

Supplementary materials for review

IGFBP3 deposited in the human umbilical cord mesenchymal stem cell-secreted
extracellular matrix promotes bone formation

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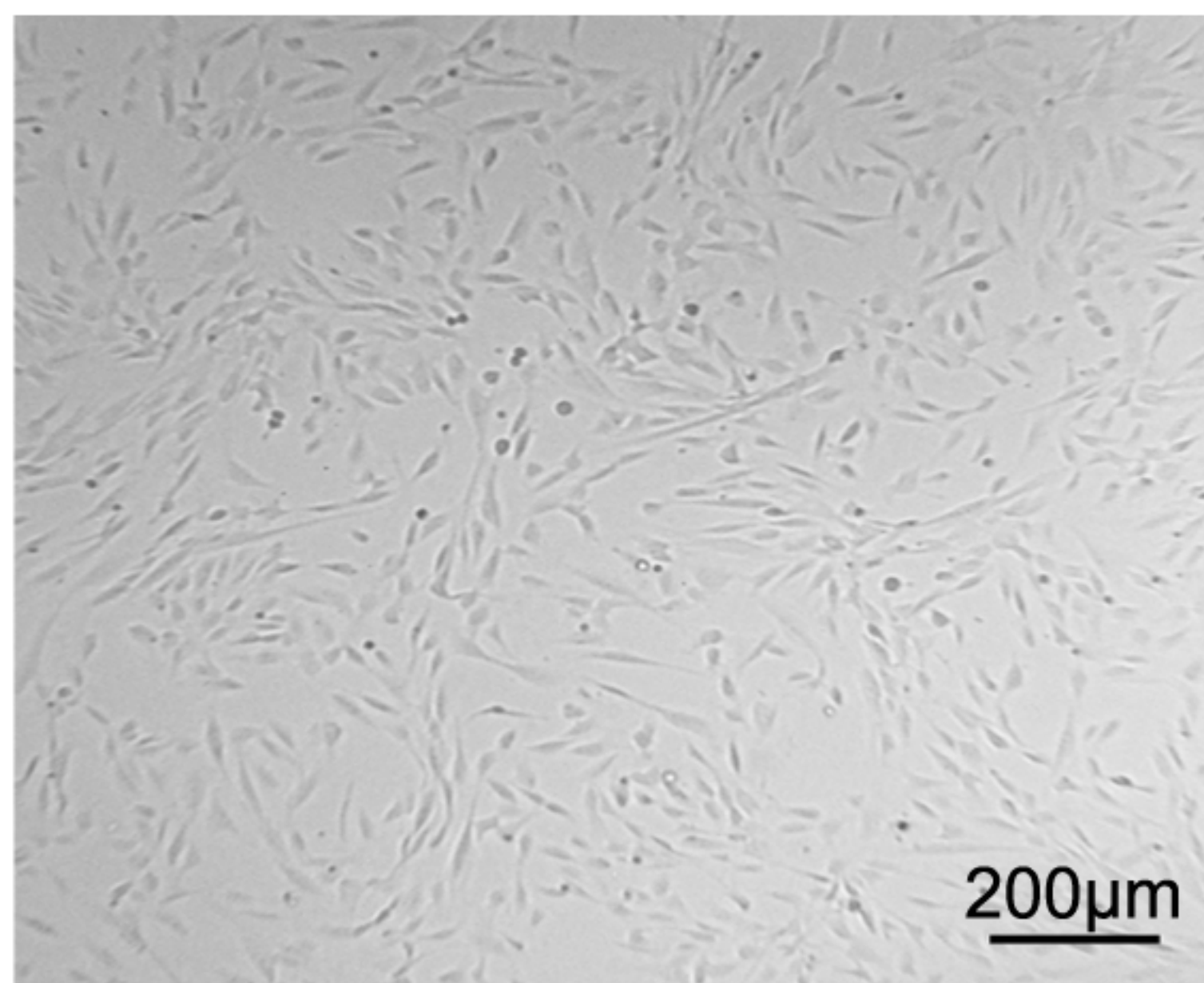
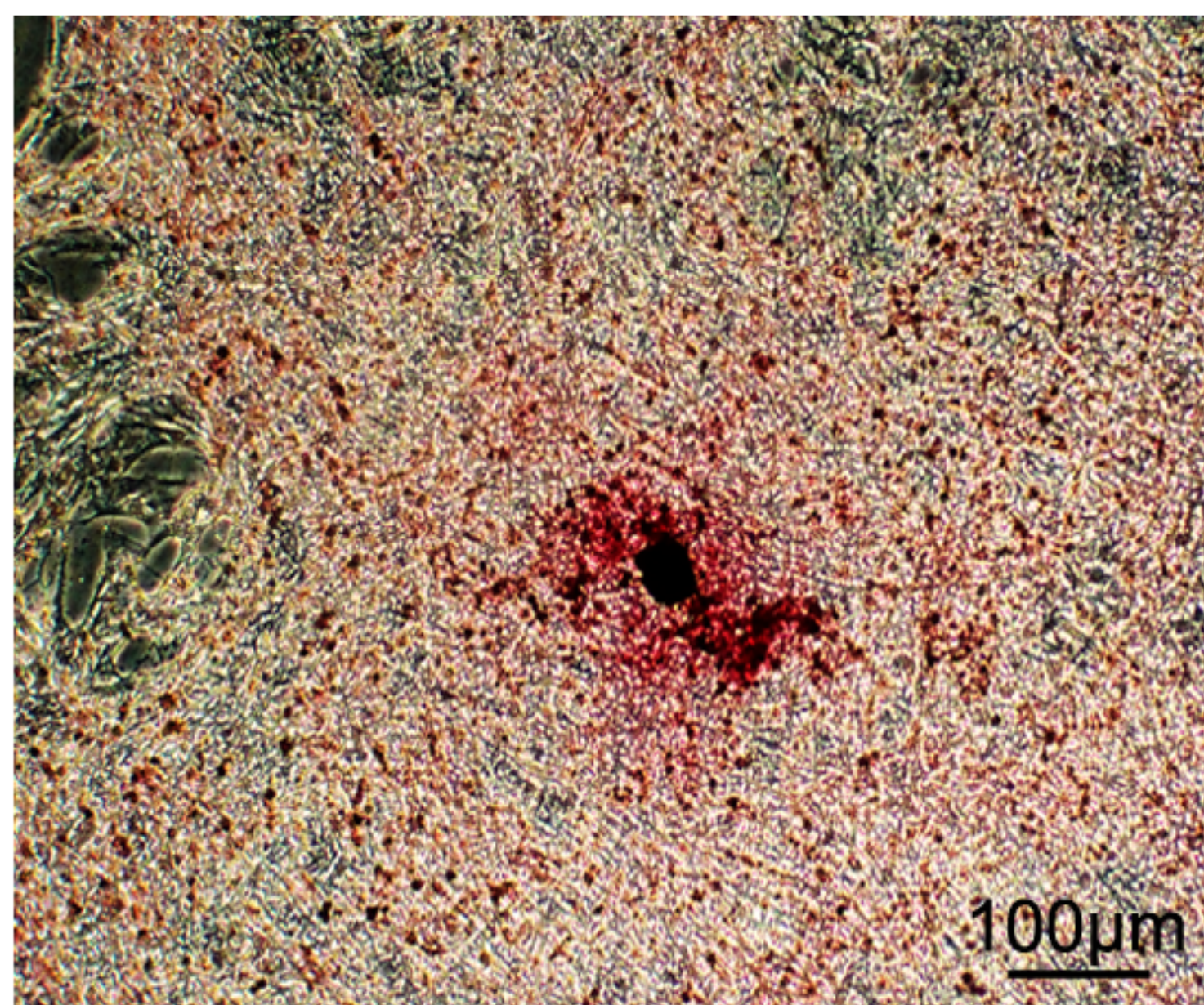
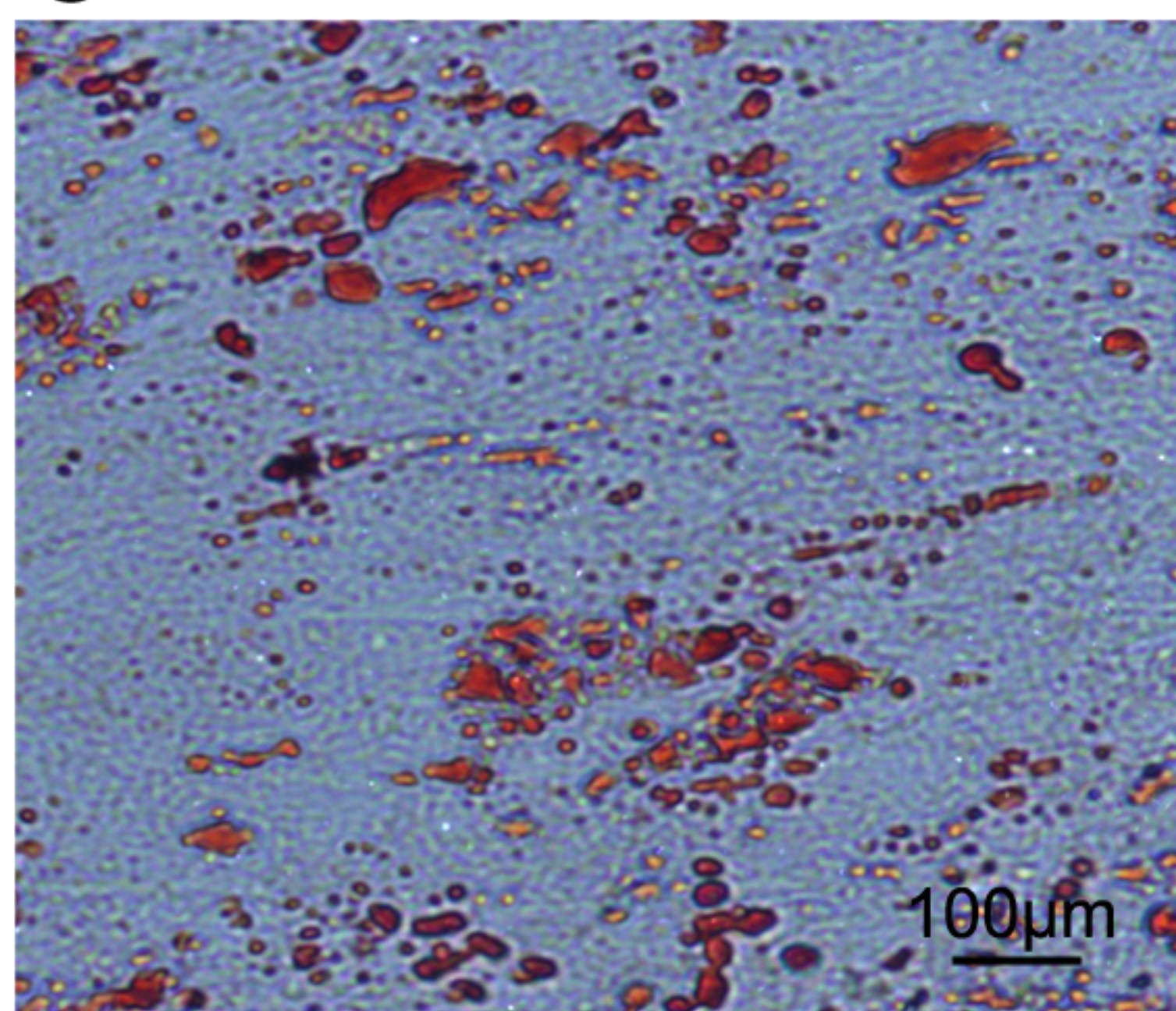
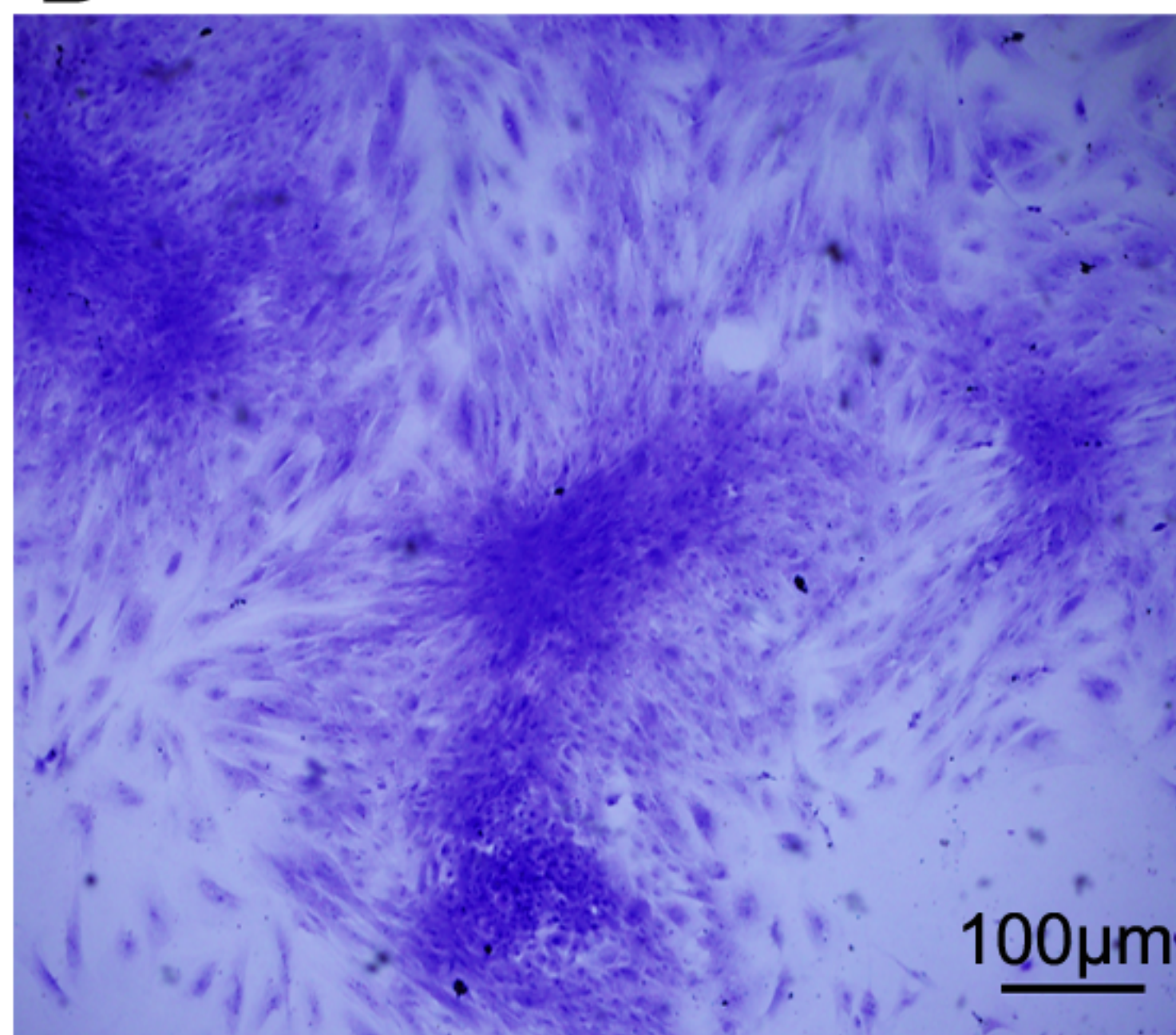
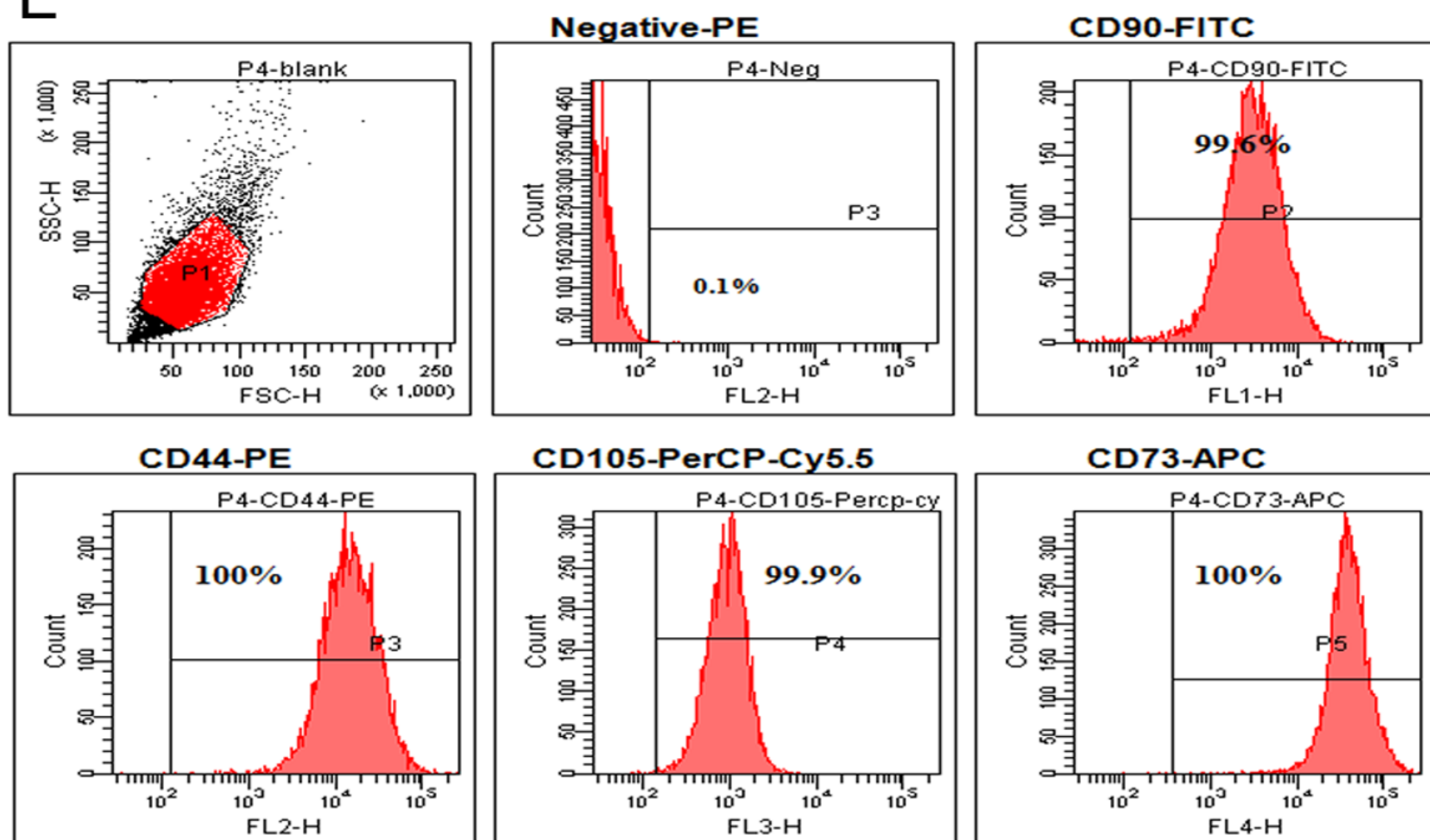
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Supplemental Table 1 Gene primers for Real time PCR

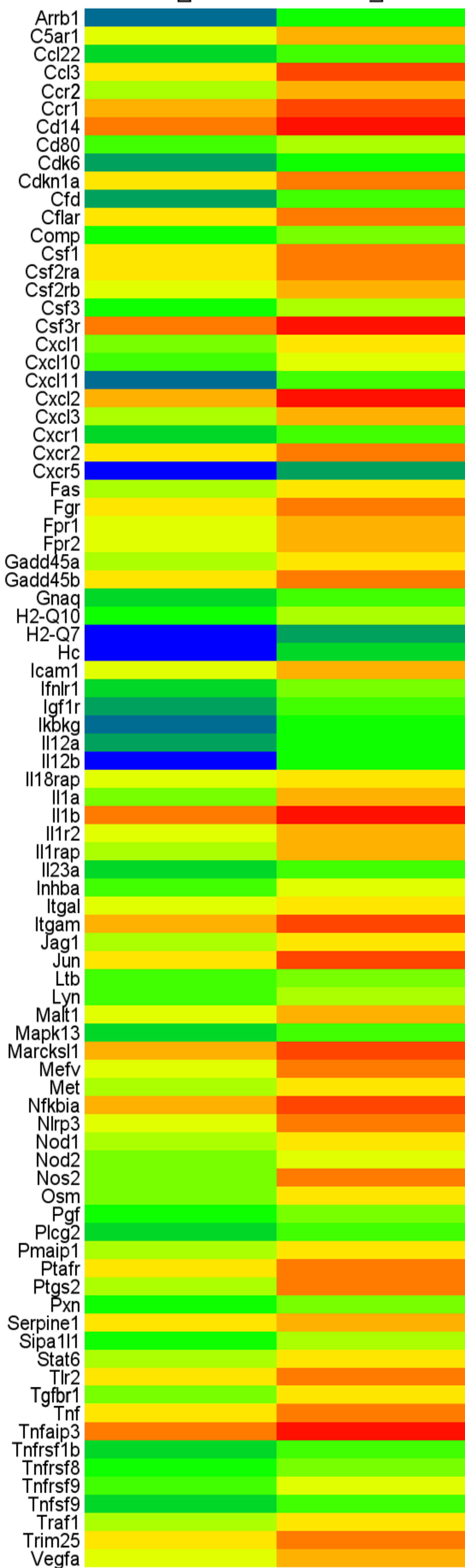
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		Reverse	CTCCCAACGAAGGCATAGATG
CXCR4	NM_001008540.2	Forward	TGCCCTCCTGCTGACTATTCC
		Reverse	AGGATAAGGCCAACCATGATG
PDGF-Rα	NM_001347827.1	Forward	TGAAGGCAGGCACATTTACATCTA
		Reverse	TACAGGAGTCTCGGGATCAGTTG
PDGF-Rβ	NM_002609.3	Forward	GGGGACAGGGAGGTGGATT
		Reverse	ATTCCCGATCACAATGCACA
CCR4	NM_005508.4	Forward	CAGCTCCCTGGAAATCAACATTC
		Reverse	CAGTCTTGGCAGAGCACAAAAGG
IGF1R	NM_000875.4	Forward	ACCCGGAGTACTTCAGCGC
		Reverse	CACAGAAGCTTCGTTGAGAA
GAPDH	NM_001289746.1	Forward	CTTCAACAGCGACACCCACT
		Reverse	GTGGTCCAGGGGTCTTACTC
CCR2	NM_009915.2	Forward	GGAGAA AAGCCA ACT CCT TC
		Reverse	AGG CAG TTGCAA AGG TACTG

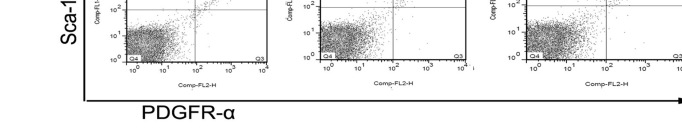
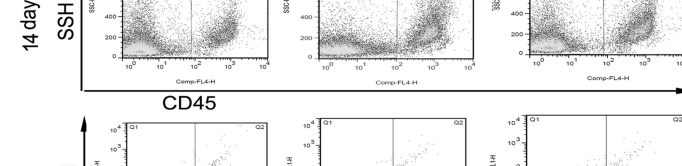
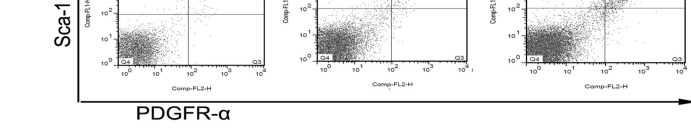
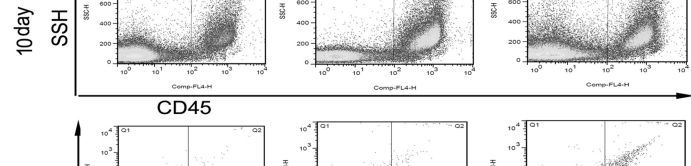
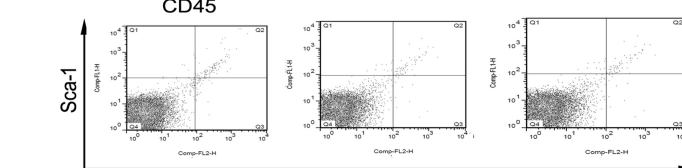
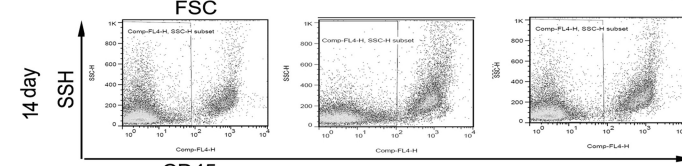
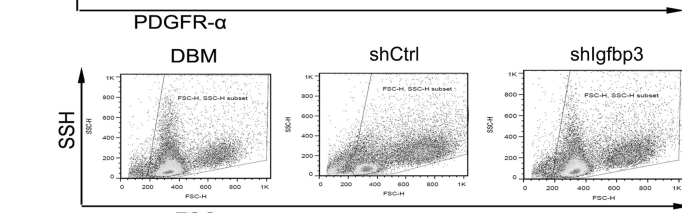
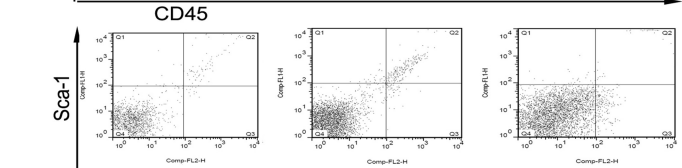
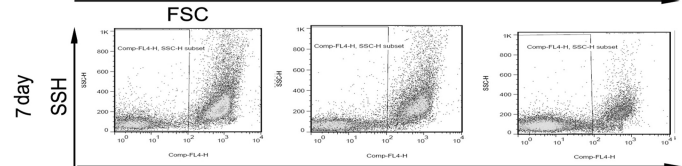
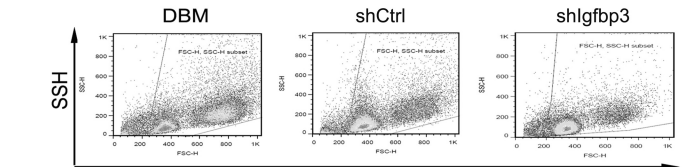
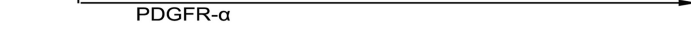
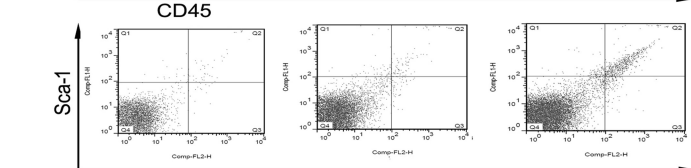
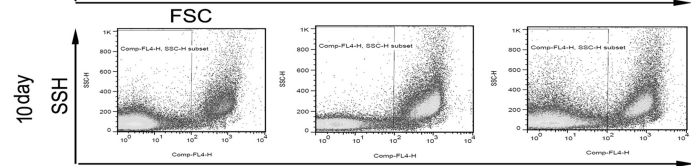
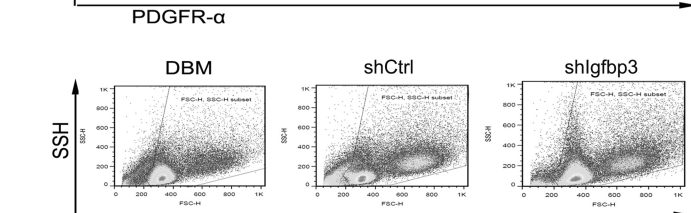
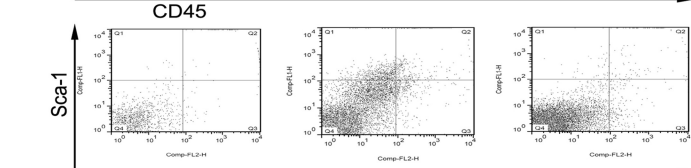
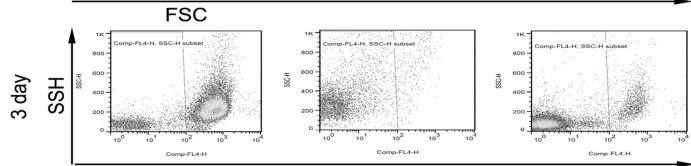
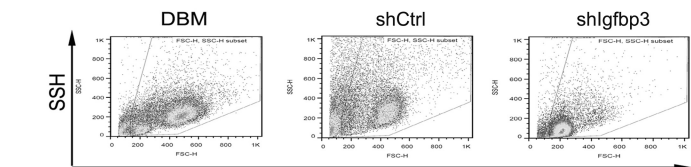
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		Reverse	GGTCCCAGCACTCAGTCAAC
GAPDH	NM_001289726.1	Forward	TCAAGAAGGTGGGTGAAGCAGG
		Reverse	TATTATGGGGGTCTGGGATGG

A**B****C****D****E**

DBM14D

LTEC14D





Supplemental Figure 1 Identification of hUCMSCs. A: Representative phase images of adherent P4 MSCs. B: The presence of calcium mineralization (Alizarin Red). C: Lipid vacuoles formation (Oil red O). D: The presence of chondrogenesis (Alcian Blue). E: Phenotype of P4 MSCs (MSC positive cocktail: FITC CD90, PerCP-CyTM5.5 CD105 and APC CD73, and the negative MSC cocktail: PE CD45, PE CD34, PE CD11b, PE CD19 and PE HLA-DR)

Supplemental Figure 2 Heatmap constructed by promigratory 89 genes derived from the significant pathways.

Supplemental Figure 3: Endogenous MSC kinetics postimplantation. Representative Sca-1 versus PDGFR- α plots were gated on CD45⁻ cells in DBM, *shCtrl* and *shIgfbp3* groups at 3, 7, 10 and 14 days postimplantation. Plots are representative of three independent experiments.