Suppl. Fig. S4. Fluorescence microscopy of undecalcified sections showing distribution of fluorescein-labelled alendronate (F-ALN) after tooth replantation. Undemineralized longitudinal sections were prepared from dissected maxillae. The teeth were replanted after pretreatment of their root surfaces with 1 mM F-ALN. (i) Whole image of a section obtained at 1 day after tooth replantation. (ii and iii) Magnified images of the bone marrow (ii; as indicated by white square m1) between the mesial (m) and distal (d) roots and of the bone marrow close to the periodontal ligament (iii; as indicated by white square m2). Day 1. (iv) Magnified image of the bone marrow (from a region similar to white square m1) between the two roots. Day 56. Note that F-ALN distributes not only the surfaces of tooth cementum and of tooth socket bones, but also the bone surfaces of the bone marrows around and distant from the replanted tooth. Arrows indicate F-ALN binding to mineralized surfaces. b, bone; bm, bone marrow; PDL, periodontal ligament.