

## Supplementary materials

**Table S1 Chemical compositions of essential oils from different parts of *O. vulgare* L.**

PK/No	Component	RI	Peak area percentage (%)		
			Leaf-flower	Stem	Root
1	Terpene	913	0.32		
2	$\alpha$ -Pinene	926	0.17		
3	$\alpha$ -Thujene	928	0.11		
4	$\beta$ -Pinene	972	0.07		
5	$\beta$ -Myrcene	981	0.44		
6	Mushroom alcohol	983	1.05		
7	3-Octanol	985	0.73		
8	3-Octanone	988	0.82		
9	(+)-4-Carene	1001	1.26		
10	D-Limonene	1013	0.21		
11	P-Cymene	1017	10.88		
12	3-Carene	1021	4.06		
13	$\beta$ -Terpineol	1055	0.10		
14	Terpinolene	1097	0.14		
15	Linalool	1133	0.80		
16	1-methyl-4-(1-methylethenyl)-benzene	1161	0.13		
17	(-)-4-Terpineol	1176	0.85		
18	$\alpha$ -Terpineol	1193	0.18		
19	Cuminic acid	1235	3.82		
20	3-Methoxy-p-cymene	1266	7.72		
21	2-methyl-3-phenyl-propanal	1289	0.15		
22	Thymol***	1303	18.81	3.46	1.08
23	Carvacrol***	1317	30.73	6.02	3.27
24	Phenol, 2-Ethyl-4,5-dimethyl-	1390	1.23		
25	Caryophyllene	1416	8.21		0.37
26	Aromadendrene	1467	0.21		0.27
27	$\gamma$ -Murolene	1489	0.45		
28	$\alpha$ -Curcumene	1504	0.31		0.32
29	$\delta$ -Cadinene	1516	1.32		0.51
30	Calamenene	1533	0.16		0.34

31	$\alpha$ -Murolene	1557	0.48	0.47
32	Alloocimene	1570		0.25
33	Cuparene	1615		0.19
34	3-Cyclohexen-1-carboxaldehyde, 3,4-dimethyl-	1652	0.40	
35	Caryophyllin <sup>**</sup>	1669	1.81	1.59
36	(+)-Valencene	1681		0.42
37	3-Cyclohexen-1-carboxaldehyde,3,4-dimethyl-	1703	0.23	
38	2-Pentadecanone	1721		0.31
39	Cis-11-tetradecen-1-ol	1724		1.02
40	Spathulenol	1736		1.86
41	$\alpha$ -Cadinol	1761	0.17	
42	Tetradecanoic acid	1792		2.53
43	6,10,14-trimethyl-2-pentadecanone	1823	0.08	1.35
44	Oxirane, 2-decyl-3-(5-methylhexyl)-, cis-	1835	0.17	0.31
45	Pentadecanoic acid	1854		1.07
46	8-Methyl-1-decene	1867		0.55
47	9,17-Octadecadienal, (Z)-	1878		0.23
48	Geranylgeraniol	1889		0.11
49	Diisobutyl phthalate	1895		1.21
50	Palmitic acid	1931	60.18	58.23
51	1,19-Eicosadiene	1943	2.67	
52	Octadecyl vinyl ether	1965		1.78
53	Cembrene	1999		2.52
54	Heptadecanoic acid	2002		1.24
55	Oleic acid	2107		5.65
56	Linoleic acid	2184	14.25	12.11
57	$\alpha$ -Linolenic acid	2285		3.66
58	Z,Z-10,12-Hexadecadien-1-ol acetate	—	1.52	0.82
59	Diisoctyl phthalate	—		2.02
Total		98.78	99.51	98.97

\*\* Common components in all three parts. RI: retention indices relative to C<sub>8</sub>-C<sub>22</sub> alkanes on a polar HP-20M column