

Figure S1



Figure S1. Tissue-specific expression of amelogenesis imperfecta-associated genes using GTEx data. (a) The number of amelogenesis imperfecta-associated genes that are highly expressed in the indicated tissues. (b) The gene expression level of the amelogenesis imperfecta-associated genes in the indicated tissues.

Figure S2

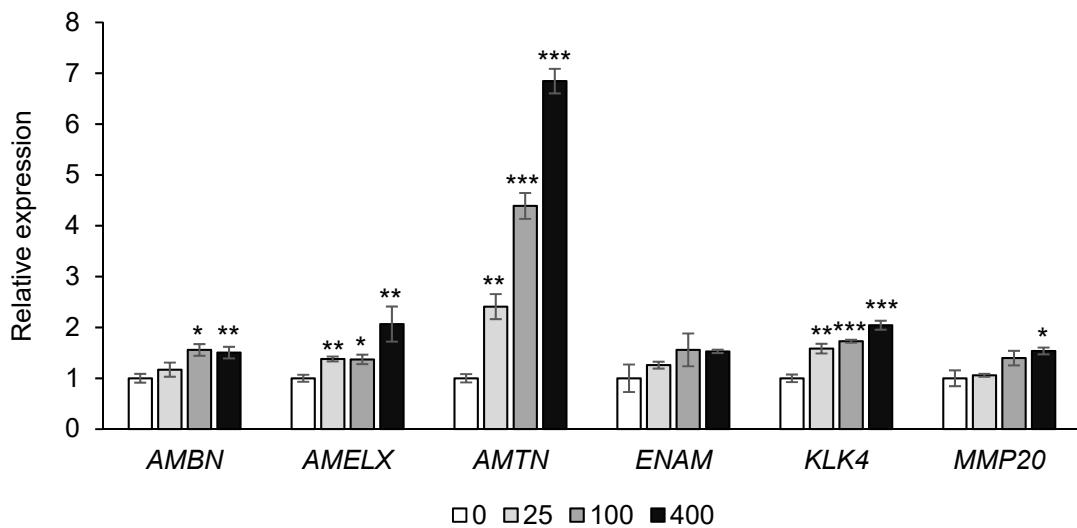


Figure S2. Ameloblast differentiation in AM-1 cells. Expressions of the indicated genes were analyzed 3 days after ameloblast differentiation induced with 0, 25, 100, or 400 ng/mL retinoic acid and 0.1 μ M dexamethasone. * $p < 0.05$, ** $p < 0.01$, *** $p < 0.001$ compared to the group treated with 0 μ g/mL retinoic acid.

Figure S3

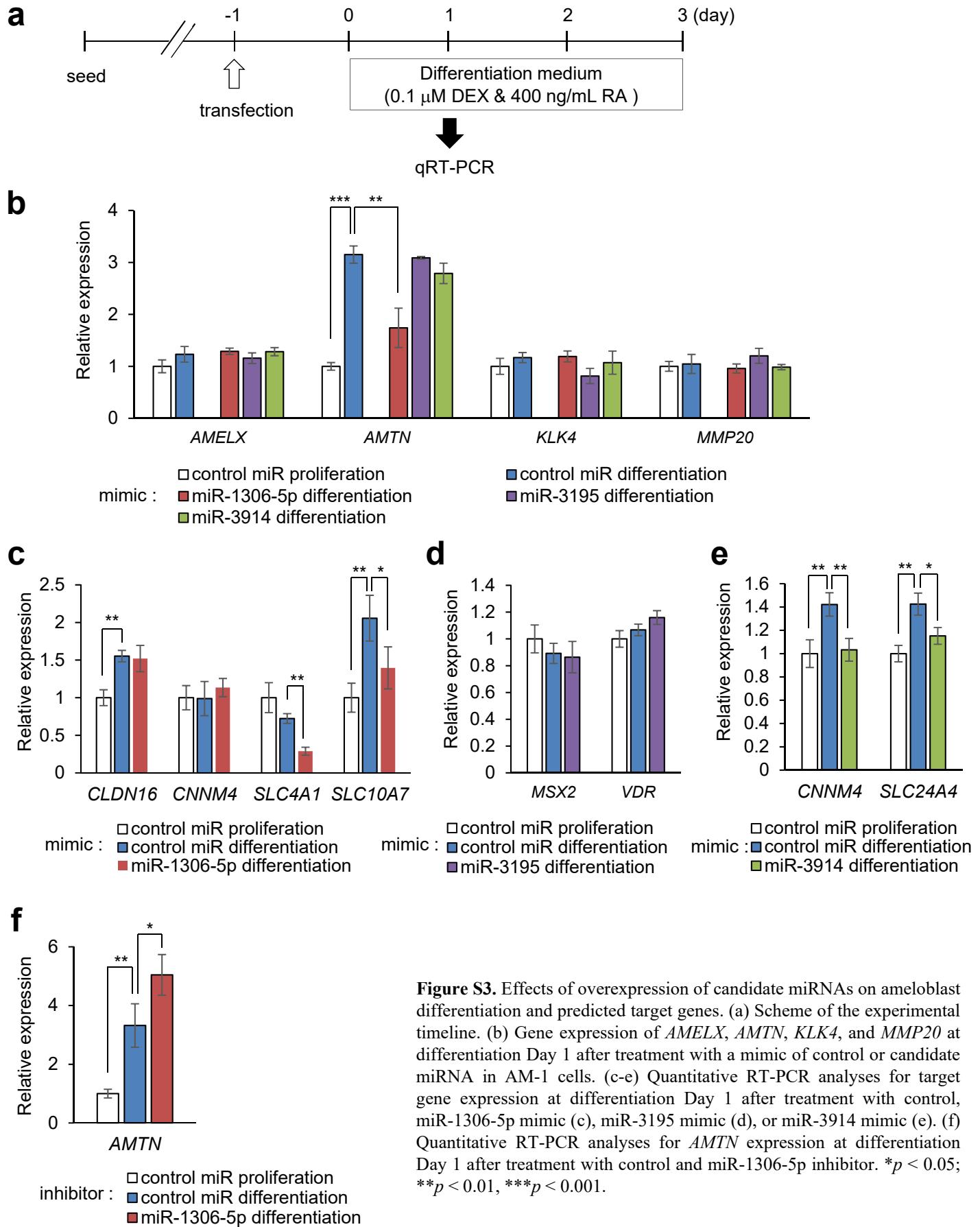


Figure S3. Effects of overexpression of candidate miRNAs on ameloblast differentiation and predicted target genes. (a) Scheme of the experimental timeline. (b) Gene expression of *AMELX*, *AMTN*, *KLK4*, and *MMP20* at differentiation Day 1 after treatment with a mimic of control or candidate miRNA in AM-1 cells. (c-e) Quantitative RT-PCR analyses for target gene expression at differentiation Day 1 after treatment with control, miR-1306-5p mimic (c), miR-3195 mimic (d), or miR-3914 mimic (e). (f) Quantitative RT-PCR analyses for *AMTN* expression at differentiation Day 1 after treatment with control and miR-1306-5p inhibitor. * $p < 0.05$; ** $p < 0.01$, *** $p < 0.001$.

Figure S4

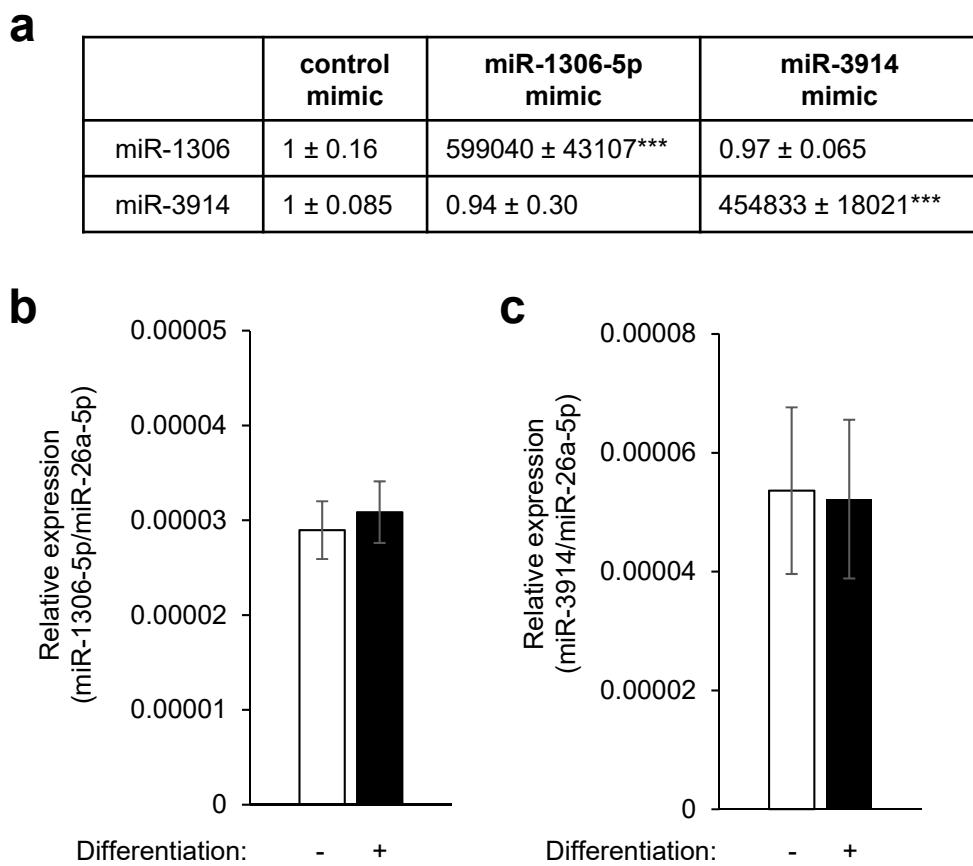


Figure S4. miRNA expression in AM-1 cells. (a) Expressions of miR-1306-5p and miR-3914 were analyzed under treatment with control, miR-1306-5p, or miR-3914 mimic for 24 hours. (b-c) Expressions of miR-1306-5p (b) and miR-3914 (c) were analyzed 3 days after ameloblast differentiation. *** $p < 0.001$ vs control mimic.

Figure S5

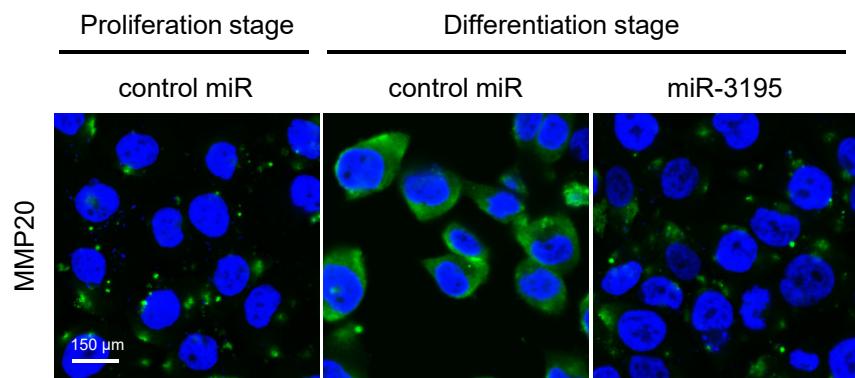


Figure S5. Effects of miR-3195 overexpression on MMP20 expression in AM-1 cells. Immunocytochemical analysis for MMP20 (green) in AM-1 cells after 3 days under differentiation conditions. The nuclei were counterstained with DAPI (blue). Scale bar, 150 μ m.