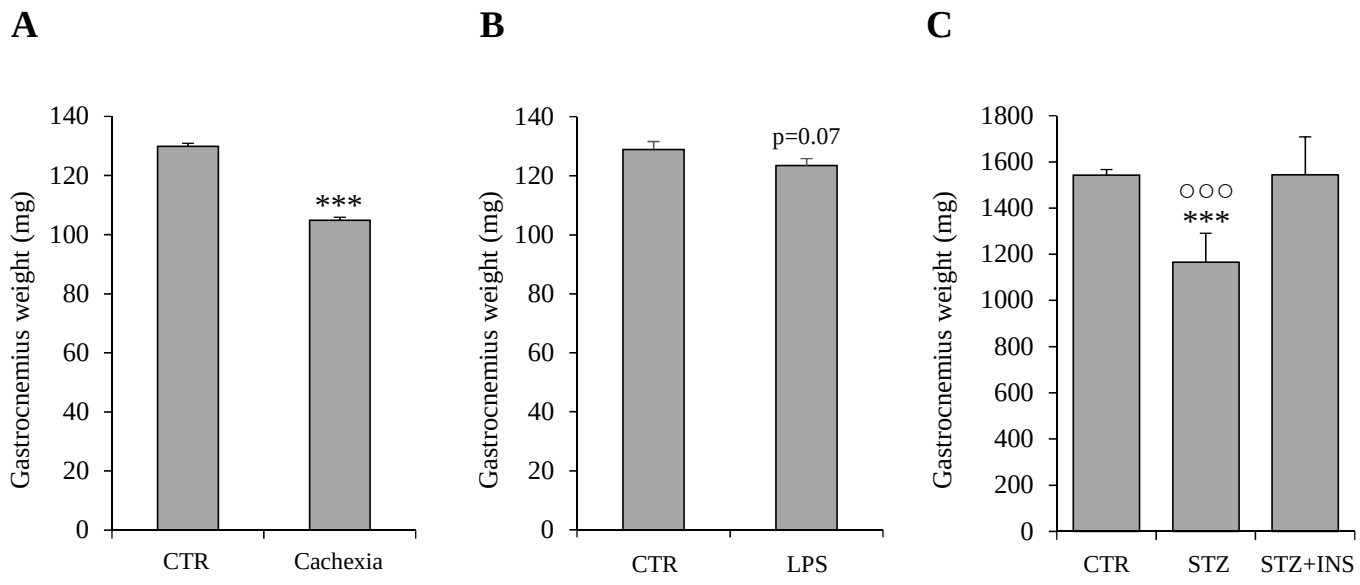

Figure S1 Cachexia, LPS-induced sepsis and STZ-induced diabetes are associated with muscle atrophy. Gastrocnemius weight of cachectic vs CTR mice (A, n=8/group), LPS vs CTR mice (B, n=6/group), and STZ or STZ+INS vs CTR rats (C, n=6/group). Results are means ± SE. Statistical analysis was performed using unpaired t-test or 1-way ANOVA and Tukey posttest (*** $p<0.001$ vs CTR, °°° $p<0.001$ vs STZ+INS).

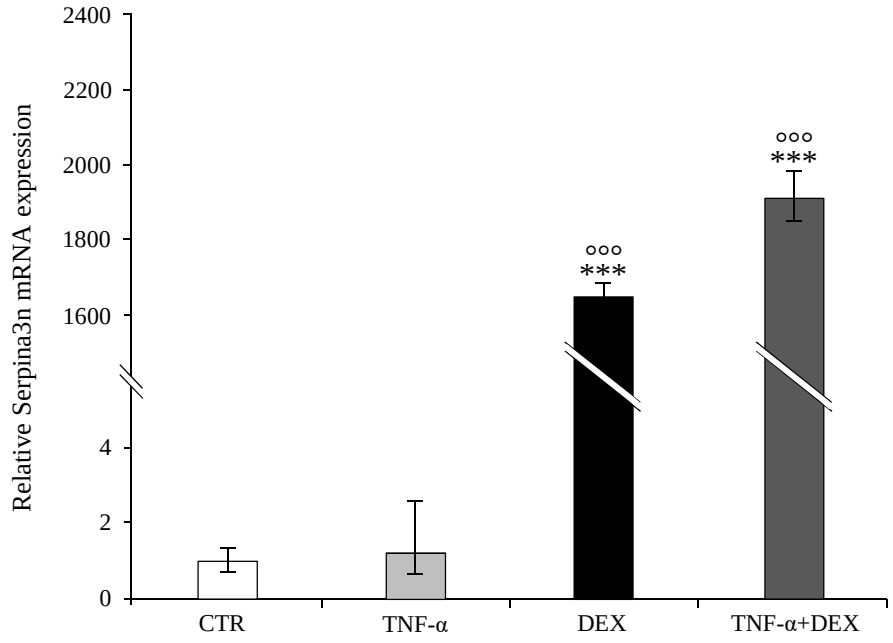

Figure S2 TNF-α does not induce neither significantly potentiate the GC-induced expression of Serpina3n. Serpina3n mRNA levels of C_2C_{12} cells after 48h of dexamethasone (10^{-6}M) and/or TNF-α (10ng/ml) treatment. Results are means ± SE. Statistical analysis was performed using 1-way ANOVA and Tukey posttest (*** $p<0.001$ vs CTR, °°° $p<0.05$ vs TNF-α).

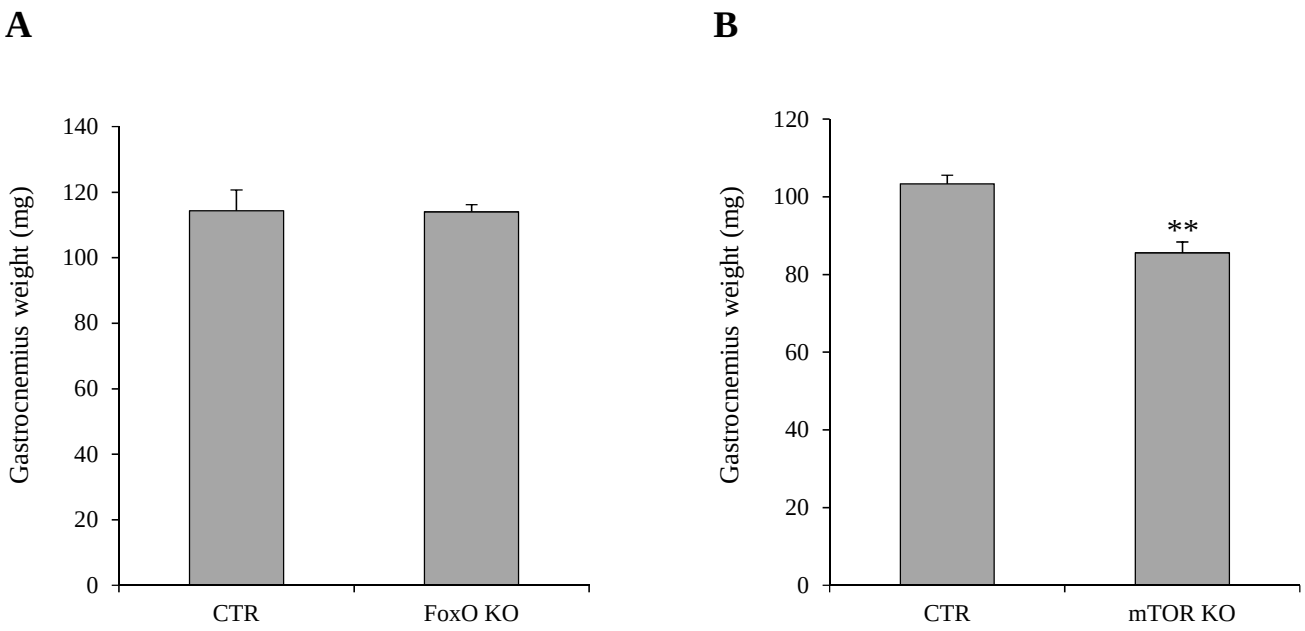

Figure S3 mTOR inhibition, but not FoxO, are associated with muscle atrophy. Gastrocnemius weight of FoxO KO vs CTR mice (A, n=3/group), and mTOR KO vs CTR mice (B, n=3 and 5/group respectively). Results are means ± SE. Statistical analysis was performed using unpaired t-test (** $p<0.01$ vs CTR).

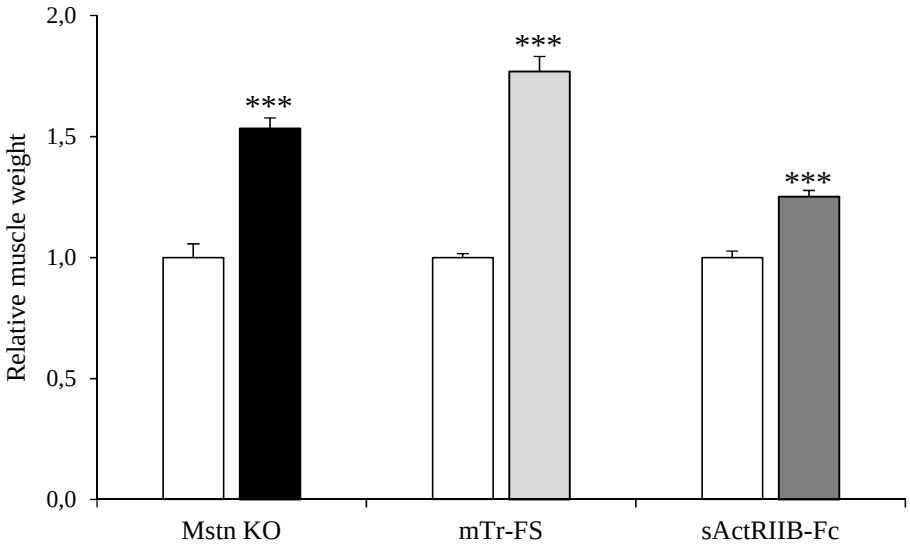

Figure S4 Muscle hypertrophy caused by Myostatin (Mstn) inhibition. Weight of GC muscle in Mstn KO and WT mice (n=6/group), and of TA in mTr-FS (Follistatin) and WT mice (n=4/group) and in sActRIIB-treated and saline-treated mice (n=6/group). Results are means ± SE. Statistical analysis was performed using unpaired t-test (*** $p<0.001$ vs CTR or WT).

Supplementary method

TNF-α treatment of C_2C_{12} myotubes

To assess the effects of TNF-α treatment on Serpina3n expression, differentiated C_2C_{12} cells were treated with recombinant mouse TNF-α (10ng/ml, R&D Systems, Abingdon, UK) with or without DEX at 10^{-6} M for 48h in 2% HS differentiation medium.