

Supplementary Materials: DPP-IV Inhibitory Potentials of Flavonol Glycosides Isolated from the Seeds of *Lens culinaris*: In Vitro and Molecular Docking Analyses

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¹H-NMR Data of Compounds 1–3

Compound **1** (kaempferol-3-*O*- β -gulcopyranosyl-(1 \rightarrow 2)- β -galactopyranosyl-7-*O*- α -rhamnopyranoside): Pale yellow solid. ESI-MS *m/z* 756.6 [M]⁺. ¹H-NMR (500 MHz, CD₃OD, δ , ppm, *J*/Hz): 8.11 (2H, d, *J* = 9.0, H-2' and H-6'), 6.90 (2H, d, *J* = 9.0, H-3' and H-5'), 6.76 (1H, br s, H-8), 6.46 (1H, br s, H-6), 5.56 (1H, br s, H-1 of 7-*O*-Rha), 5.41 (1H, d, *J* = 7.5, H-1'' of 3-*O*-Gal), 4.75 (1H, d, *J* = 7.5 Hz, H-1 of 2''-*O*-Glc), 1.24 (3H, d, *J* = 5.0, H-6 of 7-*O*-Rha). ¹³C-NMR data: see Table S1.

Compound **2** (kaempferol-3-*O*- β -gulcopyranosyl-(1 \rightarrow 2)-[α -rhamnopyranosyl(1 \rightarrow 6)]- β -galactopyranosyl-7-*O*- α -rhamnopyranoside): Pale yellow solid. ESI-MS *m/z* 902.8 [M]⁺. ¹H-NMR (500 MHz, CD₃OD, δ , ppm, *J*/Hz): 8.06 (2H, d, *J* = 9.1, H-2' and H-6'), 6.91 (2H, d, *J* = 9.1, H-3' and H-5'), 6.75 (1H, br s, H-8), 6.48 (1H, br s, H-6), 5.56 (1H, br s, H-1 of 7-*O*-Rha), 5.36 (1H, d, *J* = 7.5, H-1'' of 3-*O*-Gal), 4.73 (1H, d, *J* = 7.5 Hz, H-1 of 2''-*O*-Glc), 4.47 (1H, br s, H-1 of 6''-*O*-Rha), 1.25 (3H, d, *J* = 5.5, H-6 of 7-*O*-Rha), 1.06 (3H, d, *J* = 5.5, H-6 of 6''-*O*-Rha). ¹³C-NMR data: see Table S1.

Compound **3** (robinin; kaempferol-3-*O*- α -rhamnosyl(1 \rightarrow 6)- β -galactopyranosyl-7-*O*- α -rhamnopyranoside): Pale yellow solid. ESI-MS *m/z* 740.6 [M]⁺. ¹H-NMR (500 MHz, DMSO-*d*₆, δ , ppm, *J*/Hz): ¹H-NMR (500 MHz, CD₃OD, δ , ppm, *J*/Hz): 8.12 (2H, d, *J* = 8.5, H-2' and H-6'), 6.87 (2H, d, *J* = 8.5, H-3' and H-5'), 6.77 (1H, d, *J* = 1.5, H-8), 6.48 (1H, d, *J* = 1.5, H-6), 5.57 (1H, br s, H-1 of 7-*O*-Rha), 5.09 (1H, d, *J* = 7.5, H-1'' of 3-*O*-Gal), 4.51 (1H, br s, H-1 of 6''-*O*-Rha), 1.26 (3H, d, *J* = 6.0, H-6 of 7-*O*-Rha), 1.18 (3H, d, *J* = 6.0, H-6 of 6''-*O*-Rha). ¹³C-NMR data: see Table S1.

Table S1: ^{13}C NMR data of compounds 1–3 (125 MHz, δ , ppm).

C atom	1 (CD ₃ OD)	2 (CD ₃ OD)	3 (DMSO- <i>d</i> ₆)
2	158.2	158.4	157.0
3	133.7	133.7	133.0
4	178.4	178.4	177.6
5	161.6	161.6	160.8
6	99.3	99.3	99.3
7	162.3	162.3	161.6
8	94.5	94.5	94.8
9	156.8	156.8	156.0
10	106.1	106.1	105.5
1'	121.3	121.3	120.6
2'	131.2	131.2	131.1
3'	115.0	115.0	115.1
4'	160.4	160.4	160.8
5'	115.0	115.0	115.1
6'	131.2	131.2	131.1
3-O-Gal			
1''	99.9	99.6	101.8
2''	81.2	81.2	71.1
3''	74.3	74.3	72.9
4''	69.9	69.9	68.2
5''	77.5	75.8	73.5
6''	61.5	66.8	65.0
2''-O-Gal			
1	103.4	103.4	
2	75.8	75.8	
3	76.6	76.6	
4	70.0	70.0	
5	76.9	76.9	
6	61.3	61.3	
6''-O-Rha			
1		100.8	100.0
2		70.8	70.4
3		71.0	70.6
4		72.5	71.9
5		68.4	67.9
6		16.5	17.9
7-O-Rha			
1	98.6	98.6	98.4
2	70.4	70.4	70.1
3	70.8	70.8	70.2
4	72.3	72.3	71.6
5	70.1	70.1	69.8
6	16.8	16.8	17.9