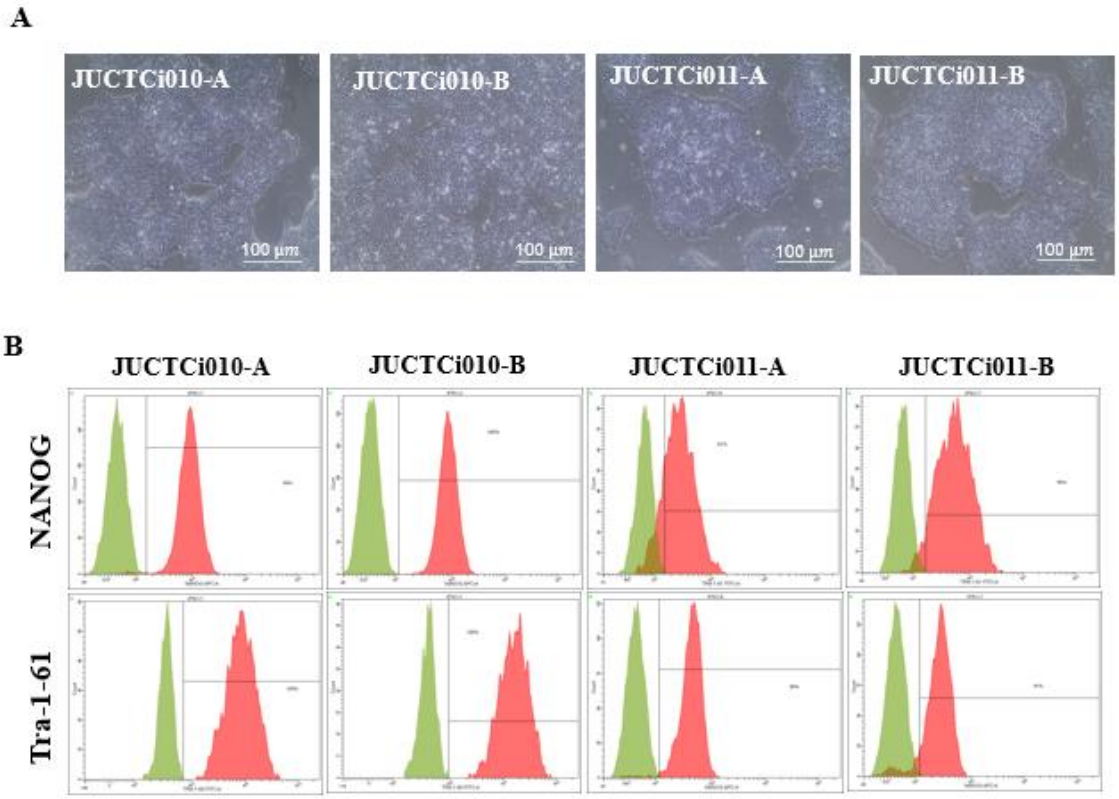
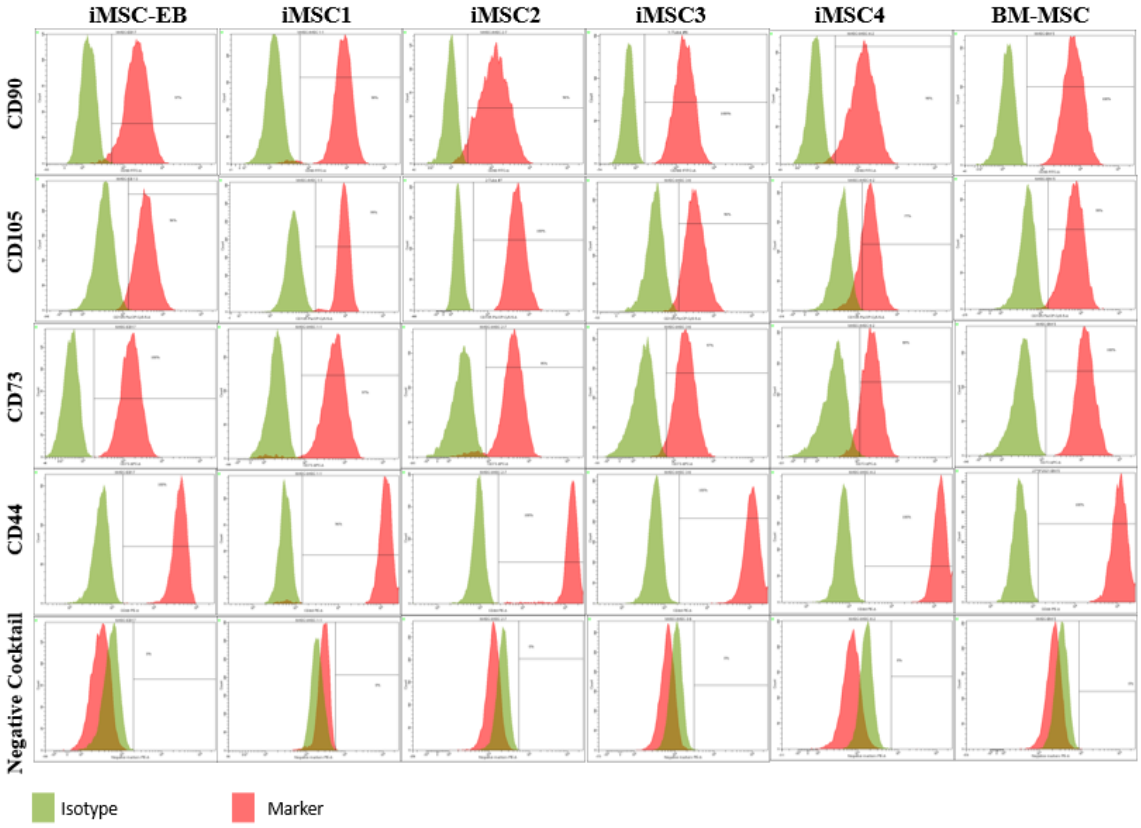


Supplementary Figure 1 Characterization of human iPSC lines. A: Representative microscopic images of four human iPSC lines (JUCTCi010-A, JUCTCi010-B, JUCTCi011-A, and JUCTCi011-B) showing typical compact colony morphology with well-defined edges. Scale bars: 100 μm; B: Flow cytometry confirms high expression levels of Nanog and Tra-1-60 in all iPSC lines.



Supplementary Figure 2 Representative histograms of the flow cytometric analysis of hMSC surface markers CD90, CD105, CD73 and CD44 in iMSCs.

Supplementary Table 1 Antibodies and isotype control preparation for pluripotency markers

Antibody/isotype	Volume of antibody	Volume of BSA staining solution
AF-488-labeled TRA-1-61 Isotype	0.6 μL	100 μL
AF-488-labeled Anti-TRA-1-61	2 μL	100 μL
PE-labeled TRA-1-81 Isotype	2 μL	100 μL
PE-labeled Anti-TRA-1-81	4 μL	100 μL
AF-647-labeled Nanog Isotype	10 μL	100 μL
AF-647-labeled Anti-Nanog	2 μL	100 μL

AF-488: Alexa flour 488; PE: Polyethylene; AF-647: Alexa flour 647.

Supplementary Table 2 Primer sequences and their optimal annealing temperatures

Gene	Primer sequences	Annealing temperature
PPAR-Γ	F: 5′-TGAACGACCAAGTAACTCTCC-3′	60 °C
	R: 5′-CGCAGGCTCTTTAGAAACTCC-3′	
ADIPSIN	F: 5′-AGGGTCACCCAAGCAACAAAG-3′	60 °C
	R: 5′-TACGTGGCCCATGCTGATCT-3′	
OCN 2	F: 5′-AGCTCAATCCGGACTGT-3′	60 °C
	R: 5′-GGAAGAGGAAAGAAGGGTGC-3′	
RUNX2	F: 5′-ATGTGTGTTTGTTTCAGCAGCA-3′	60 °C
	R: 5′-TCCCTAAAGTCACTCGGTATGTGTA-3′	
GAPDH	F: 5′-CCTGTTCGACAGTCAGCCG-3′	58-63 °C
	R: 5′-CGACCAAATCCGTTGACTCC-3′	