Figure S1. Effects of BC on cell viability in LLC cells. Cell viability in LLC cells treated with 10, 20, and 40 μM BC for 3 days were evaluated by MTT assay. All data are shown as the mean + SEM and were analyzed by a one-way ANOVA with a Newman-Keuls post hoc test. $^{###}$P<0.001 vs. the CTRL. BC, β-carotene; LLC, Lewis lung carcinoma; CTRL, control; CC, LLC-induced cancer cachexia; BC 10, 10 μM of BC; BC 20, 20 μM of BC; BC 40, 40 μM of BC.

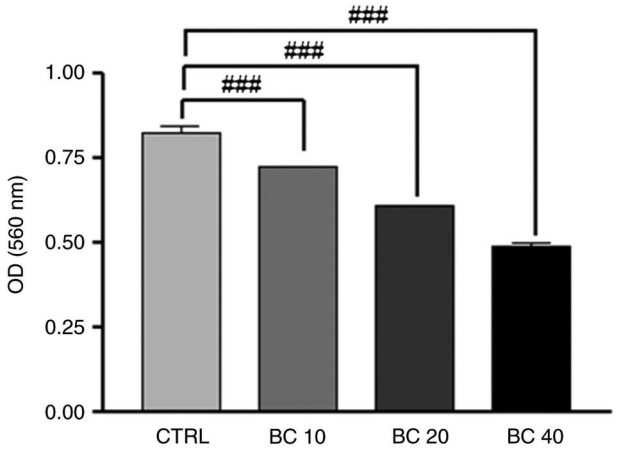

Figure S2. Effects of BC on body weights and food intake in an LLC cancer-cachexia mouse model. (A) Body weight and (B) food intake were measured. *P<0.05 vs. the CC. BC, β-carotene; LLC, Lewis lung carcinoma; CTRL, control; BC 4, LLC-induced cancer cachexia + 4 mg/kg BW of β-carotene; BC 8, LLC-induced cancer cachexia + 8 mg/kg BW of β-carotene.

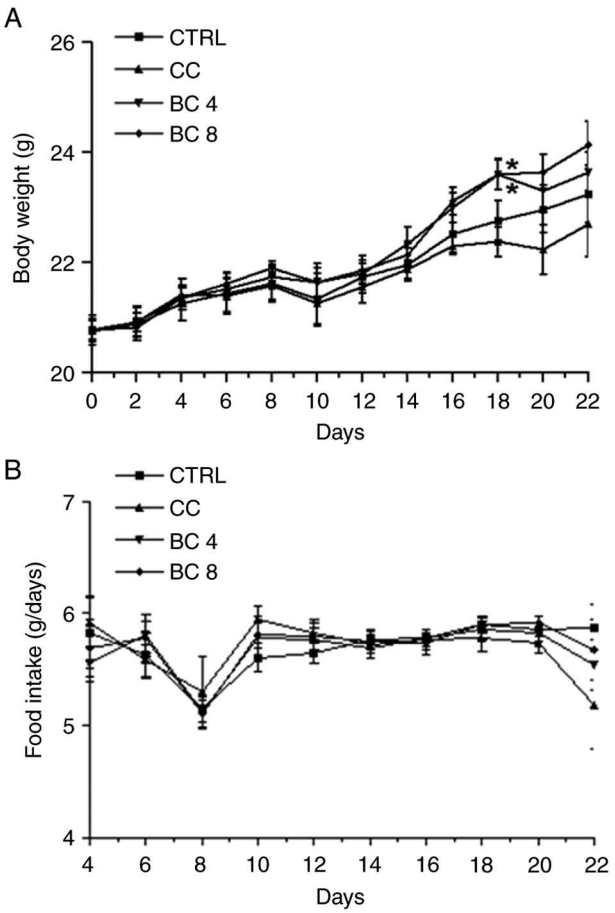

Figure S3. Effects of BC on muscle atrophy in C2C12 myotubes treated without and with LLC CM. Protein levels of atrogin-1 and Muf1 were measured by western blotting, and the relative band intensities were calculated after normalization to α-tubulin expression. All data are shown as the mean + SEM and were analyzed by a one-way ANOVA with a Newman-Keuls post hoc test. $^{\#}$P<0.05 and $^{\#\#}$P<0.01 vs. the CTRL; *P<0.05 and **P<0.01 vs. the CC. BC, β-carotene; LLC, Lewis lung carcinoma; CTRL, control; CC, LLC-induced cancer cachexia (incubation of LLC CM); BC, 20 μM of BC; CC + BC, cancer-cachexia with 20 μM of BC (incubation of LLC CM and 20 μM of BC); Murf1, muscle RING-finger protein-1.