

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 ^a |
| Muscle weight (Quadriceps), g | 0.197±0.022 | 0.168±0.042 | 0.019 ^a |
| Relative muscle mass, % | 0.663±0.104 | 0.482±0.050 | 0.001 ^a |

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.

^aStatistically 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 ^a | <i>P</i> value ^b |
|----------|-------------------|------------------|-----------------------------|-----------------------------|
| 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.

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