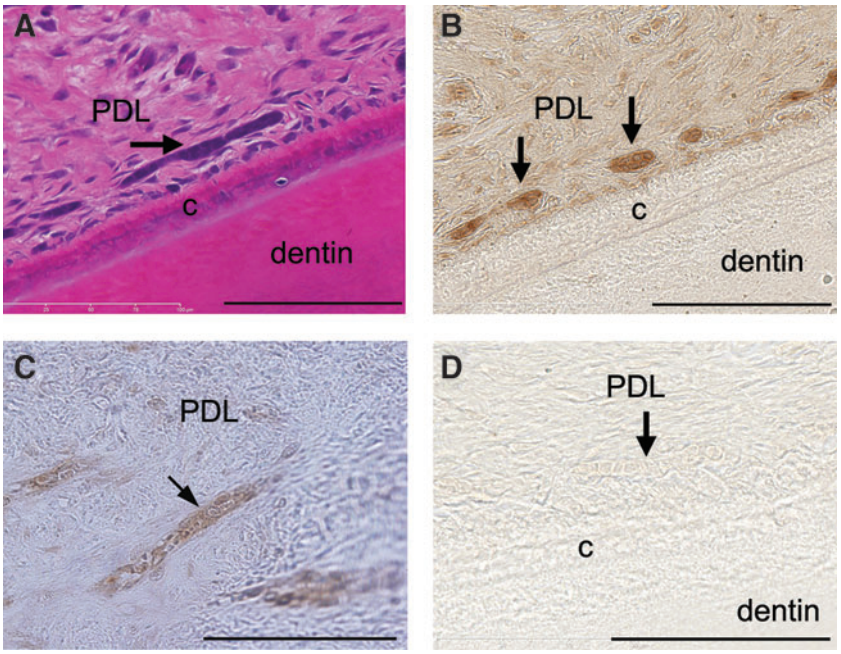
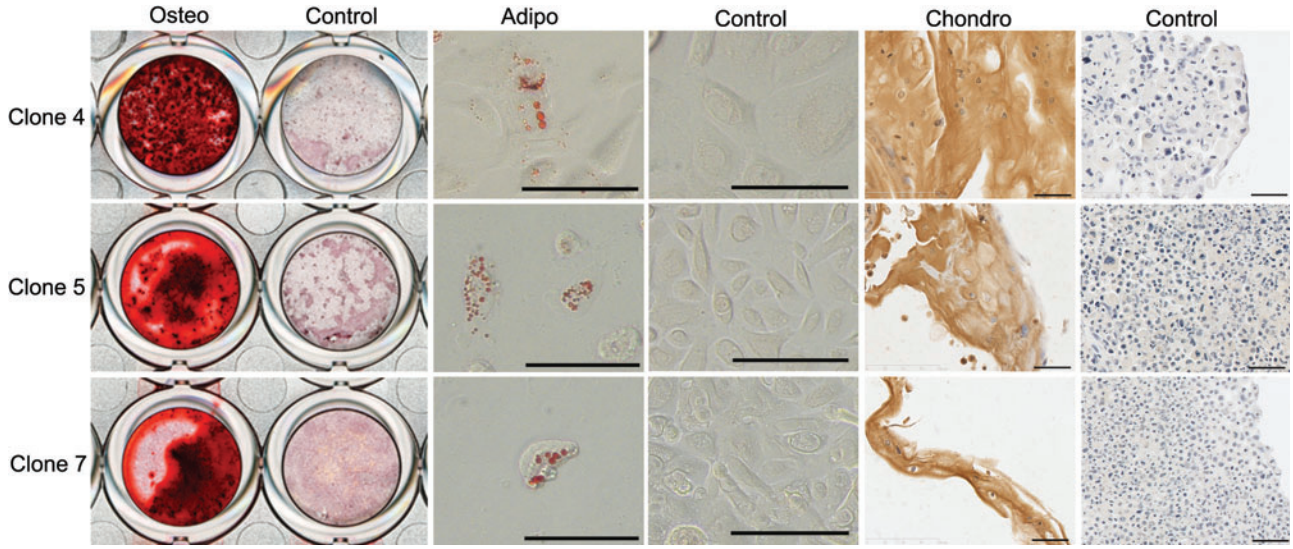
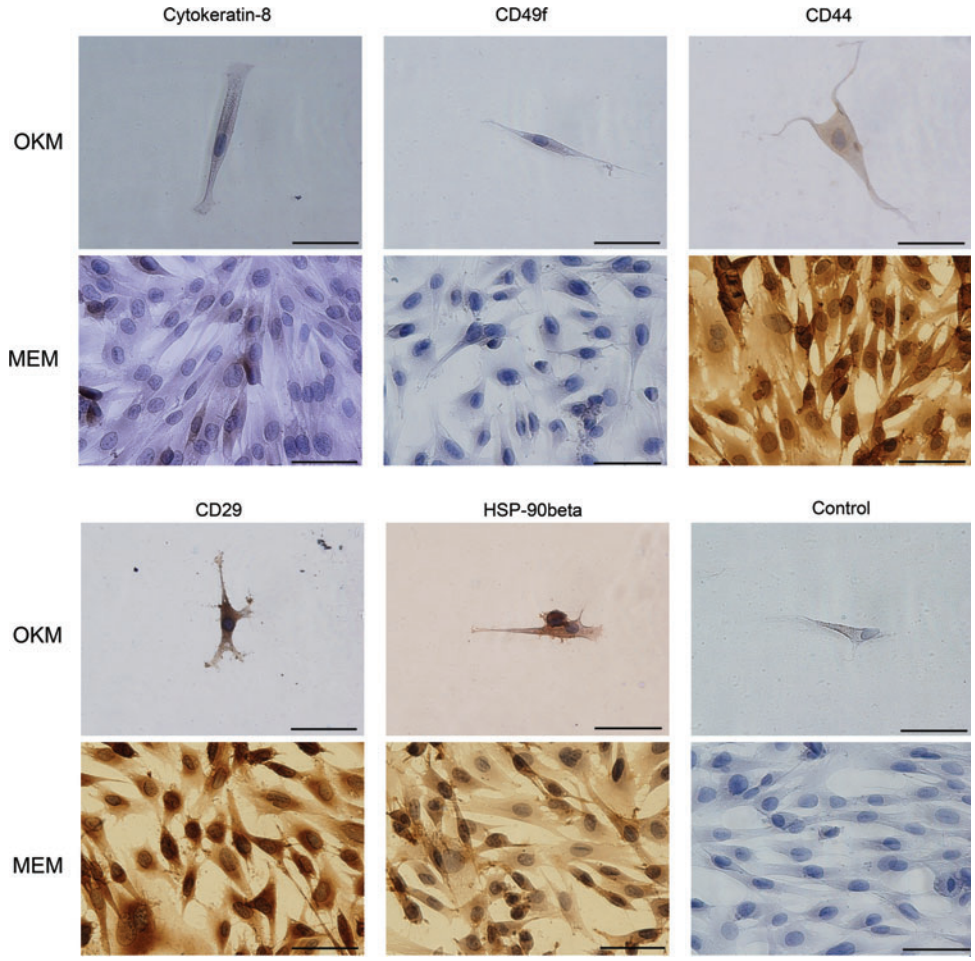
Supplementary Data



SUPPLEMENTARY FIG. S1. Epithelial cell rests of Malassez (ERM) expressed epithelial cell markers in vivo. **(A)** Localization of ERM cells (*arrow*) in decalcified ovine teeth was demonstrated by H&E staining. Immunohistochemical staining showed that ERM cells (*arrows*) were positive to cytokeratin-8 **(B)** and integrin α6/CD49f antibodies **(C)**. **(D)** Isotype-matched control was used to determine the level of nonspecific antibody binding. Scale bar = 100 μm. c, cementum; PDL, periodontal ligament.



SUPPLEMENTARY FIG. S2. Multilineage differentiation potential of ERM cells at the clonal level. All of the ERM clones (7/7) tested showed the potential to form mineral and cartilage, and 3 out of 7 ERM clones exhibited the capacity to form fat lipid. Alizarin Red and Oil Red O staining of 3 tri-potential clones cultured under osteogenic (Osteo), adipogenic (Adipo), and control conditions identified the presence of mineral nodules and fat lipid, respectively. Chondrogenic (Chondro) differentiation potential of 3 tri-potential clones was assessed by immunohistochemical staining with anti-collagen type II antibody. Isotype-matched control was used to determine the level of nonspecific antibody binding. Scale bar = 50 μm.



SUPPLEMENTARY FIG. S3. Periodontal ligament stem cells did not undergo mesenchymal–epithelial transition in keratinocyte culture system. Minimal number of periodontal ligament stem cells could survive in OKM with additives. Morphologically, they showed spindle shape of fibroblasts. They stained negative for cytokeratin-8 and integrin α6/CD49f, and positive for mesenchymal markers, CD44, CD29, and HSP-90β in OKM and MEM. Isotype-matched control was used to determine the level of nonspecific antibody binding. Scale bar = 50 μm. OKM, oral keratinocyte media with additives, MEM, minimum essential medium, α modification with additives.