Supplemental Methods

Robust and highly efficient hiPSC generation from patient non-mobilized peripheral blood-derived CD34+ cells using the auto-erasable Sendai virus vector

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Flow cytometry analysis.

Cell surface staining was performed using the monoclonal antibodies shown below.

- APC-conjugated mouse anti-SSEA4 (BioLegend, #330418)
- PE-conjugated recombinant anti-TRA-1-60 (Miltenyi, #130-100-350)
- Alexa Fluor 488-conjugated mouse anti-NESTIN (ThermoFisher, # 53-9843-82)
- APC/Cy7-conjugated mouse anti-CXCR4 (BioLegend, #306527)
- FITC-conjugated mouse anti-NCAM (BioLegend, # 318303).

For staining of intracellular antigen, the following antibodies (monoclonal, otherwise stated) were used.

- PE-conjugated mouse anti-OCT3/4 (BD Pharmingen, #560186)
- Alexa Fluor-647-conjugated mouse anti-NANOG (BD Pharmingen, #561300)
- Alexa Fluor-647-conjugated mouse anti-PAX6 (BD Pharmingen, #562249)
- APC-conjugated goat anti-SOX17 (polyclonal, R&Dsystems, IC1924A)
- APC-conjugated goat anti-Brachyury (polyclonal, R&Dsystems, IC2085A)

To fix/permeabilize test samples, the Transcription Factor Buffer Set (BD Pharmingen, #562574) was used according to the manufacturer’s instructions.

The data were acquired with a fluorescence-activated cell sorting (FACS) Aria II sorter (BD Biosciences) and analyzed using FlowJo software (Tree Star, Ashland, OR).