Supplementary Table S1.Fatty acid contents of Nori powder and Fermented Nori powder.

	Nori powder	Fermented Nori powder
	(mg/g powder)	
C10:0	0.345±0.068	0.622±0.289
C12:0	0.0362±0.0054	0.0279±0.0042
C14:0	0.0947±0.0025	0.0668±0.0037 *
C15:0	0.0342±0.0023	0.0380±0.0042
C16:0	10.2±0.2	4.81±0.12 *
C17:0	0.0239±0.0055	0.0382±0.0042
C18:0	0.374±0.010	0.321±0.018
C18:1n9c	1.19±0.04	1.42±0.02 *
C18:2n6	0.696±0.045	2.23±0.04 *
C20:1n9	1.16±0.02	0.601±0.042 *
C20:2	0.405±0.021	n.d.
C20:3n6	0.634±0.019	0.237±0.038 *
C20:4n6	0.756±0.053	0.262±0.037 *
C20:5n3	19.7±0.3	5.87±0.6 *

Each value represents mean ± SE ($n = 3$).

Asterisk shows significant difference at $p < 0.05$.

Supplementary Table S2. Fatty acid contents of serum lipids in *db/db* mice.

	Co	Np	Fp
	(mg/dL)		
C10:0	0.0845±0.0250	0.107±0.040	0.122±0.013
C11:0	0.0232±0.0111	0.0430±0.0248	0.0532±0.0109
C12:0	0.267±0.063	0.362±0.111	0.296±0.030
C13:0	0.0401±0.0130	0.0485±0.0113	0.0270±0.0026
C14:0	1.86±0.24	1.81±0.17	1.35±0.09
C15:0	0.481±0.118 [ab]	0.606±0.087 [a]	0.309±0.028 [b]
C16:0	88.6±5.0	79.8±3.7	78.2±4.1
C16:1	10.1±0.7	8.30±0.59	8.88±0.55
C17:0	0.491±0.034	0.649±0.059	0.604±0.050
C18:0	59.8±3.2 [a]	45.7±2.6 [b]	43.8±2.8 [b]
C18:1n9t	0.160±0.015	0.128±0.028	0.126±0.024
C18:1n9c	74.9±3.2 [a]	50.8±3.2 [b]	66.6±5.6 [a]
C18:2n6	109±5	106±5	110±5
C18:3n6	1.58±0.12 [a]	1.08±0.04 [b]	1.16±0.07 [b]
C18:3n3	0.533±0.077 [a]	0.948±0.155 [ab]	0.969±0.091 [b]
C20:0	0.363±0.063	0.309±0.029	0.238±0.025
C20:1n9	1.09±0.05 [a]	0.635±0.045 [b]	0.770±0.096 [b]
C20:2	0.517±0.030	0.508±0.020	0.552±0.015
C20:3n6	13.5±1.1 [a]	6.27±0.80 [b]	7.60±0.66 [b]
C20:4n6	101±10 [a]	46.2±3.5 [b]	53.5±3.4 [b]
C20:5n3	1.48±0.12 [a]	24.3±1.6 [b]	8.78±0.92 [c]
C22:0	0.448±0.311	0.118±0.007	0.0709±0.0062
C22:6n3	22.5±2.2	19.2±1.7	18.2±1.1
C24:0	1.09±0.97	0.158±0.013	0.0512±0.0078

Each value represents mean ± SE ($n = 5$–6). Different superscript letters show significant difference at $p < 0.05$.

Supplementary Table S3. Fatty acid contents of hepatic lipids in *db/db* mice.

	Co	Np	Fp
	(mg/g liver)		
C10:0	0.0606±0.0148	0.0445±0.0060	0.0415±0.0024
C11:0	0.0193±0.0052	0.0119±0.0023	0.0107±0.0013
C12:0	0.141±0.017 [a]	0.0977±0.0075 [b]	0.0904±0.0036 [b]
C13:0	0.0240±0.0083	0.0165±0.0033	0.0169±0.0027
C14:0	1.81±0.14 [a]	0.824±0.097 [b]	0.798±0.088 [b]
C15:0	0.0991±0.0077 [a]	0.0743±0.0028 [b]	0.0792±0.0075 [ab]
C16:0	77.7±6.3 [a]	35.9±3.9 [b]	37.4±4.2 [b]
C17:0	0.131±0.007 [a]	0.106±0.005 [b]	0.114±0.003 [ab]
C16:1	13.8±1.0 [a]	5.64±0.86 [b]	4.88±0.66 [b]
C18:0	8.92±0.59 [a]	5.95±0.20 [b]	6.72±0.29 [b]
C18:1n9	154±11 [a]	60.8±9.4 [b]	76.2±12.3 [b]
C18:2n6	36.5±2.6 [a]	23.4±0.7 [b]	23.0±0.9 [b]
C18:3n6	0.541±0.041 [a]	0.247±0.007 [b]	0.251±0.013 [b]
C18:3n3	0.330±0.034	0.347±0.023	0.275±0.014
C20:0	0.185±0.038 [a]	0.0986±0.0183 [b]	0.100±0.014 [b]
C20:1n9	2.74±0.44 [a]	0.886±0.169 [b]	1.48±0.31 [b]
C20:2	0.270±0.028	0.216±0.009	0.216±0.016
C20:3n6	0.859±0.061 [a]	0.599±0.043 [b]	0.789±0.039 [a]
C20:4n6	3.08±0.17 [a]	2.52±0.13 [b]	3.13±0.11 [a]
C20:5n3	0.0515±0.0076 [a]	0.681±0.073 [b]	0.276±0.046 [c]
C22:6n3	1.27±0.09 [a]	1.68±0.13 [b]	1.76±0.11 [b]

Each value represents mean ± SE ($n = 5$–6). Different superscript letters show significant difference at $p < 0.05$.