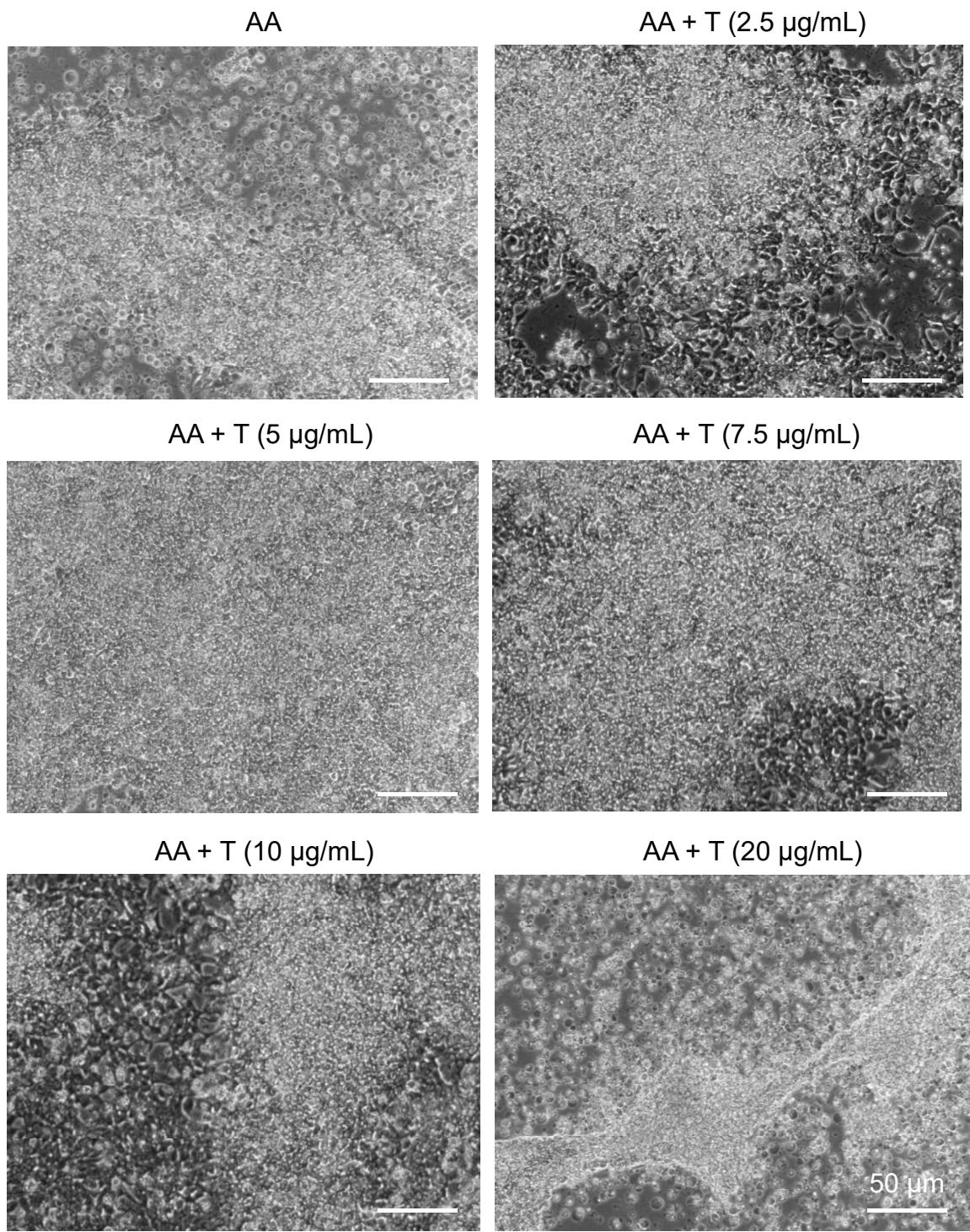
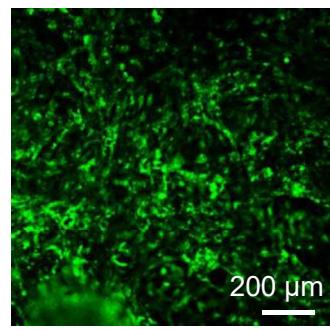


## Supplementary Fig. 1 Optimization of transferrin dose for CM differentiation

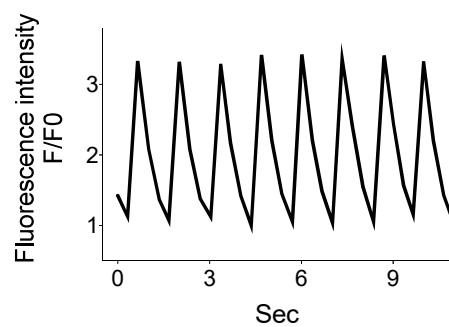


**Supplementary Fig. 2 Simultaneous confocal imaging of  $\text{Ca}^{2+}$  transient in day 21 hiPSC-CMs**

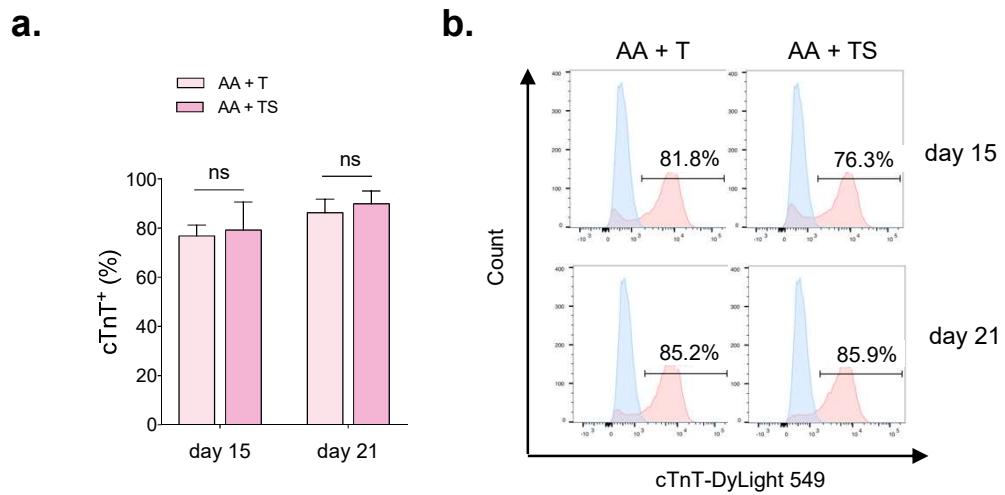
**a.**



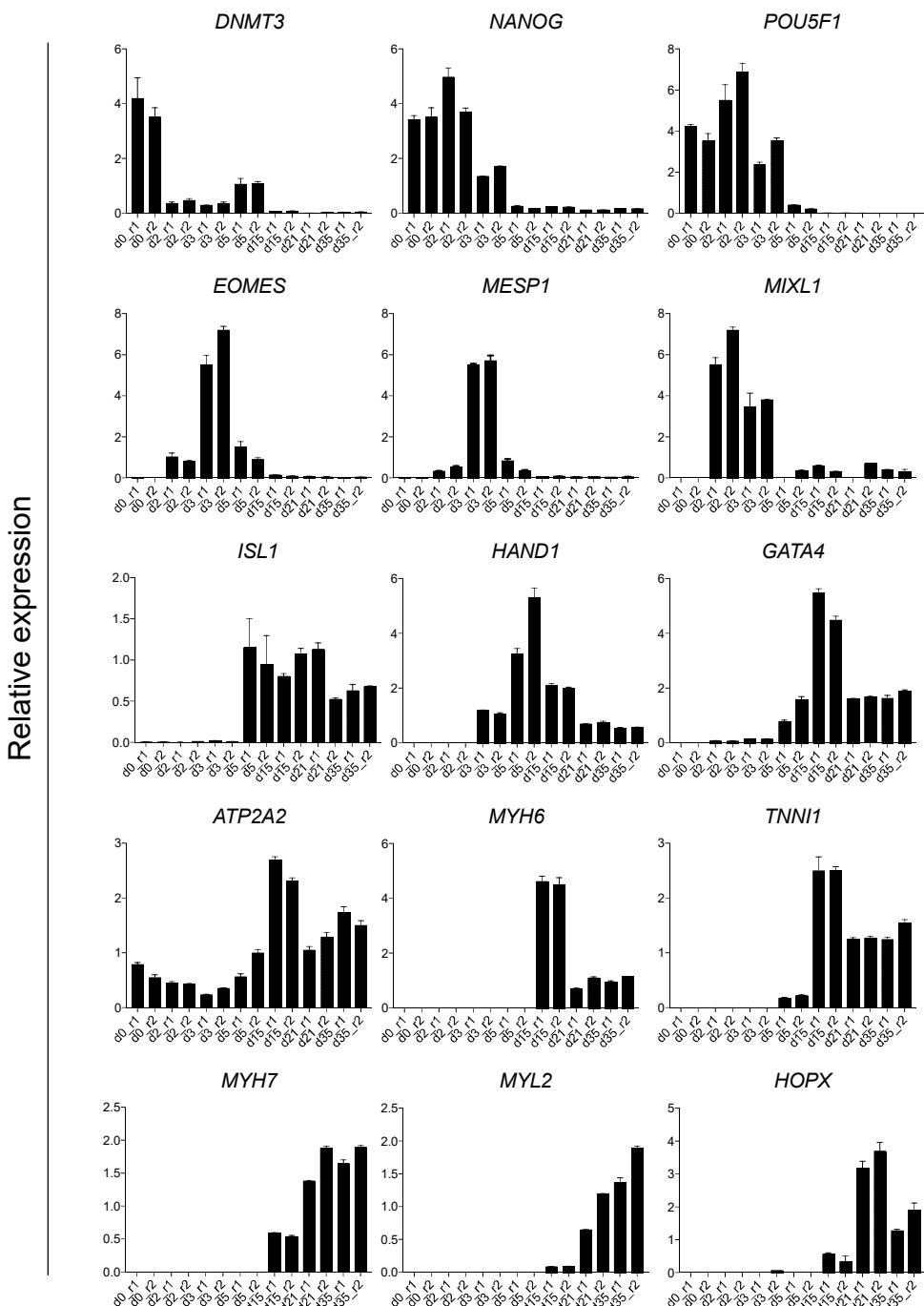
**b.**



### Supplementary Fig. 3 Assessment of addition of sodium selenite on cardiac differentiation

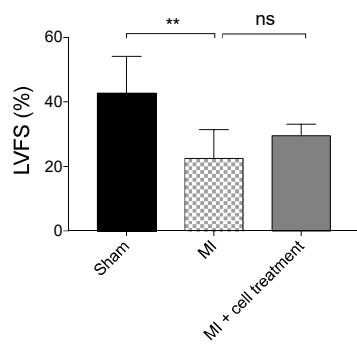


**Supplementary Fig. 4 Q-PCR validation of stage-specific genes during hiPSC-derived cardiac differentiation according to the RNA-seq results**



## Supplementary Fig. 5 Quantitative cardiac function analysis of LVFS and LVEF on day 3 post-transplantation

a.



b.

