SUPPLEMENTARY TABLE S1. FUNCTIONAL GENE GROUPING OF OSTEOGENESIS-RELATED GENES IN THE MOUSE OSTEOGENESIS RT^2 PROFILER™ PCR ARRAY (Qiagen: www.sabiosciences.com)

Skeletal development	
Bone mineralization	alpha-2-HS-glycoprotein (ahsg), *ameloblastin (ambn)*, enamelin (enam), fibroblast growth factor receptor (fgfr) 2, smad1, tuftelin 1 (tuft1).
Cartilage condensation	bone morphogenetic protein (bmp) receptor 1b, col1agen (coll) 1a1, col 2a1, sox9.
Ossification	ahsg, ambn, dentin matrix protein 1 (dmp1), enam, phosphate regulating gene with homologies to endopeptidases on the x chromosome (phex), *sclerostin (sost)*, tuftelin interacting protein 11 (tfip11), tuft1.
Osteoclast differentiation	tumor necrosis factor
Other skeletal development genes	bmp 2, bmp 4, *bmp 5*, bmp 6, runx2, transforming growth factor beta (tgfb) 1, vitamin d receptor (vdr).
Bone mineral metabolism	
Calcium ion binding and homeostasis	annexin a5 (anxa5), bmp 1, cadherin 11 (cdh11), cartilage oligomeric matrix protein (comp), epidermal growth factor (egf), matrix metallopeptidase (mmp) 2, mmp 8, vdr.
Phosphate transport	bmp 5, col 10a1, col 11a1, col 12a1, col 14a1, col 1a1, col 1a2, col 2a1, col 3a1, col 4a1, col 4a2, col 5a1, col 6a1, col 6a2, col 7a1.
Cell growth and differentiation	
Regulation of cell cycle	fibroblast growth factor (fgf) 1, fgf 2, fgf 3, itgb1, platelet derived growth factor alpha (pdgfa), tgfb 1, tgfb 2, tgfb 3, vascular endothelial growth factor (vegf) a, vegf b.
Cell proliferation	fgf 1, fgf 2, fgf 3, fgf receptor 2, pdgfa, smad3, tgfb 1, tgfb 2, tgfb 3, tgfb receptor (tgfbr) 2, vegf a, vegf b.
Growth factors and receptors	bmp 1, bmp 2, *bmp 3*, bmp 4, *bmp 5*, bmp 6, bmp receptor 1a, bmp receptor 1b, *colony stimulating factor (csf) 2*, csf 3, egf, fgf 1, fgf 2, fgf 3, fgf receptor 1, FMS-like tyrosine kinase 1 (flt1), *growth differentiation factor 10 (gdf10)*, insulin-like growth factor 1 (igf1), igf1 receptor, pdgfa, scavenger receptor class b member 1 (scarb1), tgfb 1, tgfb 2, tgfb 3, tgfbr 1, tgfbr 2, tgfbr 3, vdr, vegfa, vegfb.
Cell differentiation	bmp 2, bmp 4, bmp 6, *csf2*, fgf 2, igf1, runx2, smad2, sox9, tfip11, tgfbr 2, twist1.
ECM proteins	
Basement membrane constituents	col 4a1, col 4a2.
Collagens	col 11a1, col 1a1, col 1a2, col 2a1, col 3a1, col 4a1, col 4a2, col 5a1, col 6a1, col 6a2.
ECM protease inhibitors	ahsg, col 7a1, serine peptidase inhibitor clade h member 1.
ECM Proteases	bmp 1, cathepsin k (ctsk), mmp 10, mmp 2, mmp 8, *mmp 9*, phex.
Structural constituents of tooth enamel	ambn, enam, tuft1.
Other ECM molecules	alkaline phosphatase, biglycan, bmp 2, bmp 4, *bmp 5*, bmp 6, bmp receptor 1a, col 10a1, col 12a1, col 14a1, comp, *csf2*, csf3, dmp1, egf, fgf 2, fgf 3, fgfr1, fgfr2, flt1, fibronectin 1 (fn1), *gdf10*, igf1, igf1r, integrin alpha (itga) 2, itga2b, itgam, integrin beta 1 (itgb1), pdgfa, *sost*, tfip11, tgfb 1, tgfb 2, tgfb 3, tgfbr 1, tgfbr 3, vascular cell adhesion molecule 1 (vcam1), vegfa, vegfb.
Cell-cell adhesion	cdh11, intercellular adhesion molecule 1, vcam1.
Cell-matrix adhesion	itga 2, itga 2b, itga 3, itga m, itga v, itgb1.
Other cell adhesion molecules	*cd36 antigen*, col 11a1, col 12a1, col 14a1, col 5a1, col 6a1, col 6a2, comp, fn1, scarb1.
Transcription factors and regulators	
	msx1, NF-kappaB, runx2, smad1, smad2, smad3, smad4, sox9, twist1, vdr.

Underlines: genes with more than 10-fold higher (*underline*) or lower (*double underline*) expression in iPSCs compared with MSCs on either day 10 or 30 of osteogenic induction. Genes in *italics* are expressed only in iPSCs and not in MSCs.

ECM, extracellular matrix; iPSCs, induced pluripotent stem cells; MSCs, mesenchymal stem cells.