

**Supplementary information**

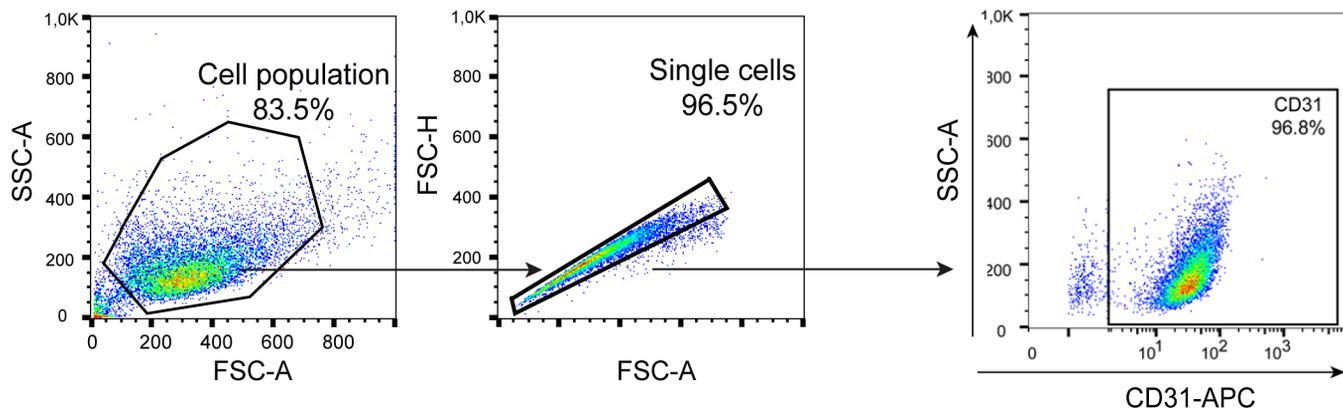
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**Generation, functional analysis and applications of isogenic three-dimensional self-aggregating cardiac microtissues from human pluripotent stem cells**

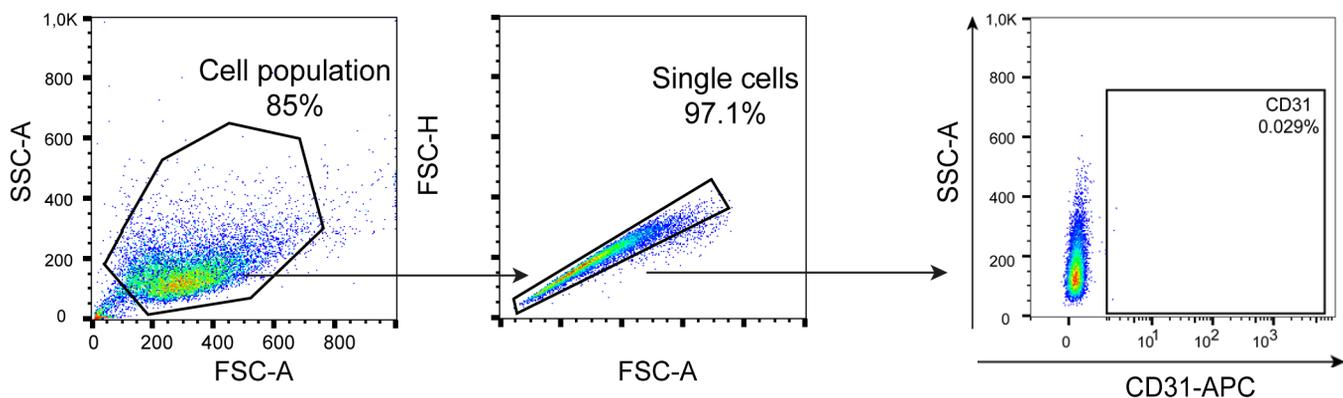
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In the format provided by the authors and unedited

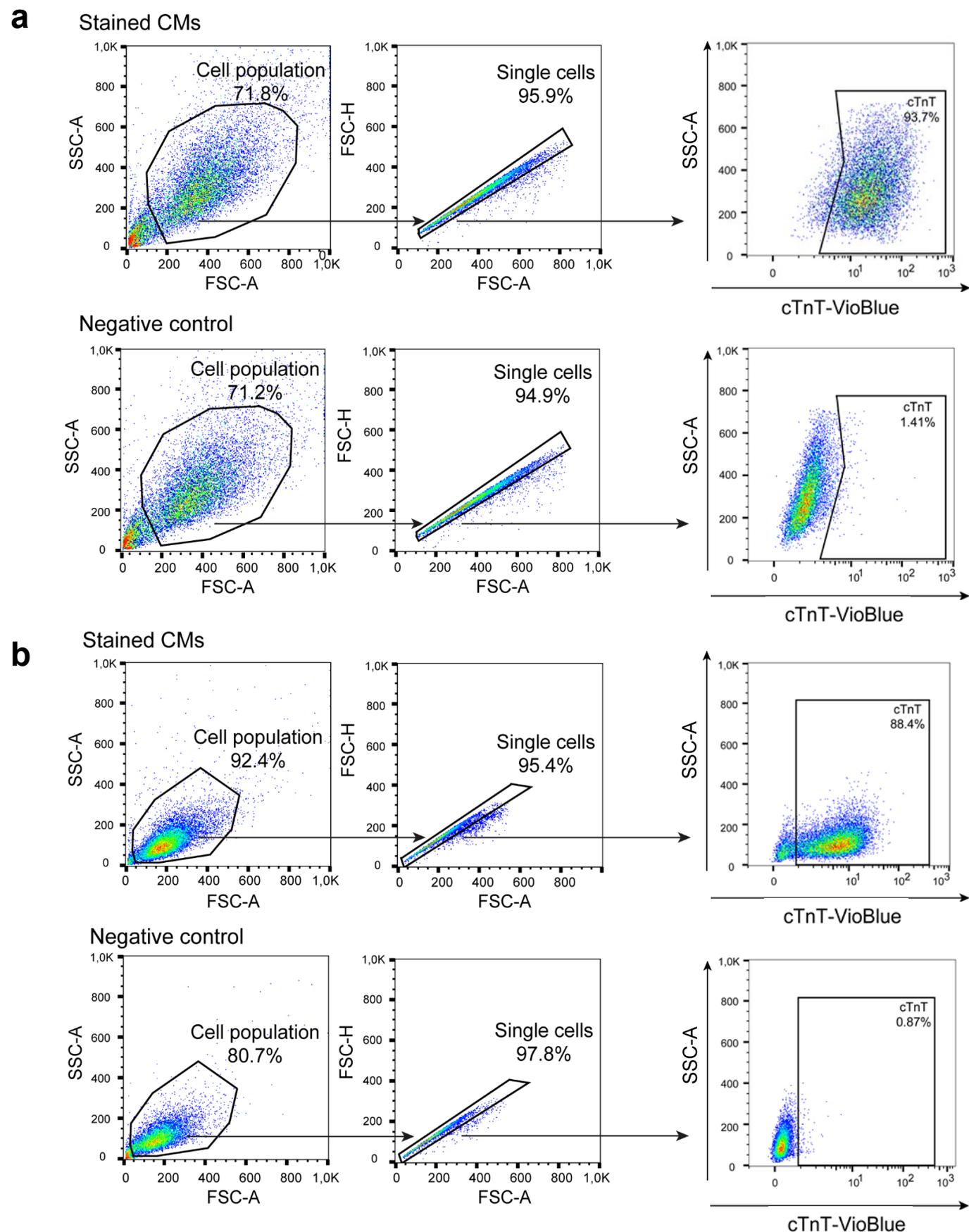
## Stained ECs



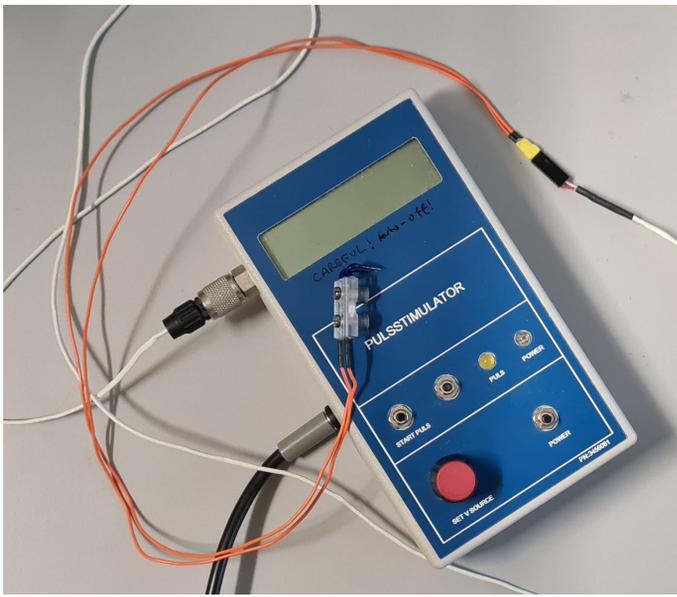
## Negative control



**Supplementary Figure 1: Gating strategy used for FACS analysis of hiPSC-ECs.** (a) Forward and side scatter dot plots showing the starting cell population, (b) the gating to discriminate single cells and (c) the gating to isolate CD43-APC positive cells with the help of cells stained with isotype control (APC). The percentage of the relevant cell populations are provided. Cells were acquired with a MACSQuant VYB (Miltenyi Biotech) and analyzed with FlowJo Software.



**Supplementary Figure 2: Gating strategy used for FACS analysis of hiPSC-CMs.** (a) Forward and side scatter dot plots showing the starting cell population, (b) the gating to discriminate single cells and (c) the gating to isolate TNNT-VioBlue positive cells with the help of unstained cells (mBEL) or cells stained with isotype control (VioBlue). The percentage of the relevant cell populations are provided. Cells were acquired with a MACSQuant VYB (Miltenyi Biotech) and analyzed with FlowJo Software.

**a****b**

**Supplementary Figure 3: Equipment used for electrical pacing of cardiac MTs.** (a) Pulse stimulator connected to custom-made electrodes fitting the V-shaped 96-wells and (b) details of custom-made electrodes.