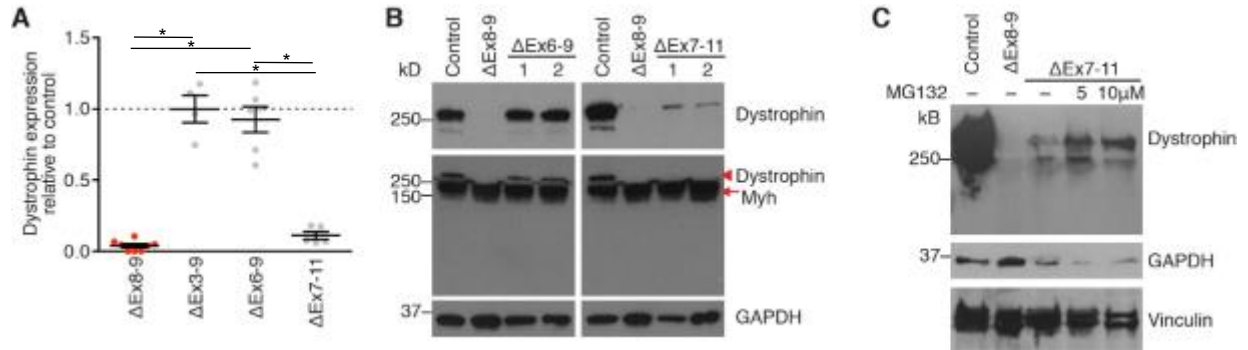
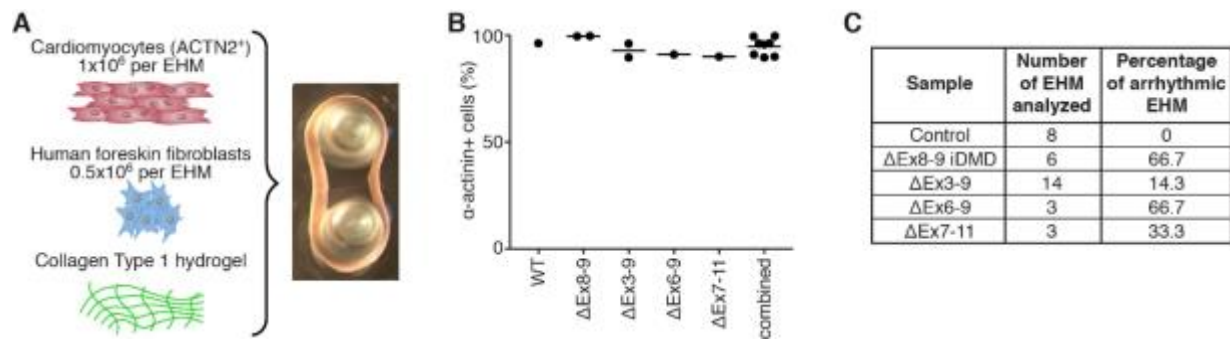


Supplemental Figures



Supplemental Figure 1. Dystrophin protein expression level. Related to Figure 3 and Figure 4. **(A)** Dystrophin expression levels in ΔEx8-9 iDMD (n=8), ΔEx3-9 (n=4), ΔEx6-9 (n=6), and ΔEx7-11 (n=5) iPSC-derived cardiomyocytes compared to control cell line, indicated by dashed line. Data are represented as mean ± s.e.m. *P < 0.05 **(B)** Western blot analysis of dystrophin (top), Myosin heavy chain, Myh, (middle) and GAPDH (bottom) expression in control, ΔEx8-9 iDMD, ΔEx3-9, ΔEx6-9, and ΔEx7-11 iPSC-derived cardiomyocytes. Arrowhead indicates residual dystrophin protein after stripping the blot. Arrow indicates myosin heavy chain expression. **(C)** Western blot analysis of ΔEx7-11 clone 2 iPSC-derived cardiomyocytes treated with proteasome inhibitor MG132 for 60 hours using anti-dystrophin antibody. GAPDH and Vinculin were used as loading control



Supplemental Figure 2. Generation and functional analysis of engineered heart muscle (EHM). Related to Figure 5. **(A)** Schematic diagram of EHM generation. **(B)** Percentage of α -actinin – positive (ACTN2⁺) cardiomyocytes before EHM generation. n=7 total EHM analyzed. **(C)** Percentage of EHM arrhythmic contractions.

Supplemental Videos

Supplemental Video 1. Engineered heart muscle of control iPSC-derived cardiomyocytes.

Supplemental Video 2. Engineered heart muscle of Δ Ex8-9 iDMD iPSC-derived cardiomyocytes.

Supplemental Video 3. Engineered heart muscle of Δ Ex3-9 iPSC-derived cardiomyocytes.

Supplemental Video 4. Engineered heart muscle of Δ Ex6-9 iPSC-derived cardiomyocytes.

Supplemental Video 5. Engineered heart muscle of Δ Ex7-11 iPSC-derived cardiomyocytes.