

Supporting Information to:

***C*-Methylflavonoids Isolated from *Callistemon lanceolatus* Protect PC12 Cells against A β -Induced Toxicity**

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4',5-Dihydroxy-6,8-dimethyl-7-methoxyflavanone (1)

Brown resin; $[\alpha]_D^{28} +7.0^\circ$ (*c* 0.1, MeOH); UV (MeOH): λ_{\max} nm (log ϵ): 282 (3.54), 357 (2.98); CD measurements gave no distinct Cotton effect indicating that compound **1** was obtained as an enantiomeric mixture in a different ratio; HRESI-MS *m/z*: 315.1235 $[M+H]^+$, (calcd for $C_{18}H_{19}O_5$: 315.1232); 1H -NMR (DMSO-*d*₆, 500 MHz) δ : 1.97 (3H, s, 8-Me), 2.00 (3H, s, 6-Me), 2.81 (2H, dd, *J*=3.0, 17.5 Hz, H-3), 3.29 (1H, dd, *J*=12.5, 17.0 Hz, H-3), 3.68 (3H, s, 7-OMe), 5.47 (1H, dd, *J*=3.0, 12.5 Hz, H-2), 6.81 (2H, d, *J*=8.5 Hz, H-3' and 5'), 7.33 (2H, d, *J*=8.5 Hz, H-2' and 6'), 9.60 (1H, bs, 9-OH), 12.16 (1H, s, 5-OH); ^{13}C -NMR (DMSO-*d*₆, 125 MHz), see Table 1S.

Eucalyptin (2)

Yellow needle ; UV (MeOH): λ_{\max} nm (log ϵ): 282 (4.11), 323 (4.14); HRESI-MS *m/z*: 327.1217 $[M+H]^+$ (calcd for $C_{19}H_{19}O_5$: 327.1232); 1H -NMR (CDCl₃, 500 MHz) δ : 2.21 (3H, s, 6-Me), 2.39 (3H, s, 8-Me), 3.80 (3H, s, 7-OMe), 3.89 (3H, s, 4'-OMe), 6.60 (1H, s, H-3) 7.02 (2H, d, , *J*=9.0 Hz, H-3', 5'), 7.86 (2H, d, *J*=9.0 Hz, H-2', 6'), 12.87 (1H, s, 5-OH); ^{13}C -NMR (CDCl₃, 125 MHz), see Table 1S.

8-Demethyleucalyptin (3)

Pale yellow needle; UV (MeOH) λ_{\max} nm (log ϵ): 276 (4.11), 328 (4.18); HRESI-MS *m/z*: 313.1069 $[M+H]^+$, (calcd for $C_{18}H_{17}O_5$: 313.1076); 1H -NMR (acetone-*d*₆, 500 MHz) δ : 2.06 (3H, s, 6-Me), 3.93 (3H, s, 4'-OMe), 3.99 (3H, s, 7-OMe), 6.72 (1H, s, H-3), 6.80 (1H, s, H-8), 7.14 (2H, d, *J*=9.0 Hz, H-3' and 5'), 8.04 (2H, d, *J*=9.0 Hz, H-2' and 6'), 13.11 (1H, s, 5-OH); ^{13}C -NMR (acetone-*d*₆, 125 MHz), see Table 1S.

Sideroxylin (4)

Yellow powder; UV (MeOH): λ_{\max} nm (log ϵ): 278 (4.47), 327 (4.55); HRESI-MS *m/z*: 313.1066 $[M+H]^+$, (calcd for $C_{18}H_{17}O_5$: 313.1076); 1H -NMR (DMSO-*d*₆, 500 MHz) δ : 2.05 (3H, s, 6-Me), 2.29 (3H, s, 8-Me), 3.73 (3H, s, 4'-OMe), 6.80 (1H, s, H-3), 6.92 (2H, d, *J*=8.8 Hz, H-3' and 5'), 7.90 (2H, d, *J*=8.8 Hz, H-2' and 6'), 10.38 (1H, bs, 7-OH), 13.02 (1H, s, 5-OH); ^{13}C -NMR (DMSO-*d*₆, 125 MHz), see Table 1S.

Syzalterin (5)

Yellow powder; UV (MeOH): λ_{\max} nm (log ϵ): 279 (3.79), 330 (3.79); ESI-MS m/z : 313.1066 $[M+H]^+$; $^1\text{H-NMR}$ (DMSO, 500 MHz) δ : 2.03 (3H, s, 6-Me), 2.27 (3H, s, 8-Me), 6.75 (1H, s, H-3), 6.93 (2H, d, $J=8.8$ Hz, H-3' and 5'), 7.92 (2H, d, $J=8.8$ Hz, H-2' and 6'), 13.12 (1H, s, 5-OH); $^{13}\text{C-NMR}$ (DMSO- d_6 , 125 MHz), see Table 1S.

Quercetin (6)

Yellow powder; UV (MeOH) λ_{\max} nm (log ϵ): 256 (4.32), 369 (4.30); ESI-MS m/z : 303 $[M+H]^+$; $^1\text{H-NMR}$ (DMSO- d_6 , 500 MHz) δ : 6.18 (1H, d, $J=1.5$ Hz, H-6), 6.40 (1H, d, $J=2.0$ Hz, H-8), 6.88 (1H, d, $J=8.5$ Hz, H-5'), 7.54 (1H, dd, $J=2.0, 8.5$ Hz, H-6'), 7.67 (1H, $J=2.0$ Hz, H-2'), 10.78 (1H, s, 7-OH), 12.48 (1H, s, 5-OH); $^{13}\text{C-NMR}$ (DMSO- d_6 , 125 MHz), see Table 1S.

Table 1S. $^{13}\text{C-NMR}$ data of compounds 1-6

Carbon number	Chemical shifts (ppm)					
	1 ^a	2 ^b	3 ^c	4 ^a	5 ^a	6 ^a
C-2	78.1	164.0	164.8	164.0	163.1	146.8
C-3	42.2	104.2	104.8	102.7	102.4	135.7
C-4	198.5	183.4	183.2	182.5	181.9	175.8
C-5	158.3	157.5	159.4	156.3	156.0	160.7
C-6	109.8	114.3	109.1	113.0	103.2	98.1
C-7	164.7	162.8	164.5	162.0	161.0	163.9
C-8	108.8	109.0	90.7	108.6	101.8	93.3
C-9	157.6	153.1	157.0	152.2	152.5	156.1
C-10	104.6	107.5	105.8	106.5	107.0	103.0
C-1'	129.0	124.0	124.4	121.2	121.6	121.9
C-2'/6'	128.0	128.1	129.1	128.4	128.3	115.0/120.0
C-3'/5'	115.2	114.7	115.5	116.0	116.0	145.0/115.6
C-4'	157.8	162.8	163.8	161.3	161.0	147.7
6-Me	7.8	8.4	7.5	8.0	8.0	-
8-Me	8.3	8.7	-	8.3	8.3	-
7-OMe	59.9	60.7	56.7	60.3	-	-
4'-OMe	-	55.7	56.1	-	-	-

^a DMSO- d_6 .

^b Acetone- d_6 .

^c CDCl_3 .