

Description of Additional Supplementary Files

File Name: Supplementary Movie 1

Description: Spontaneous beating of hiPSC-derived cardiomyocytes. Representative recording at day 10 of differentiation. Cells were seeded at 800,000 cells per well in a 12-well plate. The video was acquired at 60× magnification using a Zeiss LSM 800 microscope.

File Name: Supplementary Data 1

Description: Non-overlapping genes detected in lysate but not NTVE, from the STAR-based alignment (Supplementary Figure 5b) and the minimap2-based alignment (Supplementary Figure 10c).

File Name: Supplementary Data 2

Description: Differentially expressed Genes due to forskolin treatment of murine neurons, including non-budding control and DMSO vehicle control. Relates to Figure 4.

File Name: Supplementary Data 3

Description: GSEA analyses of cardiomyocyte differentiation. Relates to Figure 7.

File Name: Supplementary Data 4

Description: NTVE constructs, AAVs, sequences, auxiliary sequences, RT-qPCR primers, pegRNAs, NGS barcodes, and NGS oligos.