Supplementary Information

Figure S1 General assessment of DR effects.

Weekly body weight changes were measured with a scale in the animal care facility (control: black square; DR: red circle). Low density lipoprotein (LDL) and triglyceride (TG) levels were measured at Inha University hospital (Incheon, Korea).

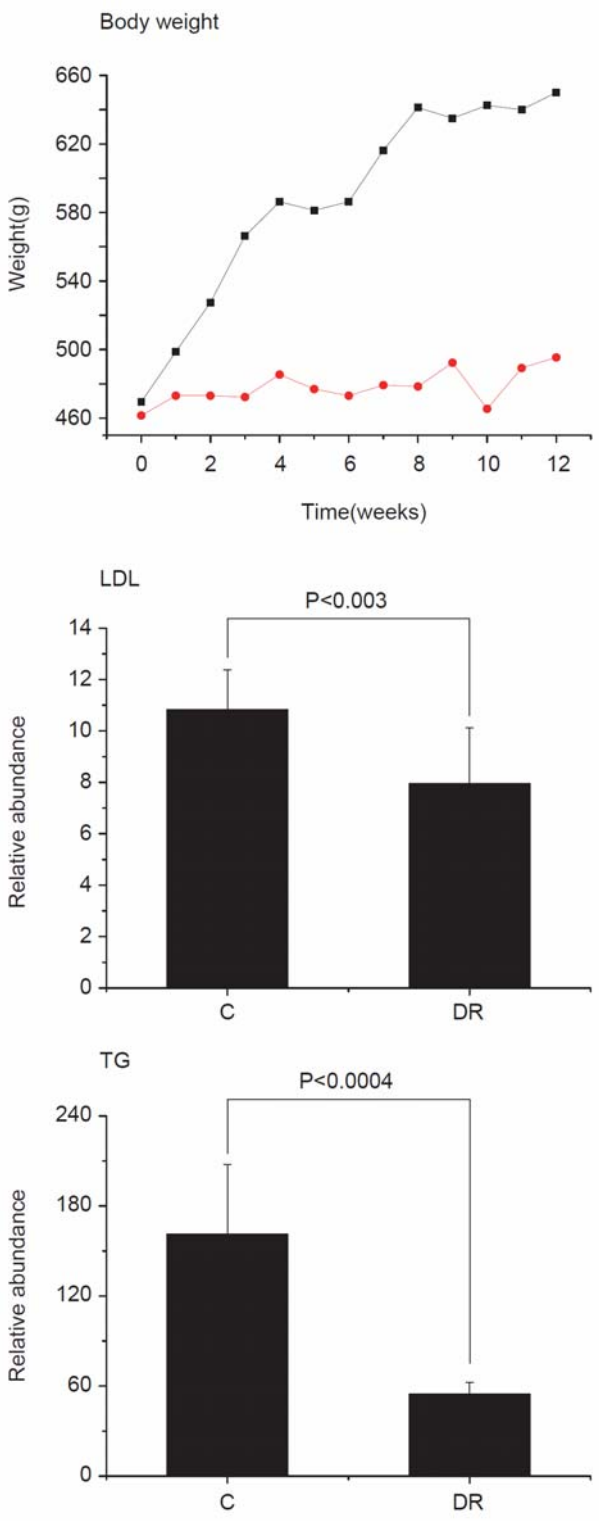
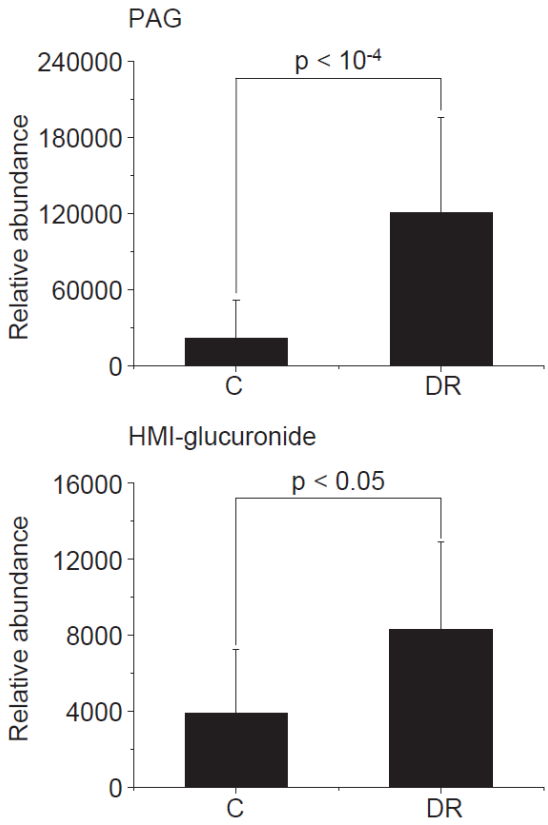


Figure S2 Levels of the two marker products of phase II detoxification reactions in liver tissues.

We measured phenylacetylglycine (PAG) and hydroxymethoxyindole glucuronide (HMI-glucuronide) in liver tissues using LC-MS. The levels of the signals identified by the analysis were compared with Student's *t*-test and the resulting p-values are indicated.



Supplementary Table S1

Additional metabolites identified with LC-MS analysis.

	Metabolites	RT(min)	m/z	MW	Chemical Formula
1	1-Methyladenosine	6.17	282.19	281.11241	C11H15N5O4
2	1-Methylnicotinamide	2.85	137.10	136.06366	C7H8N2O
3	7-Methylguanine	6.23	166.15	165.0651	C6H7N5O
4	Betaine	2.90	118.14	117.07898	C5H11NO2
5	Choline	2.80	104.17	103.09971	C5H13NO
6	Deoxycytidine	4.80	228.17	227.09060	C9H13N3O4
7	Diethanolamine	2.90	106.17	105.07898	C4H11NO2
8	Homoarginine	3.32	189.17	188.12733	C7H16N4O2
9	Hypoxanthine	2.85	137.15	136.03851	C5H4N4O
10	L-Carnitine	2.86	162.15	161.10519	C7H15NO3
11	L-Citrulline	21.12	176.14	175.09569	C6H13N3O3
12	L-Leucine	6.49	132.14	131.09463	C6H13NO2
13	L-Methionine	5.37	150.08	149.05105	C5H11NO2S
14	L-Phenylalanine	9.65	166. 16	165.07898	C9H11NO2
15	L-Tryptophan	6.49	205.04	204.08988	C11H12N2O2
16	L-Valine	2.90	118.11	117.07898	C5H11NO2
17	N-Acetylglutamine	4.32	189.18	188.07971	C7H12N2O4
18	N8-Acetylspermidine	2.73	188.26	187.16853	C9H21N3O
19	phenylalanylhydroxyproline	16.14	279.27	278.12672	C14H18N2O4
20	Pyroglutamic acid	3.93	130.0479	129.04258	C5H7NO3
21	Riboflavin	15.83	377.24	376.13827	C17H20N4O6
22	Tyrosine	6.93	182.22	181.07389	C9H11NO3
23	Tyramine	3.19	138.07	137.0841	C8H11NO
24	Uric acid	5.50	169.09	168.02834	C5H4N4O3
25	Xanthurenic acid	13.24	206.12	205.0375	C10H7NO4