $\Delta 9,12$, **6a**), 2.36 (t, $J = 7.7$, H-2, **6a**), 2.04 (m, H- 8 and 11, **6a**), 1.65 (m, H-3, **6a**), 1.25 (s, H- n', **6a**), 0.90 (t, $J = 7.0$, H-18, **6a**), Cyclopropane: 0.64 (sl, H-9, **6b**), 0.56 (m, trans, H-10, **6b**), -0.34 (dd, $J = 9.7$; 5.2, cis, H-19, **6b**). ^{13}C NMR (125 MHz, CDCl_3): 179.9 (C-1, **6a**), 130.2, 130.0, 128.1, 127.9 (C- $\Delta 9,12$, **6a**), 34.0 (C-2, **6a**), 29.7 (C-n', **6a**), 25.6 (C-11, **6a**), 14.1 (C-18, **6a**), Cyclopropane: 15.8 (C-10, **6b**), 15.7 (C-9, **6b**), 10.9 (C-19, **6b**).

4-hydroxy-mellein (**7**). White solid.

^1H NMR (300 MHz, CDCl_3): 11.06 (s, OH), 7.60 (dd, $J = 8.4$; 7.7, H-6), 7.13 (d, $J = 8.4$, H-5), 6.93 (d, $J = 8.4$, H-7), 4.67 (m, H-4), 4.60 (m, H-3). 1.49 (d, $J = 6.2$, CH_3). ^{13}C NMR (125 MHz, CDCl_3): 161.6 (C-8), 161.4 (C-1), 143.4 (C-4a), 136.5 (C-6), 116.4 (C-5 and 7), 107.0 (C-8a), 80.2 (C-3), 68.2 (C-4), 17.3 (CH_3).

2-*O*-Methylisohemigossylic acid lactone (**8**). Colorless needles.

^1H NMR (400 MHz, CDCl_3): 7.51 (s, H-4), 6.99 (s, H-6), 4.31 (s, OCH_3), 3.69 (sept, $J = 6.8$, H-12), 2.40 (s, H-15), 1.39 (d, $J = 6.9$, H-13 and H-14). ^{13}C NMR (100 MHz, CDCl_3): 165.5 (C-11), 156.9 (C-7), 156.4 (C-5), 140.2 (C-2), 131.9 (C-9), 131.4 (C-1), 130.1 (C-3), 119.7 (C-4), 118.1 (C-10), 113.5 (C-6), 98.8 (C-8), 59.8 (C-O), 29.6 (C-12), 23.4 (C-13 and 14), 18.3 (C-15).

Lasiodiplodin (**9**). Yellowish oil.

^1H NMR (500 MHz, CDCl_3): 6.24 (d, $J = 2.2$, H-11), 6.22 (d, $J = 2.2$, H-13), 5.74 (s, H-O), 5.25 (m, H-3), 3.75 (s, OCH_3), 2.66 and 2.47 (m, H-10b and quint, $J = 13, 4$ and $6, 7$, H-10a), 1.90 and 1.62 (m, H-4b and 4a), 1.68 and 1.38 (m, H-8), 1.62-1.38 (m, H-5), 1.62 (m, H-9), 1.45-1.38 (m, H-6 and 7), 1.30 (d, $J = 6.1$). ^{13}C NMR (125 MHz, CDCl_3): 168.5 (C-1), 158.0 (C-14), 157.1 (C-12), 143.1 (C-16), 118.0 (C-15), 108.1 (C-11), 96.9 (C-13), 72.1 (C-3), 55.8 (C-O), 32.3 (C-4), 30.4 (C-10), 30.1 (C-9), 26.5 (C-8), 25.4 (C-6), 24.2 (C-7), 21.2 (C-5), 19.5 (C-17).