



**SUPPLEMENTARY FIG. S3.** Gene editing in the *MYH7* locus ( $\beta$ -myosin heavy chain). (A) Shows RT-PCR analysis of *MYH7* in different samples of hPSC lines in undifferentiated state (U1-U4) or after directed monolayer differentiation to cardiomyocytes (CM1–CM4); only the latter shows expression. Despite the lack of gene expression in the undifferentiated hPSCs, (B) shows the targeting efficiencies of  $\sim 25\%$  after insertion of a selection cassette flanked by FRT recombination sites. In (C), note that by RT-PCR *MYH7* expression occurs in WT cells or targeted cells from which the selection cassette has been removed with FLP recombinase (excised) but not when the selection cassette is present (cassette), even though it is positioned in an intron away from any annotated elements or splice junctions. FLP, flippase recombinase; FRT, FLP recombinase target sequences; G, genomic DNA; MW, molecular weight marker; NTC, no template control; RT-PCR, reverse transcription-polymerase chain reaction; WT, wild type.