Amentoflavone protects against hydroxyl radical-induced DNA damage via antioxidant mechanism

[Amentoflavon antioksidan mekanizma ile hidroksil radikali ile indüklenmiş DNA hasarına karşı koruyucu etkiye sahiptir]*

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Supplementary file 2. The detailed dose-response curves of amentoflavone in all assays
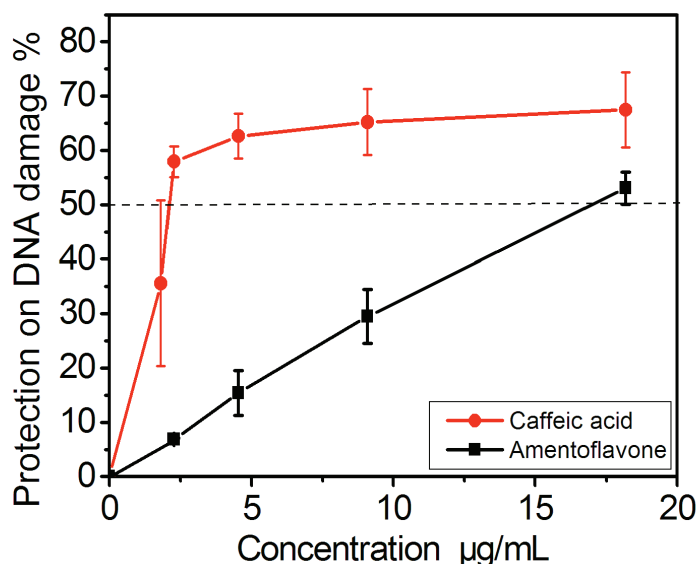

Fig. S1. The protective effect against hydroxyl radical-induced DNA damage of amentoflavone and caffeic acid. Each value is expressed as mean ± standard deviation, *n* =3.

Tab. S1 The IC_{50} values for protective effect against hydroxyl radical-induced DNA damage (μg/mL & μM)

IC_{50}	amentoflavone	caffeic acid
μg/mL	17.13±2.54	6.58±2.11
μM	**31.85±4.75 [a]**	**36.56±11.72[b]**

IC_{50} value is defined as the concentration of 50% protection percentage. It was calculated by linear regression analysis and expressed as Mean±SD (n=3). The linear regression was analyzed by Origin 6.0 professional software. Means values with different superscripts in the same row are significantly different (*p*<0.05).
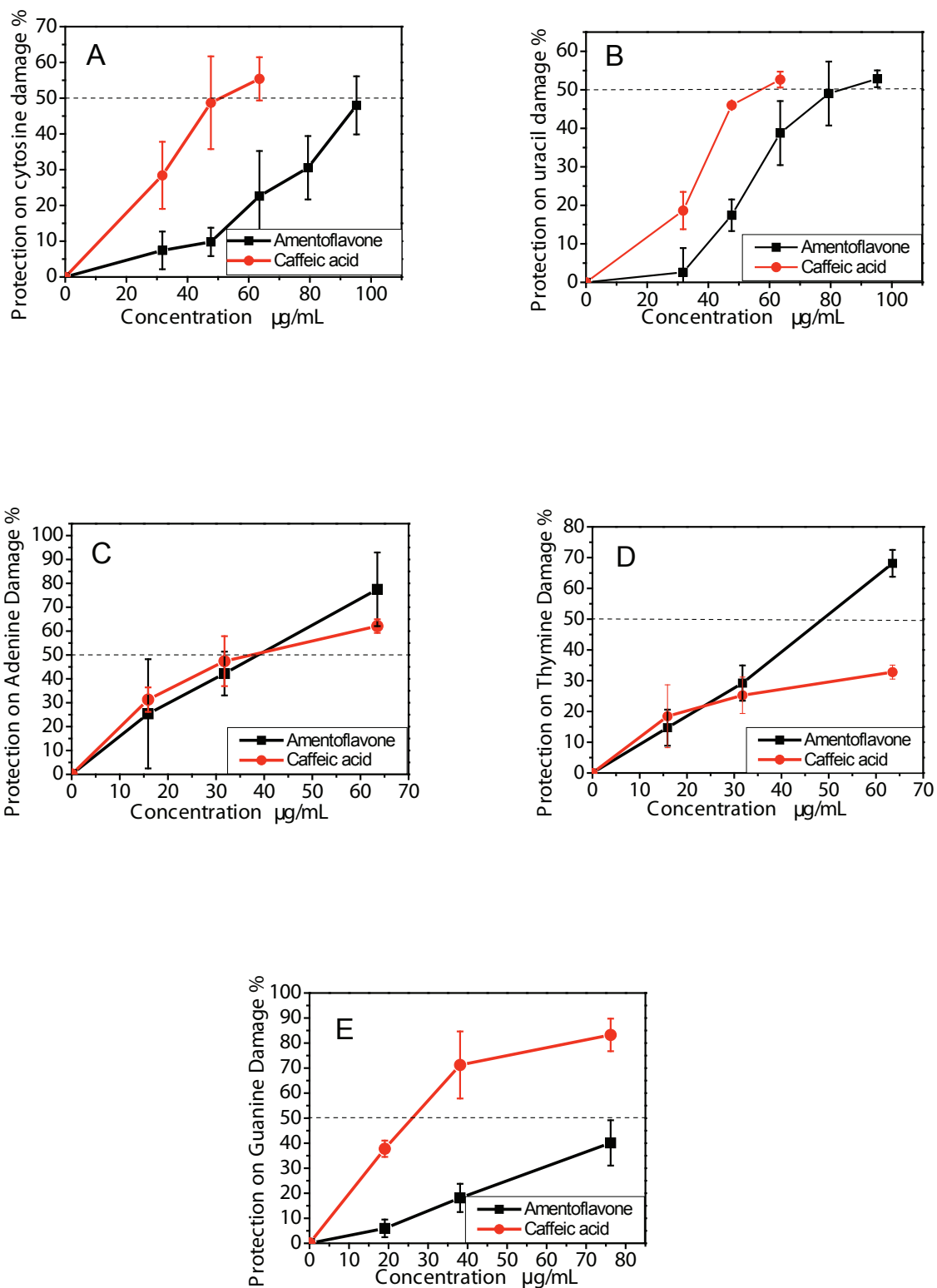
Fig. S2. The dose response curves of hydroxyl radical-induced bases damage of amentoflavone and caffeic acid: (A) cytosine, (B) uracil, (C) adenine, (D) thymine, (E) guanine.
Each value is expressed as mean ± standard deviation, *n* =3.

Tab. S2 The IC$_{50}$ values for protective effect against hydroxyl radical-induced base damage (μg/mL & μM)

IC$_{50}$	Bases	Amentoflavone	Caffeic acid
μg/mL	Cytosine C	106.93±18.04	45.55±5.94
	Uracil U	79.16±11.27	56.63±8.54
	Adenine A	40.43±5.66	41.03±3.66
	Thymine T	50.44±8.80	105.56±7.23
	Guanine G	90.22±7.48	25.33±4.87
μM	Cytosine C	198.75±33.53[a]	**253.05±33.00[b]**
	Uracil U	147.14±20.95[a]	**314.61±47.44 [b]**
	Adenine A	75.15±10.52 [a]	**227.94±20.33 [b]**
	Thymine T	93.75±16.36[a]	**586.44±40.17[b]**
	Guanine G	167.69±13.90[b]	140.72±27.05 [a]

IC$_{50}$ value is defined as the concentration of 50% protection percentage. It was calculated by linear regression analysis and expressed as Mean±SD (n=3). The linear regression was analyzed by Origin 6.0 professional software. Means values with different superscripts in the same row are significantly different ($p<0.05$).
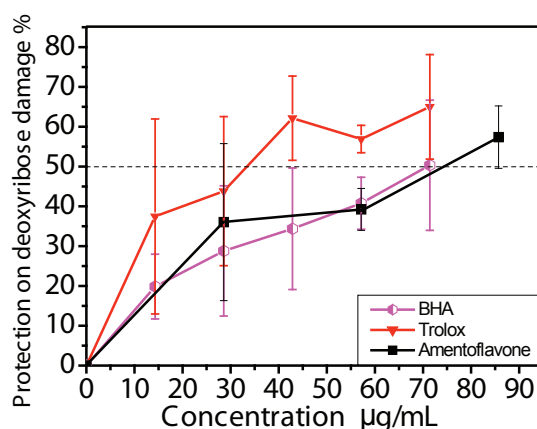

Fig. S3. The protective effect against hydroxyl radical-induced deoxyribose damage of amentoflavone, Trolox and BHA. Each value is expressed as mean ± standard deviation, n =3.

Tab. S3 The IC$_{50}$ values for protective effect against hydroxyl radical-induced deoxyribose damage (μg/mL & μM)

IC$_{50}$	amentoflavone	BHA	Trolox
μg/mL	74.22±10.69	72.68±25.83	41.04±8.95
μM	**137.95±19.86 [a]**	**403.78±143.50[c]**	**164.16±35.80[b]**

IC$_{50}$ value is defined as the concentration of 50% radical inhibition. It was calculated by linear regression analysis and expressed as Mean±SD (n=3). The linear regression was analyzed by Origin 6.0 professional software. Means values with different superscripts in the same row are significantly different ($p<0.05$)

BHA: butylated hydroxyanisole
Trolox: (±-6-hydroxyl-2,5,7,8-tetramethlychromane-2-carboxylic acid).
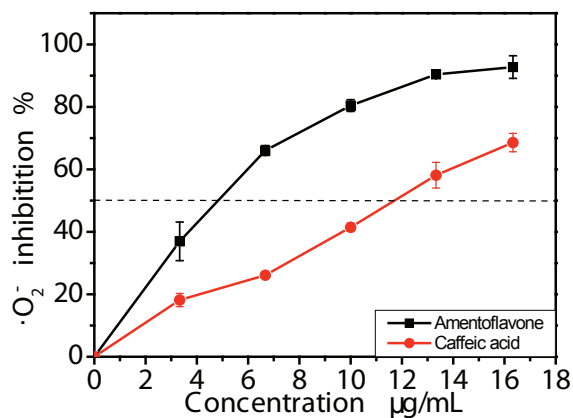
Fig. S4. The $\cdot O_2^-$ radical-scavenging ability of amentoflavone and caffeic acid.
Each value is expressed as mean ± standard deviation, *n* =3.

Tab. S4 The IC_{50} values for $\cdot O_2^-$ radical-scavenging ability (μg/mL $\&$ μM)

IC_{50}	amentoflavone	caffeic acid
μg/mL	4.96±0.13	12.13±0.24
μM	**8.98±0.23[a]**	**67.39±1.33 [b]**

IC_{50} value is defined as the concentration of 50% radical inhibition. It was calculated by linear regression analysis and expressed as Mean±SD (n=3). The linear regression was analyzed by Origin 6.0 professional software. Means values with different superscripts in the same row are significantly different (p<0.05)
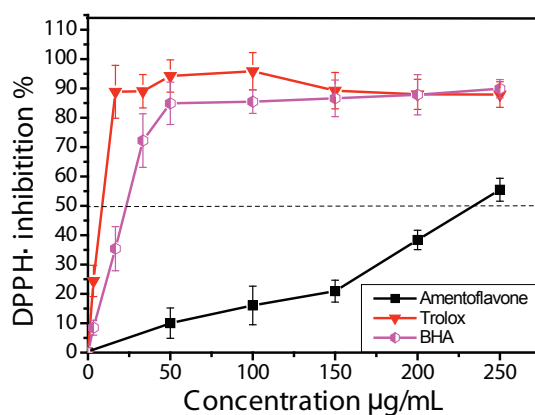

Fig. S5. The DPPH· radical-scavenging ability of amentoflavone, Trolox and BHA.
Each value is expressed as mean ± standard deviation, *n* =3.

Tab. S6 The IC_{50} values for the DPPH· radical-scavenging ability (μg/mL $\&$ μM)

IC_{50}	amentoflavone	BHA	Trolox
μg/mL	232.55±45.22	15.36±3.34	49.85±13.56
μM	**432.25±84.05[c]**	**85.33±18.56[a]**	**199.40±54.24[b]**

IC_{50} value is defined as the concentration of 50% radical inhibition. It was calculated by linear regression analysis and expressed as Mean±SD (n=3). The linear regression was analyzed by Origin 6.0 professional software. Means values with different superscripts in the same row are significantly different (p<0.05)

BHA: butylated hydroxyanisole
Trolox: (±-6-hydroxyl-2,5,7,8-tetramethlychromane-2-carboxylic acid).

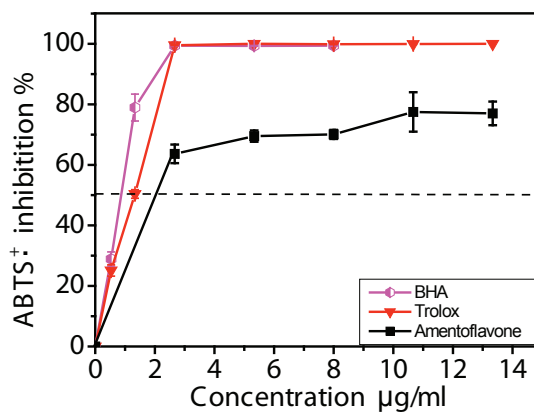**Fig. S6.** The ABTS[+]· radical-scavenging ability of amentoflavone, Trolox and BHA.
Each value is expressed as mean ± standard deviation, n =3.

Tab. S7 The IC_{50} values for the ABTS[+]· radical-scavenging ability (μg/mL & μM)

IC_{50}	amentoflavone	BHA	Trolox
μg/mL	3.90±0.19	1.09±0.039	1.30±0.020
μM	**7.25±0.35** [c]	**6.05±0.22** [b]	**5.20±0.080** [a]

IC_{50} value is defined as the concentration of 50% radical inhibition. It was calculated by linear regression analysis and expressed as Mean±SD (n=3). The linear regression was analyzed by Origin 6.0 professional software. Means values with different superscripts in the same row are significantly different (p<0.05)

BHA: butylated hydroxyanisole
Trolox: (±-6-hydroxyl-2,5,7,8-tetramethlychromane-2-carboxylic acid).