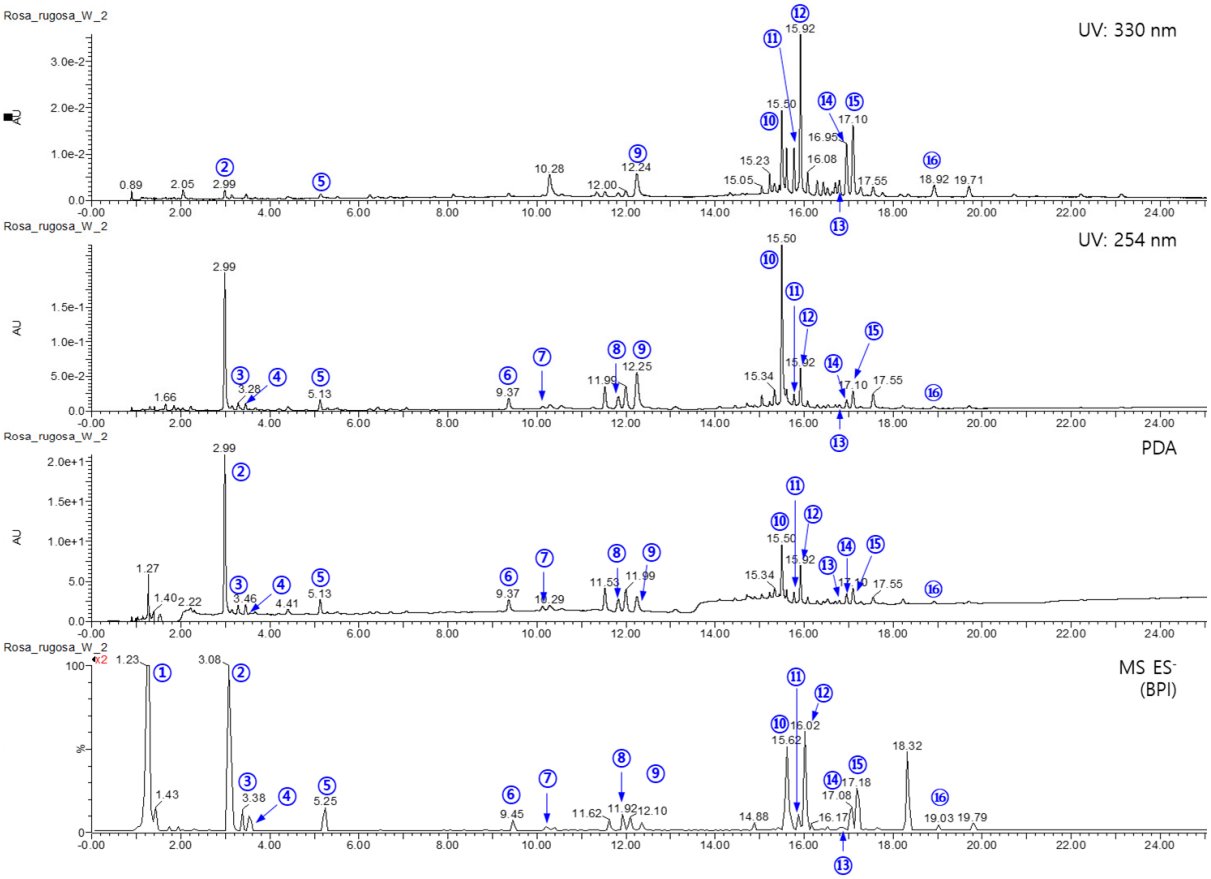
Supplementary Table S1. Analysis condition of UPLC

Parameter	Condition	
UPLC system	Waters ACQUITY UPLC I-Class Plus System	
Column	ACQUITY UPLC® BET C18 1.7 μm(2.1 × 100 mm)	
Mobile phase	A	LC-MS grade water (0.1% formic acid)
	B	LC-MS grade acetonitrile (0.1% formic acid)
	Gradient	0 min: A/B = 98/2 10 min: A/B = 89/11 12 min: A/B = 89/11 14 min: A/B = 80/20 20 min: A/B = 77/23 35 min: A/B = 50/50 38.5 min: A/B =10/90 39 min: A/B = 0/100 40 min: A/B = 0/100
Flow rate	0.2 mL/min	
Injection volume	1 μL	
Sample concentration	2 mg/mL (in LC-MS grade water)	
Column oven Temp.	30 ℃	
Run time	40 min	
Wavelength	PDA	

Supplementary Table S2. Analysis condition of Q-TOF-MS

Parameter	**Condition**
Q-TOF-MS system	Waters Xevo G2-XS Q-TOF–MS
Method type / Source	MS^e/ ESI
Polarity / Analysis mode	Negative / Resolution
Source Temp.	150 ℃
Desolvation Temp.	350 ℃
Calibration	0.5 mM Sodium formate
Lock Spray	200 pg/mL Leucine enkephaline

Supplementary Figure S1. Chromatogram data of UPLC-Q-TOF-MS in RWE



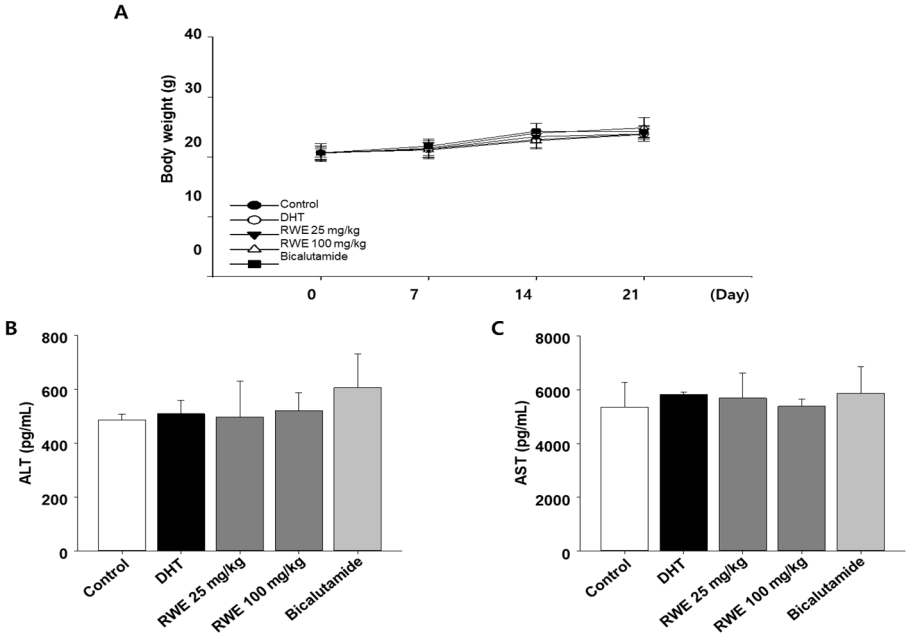
Supplementary Table S3. UPLC-Q-TOF-MS data in RWE

No.	RT (min)[1)]	$[M - H]^-$	Error (ppm)	Molecular Formula	Putative structure
1	1.23	191.0575	9.9	$C_7H_{12}O_6$	Quinic acid
2	3.08	169.0150	7.7	$C_7H_6O_5$	Gallic acid
3	3.38	343.0674	2.6	$C_{14}H_{16}O_{10}$	Galloylquinic acid
4	3.53	483.0791	3.3	$C_{20}H_{20}O_{14}$	Di-O-galloyl glucose
5	5.25	483.0791	3.3	$C_{20}H_{20}O_{14}$	Di-O-galloyl glucose
6	9.45	785.0849	0.9	$C_{41}H_{22}O_{17}$	Ellagitannin (Digalloyl-HHDP-glucose)
7	10.21	635.0899	2.4	$C_{27}H_{24}O_{18}$	Tri-O-galloyl glucose
8	11.92	785.0849	0.9	$C_{41}H_{22}O_{17}$	Ellagitannin (Digalloyl-HHDP-glucose)
9	12.36	469.0047	0.9	$C_{21}H_{10}O_{13}$	Flavogallonic acid
10	15.62	300.9986	0.7	$C_{14}H_6O_8$	Ellagic acid
11	15.87	463.0902	5.6	$C_{21}H_{20}O_{12}$	Hyperoside
12	16.02	463.0902	5.6	$C_{21}H_{20}O_{12}$	Isoquercitrin
13	16.88	433.0770	-0.2	$C_{20}H_{18}O_{11}$	Quercetin-3-O-arabinoside
14	17.08	447.0915	-2.7	$C_{21}H_{20}O_{11}$	Astragalin
15	17.18	447.0915	-2.7	$C_{21}H_{20}O_{11}$	Quercitrin

16	19.03	431.0999	4.9	$C_{21}H_{20}O_{10}$	Kaempferol-3-O-rhamnoside

1) Retention time, RT

Supplementary Figure S2.



Supplementary Figure S2. Hepatotoxicity Indicators of RWE in DHT-Induced Mice. Change of Body weight in mice over the experimental period (A). AST and ALT levels to assess hepatotoxicity of treatments in Serum (B). There was no significant difference in the data. The data were evaluated using one-way ANOVA, with subsequent analysis performed using Tukey's multiple comparison test.