Supporting Information

Cell proliferation and apoptosis in enamelin null mice

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Figure S1. TUNEL staining in maxillary first molars from days 5, 7, 9, 14 and 17.

Figure S2. BrdU staining of day 4 and day 5 maxillary first molars of wild-type, *Enam* heterozygous and *Enam* null mice.

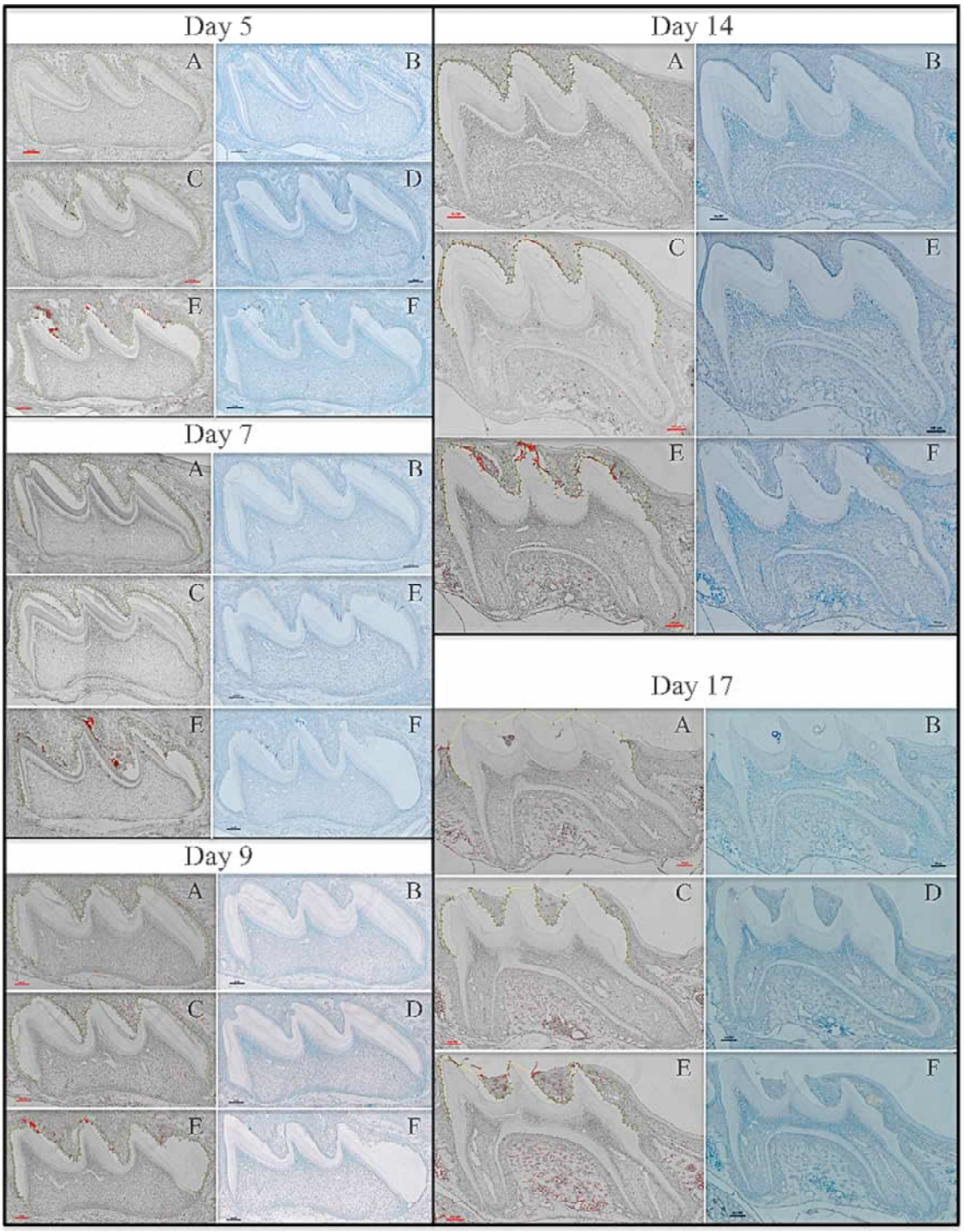

Fig. S1. Assessing TUNEL staining in maxillary first molars from days 5, 7, 9, 14 and 17. The ameloblasts+stratum intermedium was manually traced (outlined in yellow) and its area then determined by the ImageJ software. The image threshold was adjusted to highlight the apoptotic staining (red). The apoptotic staining within the area outlined in yellow was divided by the area of ameloblasts+stratum intermedium outlined in yellow by the software. To control for variations in tooth size, the ameloblasts+stratum intermedium areas determined for the *Enam* heterozygous and homozygous molars were divided by the comparable area from the wild-type molar. The apoptotic ratio was then divided by this normalization factor. Bars = 100 μm.

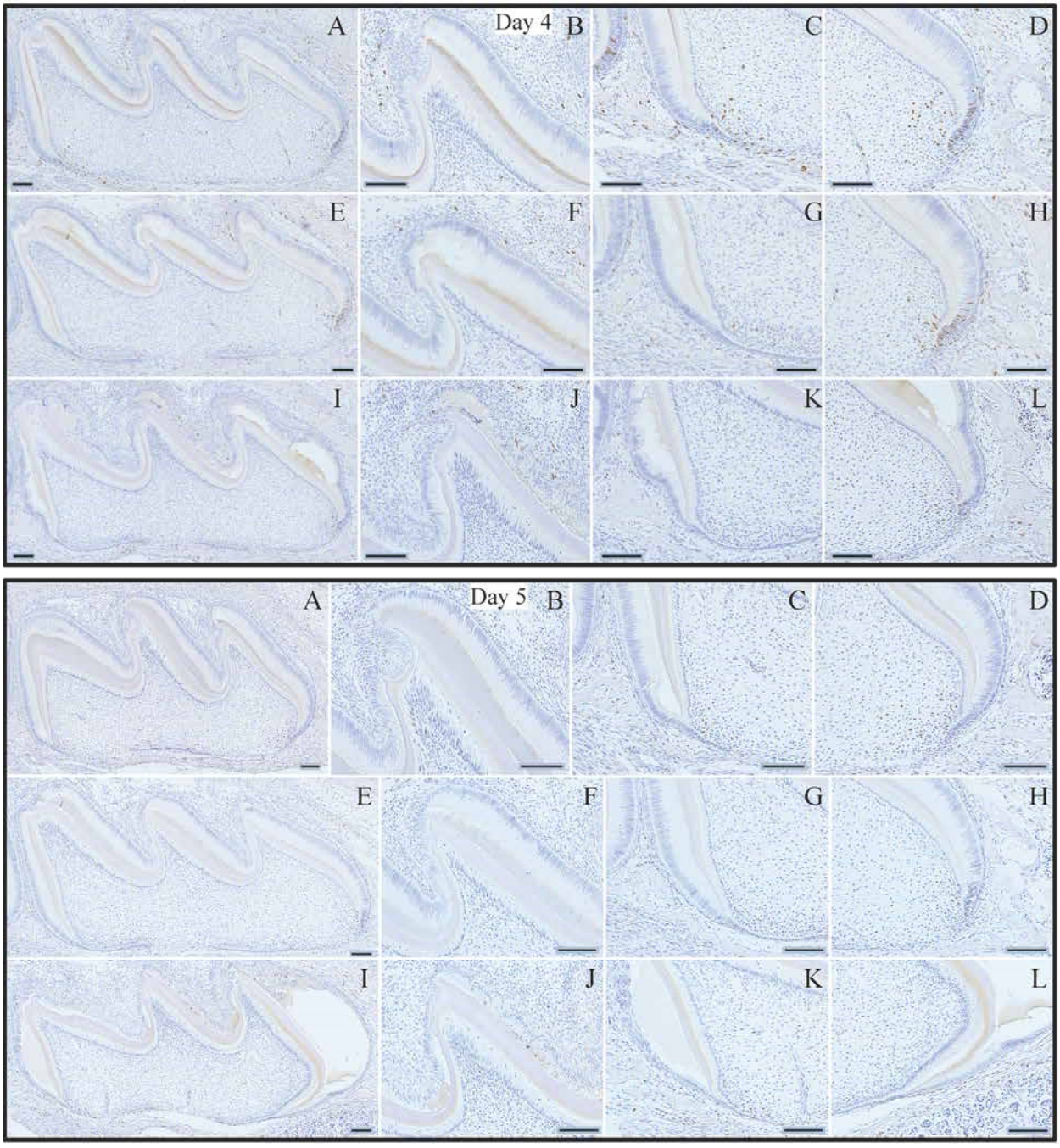

Fig. S2. BrdU staining of day 4 (top) and day 5 (bottom) maxillary first molars: wild-type (A-D), *Enam* heterozygous (E-H), and *Enam* null (I-L). The first column (A, F, K) contains low magnification views of the developing crowns. The subsequent columns are higher magnification views of the middle cusp (B, F, J) and the distal (C, G, K) and mesial (D, H, L) regions of the cervical loop. Bars = 100 μm. Cell proliferation (BrdU staining) could not be strictly quantified, but always appeared to be mainly associated with the cervical loop. The BrdU staining appeared to be greater near the cervical loop on day 4 relative to day 5, and was possibly decreased in the *Enam* null mice.