

**Table S1.** Total polyphenol and total flavonoid contents of *Dendropanax morbifer* leaf and stem extracts.

	<i>D. morbifera</i> leaf		<i>D. morbifera</i> stem	
	D.W	70% EtOH	D.W	70% EtOH
Total poly phenol (mg/g extracts)	52.41±0.41	54.17±0.34	32.04±0.76	35.10±0.41
Total flavonoid (mg/g extracts)	14.07±0.12	19.47±0.14	1.95±0.04	4.90±0.08

Means ± SD of determinations were made in triplicate experiments.

**Table S2.** Antioxidant activity of the *Dendropanax morbifer* leaf and stem extracts.

	<i>D. morbifera</i> leaf		<i>D. morbifera</i> stem	
	D.W	70% EtOH	D.W	70% EtOH
DPPH radical scavenging (IC <sub>50</sub> )	16.52±0.30	15.61±0.19	46.46±1.34	36.02±1.78
FRAP (mM FeSO <sub>4</sub> /g)	617.51±5.25	623.10±2.77	303.02±3.99	297.12±0.88
TEAC (mM Trolox/g)	188.24±0.86	187.21±3.99	136.94±1.85	125.71±1.74

Means ± SD of determinations were made in triplicate experiments.

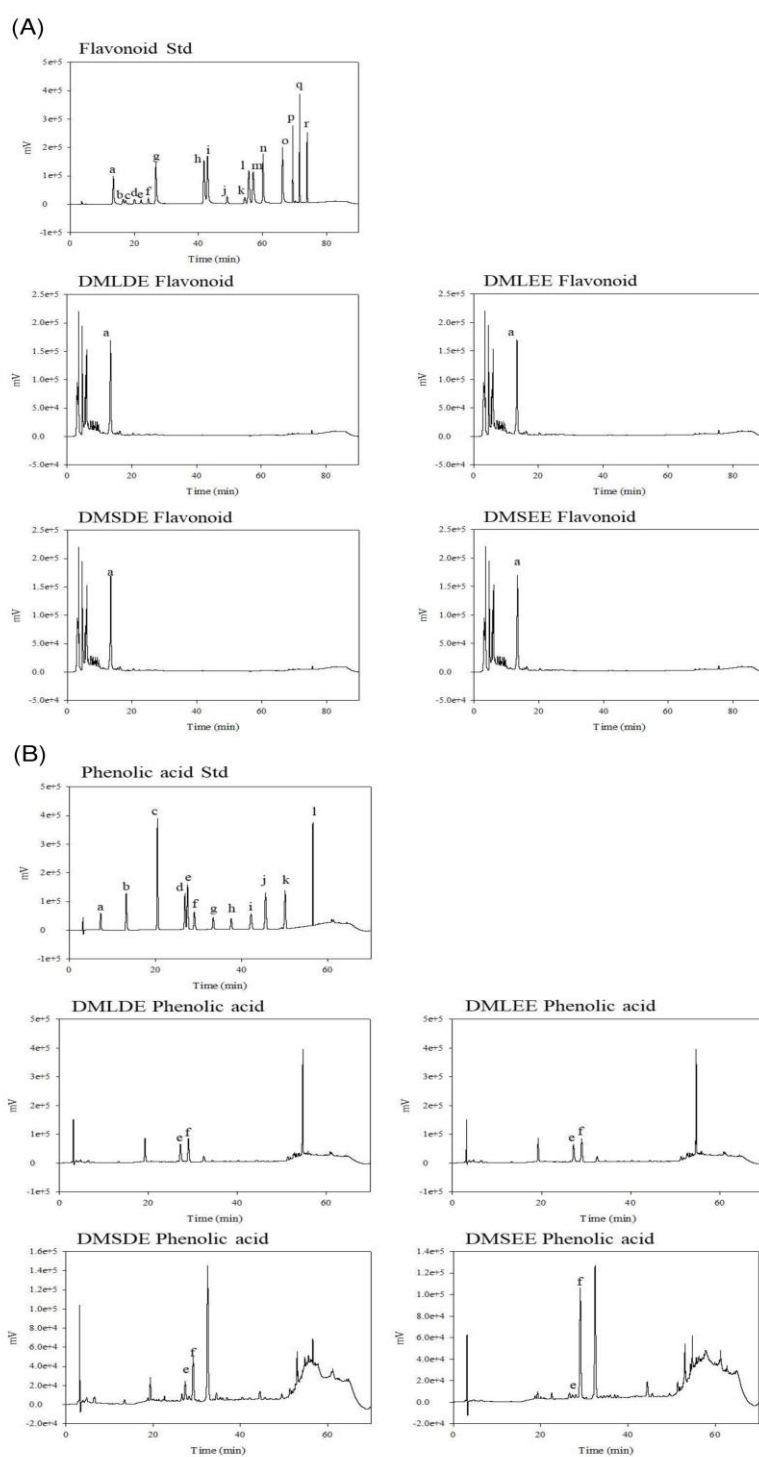


Figure S1. HPLC chromatogram of *Dendropanax morbifer* leaf and stem extracts. (A): Flavonoid HPLC chromatographic profiles of *Dendropanax morbifera* leaf and stem D.W and ethanol extracts. Compounds identified in the figures are (a) rutin, (b) taxifolin, (c) narirutin, (d) naringin, (e) hesperidin, (f) neohesperodin, (g) myricetin, (h) quercetin, (i) luteolin, (j) naringenin, (k) hesperetin, (l) Apigenin, (m) kaempferol, (n)isorhaemnetin, (o) rhaemnetin, (p) sinensetin, (q) nobiletin and (r) tangeretin. (B): Phenolic acid HPLC chromatographic profiles of *Dendropanax morbifera* leaf and stem D.W and ethanol extracts. Compounds identified in the figures are (a) gallic acid, (b) protocatechuic acid, (c) p-hydroxybenzoic acid, (d) vanillic acid, (e) chlorogenic acid, (f) caffeic acid, (g) syringic acid, (h) p-coumaric, (i) benzoic acid, (j) ferullic acid, (k) sinapinic, and (l) cinnamic.

Table S3. Body weight change and liver-body weight ratio of *Dendropanax morbifer* leaf ethanol and D.W extracts in alcohol-fed rats.

	BLK	CTL	DMLDE			DMLEE		
			100	300	500	100	300	500
Initial Body weight (g)	238.69±30.19	237.99±29.84	234.83±34.10	233.86±37.88	232.27±39.55	236.64±28.30	237.44±27.54	236.85±28.68
Final body weight (g)	292.68±29.92	275.27±25.04	269.90±31.53	269.51±44.87	280.40±27.26	262.29±31.42	287.66±24.52	292.27±21.27
Liver weight (g)	10.83±2.00	10.47±0.98	9.88±1.10	9.90±1.43	9.76±0.58	9.71±1.06	11.20±1.06	10.88±1.13
Body weight liver ratios (%)	3.69±0.53	3.20±1.29	3.27±1.25	3.27±1.26	3.23±1.25	3.88±0.34	3.81±0.22	3.25±1.24

Means ± SD of determinations were made in triplicate experiment

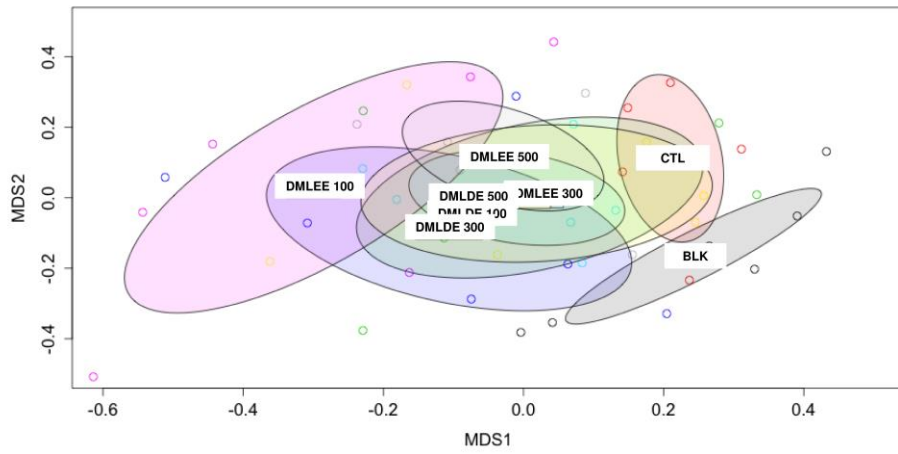


Figure S2. Comparison of microbiota according to the concentrations of DML extracts. DW and Et indicate hot water and ethanol extracts, respectively. Numbers indicate the concentrations of DML treatments.

Table S4. Analysis of molecular variances (AMOVA)

Group (Fs)	BLK	CTL	DMLDE 100	DMLDE 300	DMLDE 500	DMLEE 100	DMLEE 300	EMLEE 500
BLK	-	1.660*	1.403	1.794*	2.176**	2.899**	1.402	1.872**
CTL	1.660*	-	1.362	1.920**	2.174**	2.409*	1.403	1.695*
DW100	1.403	1.362	-	1.102	1.220	1.901	0.847	0.751
DW300	1.794*	1.920**	1.102	-	1.202	1.497	1.105	1.298
DW500	2.176**	2.174**	1.220	1.202	-	2.409*	1.233	1.125
ET100	2.899**	2.409*	1.901	1.497	2.409*	-	1.718	2.131*
ET300	1.402	1.403	0.847	1.105	1.233	1.718	-	0.846
ET500	1.872**	1.695*	0.751	1.298	1.125	2.131*	0.846	-

\* P < 0.05 and \*\*p < 0.001

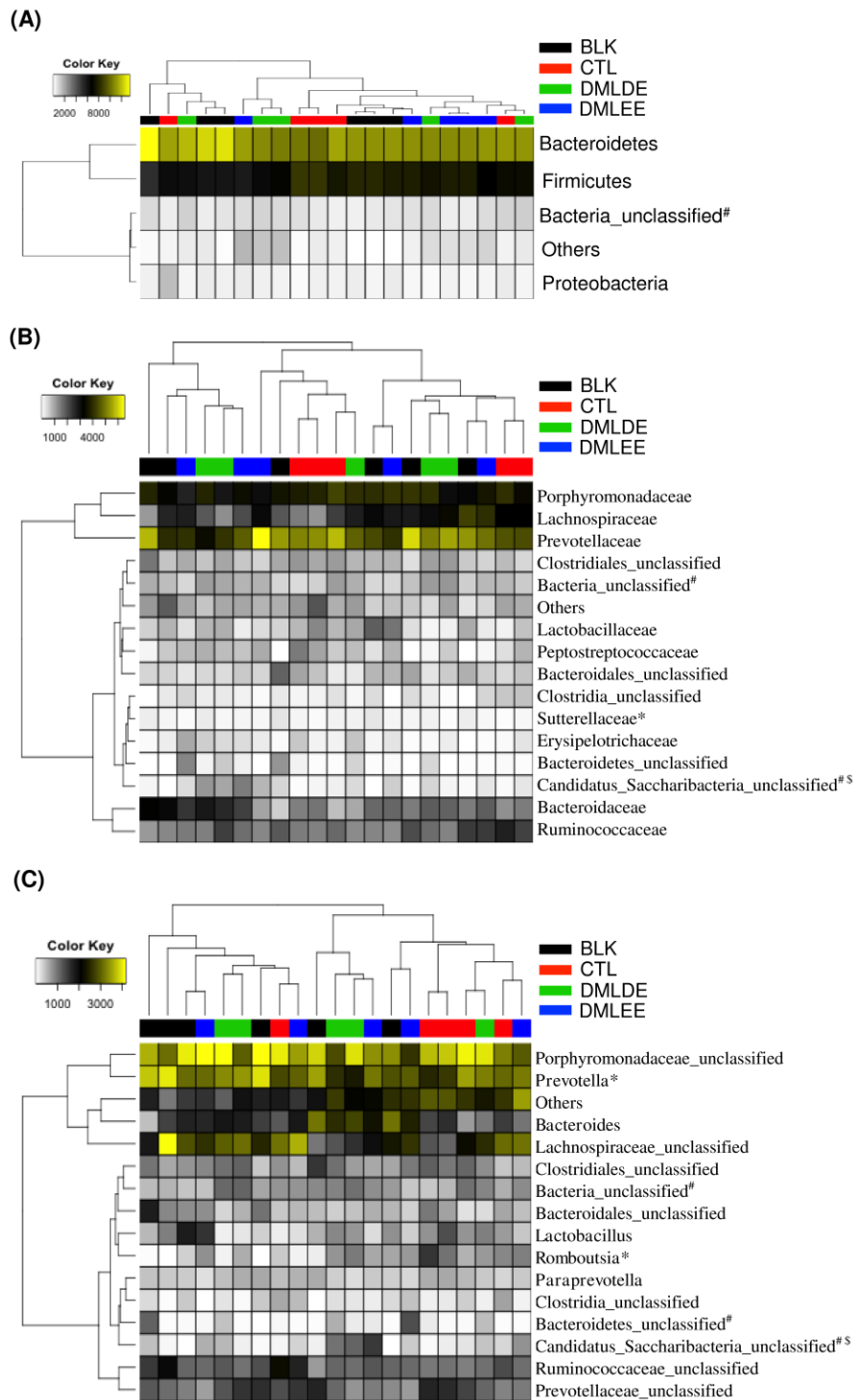


Figure S3. Comparison of the taxonomic composition. (A) Phylum, (B) Family and (C) Genus level. \*, # and <sup>5</sup> indicate significant difference between CTL and BLK, CTL and DMLDE, and CTL and DMLEE, respectively ( $p < 0.05$ ). The relative abundance was examined using LefSe analysis.