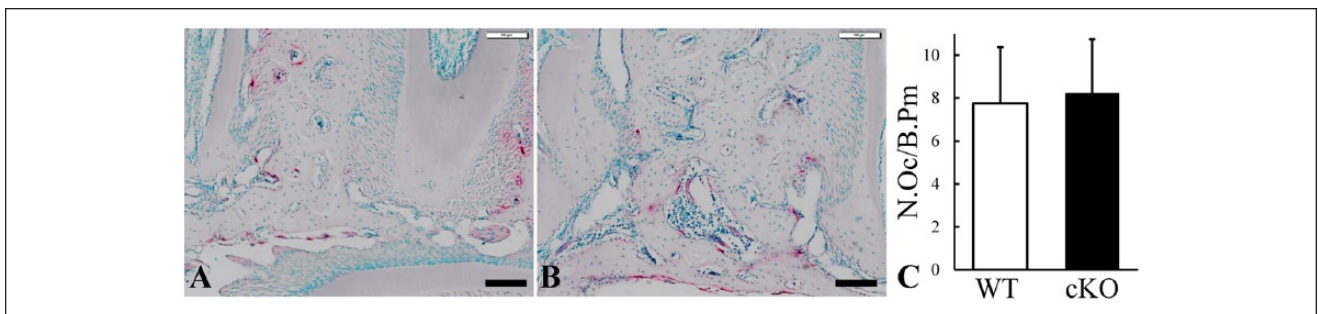


The Specific Role of FAM20C in Dentinogenesis

Journal of Dental Research
DSI-DS2
© International & American Associations
for Dental Research 2014
Reprints and permissions:
sagepub.com/journalsPermissions.nav
DOI: 10.1177/0022034514563334
jdr.sagepub.com

X. Wang¹, J. Wang¹, Y. Liu¹, B. Yuan², L.B. Ruest¹, J.Q. Feng¹,
and C. Qin¹

Appendix



Appendix Figure. Tartrate-resistant acid phosphatase (TRAP) staining of alveolar bone from wild-type (WT) and cKO mice. TRAP staining of the alveolar bone from WT (A) and cKO (B) mice showed no significant differences in the numbers of osteoclasts (C). N.Oc/B.Pm: number of osteoclasts per bone perimeter. Scale bars are 100 μ m.

¹Department of Biomedical Sciences and Center for Craniofacial Research and Diagnosis, Texas A&M University Baylor College of Dentistry, Dallas, TX, USA

²Department of Medicine, University of Wisconsin, and GRECC, Madison, WI, USA

Corresponding Author:

C. Qin, Department of Biomedical Sciences and Center for Craniofacial Research and Diagnosis, Texas A&M University Baylor College of Dentistry, 3302 Gaston Ave., Dallas, TX 75246, USA.

Email: cqin@bcd.tamhsc.edu

Appendix Table 1. Quantitative μ -CT Analyses of the Dentin, Alveolar Bone, and Cortical Bone (the midshaft region) of Tibias from 3-wk-old Wild-type (WT) and *Wnt1-Cre;Fam20C^{fl/fl}* (cKO) Mice.

| Variables (mean \pm SD) | Dentin | | Alveolar Bone | | Cortical Bone | |
|--|-----------------|-----------------|-----------------|------------------|-----------------|-----------------|
| | WT (n = 6) | cKO (n = 6) | WT (n = 6) | cKO (n = 6) | WT (n = 6) | cKO (n = 6) |
| BV/TV | 0.47 \pm 0.03 | 0.44 \pm 0.03 | 0.83 \pm 0.10 | 0.69 \pm 0.08* | 0.98 \pm 0.12 | 0.98 \pm 0.14 |
| Apparent density (mg/cm ³) | 1207 \pm 18 | 1047 \pm 16* | 910 \pm 16 | 752 \pm 12* | 897 \pm 14 | 881 \pm 15 |
| Material density (mg/cm ³) | 1607 \pm 25 | 1469 \pm 21* | 1060 \pm 18 | 966 \pm 16* | 950 \pm 16 | 946 \pm 15 |

BV/TV, ratio of bone volume (BV) to total volume (TV); Apparent density (expressed as milligram of mineral/cm³), average mineral density within the segmented area of all voxels thresholded as bone; Material density (expressed as milligram of mineral/cm³), average mineral density of all voxels segmented as bone including voids; *significant difference from WT mice ($P < 0.05$).

Appendix Table 2. Real-time PCR of *AMBN*, *AMEL*, *ENAM*, *RANK*, and *RANKL* with RNA Extracted from the Incisor and Alveolar Bone of 1-wk-old Mice.

| mRNA Levels (folds) (mean \pm SD) | WT (n = 6) | <i>Wnt1-Cre;</i> <i>Fam20C^{fl/fl}</i> (n = 6) |
|--|------------|---|
| <i>AMBN</i> | 1 | 1.05 \pm 0.16 |
| <i>AMEL</i> | 1 | 0.97 \pm 0.13 |
| <i>ENAM</i> | 1 | 0.94 \pm 0.18 |
| <i>RANK</i> | 1 | 1.07 \pm 0.26 |
| <i>RANKL</i> | 1 | 1.15 \pm 0.28 |

A P value of < 0.05 was taken as a statistically significant difference. The mRNA expression levels of *AMBN*, *AMEL*, *ENAM*, *RANK*, and *RANKL* in the incisor and alveolar bone of the *Wnt1-Cre;Fam20C^{fl/fl}* mice were not statistically significantly different from those of WT mice.