

Table S1. Changes in anthropometric measurements, alanine aminotransferase (ALT), serum creatinine, and serum lipid profiles during the 12-week supplementation with mulberry leaf extract (6 mg 1-deoxynojirimycin, thrice daily) or placebo followed by 4-week observation without supplementation (Study 2)

Parameter/Group	Baseline	Week 4	Week 8	Week 12	Posttreatment observation (week 16)
Body weight (kg)					
Mulberry leaf extract	67.0 ± 9.4	66.5 ± 9.7 [†]	66.4 ± 9.4 [†]	66.2 ± 9.5 [†]	66.1 ± 10.0 [†]
Placebo	67.7 ± 11.3	67.1 ± 11.4 [†]	67.1 ± 11.5 [†]	67.0 ± 11.5 [†]	66.8 ± 11.4 [†]
BMI (kg/m²)					
Mulberry leaf extract	24.7 ± 2.4	24.5 ± 2.5 [†]	24.5 ± 2.4 [†]	24.4 ± 2.4 [†]	24.2 ± 2.4 [†]
Placebo	24.5 ± 2.6	24.3 ± 2.7 [†]	24.3 ± 2.7 [†]	24.2 ± 2.7 [†]	24.1 ± 2.7 [†]
Waist circumference (cm)					
Mulberry leaf extract	86.0 ± 6.8	86.0 ± 7.1	85.2 ± 6.6	85.7 ± 6.9	85.8 ± 7.0
Placebo	85.9 ± 8.0	86.3 ± 8.3	85.8 ± 8.4	86.0 ± 8.2	85.6 ± 8.6
Waist/hip ratio					
Mulberry leaf extract	0.88 ± 0.04	0.88 ± 0.05	0.88 ± 0.04	0.88 ± 0.05	0.89 ± 0.05 [†]
Placebo	0.88 ± 0.05	0.89 ± 0.05 [†]	0.89 ± 0.05 [†]	0.89 ± 0.05	0.89 ± 0.06
Systolic blood pressure (mmHg)					
Mulberry leaf extract	121 ± 14	122 ± 13	118 ± 17	121 ± 13	116 ± 13
Placebo	123 ± 16	123 ± 15	123 ± 16	121 ± 16	122 ± 14
Diastolic blood pressure (mmHg)					
Mulberry leaf extract	76 ± 8	75 ± 7	75 ± 10	76 ± 7	74 ± 8
Placebo	77 ± 11	75 ± 10	79 ± 11	77 ± 10	75 ± 10
ALT (U/L)					
Mulberry leaf extract	23.7 ± 10.4	23.9 ± 10.9	21.8 ± 9.2	22.8 ± 8.8	21.3 ± 8.4
Placebo	24.7 ± 11.5	23.3 ± 8.8	22.7 ± 10.3	25.2 ± 11.7	23.7 ± 11.3
Creatinine (mg/dL)					
Mulberry leaf extract	0.94 ± 0.17	0.97 ± 0.15	0.96 ± 0.18	0.93 ± 0.18	0.88 ± 0.19 [†]
Placebo	0.98 ± 0.18	0.98 ± 0.17	0.99 ± 0.16	0.95 ± 0.17	0.92 ± 0.16 [†]
Total cholesterol (mg/dL)					
Mulberry leaf extract	210 ± 29	210 ± 31	210 ± 29	206 ± 29	204 ± 28
Placebo	214 ± 25	209 ± 29	215 ± 28	209 ± 27	204 ± 24
LDL cholesterol (mg/dL)					
Mulberry leaf extract	133 ± 30	133 ± 34	127 ± 29	125 ± 27	128 ± 29
Placebo	133 ± 23	131 ± 23	130 ± 26	123 ± 28 [†]	127 ± 25
HDL cholesterol (mg/dL)					
Mulberry leaf extract	59 ± 14	56 ± 15	55 ± 13 [†]	54 ± 13 [†]	55 ± 13 [†]
Placebo	60 ± 17	60 ± 18	59 ± 17	55 ± 15 [†]	56 ± 14 [†]
Triglycerides (mg/dL)					
Mulberry leaf extract	137 ± 77	147 ± 97	170 ± 148	144 ± 87	136 ± 84
Placebo	133 ± 78	127 ± 72	136 ± 85	154 ± 90	128 ± 67

Data are mean ± SD ($n = 33$ in the extract group, $n = 32$ in the placebo group). [†]Significantly different from the baseline value ($P < 0.05$ with Bonferroni correction). No significant differences were observed at any time points between mulberry leaf extract and placebo groups (unpaired t -test).

Table S2. Dietary intake, alcohol consumption and pedometer count during the 12-week supplementation with mulberry leaf extract (6 mg 1-deoxynojirimycin, thrice daily) or placebo followed by 4-week observation without supplementation (Study 2)

Parameter/Group	Baseline	Week 4	Week 8	Week 12	Posttreatment observation (week 16)
Dietary intake					
Total energy (kcal/day)					
Mulberry leaf extract	2006 ± 487 [‡]	2053 ± 400	2049 ± 410	2061 ± 435	2079 ± 436
Placebo	2236 ± 430	2175 ± 509	2165 ± 467	2278 ± 522	2279 ± 544
Carbohydrate (g/day)					
Mulberry leaf extract	357 ± 141	376 ± 119	361 ± 139	391 ± 129	378 ± 136
Placebo	383 ± 112	383 ± 158	392 ± 161	372 ± 145	367 ± 135
Protein (g/day)					
Mulberry leaf extract	70 ± 16	75 ± 14	71 ± 14	72 ± 14	72 ± 18
Placebo	78 ± 17	77 ± 21	76 ± 18	78 ± 18	79 ± 22
Fat (g/day)					
Mulberry leaf extract	67 ± 18	68 ± 20	69 ± 17	67 ± 19	65 ± 22
Placebo	71 ± 18	70 ± 23	68 ± 20	72 ± 23	67 ± 18
Cholesterol (mg/day)					
Mulberry leaf extract	294 ± 73	253 ± 56	252 ± 50	260 ± 66	265 ± 46
Placebo	279 ± 60	273 ± 66	269 ± 60	286 ± 53	289 ± 57
Fiber (g/day)					
Mulberry leaf extract	11.6 ± 3.9	12.1 ± 3.5	11.5 ± 3.8	11.2 ± 3.4	11.8 ± 3.2
Placebo	12.8 ± 4.1	12.9 ± 5.4	13.3 ± 5.4	13.0 ± 3.9	12.7 ± 4.2
Alcohol consumption (g/day)					
Mulberry leaf extract	13.4 ± 19.4	14.7 ± 20.8	14.7 ± 18.4	14.7 ± 17.9	16.3 ± 19.3
Placebo	19.3 ± 23.4	17.9 ± 21.1	18.7 ± 24.6	19.8 ± 24.5	20.4 ± 25.1
Pedometer count (steps/day)					
Mulberry leaf extract	9638 ± 3941	9153 ± 3227	9461 ± 3601	9016 ± 3698	9093 ± 3525
Placebo	10524 ± 4757	10199 ± 4431	10201 ± 4329	10287 ± 4708	9877 ± 4571

Data are mean ± SD ($n = 33$ in the extract group, $n = 32$ in the placebo group). [‡]Significantly different from the value of placebo group ($P < 0.05$ by unpaired t -test). No measurements were significantly changed from the baseline values over the trial period (Bonferroni correction).