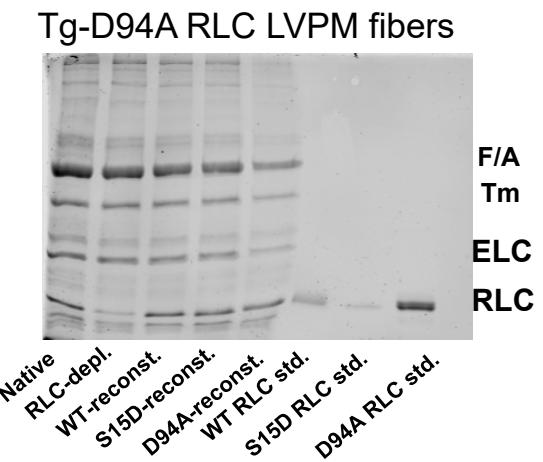
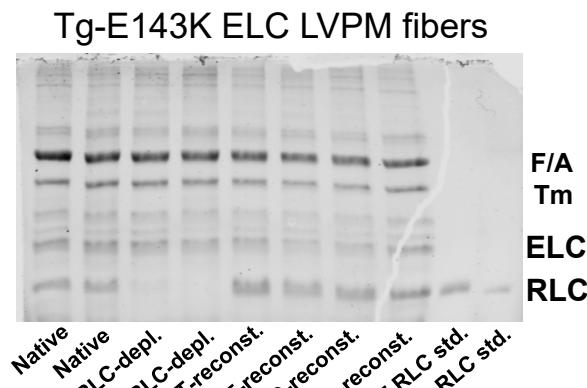
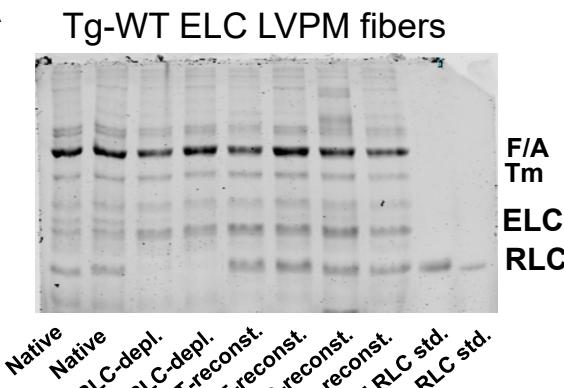


Supplementary Materials

Supplementary Figures

A



B

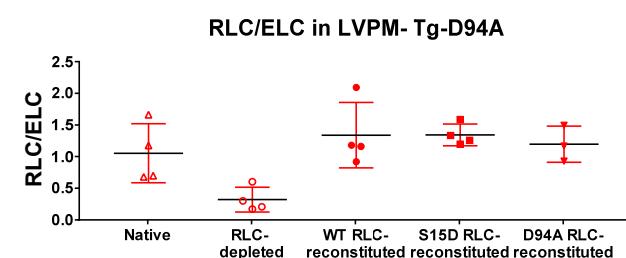
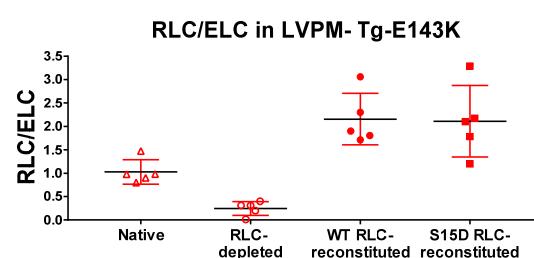
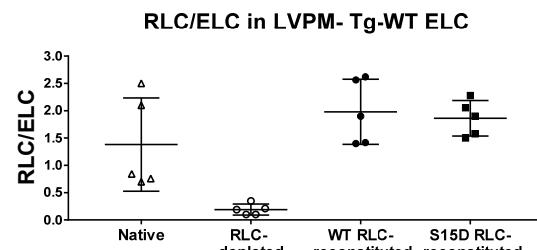


Figure S1. Representative SDS-PAGE of RLC-depleted and mutant-reconstituted LVPM preparations from Tg-WT ELC, Tg-E143K ELC, and Tg-D94A RLC mice. Depletion and reconstitution experiments in Tg-WT ELC, Tg-E143K ELC, and Tg-D94A RLC LVPM fibers are shown in (A), while quantification is presented in (B). LVPM fibers were CDTA/Triton-depleted of endogenous RLC and reconstituted with recombinant WT-RLC, S15D-RLC, and D94A-RLC proteins. To measure the efficiency of the depletion/reconstitution 3-5 LVPM fibers from mouse ventricles were subjected to depletion. The band intensity of ELC and RLC were assessed and the RLC/ELC \pm SD were calculated: 1.38 \pm 0.85 for Tg-ELC native, 1.06 \pm 0.22 for Tg-E143K ELC native, and 1.05 \pm 0.47 for Tg-D94A RLC native. RLC/ELC \pm SD for depleted fibers were 0.20 \pm 0.10 for Tg-ELC, 0.24 \pm 0.15% for Tg-E143K, 0.32 \pm 0.20 for Tg-D94A. RLC/ELC \pm SD for reconstituted fibers were 1.92 \pm 0.45 for Tg-ELC, 2.13 \pm 0.62 for Tg-E143K, and 1.30 \pm 0.33 % for Tg-D94A.