Supplemental Figure 1

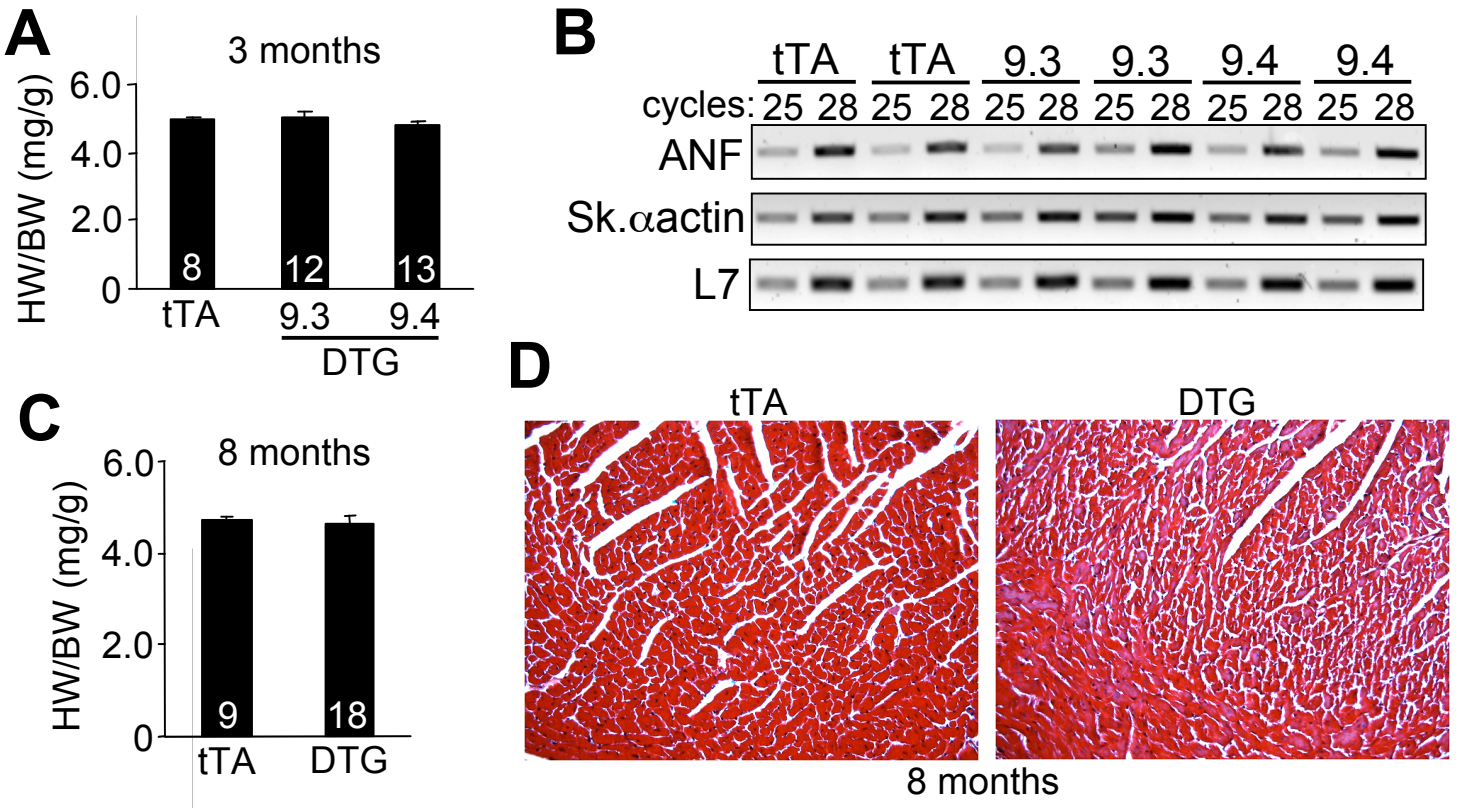

Fig S1. Baseline phenotype of α1G overexpressing mice. (**A**) Heart weight (HW) normalized to body weight (BW) for control (tTA) and DTG (both lines) at 3 months of age. (**B**) RT-PCR for atrial natriuretic factor (ANF), skeletal α-actin (Sk.αactin) or L7 (control) from adult hearts of control (tTA) and DTG (both lines) mice. (**C**) HW/BW for control (tTA) and DTG (line 9.4) at 8 months of age. (**D**) Histological assessment (200x magnification) of fibrosis by Masson's trichrome staining in control (tTA) and DTG (line 9.4) at 8 months of age. Number of mice analyzed in each groups is shown in the panels.

Supplemental Figure 2

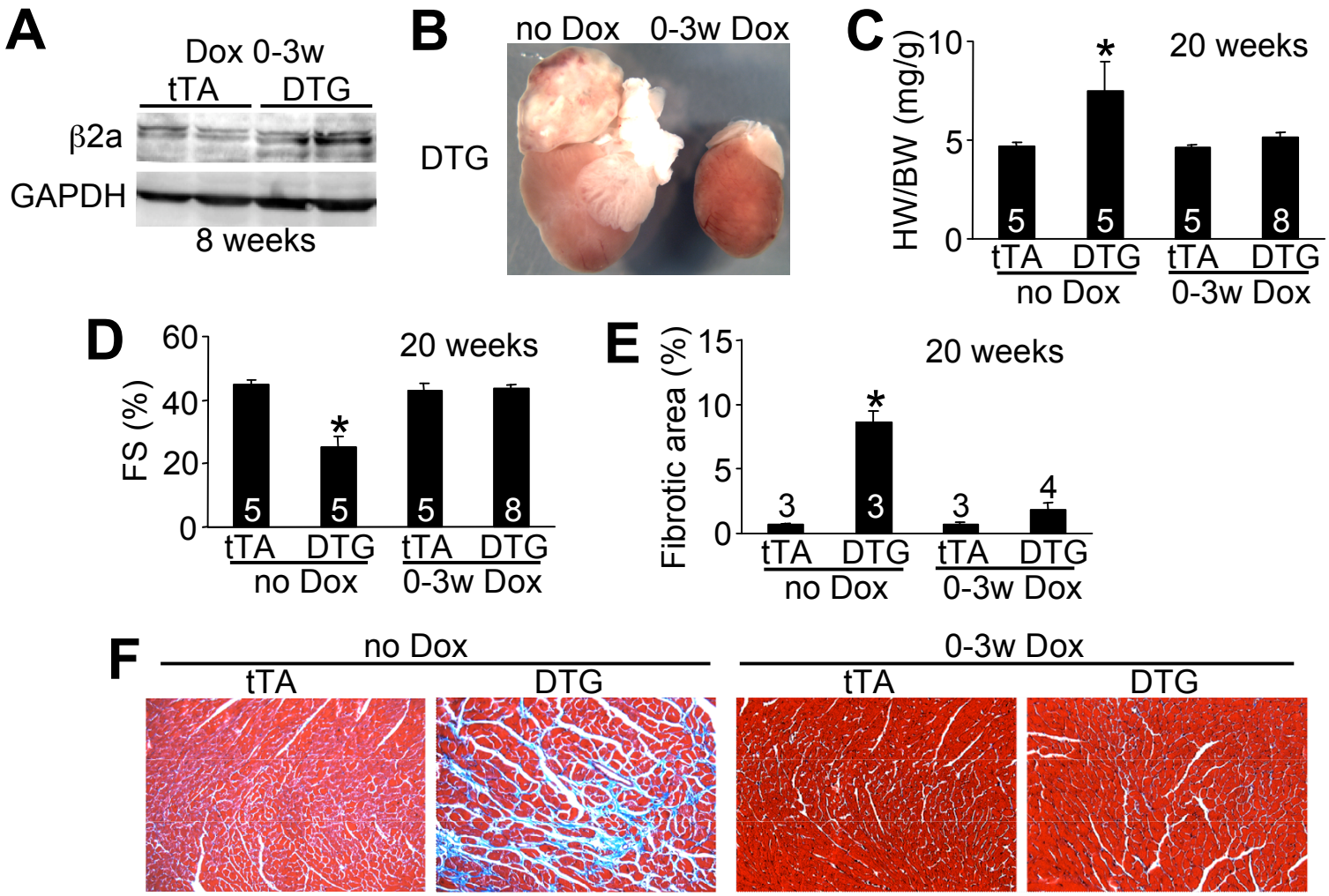

Fig S2. Characterization of LTCC TG mice with adult induction of β2a. (**A**) Western blot analysis of β2a protein levels at 8 weeks of age from control (tTA) β2a DTG raised with Dox until 3 weeks of age. (**B**) Gross morphological view of β2a DTG hearts at 20 weeks of age raised without (left) or with (right) Dox until 3 weeks of age. (**C**) Heart weight (HW) normalized to body weight (BW) of β2a DTG and control (tTA) at 20 weeks of age with or without Dox (0-3 weeks). (**D**) Fractional shortening assessment by echocardiography at 20 weeks of age with or without Dox (0-3 weeks). (**E**) Quantitation of fibrotic area (blue) from Masson's trichrome stained cardiac histological sections obtained from β2a DTG and tTA at 20 weeks of age with or without Dox (0-3 weeks). (**F**) Representative histological Masson's trichrome stained sections (200x magnification) from mice in panel E. Numbers on bars indicate the numbers of measured samples. *P<0.05 vs tTA without Dox.

Supplemental Figure 3

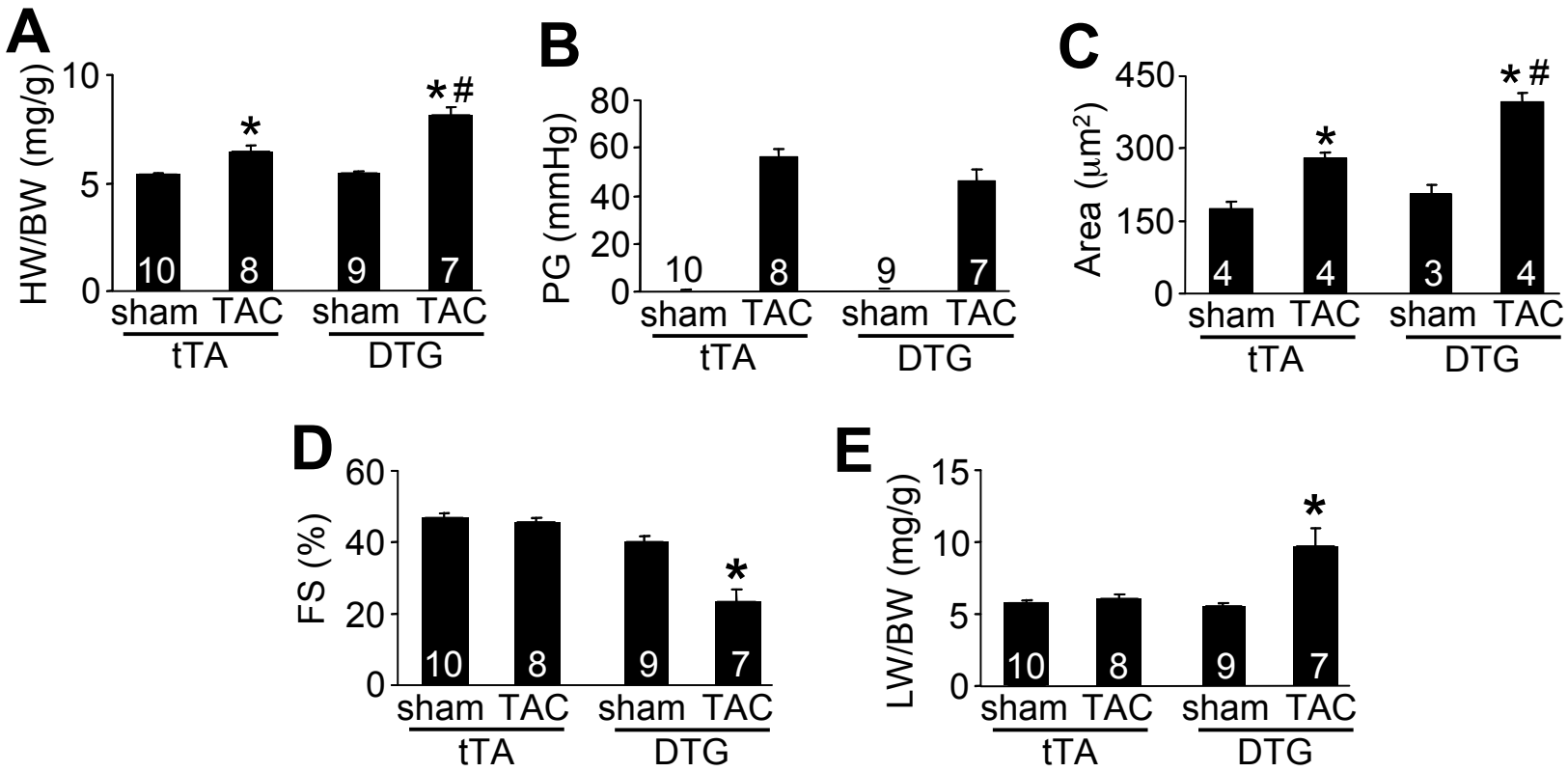

Fig S3. Enhanced LTCC activity exacerbates pathologic hypertrophy after pressure overload. **(A)** Heart weight (HW) normalized to body weight (BW) in β2a DTG and tTA mice raised with Dox (0-3 weeks) 2 weeks after a sham or TAC procedure (12 weeks old). (**B**) Systolic pressure gradients (PG) across the aortic constriction in the mice from panel A. (**C**) Histological analysis of myocyte cross-sectional areas from the mice in panel A. (**D**) Fractional shortening (FS) assessment by echocardiography from the mice in panel A. (**E**) Lung weight (LW) normalized to BW in the mice from panel A. Numbers in bars indicate the numbers of measured samples or mice. *P<0.05 vs tTA sham; #P<0.05 vs tTA TAC.