

**Appendix Table 3. Micro-CT analysis of dentolalveolar tissues in *Alpl* cKO vs. WT controls.** Mean values  $\pm$  standard deviation are shown for *Col1a1*- and *Prx1*-cKO mice and their respective WT controls (**n=2-3 for each genotype at 24 wks**), with statistically significantly different values ( $p < 0.05$  by independent samples t-test) indicated by bold type.

Tissue	WT	<i>Col1a1</i> -cKO	WT	<i>Prx1</i> -cKO
<b>Alveolar bone</b>				
TV ( $\mu\text{m}^3$ )	290.2 $\pm$ 25.2	<b>240.6 <math>\pm</math> 10.7</b>	289.4 $\pm$ 87.1	278.3 $\pm$ 15.0
BV ( $\mu\text{m}^3$ )	190.2 $\pm$ 11.2	<b>102.3 <math>\pm</math> 8.5</b>	191.3 $\pm$ 102.5	105.8 $\pm$ 31.3
BV/TV (%)	65.71 $\pm$ 2.64	<b>42.62 <math>\pm</math> 4.42</b>	63.66 $\pm$ 16.28	37.78 $\pm$ 9.22
TMD (mg HA/cm <sup>3</sup> )	1129 $\pm$ 9	<b>1050 <math>\pm</math> 18</b>	1105 $\pm$ 96	1079 $\pm$ 61
<b>Crown dentin</b>				
TV ( $\mu\text{m}^3$ )	351.1 $\pm$ 37.3	351.7 $\pm$ 15.6	364.3 $\pm$ 3.4	334.2 $\pm$ 16.9
BV ( $\mu\text{m}^3$ )	278.6 $\pm$ 17.7	256.8 $\pm$ 13.3	319.4 $\pm$ 9.8	<b>270.4 <math>\pm</math> 9.6</b>
BV/TV (%)	79.60 $\pm$ 3.79	73.09 $\pm$ 4.34	87.66 $\pm$ 1.87	80.92 $\pm$ 1.22
TMD (mg HA/cm <sup>3</sup> )	1310 $\pm$ 9	1325 $\pm$ 19	1312 $\pm$ 12	1315 $\pm$ 30
<b>Root dentin</b>				
TV ( $\mu\text{m}^3$ )	650.6 $\pm$ 35.0	601.6 $\pm$ 63.1	716.8 $\pm$ 42.9	659.2 $\pm$ 66.8
BV ( $\mu\text{m}^3$ )	540.5 $\pm$ 34.0	<b>394.4 <math>\pm</math> 68.3</b>	624.8 $\pm$ 36.0	560.2 $\pm$ 71.1
BV/TV (%)	83.06 $\pm$ 22.30	<b>65.24 <math>\pm</math> 4.57</b>	87.18 $\pm$ 0.20	84.88 $\pm$ 2.18
TMD (mg HA/cm <sup>3</sup> )	1114 $\pm$ 23	<b>1033 <math>\pm</math> 15</b>	1172 $\pm$ 31	1144 $\pm$ 25
Thickness ( $\mu\text{m}$ )	138 $\pm$ 6	<b>92 <math>\pm</math> 6</b>	165 $\pm$ 1	<b>141 <math>\pm</math> 7</b>
<b>Enamel</b>				
TV ( $\mu\text{m}^3$ )	196.6 $\pm$ 23.9	192.5 $\pm$ 13.4	198.6 $\pm$ 10.5	184.1 $\pm$ 14.0
BV ( $\mu\text{m}^3$ )	193.3 $\pm$ 23.6	188.6 $\pm$ 14.0	195.2 $\pm$ 10.4	177.6 $\pm$ 10.7
BV/TV (%)	98.31 $\pm$ 0.21	97.98 $\pm$ 0.44	98.27 $\pm$ 0.04	96.48 $\pm$ 1.53
TMD (mg HA/cm <sup>3</sup> )	1911 $\pm$ 17	1908 $\pm$ 13	1932 $\pm$ 37	1890 $\pm$ 18.54

HA = hydroxyapatite

TV = Tissue volume

BV = Bone/dentin/enamel volume

BV/TV = Bone/dentin/enamel volume fraction

TMD = Tissue mineral density