

Supplementary Data

1. NMR spectroscopic data (500 MHz, CDCl₃) for 3,5-di-*O*-caffeoylquinic acid identified in MeOH₄₀ fraction of sea fennel extract.
(d: doublet, dd: doublet of doublets, m: multiplet, brs: broad singlet).

Compound	3,5-di- <i>O</i> -caffeoylquinic acid	
Position	δ_H (J in Hz)	δ_C , Type
1	-	74.7, qC
2	2.35/2.13 (m)	36.0, CH ₂
3	5.45/5.36 (m)	72.5, CH
4	3.96 (dd, 9.9)	70.5, CH
5	5.36/5.45 (m)	72.1, CH
6	2.13/2.35 (m)	38.6, CH ₂
7	7.60 (d, 15.9)	177.3, COOH
1'/1''	-	127.9/127.8, qC
2'/2''	7.06 (brs)	115.1, CH
3'/3''	-	146.8, qC
4'/4''	-	149.6/149.5, qC
5'/5''	6.77 (dd, 1.2)	116.5, CH
6'/6''	6.97/6.96 (dd, 2.0)	123.1/123.0, CH
7'/7''	7.60/7.57 (d, 15.9)	147.3/147.0, CH
8'/8''	6.35/6.26 (d, 15.9)	115.5/115.2, CH
9'/9''		168.9/168.3, qC

2. NMR spectroscopic data (500 MHz, CDCl₃) for 2 glycosylated quercetines identified in MeOH₆₀ fraction of sea fennel extract. 1, Quercetin-3-O-rutinoside; 2, Quercetin-3-O-glucoside.
(d: doublet, dd: doublet of doublets, m: multiplet).

Compounds		1	2
Position	δ_H (J in Hz)	δ_C , Type	δ_H (J in Hz) δ_C , Type
2	-	159.3, qC	- 159.3, qC
3	-	135.6, qC	- 135.2, qC
4	-	179.4, qC	- 179.4, qC
5	-	162.9, qC	- 163.1, qC
6	6.19 (d, 1.9)	100.1, CH	6.19 (d, 1.9) 100.2, CH
7	-	166.6, qC	- 167.0, qC
8	6.38 (d, 1.9)	94.9, CH	6.38 (d, 1.9) 94.9, CH
9	-	158.6, qC	- 158.5, qC
10	-	105.5, qC	- 105.1, qC
1'	-	123.1, qC	- 123.2, qC
2'	7.66 (d, 8.6)	117.6, CH	7.66 (d, 8.6) 117.3, CH
3'	-	145.9, qC	- 145.0, qC
4'	-	149.9, qC	- 149.0, qC
5'	6.86 (d, 8.6)	116.1, CH	6.86 (d, 8.6) 115.2, CH
6'	7.62 (dd, 1.9)	123.5, CH	7.57 (dd, 1.9) 123.1, CH
1''	5.10 (d, 7.9)	104.8, CH	5.12 (d, 7.9) 104.4, CH
2''	3.27 (dd, 9.25)	75.7, CH	3.47 (dd, 9.25) 75.5, CH
3''	3.40-3.46 (m)	78.2, CH	3.39 (m) 77.9, CH
4''	3.40-3.46 (m)	71.4, CH	3.42 (m) 71.2, CH
5''	3.38 (m)	77.2, CH	3.38 (m) 77.2, CH
6''	3.71 (m)-3.90 (m)	68.6, CH ₂	3.72 (m)-3.87 (m) 68.6, CH ₂
1'''	4.50 (d, 1.9)	102.4, CH	
2'''	3.60 (dd,)	72.2, CH	
3'''	3.51 (m)	72.1, CH	
4'''	3.25 (m)	73.9, CH	
5'''	3.42 (m)	69.7, CH	
6'''	1.10 (d, 5.9)	17.9, CH	