Bone & Joint Research

Supplementary Material

10.1302/2046-3758.1111.BJR-2021-0548.R2

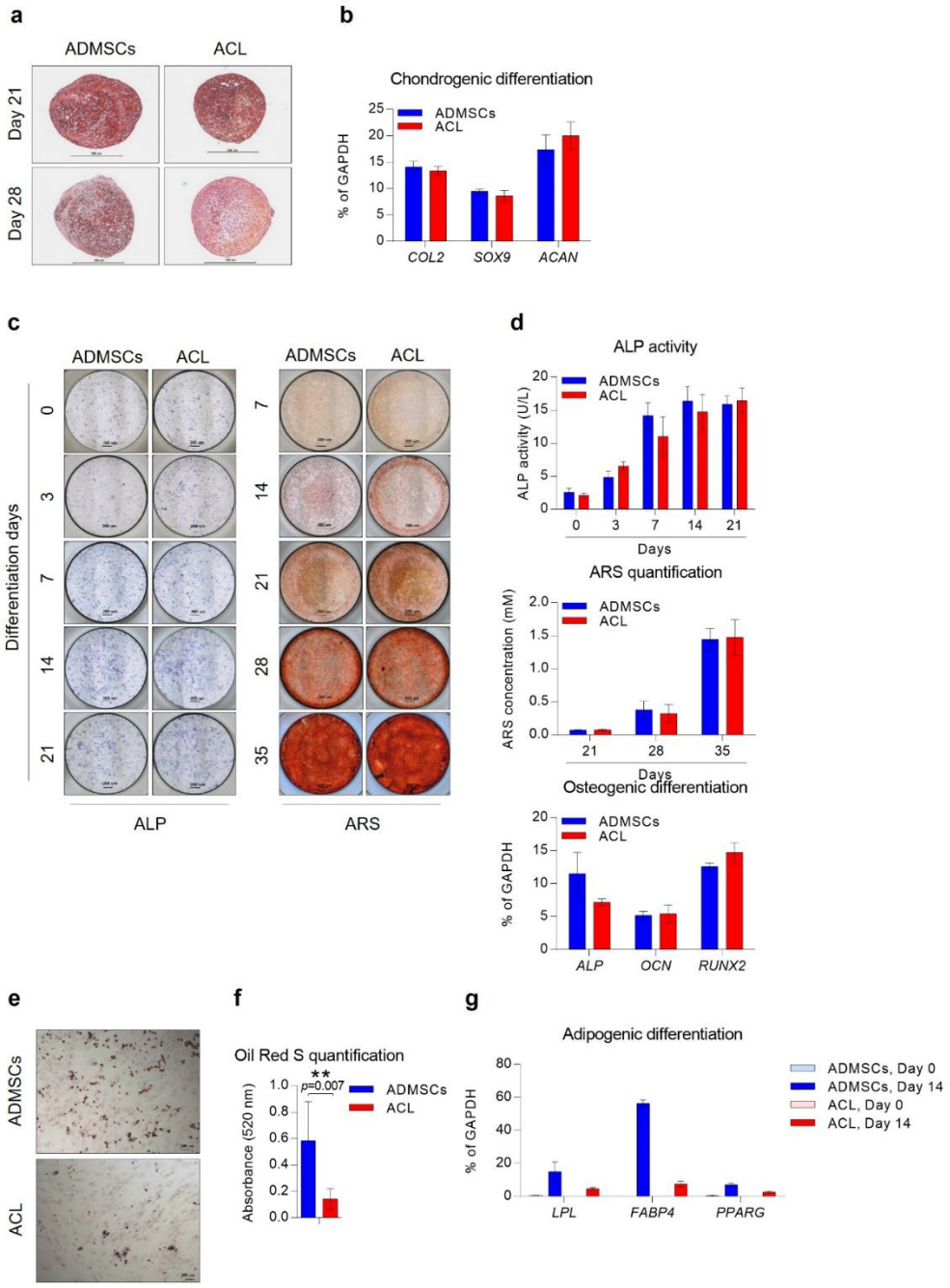

Fig a. Multidifferentiation potency comparison of adipose-derived mesenchymal stem cells (ADMSCs) with anterior cruciate ligament (ACL) cells. ADMSCs or ACL cells were differentiated in chondrogenic medium for 21 or 28 days and analyzed by a) safranin O staining and b) quantitative reverse transcription polymerase chain reaction (qRT-PCR) for chondrocyte formation-related genes. ACL cells or ADMSCs were differentiated in osteogenic medium for the number of days indicated and analyzed by c) ALP and ARS staining and d) quantification data of ALP and ARS staining and qRT-PCR for bone formation-related genes. ADMSCs or ACL-derived cells were differentiated in adipogenic medium for 14 days and analyzed by e) Oil Red S staining, f) its quantification ($p = 0.007$, Mann-Whitney U test), and g) qRT-PCR for adipocyte formation-related genes. ACAN, aggrecan; ALP, alkaline phosphatase; ARS, alizarin

red s; FABP4, fatty acid binding protein 4; GAPDH, glyceraldehyde-3-phosphate dehydrogenase; LPL, lipoprotein lipase; OCN, osteocalcin; PPARG, peroxisome proliferator activated receptor gamma; RUNX2, runt-related transcription factor 2.

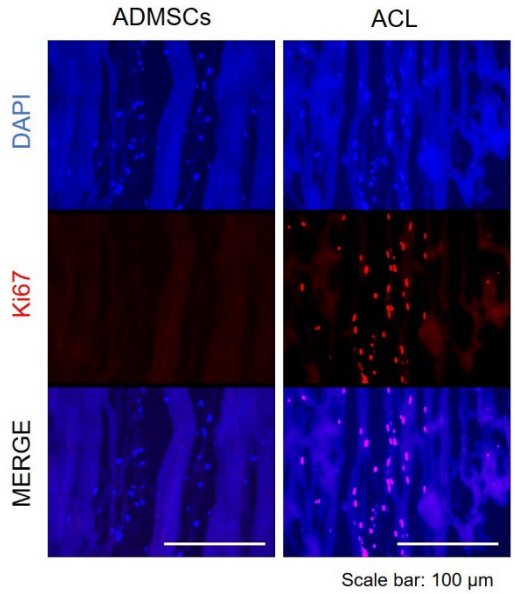

Fig b. Anterior cruciate ligament (ACL) cells had much higher proliferative capacity than adipose-derived mesenchymal stem cells (ADMSCs) in tendon allografts. Proliferative cells were stained using Ki-67 staining (n = 4). Magnification ×200, scale bar 100 μm. Red colour indicates proliferating cells in integrated tendon allograft. DAPI, 4′,6-diamidino-2-phenylindole.