Supplemental Figure Legends

Supplemental Figure 1. Pyknotic nuclear clumps in MDAFrtTA/TRECUGBP1 (+dox, 2 weeks) mice. Hematoxylin and eosin staining of gastrocnemius muscle cross-section showing a myofiber with a nuclear clump (arrow). Scale bar indicates 50 μm.

Supplemental Figure 2. No fiber type switching in induced MDAFrtTA/TRECUGBP1 mice. Immunohistochemistry for slow twitch myosin heavy chain (MHC) and fast twitch MHC on gastrocnemius muscle cross-sections over the eight week time course on dox diet. 5X magnification.

Supplemental Figure 3. Two-fold up-regulation of CUGBP1 in MDAFrtTA/TRECUGBP1 muscle is not sufficient to induce splicing misregulation. Induced adult mice (open bars, n = 3) have no significant changes in splicing compared to uninduced adult control mice (closed bars, n = 3).

Supplemental Movie 1. MDAFrtTA/TRECUGBP1 (+dox, 2 weeks) mice show impaired movement with abnormal gait, hunched back, and ruffled fur.

Supplemental Table 1. Sequence of the forward and reverse primer pairs used for RT-PCR analysis of the indicated alternative splicing events.

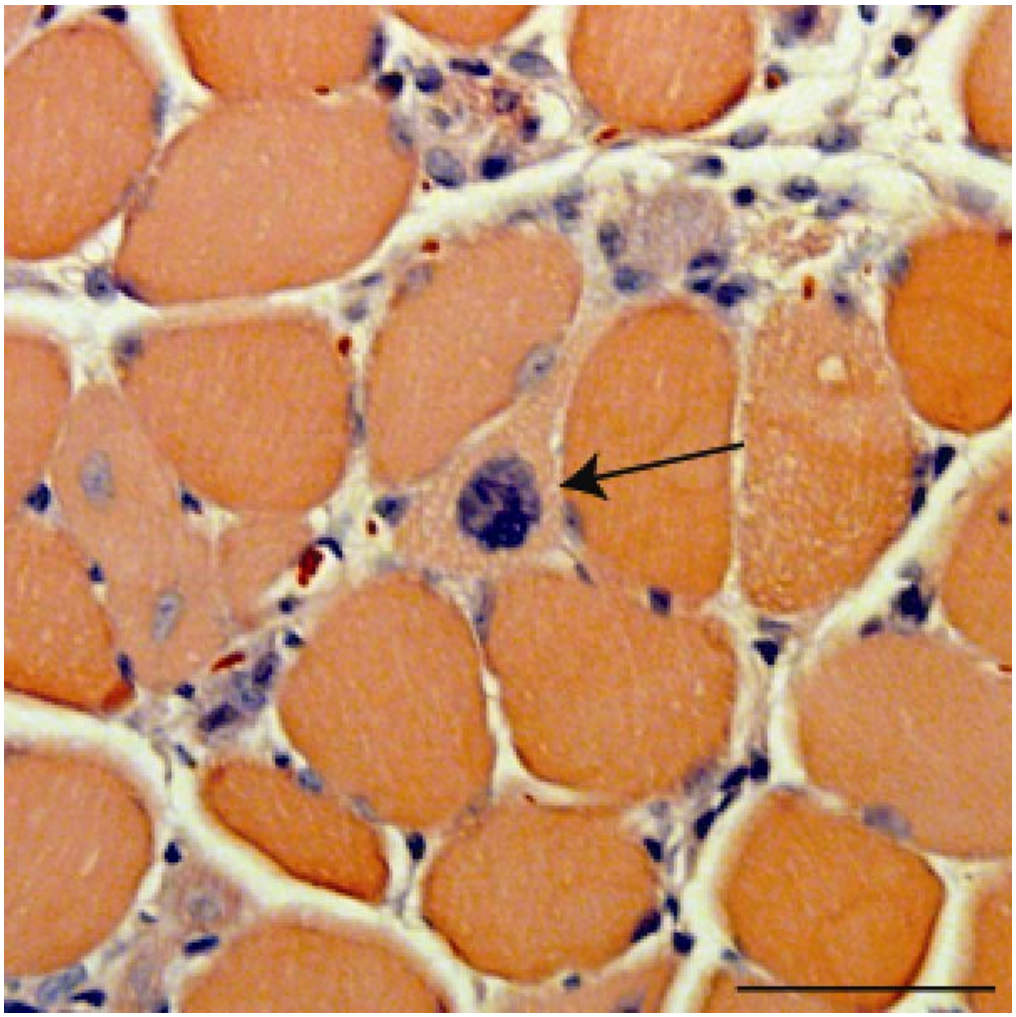

Figure S1

i

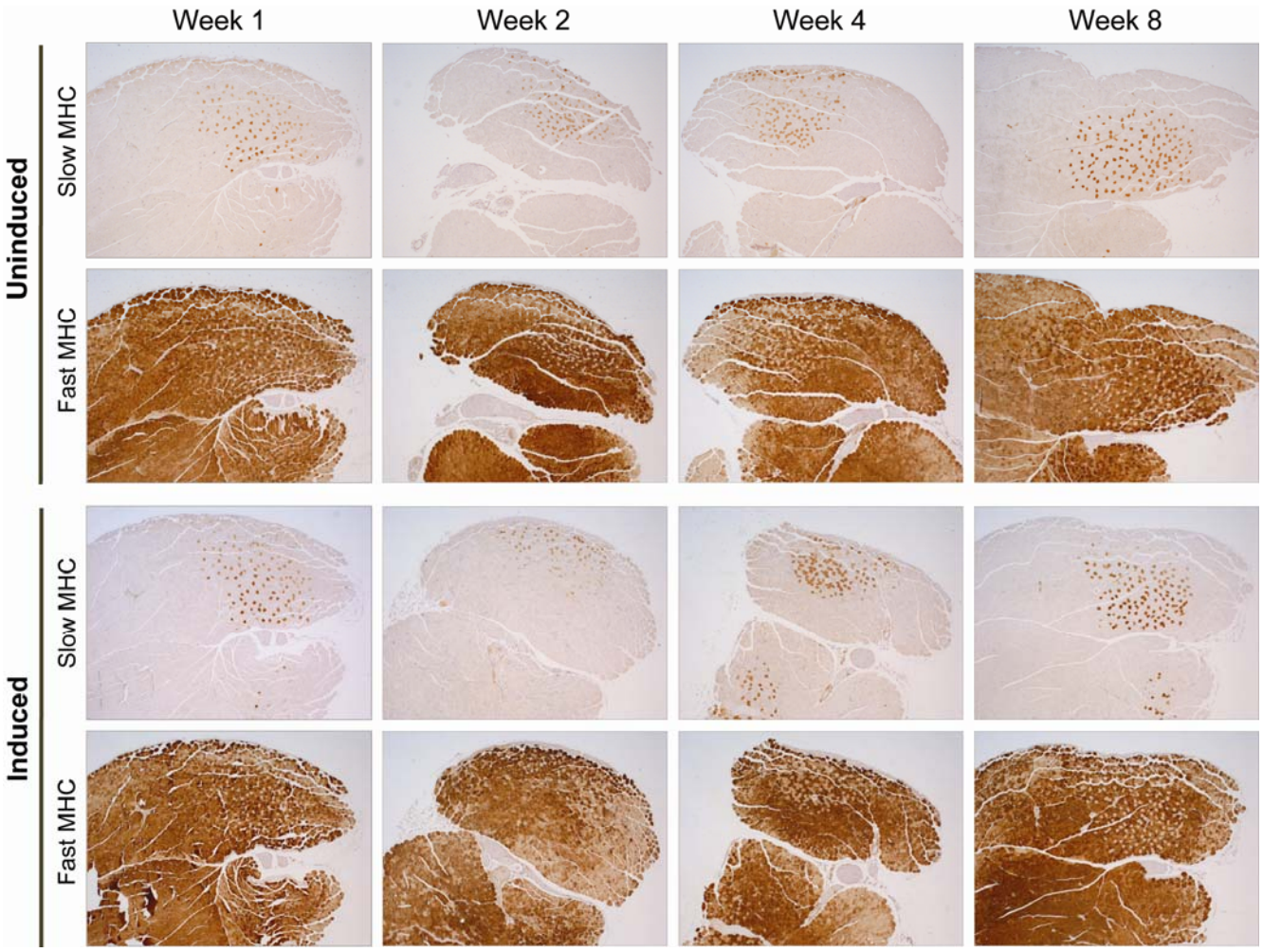
Week 1
Week 2
Week 4
Week 8
Uninduced
Slow MHC
Fast MHC
Induced
Slow MHC
Fast MHC

Figure S2

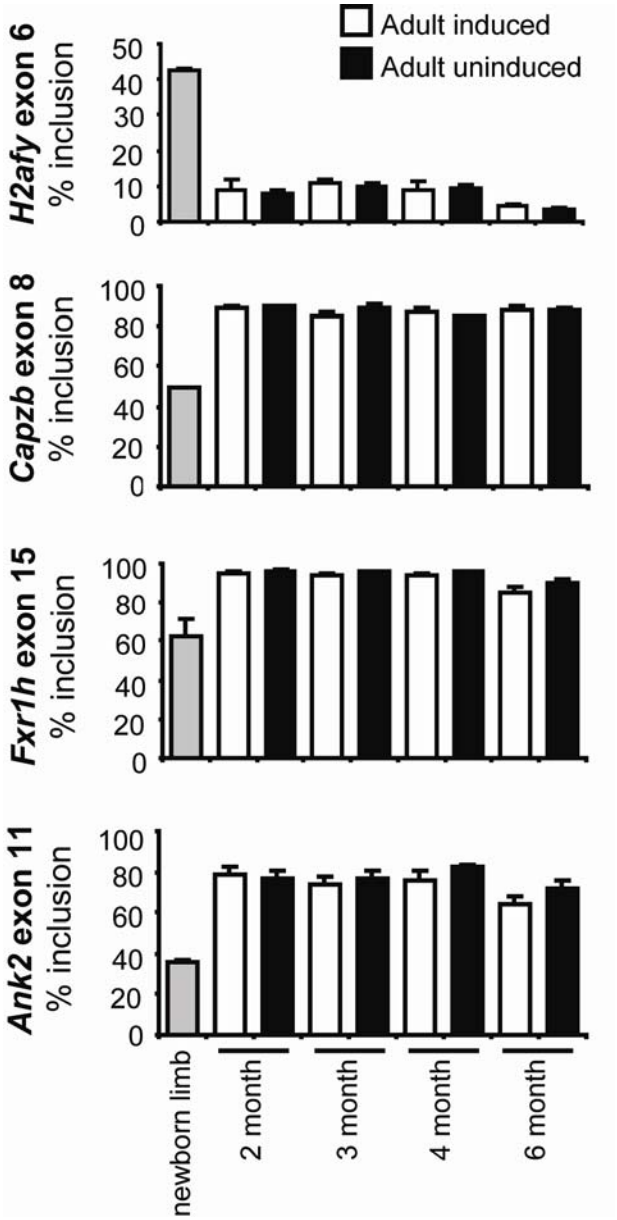
Adult induced
Adult uninduced
H2afy exon 6
% inclusion
50
40
30
20
10
0
Capzb exon 8
% inclusion
100
80
60
40
20
0
Fxr1h exon 15
% inclusion
100
80
60
40
20
0
Ank2 exon 11
% inclusion
100
80
60
40
20
0
newborn limb
2 month
3 month
4 month
6 month

Figure S3

Supplemental Table 1:

	Forward primer	Reverse primer
Alp exon 5a/5b	AGCTGCCAACCTGTGTCCTG	GATCCTGCAGCACCCTGAAG
Ank2 exon 22	GAACGTGGTTCTCCGATTGT	CGTCTCTGGGGGTATGTCAG
Capn3 exon 16	CACGGGAATAAGCAACACCTG	GGACATTCTTGAGTTCATCTGCAC
Capzb exon 8	GCACGCTGAATGAGATCTACTTTG	CCGGTTAGCGTGAAGCAGAG
Clcn1 exon 7a	GCTGCTGTCCTCAGCAAGTT	CTGAATGTGGCTGCAAAGAA
Cypher exon 11	GGAAGATGAGGCTGATGAGTGG	TGCTGACAGTGGTAGTGCTCTTTC
Dystrophin exon 78	TGGTTGGCAGTCAAACTTCA	TCATCTGCCATGTGGAAAAG
Fhos exon 11a	CGCCTACAAATCCAGCCTTC	TCCCTTGTGCCTGATGATCC
Fxr1h exon 15	GATAATACAGAATCCGATCAG	CTGAAGGACCATGCTCTTCAATCAC
Gfat exon 10	TCTCTTGATTGGTGTGCGGAG	TGCTGCAACATCATCATCTTCC
H2afy exon 6	GACGGCTTCACTGTCCTCTC	GCCCTTCTTCTCCAGTGTGT
Mbnl1 exon 5	GCTGCCCAATACCAGGTCAAC	TGGTGGGAGAAATGCTGTATGC
Mtmr1 exon 2.2	CATGTTGAATGGTGTAAACAG	AATTATCCCCATGGCTCTGT
Nrap exon 12	AATACCGGCAGGACTTCCATAAG	TAGCCAGGCTGCCAACTTTG
Ryr1 exon 70	GACAATAAGAGCAAAATGGC	CTTGGTGCGTTCCTGATCTG
Serca1 exon 22	GCTCATGGTCCTCAAGATCTCAC	GGGTCAGTGCCTCAGCTTTG
Sorbs1 exon 23	GGAGACGGCACGATGATAA	AAACAACGTCTCCCTTCTGC
m-Titin exon 5	GTGTGAGTCGCTCCAGAAACG	CCACCACAGGACCATGTTATTTC
z-Titin exon 4	TGTTGCGACTGTCGTTGCTG	TCCACATGCGTAGGCTCTCTG

Supplemental Table 1. Sequence of the forward and reverse primer pairs used for RT-PCR analysis of the indicated alternative splicing events.