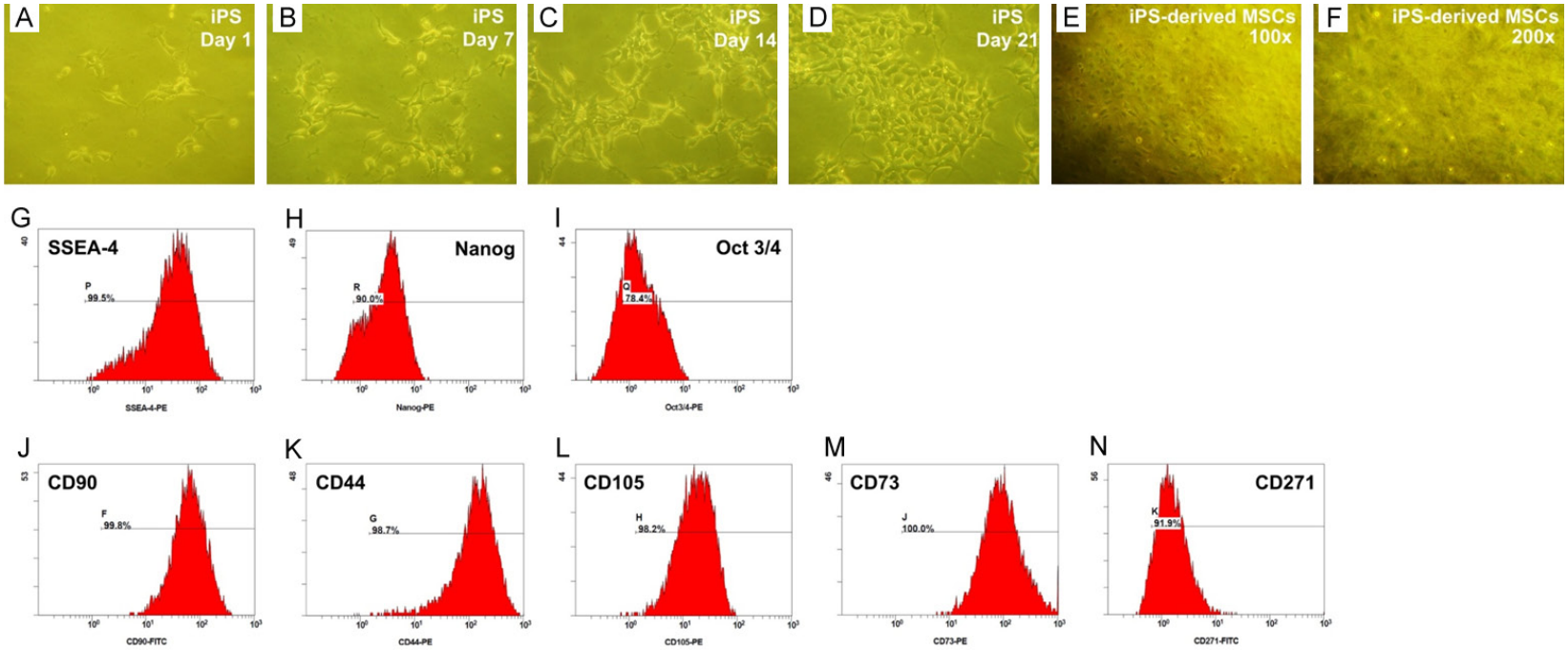
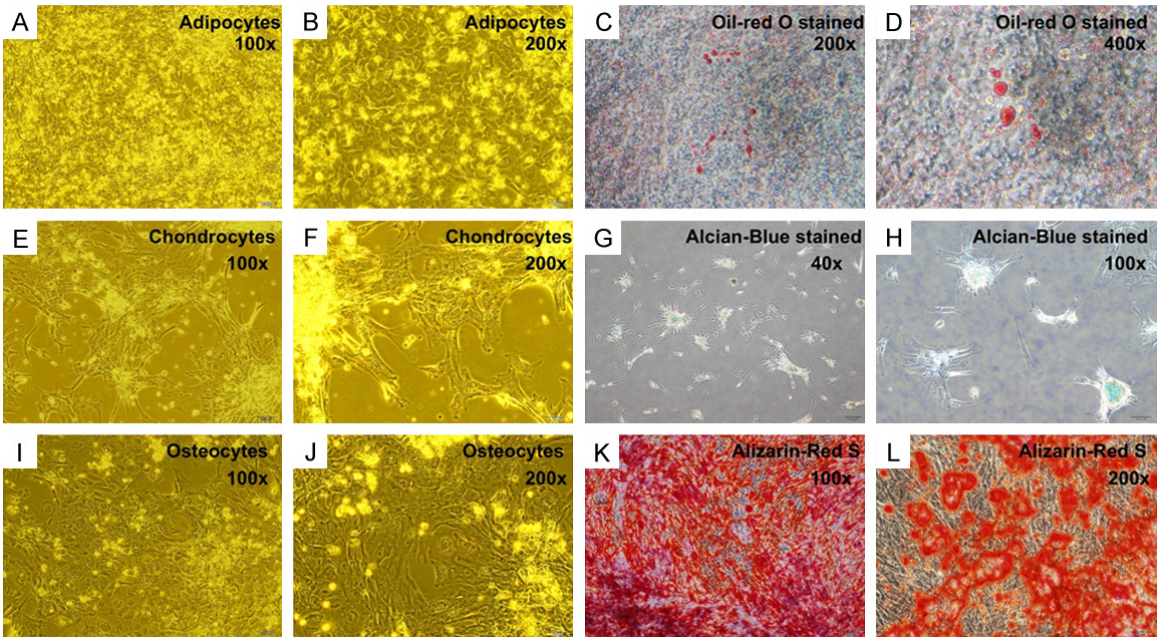
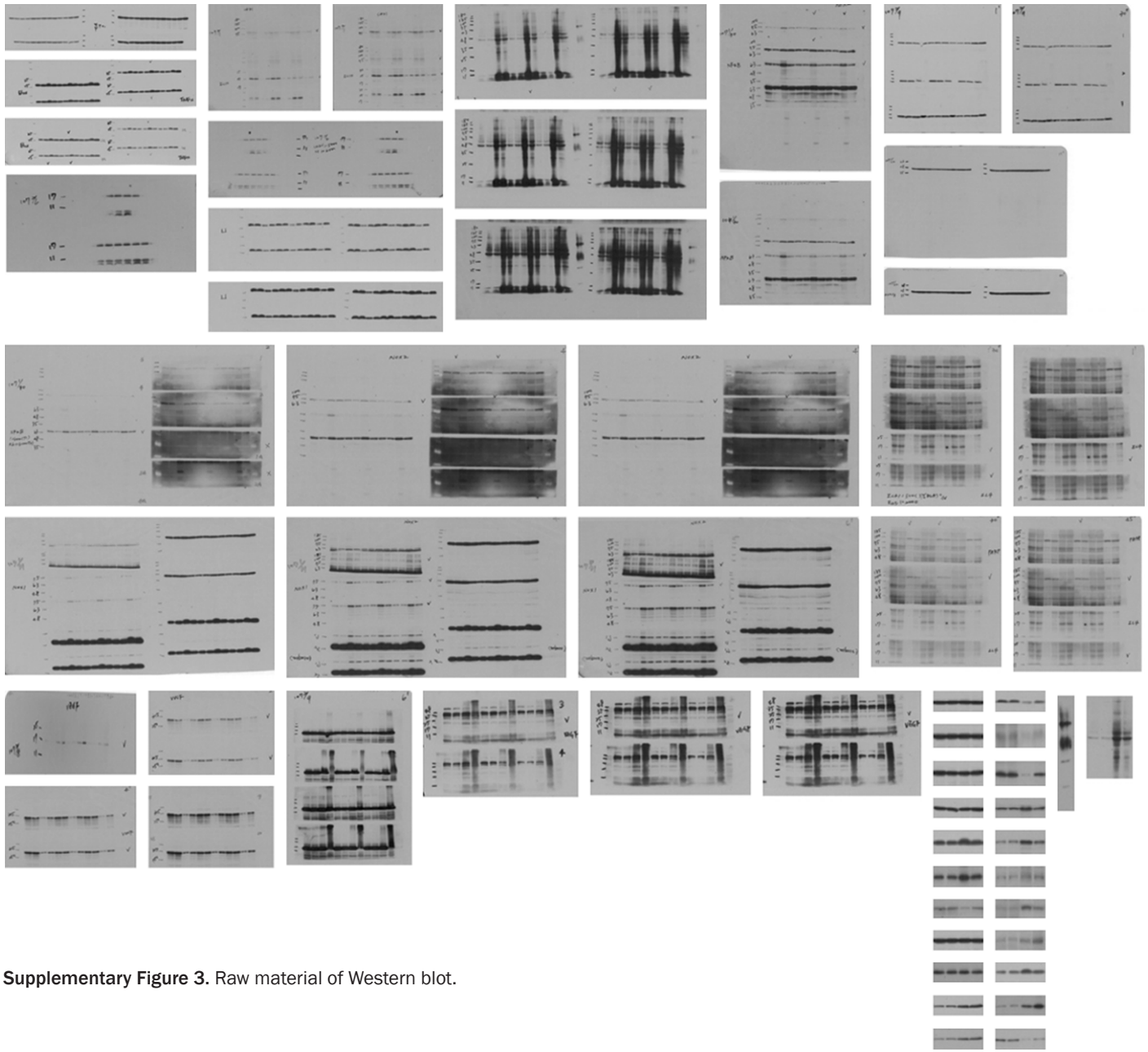


Supplementary Figure 1. Illustrating that human inducible pluripotent stem cells (iPSC) differentiated into mesenchymal stem cells (MSCs). Upper panel: (A-D) Microscopic findings (200 ×) at different time courses (i.e., at days 1, 7, 14 and 21) for culturing iPSC, showing morphology and colony. (E and F) Microscopy (100 × and 200 ×, respectively) showing morphologic features of iPS-derived MSCs (i.e. P2 cells ready for subculture). Middle panel: (G-I) Illustrating flow cytometric analyses for identification of iPS specific surface markers (i.e., SSEA-4, Nanog, and Oct3/4). Lower panel: (J-N) Showing flow cytometric analyses for identifying iPS-derived MSC specific surface markers, i.e., high population of CD90+, CD44+, CD105+, CD73+, and CD217+ cell surface makers.



Supplementary Figure 2. Illustrating cell-culture results of iPSC derived MSCs differentiated into adipocytes, chondrocytes and osteocytes. A and B. Microscopic findings (100 ×, 200 ×) for culturing matured adipocytes derived from iPS-MSC (i.e., adipogenic differentiation). C and D. Microscopic findings (200 ×, 400 ×) of positively oil-red O stained adipocytes. E and F. Microscopic findings (100 ×, 200 ×) of culturing matured chondrocytes derived from iPS-MSC (i.e., chondrogenic differentiation). G, H. Microscopic findings (40 ×, 100 ×) for positively Alcian-Blue stained chondrocytes. I and J. Microscopic findings (100 ×, 200 ×) for culturing matured osteocytes derived from iPS-MSC (i.e., osteogenic differentiation). K, L. Microscopic findings (100 ×, 200 ×) of positively Alizarin-Red S stained osteocytes.



Supplementary Figure 3. Raw material of Western blot.