Supplementary Section

FIGURES

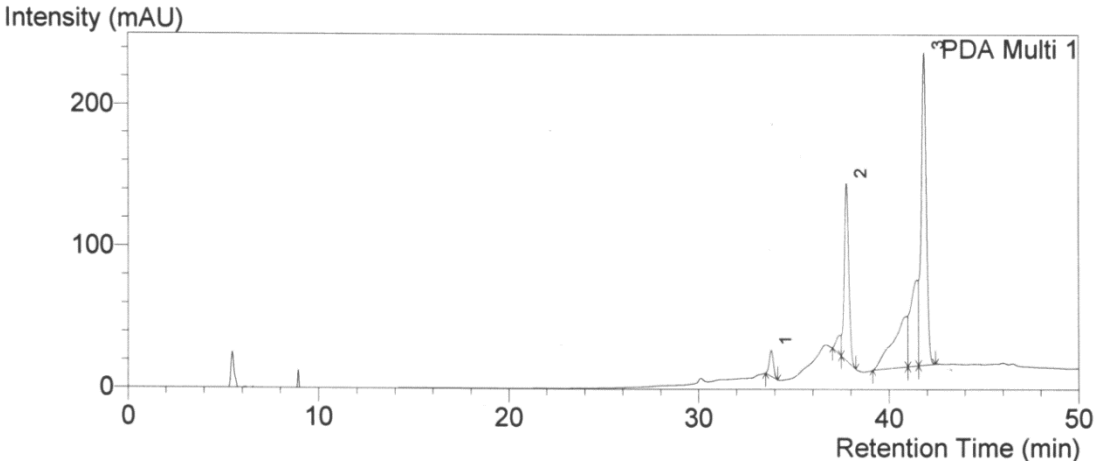

Figure 1a. The chromatogram of a synthetic mixture of the phenolic antioxidants at 350nm: 1. p.coumaric acid; 2. myricetin; 3. Quercetin.

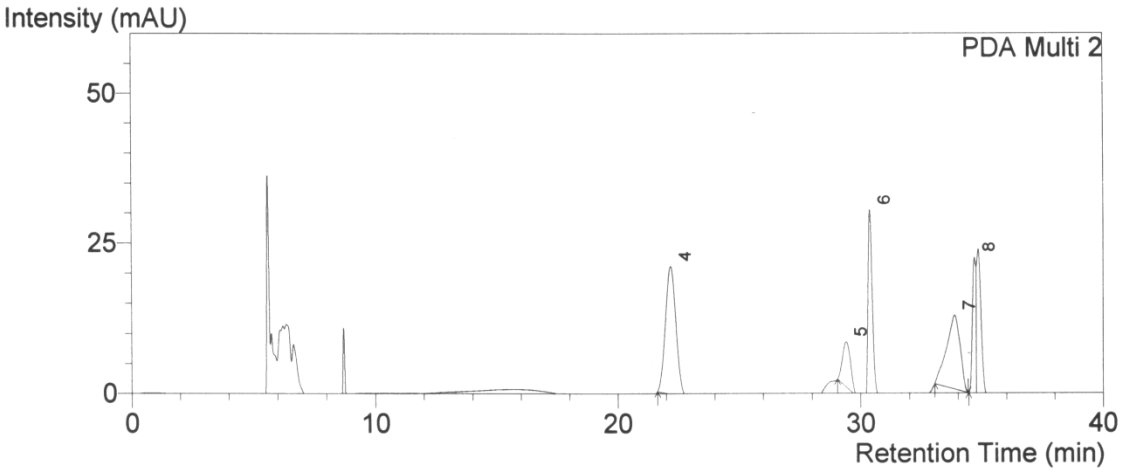

Figure 1b.

Figure 1b. The chromatogram of a synthetic mixture of the phenolic antioxidants at 520nm: 4.delphinidin; 5.cyanidin; 6. malvidin; 7. pelargonidin; 8. peonidin.

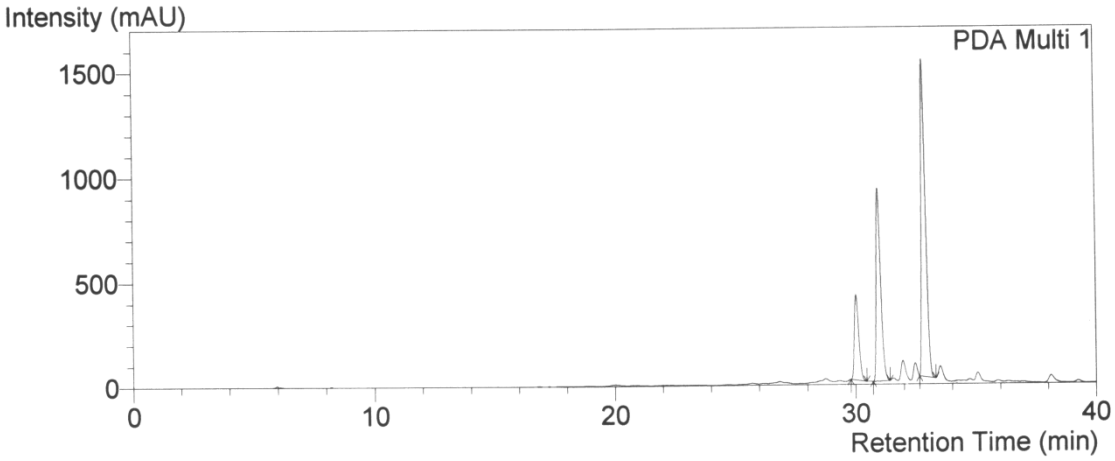

Figure 2. The chromatogram of 70 % methanolic extract of M.comminus L. leaves (Dedection at 350nm)

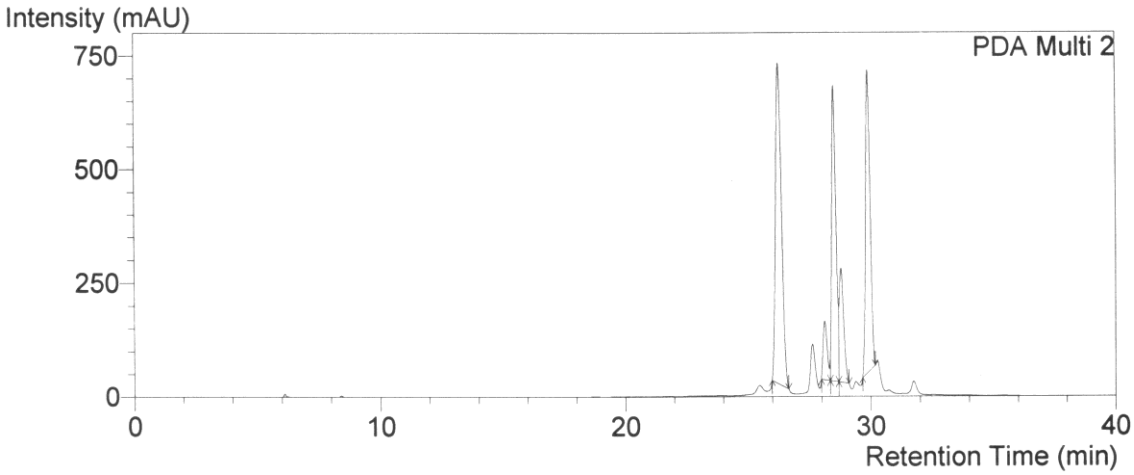

Figure 3. The chromatogram of 70 % methanolic extract of M.comminus L. berries (Dedection at 520nm)

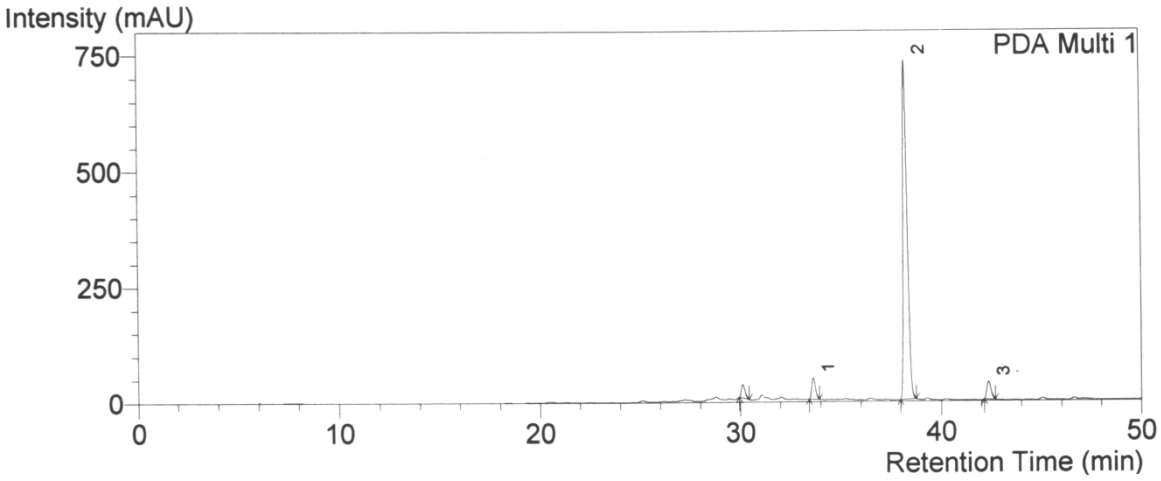

Figure 4. The chromatogram of 70 % methanolic extract of M.comminus L. leaves after 4h hydrolysis 1. p.coumaric acid; 2. myricetin; 3. quercetin (Dedection at 350nm)

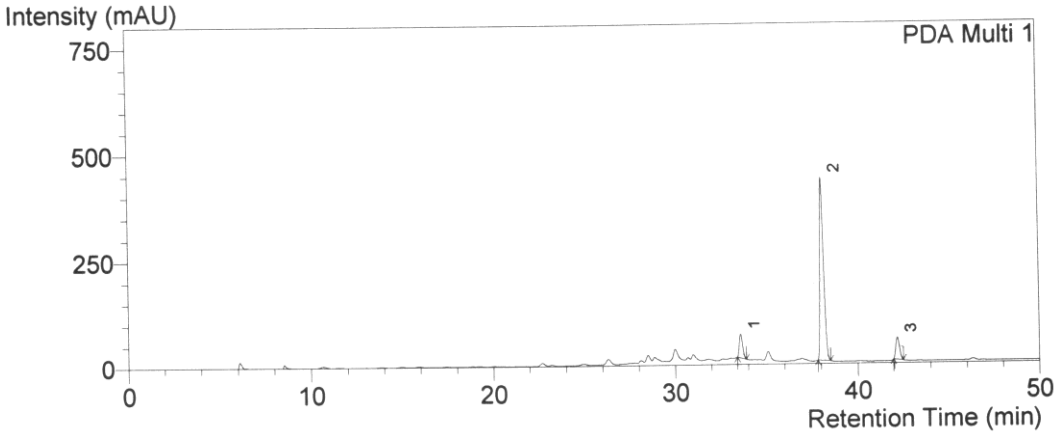

Figure 5a. The chromatograms of 70 % methanolic extract of M.comminus L. berries after 4h hydrolysis at 350 nm: 1. p.coumaric acid; 2. myricetin; 3. Quercetin.

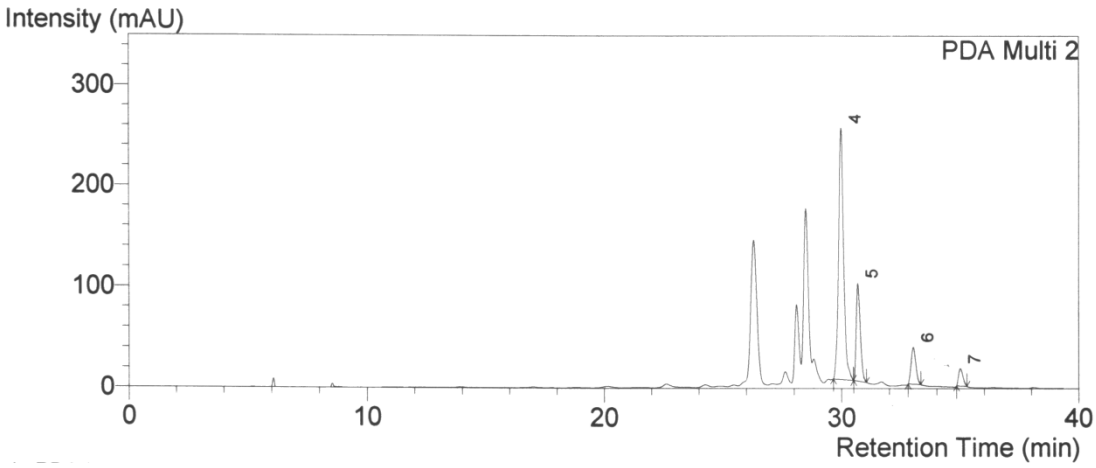

Figure 5b. The chromatograms of 70 % methanolic extract of M.comminus L. berries after 4h hydrolysis at at 520nm: 4.cyanidin; 5. malvidin; 6. pelargonidin; 7. Peonidin

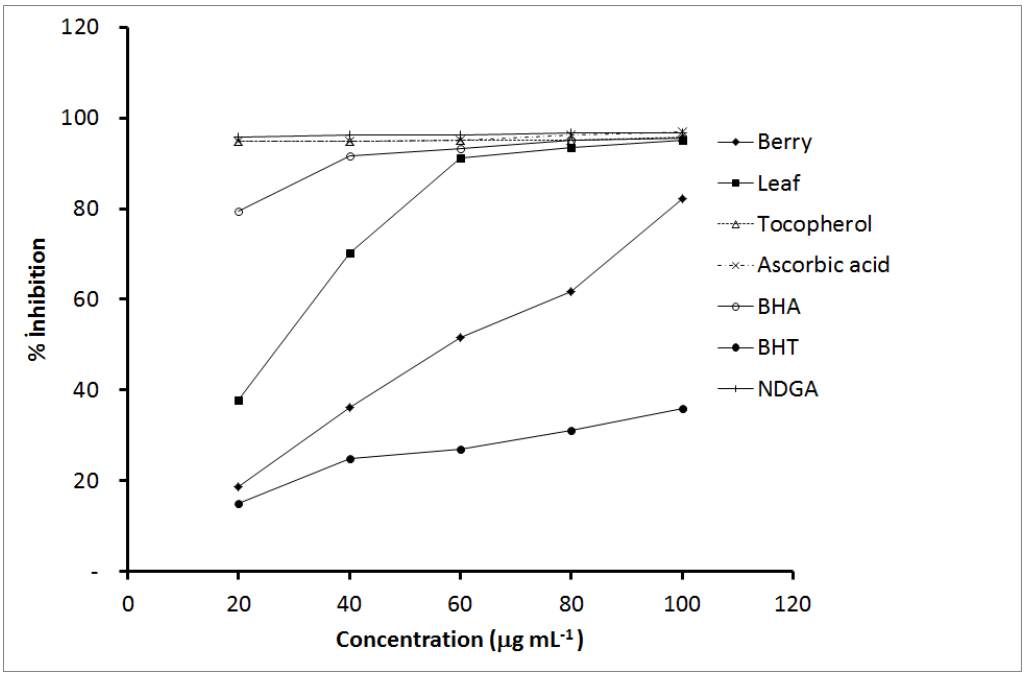

Figure 6. DPPH scavenging activity of the methanolic extract from M.comminus L. leaves and berries compared to BHA, BHT, ascorbic acid, tocopherol and NDGA

TABLES

Table 1. Chemical composition of the essential oil of Myrtus communis L. leaves.

Compound	ZB-Wax MS			ZB-5MS		
	RRI (Calc.)	**RRI (Ref.)**	**Area(%)**	**RRI (Calc.)**	**RRI (Ref.)**	**Area(%)**
Tricyclene	---	---	---	924	926[30]	0.13
α-Pinene	1017	1017[12]	15.51	940	939[30]	15.07
α-Thujene	1035	1035[29]	0.13	---	---	---
Isobutyl ısobutyrate	1081	1081[12]	4.58	898	892[10]	3.89
β-Pinene	1093	1093[12]	0.13	980	980[30]	0.13
δ-3-Carene	1138	1138[12]	0.13	---	---	---
β-Myrcene	1157	1157[12]	0.26	---	---	---
Limonene	1197	1197[12]	13.63	1030	1031[30]	15.59
1,8-Cineole	1210	1210[12]	14.30	1033	1033[30]	16.78
(E)-2-Hexenal	1218	1218[12]	0.34	---	---	---
(Z)-β-Ocimene	1234	1234[12]	0.13	---	---	---
(E)-β-Ocimene	1250	1250[12]	0.26	---	---	---
p.Cymene	1266	1280[29]	0.40	---	---	---
α-Terpinolene	1279	1279[12]	0.13	---	---	---
Hexanol	1354	1354[29]	0.06	---	---	---
(Z)-3-Hexenol	1370	1370[29]	0.06	---	---	---
cis-Anethole	---	---	---	1251	1251[30]	0.26
Linalool	1554	1553[29]	14.91	1098	1098[30]	15.66
Linalyl acetate	1559	1556[29]	2.42	1257	1257[30]	4.09
Bornyl acetate	---		---	1295	1295[29]	0.13
Terpinen-4-ol	1605	1605[12]	0.13	---	---	---
3-Hexenyl butanoate	1620	1620[12]	0.06	---	---	---
Trans-Pinocarveyl acetate	1626	1626[12]	0.26	---	---	---
cis-β-Terpineol	---	---	---	1144	1144[30]	0.13
α-Humulene	1668	1668[12]	0.26	---	---	---

Estragole	1671	1671[12]	0.26	---	---	---
Myrtenyl acetate	1693	1693[12]	**22.26**	1335	1335[29]	**21.42**
Terpinyl acetate	1706	1706[29]	0.54	1350	1344[29]	0.59
α-Terpineol	1709	1709[29]	3.64	1189	1189[29]	3.7
Neryl acetate	1730	1730[12]	0.34	1365	1367[17]	0.26
Geranyl acetate	1761	1761[12]	2.97	1383	1385[17]	4.23
Myrtenol	1798	1798[12]	0.2	---	---	---
Nerol	1798	1797[29]	0.13	---	---	---
Geraniol	1856	1856[12]	0.47	---	---	---
Methyl eugenol	2030	2030[29]	0.94	1401	1406[17]	1.45

RRI calculated against n-alkanes.
% : calculated from FID data.

Table 2. Total phenolic content for the methanolic extracts from M.comminus L. leaves and berries.

Concentration ($\mu g\ mL^{-1}$)	**Total phenolic compounds (μg pyrocatechol mg^{-1} extract)**	
	Leaf	**Berry**
250	25.53 ± 0.616	18.93 ± 1.457
500	48.52 ± 2.252	33.48 ± 1.215
750	70.93 ± 0.467	51.67 ± 2.101
1000	104.21 ± 7.709	60.83 ± 1.632

Values are means ± SD.

Table 3. The cupric ion reducing antioxidant capacity of the methanolic extracts from M.comminus L. leaves and berries.

Concentration ($\mu g\ mL^{-1}$)	**Cuprac reducing power (absorbance)**		
	Leaf	**Berry**	**Trolox**
20	0.107 ± 0.0010	0.069 ± 0.0005	0.129 ± 0.00057
40	0.198 ± 0.0010	0.124 ± 0.0026	0.297 ± 0.0010
60	0.286 ± 0.0011	0.179 ± 0.0017	0.389 ± 0.0000
80	0.379 ± 0.0010	0.232 ± 0.0010	0.493 ± 0.0010
100	0.536 ± 0.0040	0.312 ± 0.0064	0.618 ± 0.0010

Values are means ± SD.