

Figure S1. Adult *H19* Δ 3 mice show an overgrowth phenotype.

Body weight of adult (4 months) *wt* and *H19* Δ 3 mice (respectively n=16 mice and n=14 mice). Data are shown as mean \pm SEM. Asterisk indicates statistically significant data (*, $p < 0.05$ Student's *t*-test).

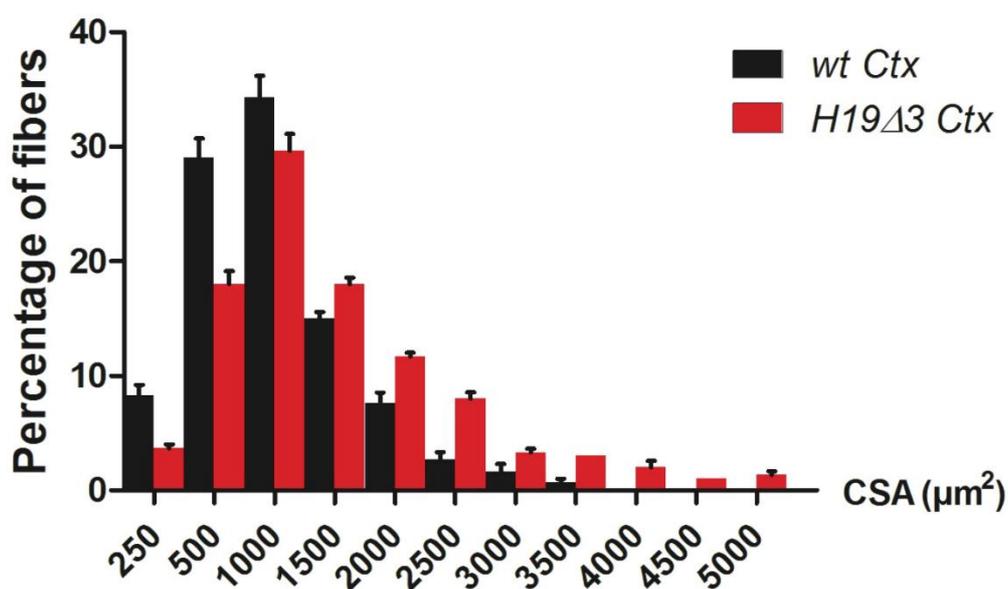


Figure S2. Regeneration assay after one Ctx injection.

Histogram of fiber CSA (μm^2) from injured adult *wt* and *H19 Δ 3* *tibialis* muscles (n=3/genotype). Data are shown as mean \pm SEM.

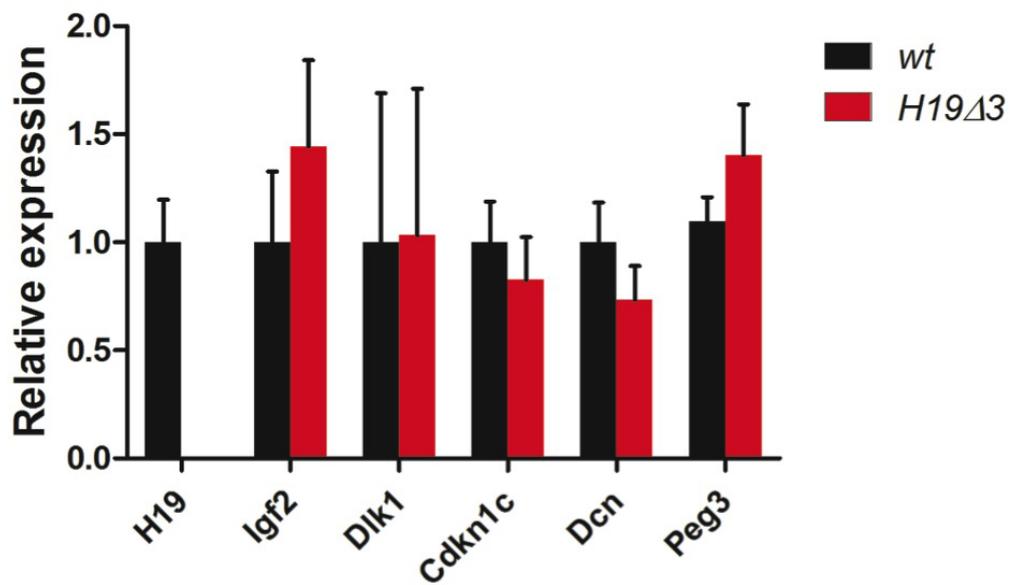


Figure S3. IG expression in P21 myoblasts.

Transcript levels of the IG genes in *wt* and *H19 Δ 3* myoblasts (n=4 primary myoblast cultures/genotype). Data are shown as mean \pm SEM.

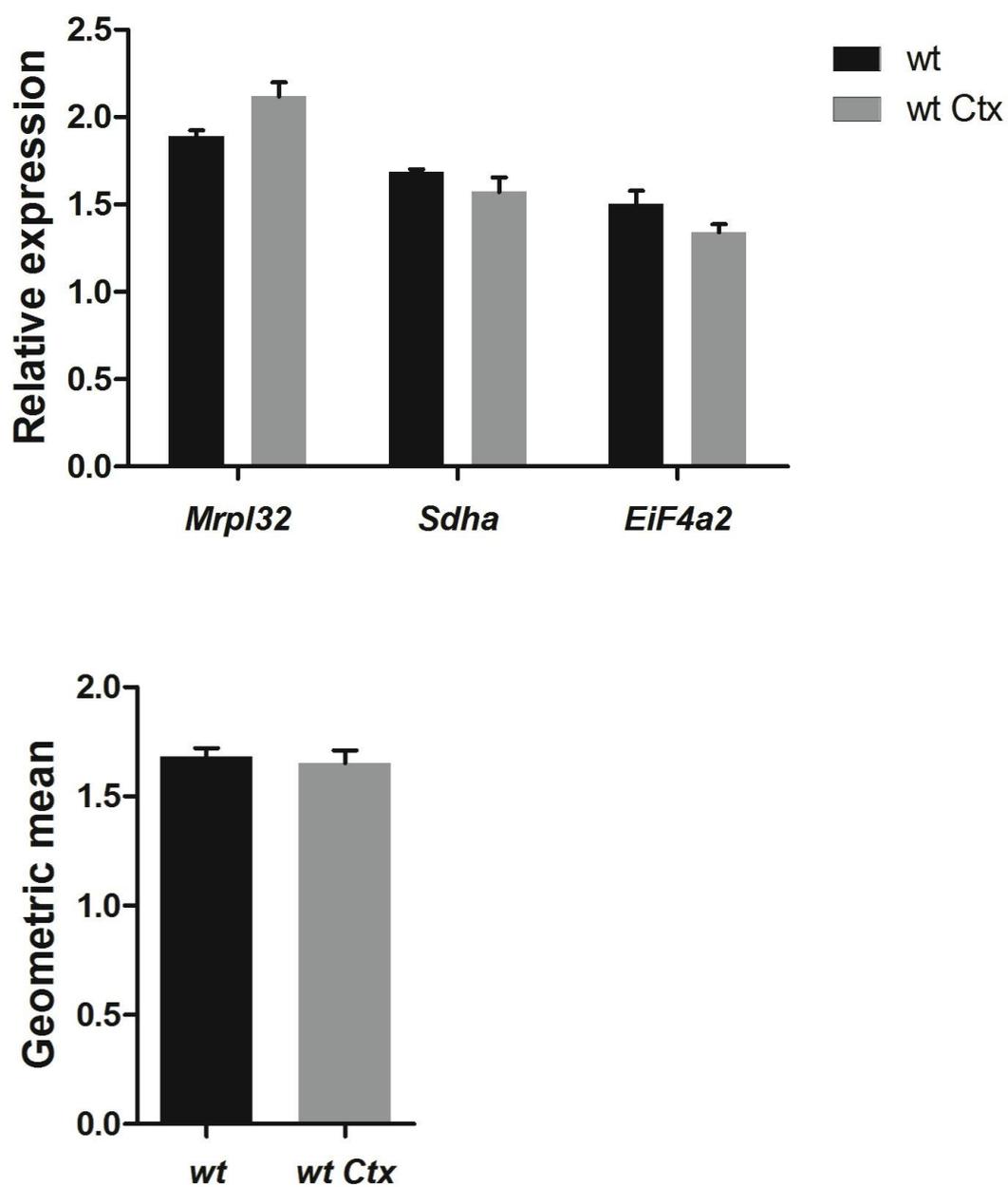


Figure S4. Transcript levels of reference genes.

RT-qPCR data for the three reference genes in control and Ctx-injected *tibialis* muscle samples. Data are shown as mean \pm SEM.

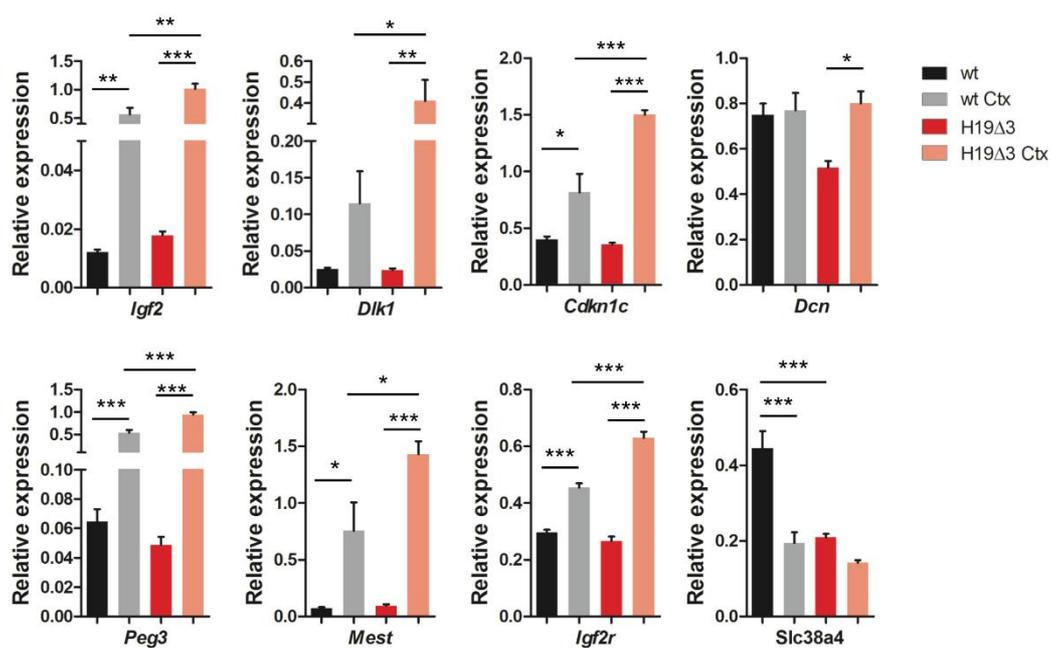


Figure S5. IG N expression in muscle regeneration.

Transcript levels of the IG N genes in *wt* and *H19 Δ 3* adult *tibialis* muscles (n=4 mice/genotype). Data are shown as mean \pm SEM. Asterisks indicate statistically significant data (*, $p < 0.05$; **, $p < 0.01$; ***, $p < 0.001$ one-way Anova with Bonferroni post test).

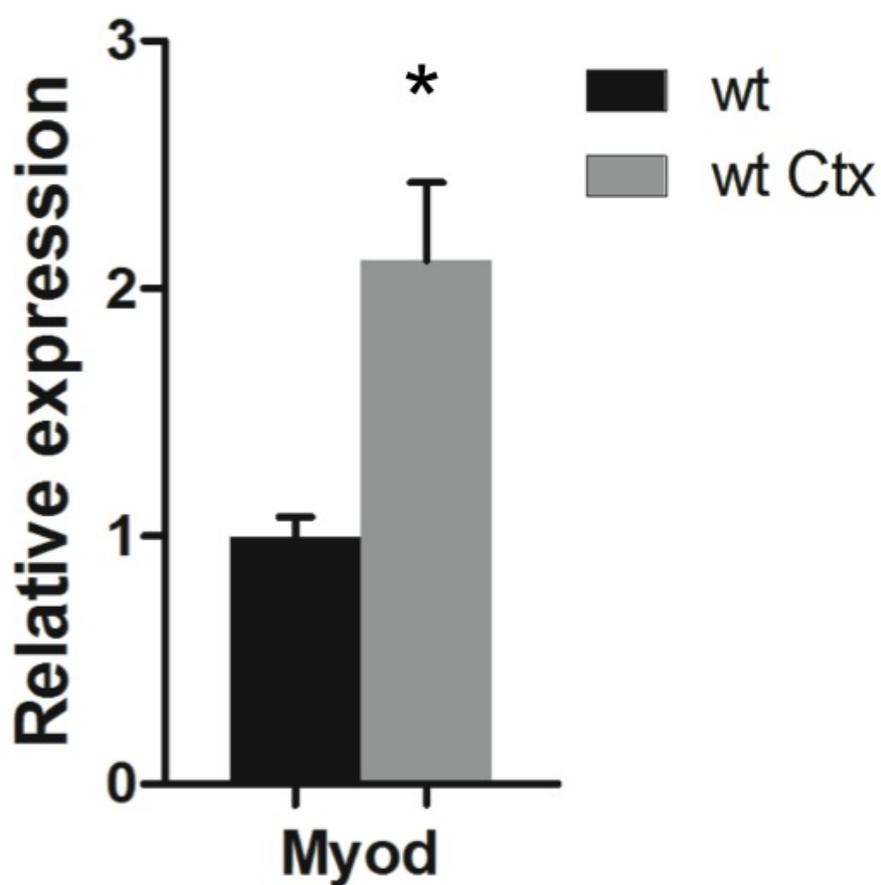


Figure S6. *Myod* gene is overexpressed after Ctx injury in *wt* mice.

Transcript levels of the *Myod* gene in *wt* and *H19^{Δ3}* adult *tibialis* muscles (n=4 mice/genotype). Data are shown as mean ± SEM. Asterisk indicates statistically significant data (*, $p < 0.05$ Student's *t*-test).

Table S1: Primers used for Real Time RT-PCR

Gene	Forward Primer 5'-3'	Reverse Primer 5'-3'
H19	GGAGACTAGGCCAGGTCTC	GCCCATGGTGTTC AAGAAGGC
Igf2	GGTGCTTCTCATCTCTTTGG	CGACGGTTGGCACGGCTTGA
Igf2r	GCACAGAATCCAGACTAGCATTACA	CCTCCTTATCAGCTTTAAATATGTCTTTCTT
Igf1	CACTCATCCACAATGCCTGT	TGGATGCTCTTCAGTTCGTG
Igf1r	GTGGGGGCTCGTGTTC	GATCACCGTGCAGTTTTCCA
Dlk1	ACTTGCGTGGACCTGGAGAA	CTGTTGGTTGCGGCTACGAT
Cdkn1c	AACTTCCAGCAGGATGTGCC	CATCCACTGCAGACGACCAG
Dcn	CATCTTCGAGTGGTGCAGTGTT	GCAGGTCTAGCAAGTTGTGTC
Peg3	TTGGACTGGACAGAGATGATGACA	ATTCTGGTATGACTCGGCATCCT
Mest/Peg1	CAACAATGACGGCAACCTGGT	TCTGAATTTCTTCCTTTGATTAATGTACTGTA
Slc38a4	ACTGTGGCAATACTCTCGCTCTA	ATCCAAATGCTTTCTCGCCCAAT
MyoD	GATGGTGCCCCTGGTTCTT	AAAGGCTTCGAAAGGACAGTT
Ki67	CAGTTTGGCGACATTAGCAGA	GCAACTATCTTGGAACATCCTC
Pax7	TGTCTCCAAGATTCTGTGCC	GGATTTCCCAGCTGAACATC