

**Supplemental Table S1.** Baseline Characteristics of the Mouse Model according to the Status of Sarcopenia

Characteristic	Young (n=10)	Old (n=7)	P value
Body weight, g	30.05±2.37	34.86±2.63	0.001 <sup>a</sup>
Muscle weight (Quadriceps), g	0.197±0.022	0.168±0.042	0.019 <sup>a</sup>
Relative muscle mass, %	0.663±0.104	0.482±0.050	0.001 <sup>a</sup>

Values are expressed as mean±standard deviation. Mice aged 7 and 19 months were young and old mice, respectively. *P* value by Student's *t* test.

<sup>a</sup>Statistically significant values.

**Supplemental Table S2.** Comparison of Muscular CN Contents (fmol/mg) between Young and Old Mice (Aging Mouse Model of Sarcopenia)

	Young mice (n=10)	Old mice (n=7)	<i>P</i> value <sup>a</sup>	<i>P</i> value <sup>b</sup>
C0-CN	ND	ND		
C2-CN	ND	ND		
C3-CN	3.12±2.14	2.66±1.49	0.635	0.635
C4-CN	2.10±1.09	1.40±1.03	0.202	0.391
C5-CN	0.92 (0.80–1.56)	0.77 (0.56–1.10)	0.161	0.355
C6-CN	1.02±0.57	0.74±0.49	0.296	0.391
C8-CN	0.63±0.34	0.41±0.28	0.170	0.391
C10-CN	0.86±0.43	0.54±0.32	0.114	0.391
C12-CN	1.11±0.56	0.82±0.46	0.282	0.391
C14-CN	2.88±1.09	2.38±0.85	0.322	0.391
C16-CN	9.02±3.19	7.32±2.12	0.241	0.391
C18-CN	0.26 (0.20–0.31)	0.23 (0.19–0.25)	0.133	0.355
C18:1-CN	6.99±2.72	4.86±1.16	0.355	0.391

Values are expressed as mean±standard deviation or median (interquartile range).

CN, carnitine; ND, not detectable.

<sup>a</sup>*P* value by Student's *t* test or Mann-Whitney *U* test; <sup>b</sup>*P* value by Student's *t* test or Mann-Whitney *U* test after adjusting for multiple testing corrections using the false discovery rate method.