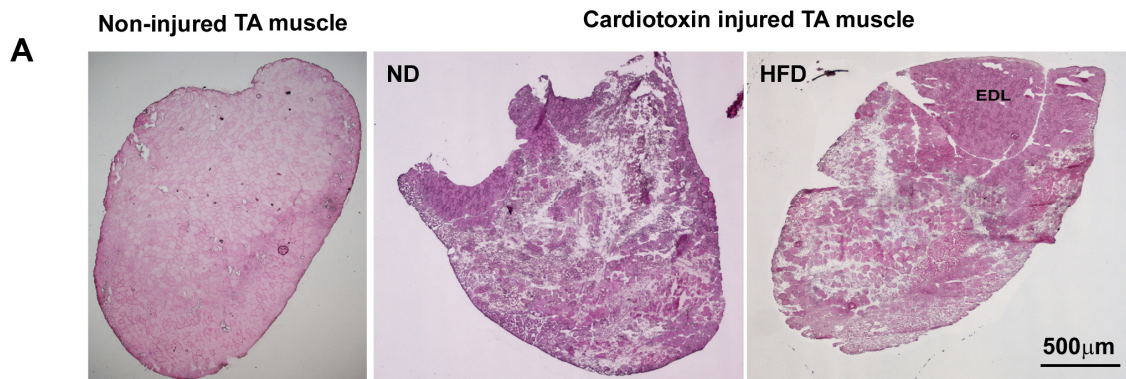


Supplemental Figure 1. PTEN suppresses regeneration of injured muscle

A: at 2 days after cardiotoxin (CTX) injury, sections of muscle at approximately the same distance from the proximal insertion of the TA muscle reveal similar degrees of injury in mice fed the HFD or ND.

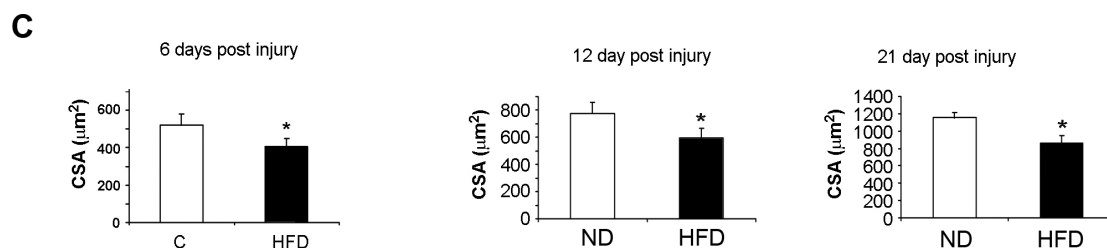
B: metabolic parameters in wild type, lox/lox and MPKO mice fed the ND or HFD; blood was obtained after withdrawing food for 6 hours (* p<0.01, ** p<0.01).

C: the average cross sectional area (CSA) of regenerating myofibers in mice fed the HFD was significantly lower compared to ND mice (n = 6 in each group; *, p<0.05 compared to values in ND mice).



B

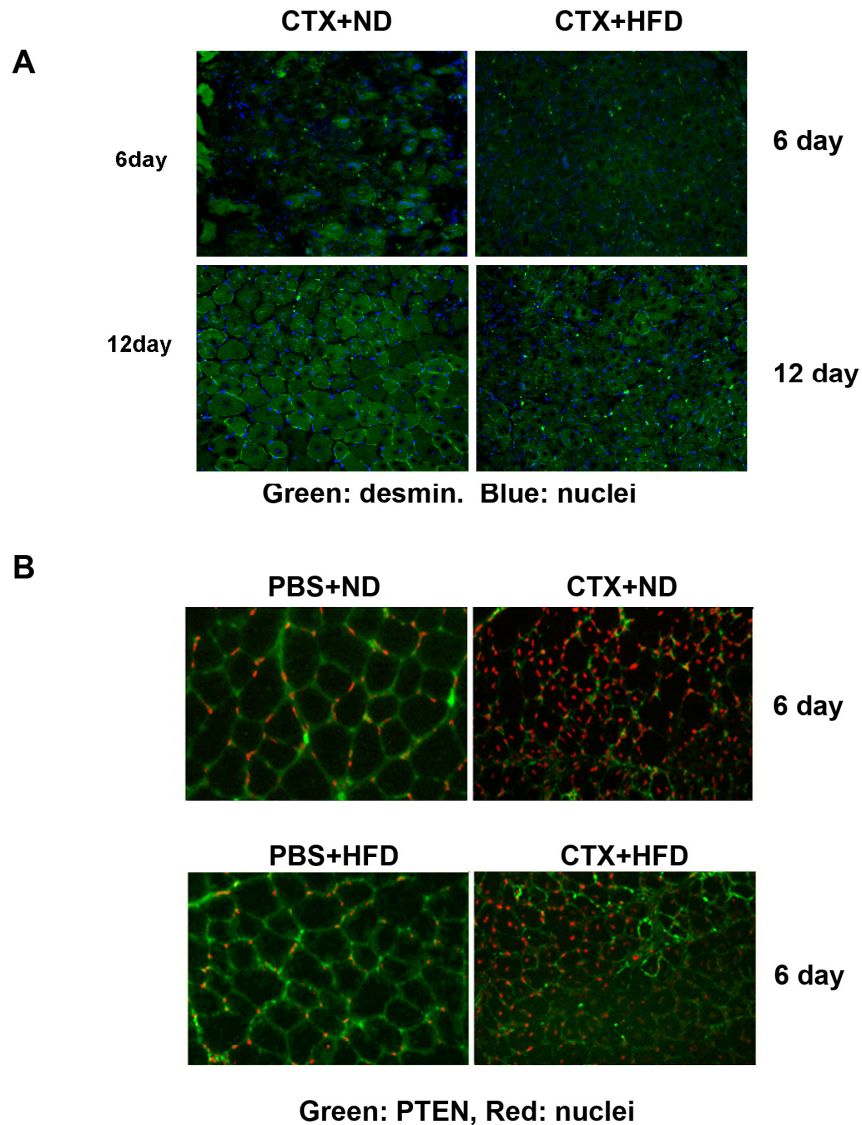
	n=	BS (mg/dL)	FFA (μM)	Insulin(ng/ml)
Wt+ND	12	126.6±8.0	0.51±0.17	0.63±0.14
Wt+HFD	12	212.3±14.2 *	1.52±0.12 *	1.72±0.48 *
lox/lox+ND	6	137.0±7.7	0.47±0.18	0.60±0.12
MPKO+ND	6	132.2±5.6	0.54±0.11	0.58±0.16
lox/lox+HFD	12	238.6±12.1	1.72±0.23	2.02±0.36
MPKO+HFD	12	167.8±8.2 **	1.68±0.17	1.08±0.28 **



Supplemental Figure 2.

A: myofiber maturation was assessed by desmin staining in mice fed the HFD or ND. At days 6 and 12 after injury, desmin staining was decreased in muscles of HFD mice, indicating impaired maturation. Cardiotoxin injury is indicated as CTX.

B: immunostaining of PTEN was increased in injured muscle of mice fed the HFD.



Supplemental Figure 3.

A: in ND mice, the distribution of cross sectional areas (CSA) was smaller in injured muscles of control, lox/lox compared to MPKO mice. CSA distributions at 6, 12 and 21 days after injury are shown.

B: average CSA values of the distributions shown in Supplemental figure 3A (n = 6 in each group; *, p<0.05).

C: in HFD mice, the distribution of cross sectional areas (CSA) was smaller in injured muscles of lox/lox compared to MPKO mice. The distributions found at 6, 12 and 21 days after injury are shown.

D: average CSA values of the distributions shown in supplemental figure 3C (n = 6 in each group; *, p<0.05).

