

Supplementary material

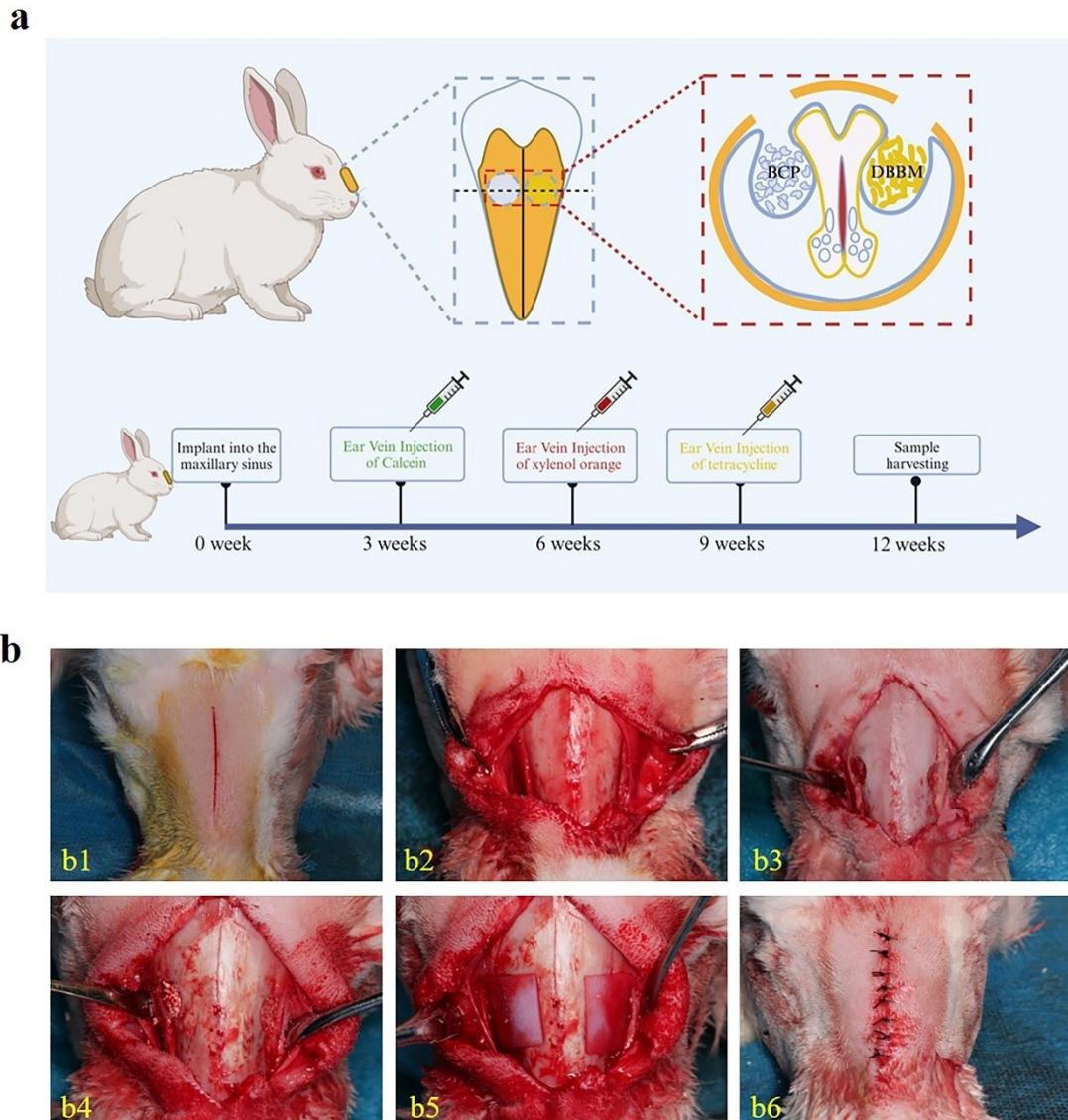


Figure S1. Surgical procedure diagram;(a) The surgical procedural diagram (b1) After shaving and being disinfected, a vertical incision of 3.0-3.5 cm is made along the midline of the nasal dorsum. (b2) The skin was incised, and the periosteum was detached to expose the bony surface. (b3) A circular bone window with a diameter of 5 mm was created at a point 0.5 cm outside the midline, 2 cm below the nasofrontal suture. (b4) Equal volumes of BCP and Bioss were respectively implanted beneath the elevated maxillary sinus mucosa on the right and left sides in rabbits. (b5) The bone

window was covered with an absorbable membrane. (b6) The periosteum and skin were sutured in layers for proper alignment.

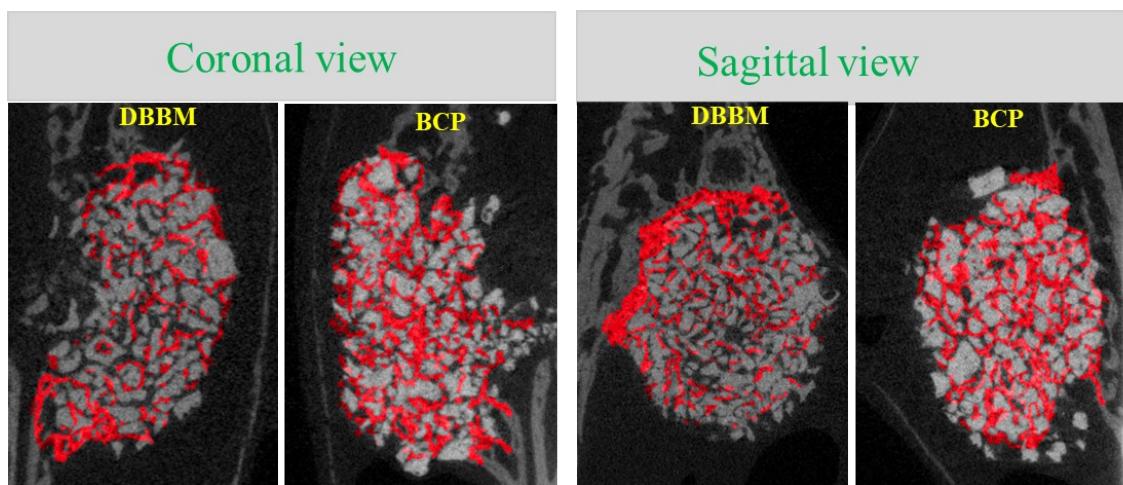


Figure S2. Representative Micro-CT images from both sagittal and coronal perspectives (newly formed bone was pseudo-colored to red)

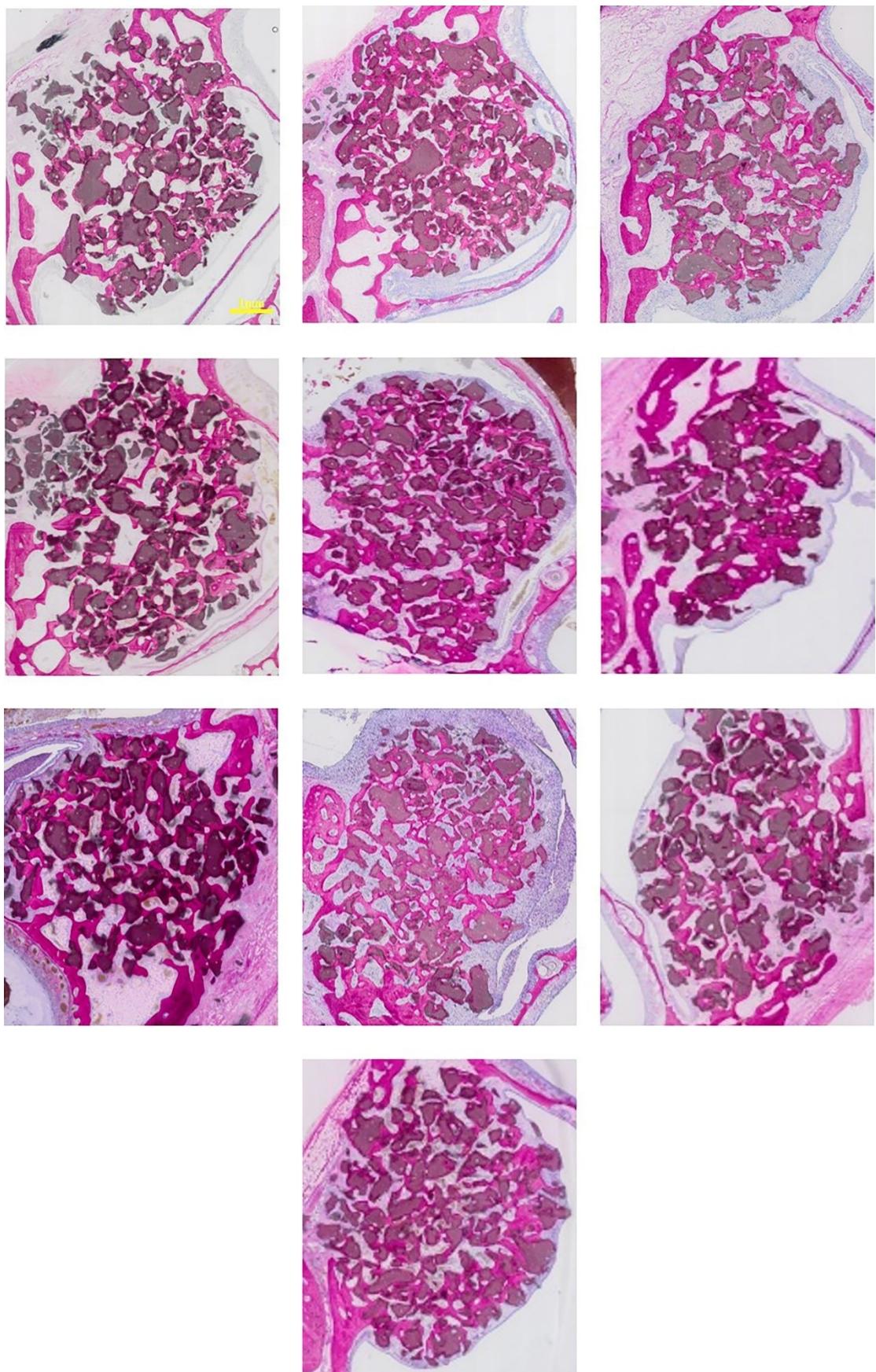


Figure S3. Overview of BCP section staining

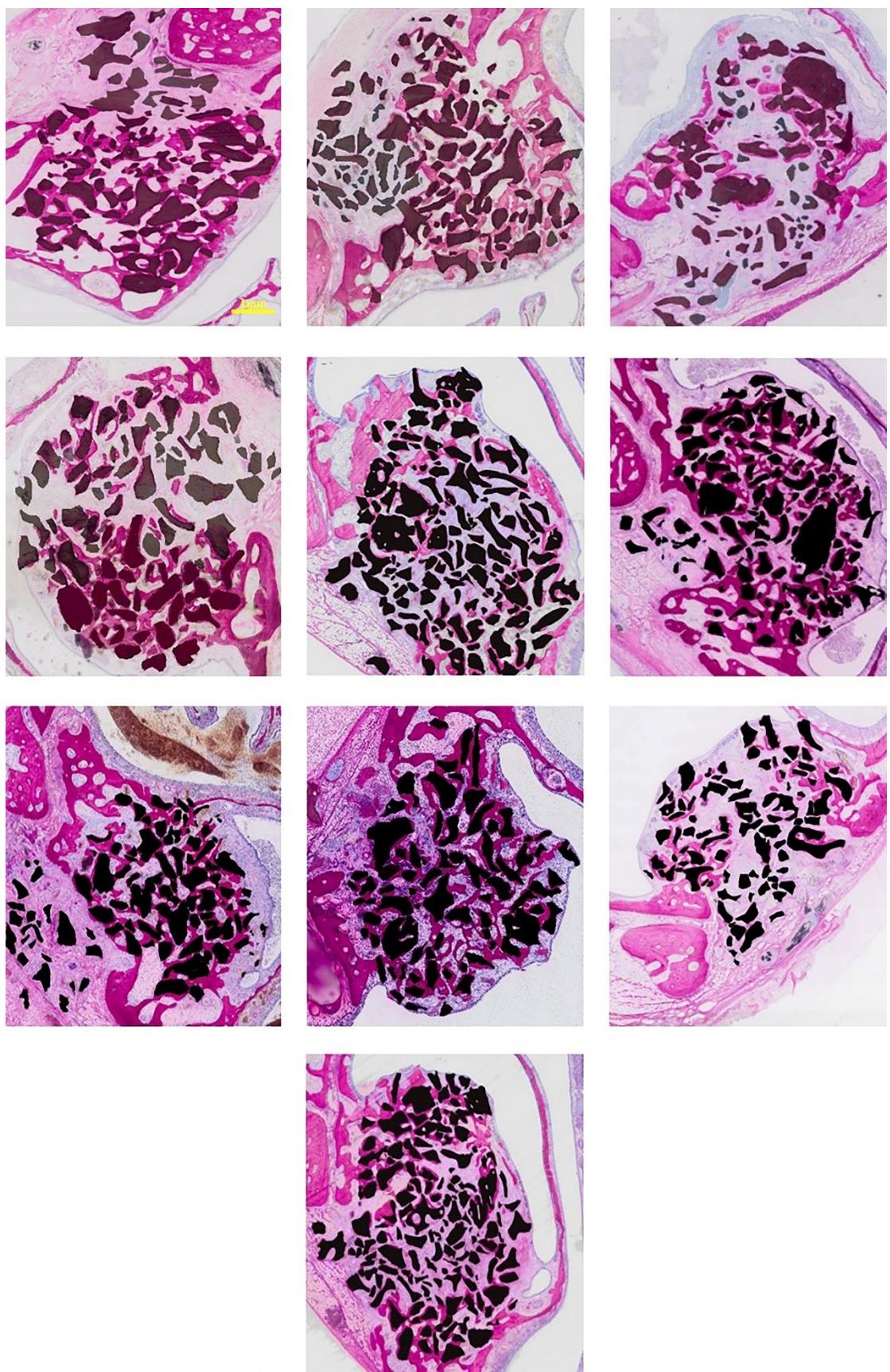


Figure S4. Overview of DBBM section staining

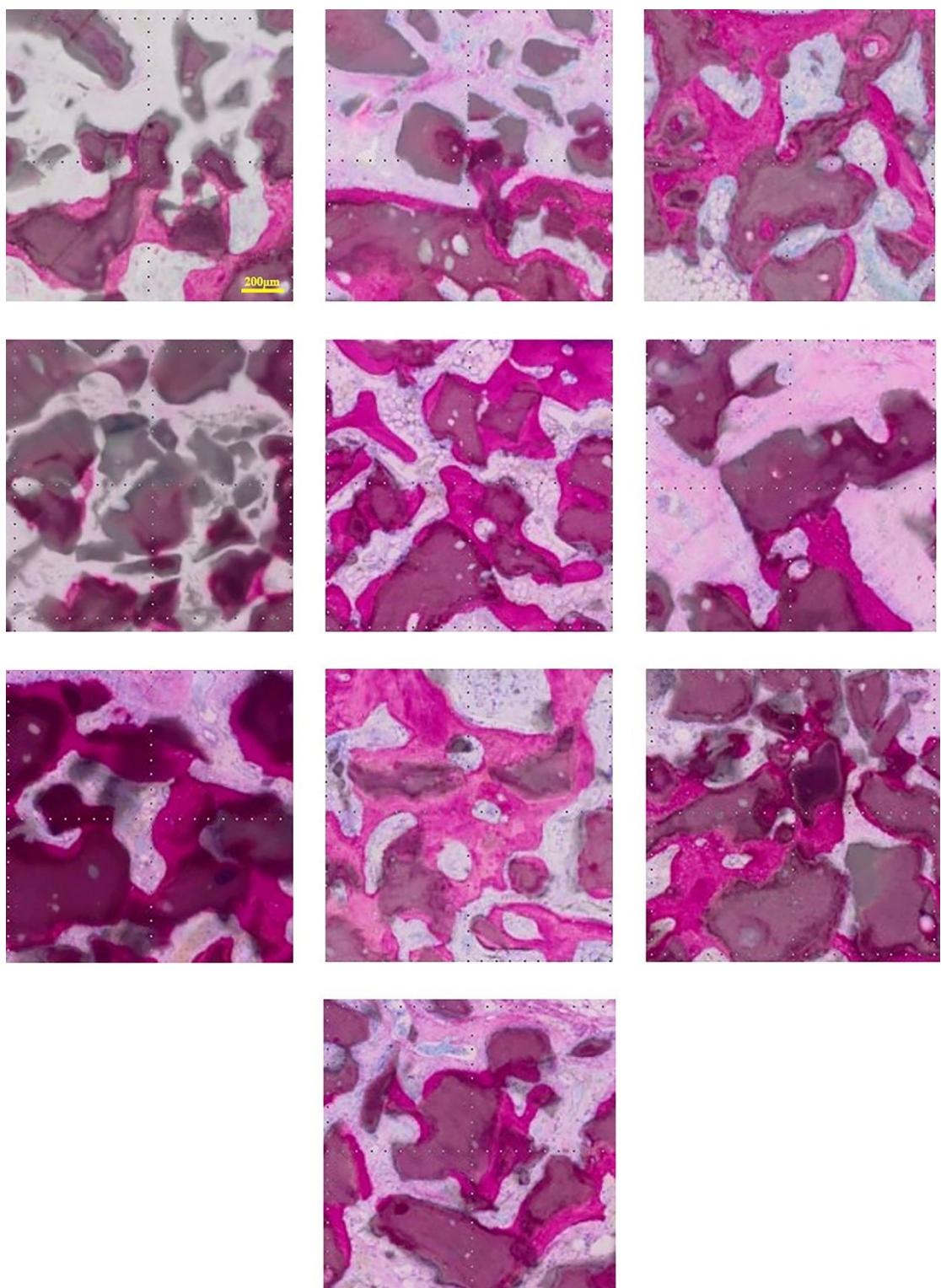


Figure S5. Overview of window of the defect in BCP section staining

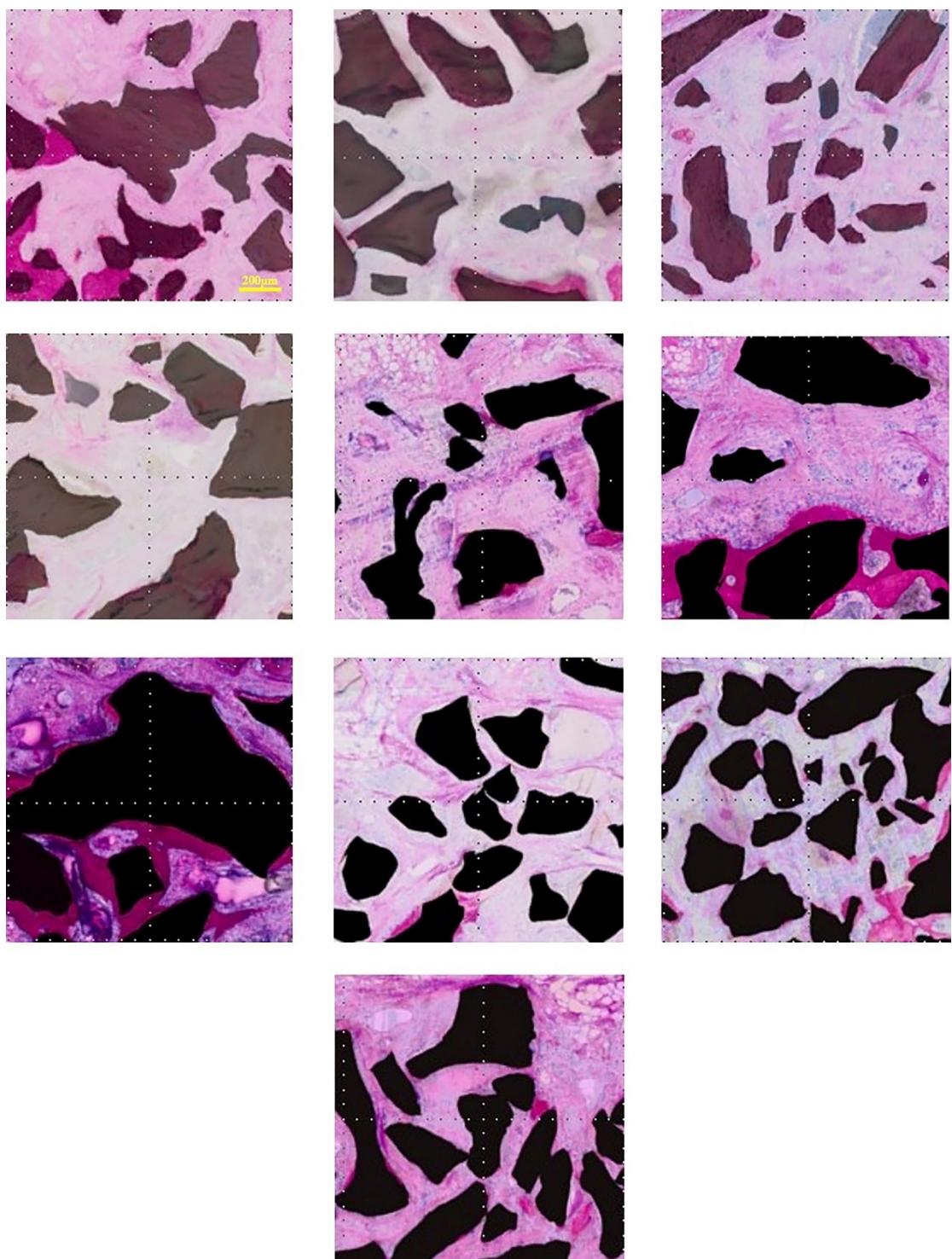


Figure S6. Overview of window of the defect in DBBM section staining

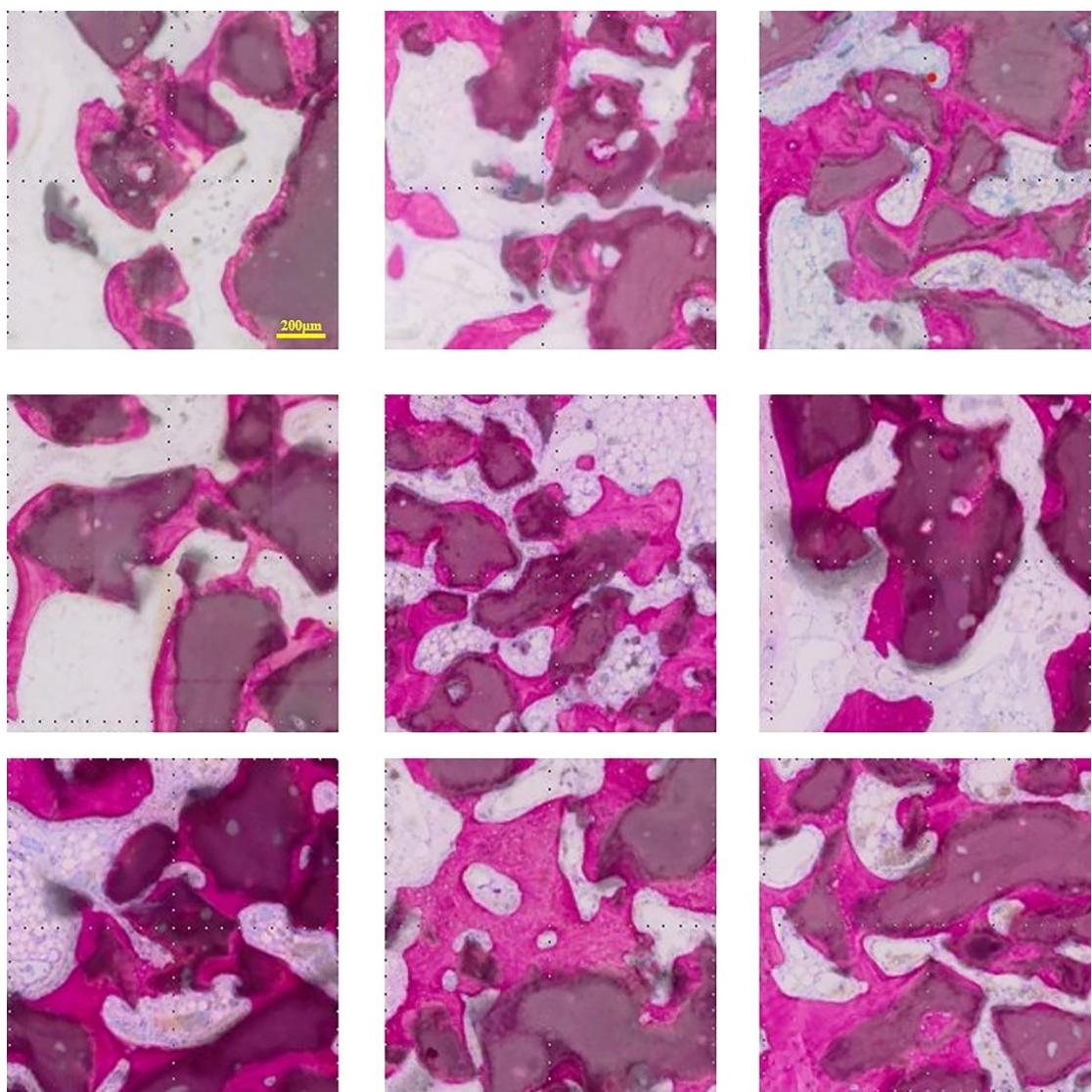


Figure S7. Overview of nearby host bone(B1) in BCP section staining

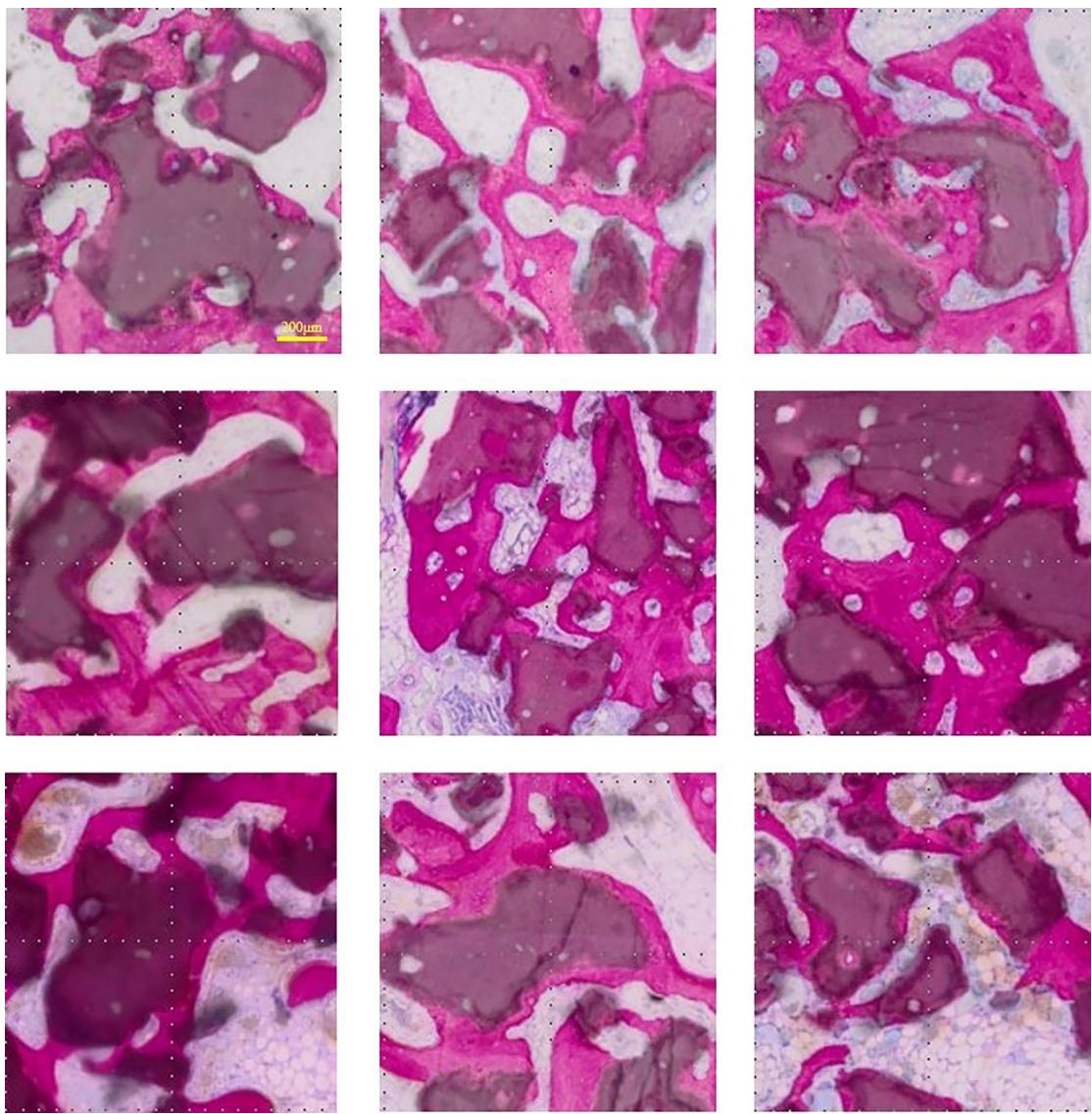


Figure S8. Overview of nearby host bone (B2) in BCP section staining

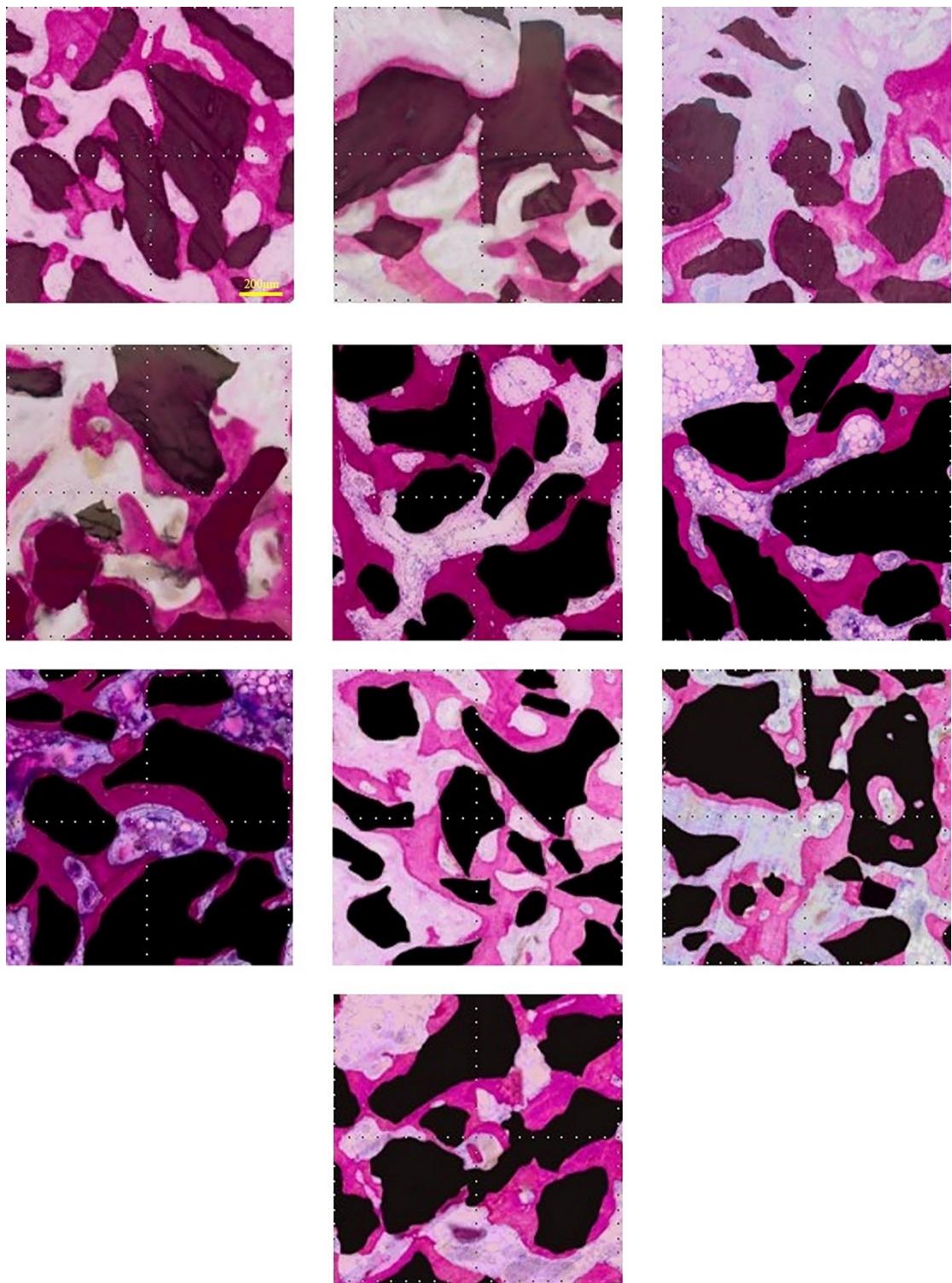


Figure S9. Overview of nearby host bone (B1) in DBBM section staining

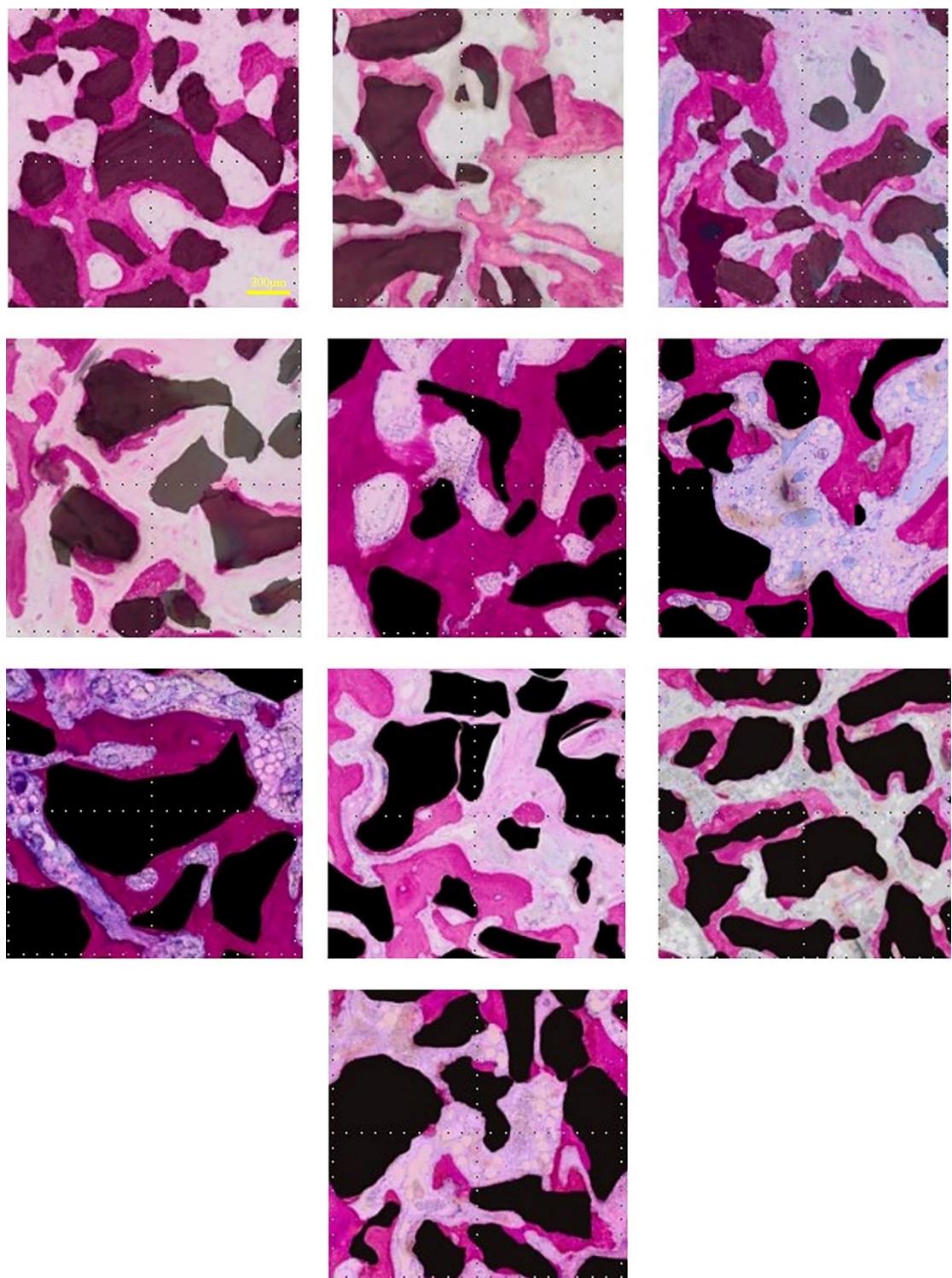


Figure S10. Overview of nearby host bone (B2) in DBBM section staining

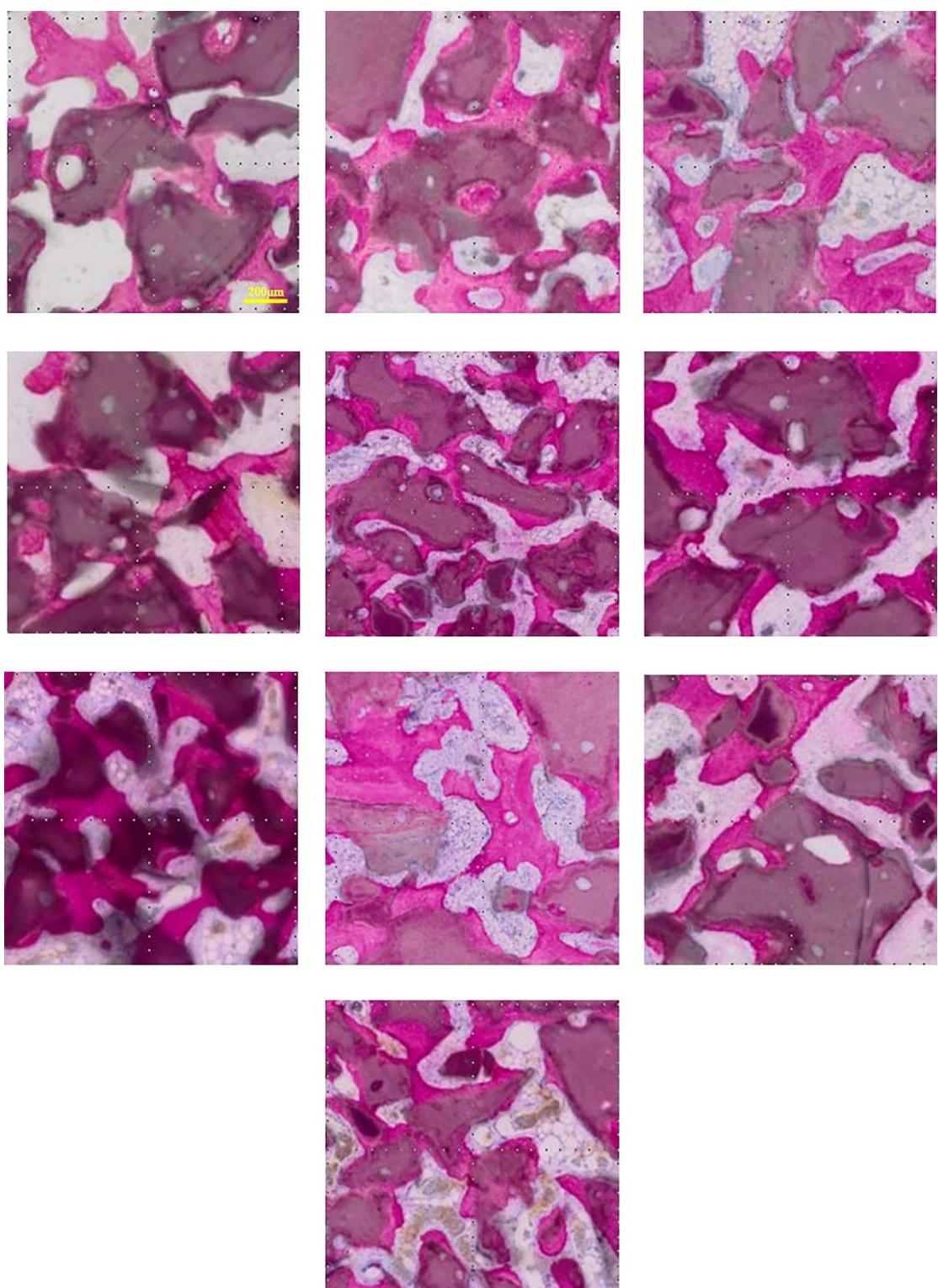


Figure S11. Overview of center of implants in BCP section staining

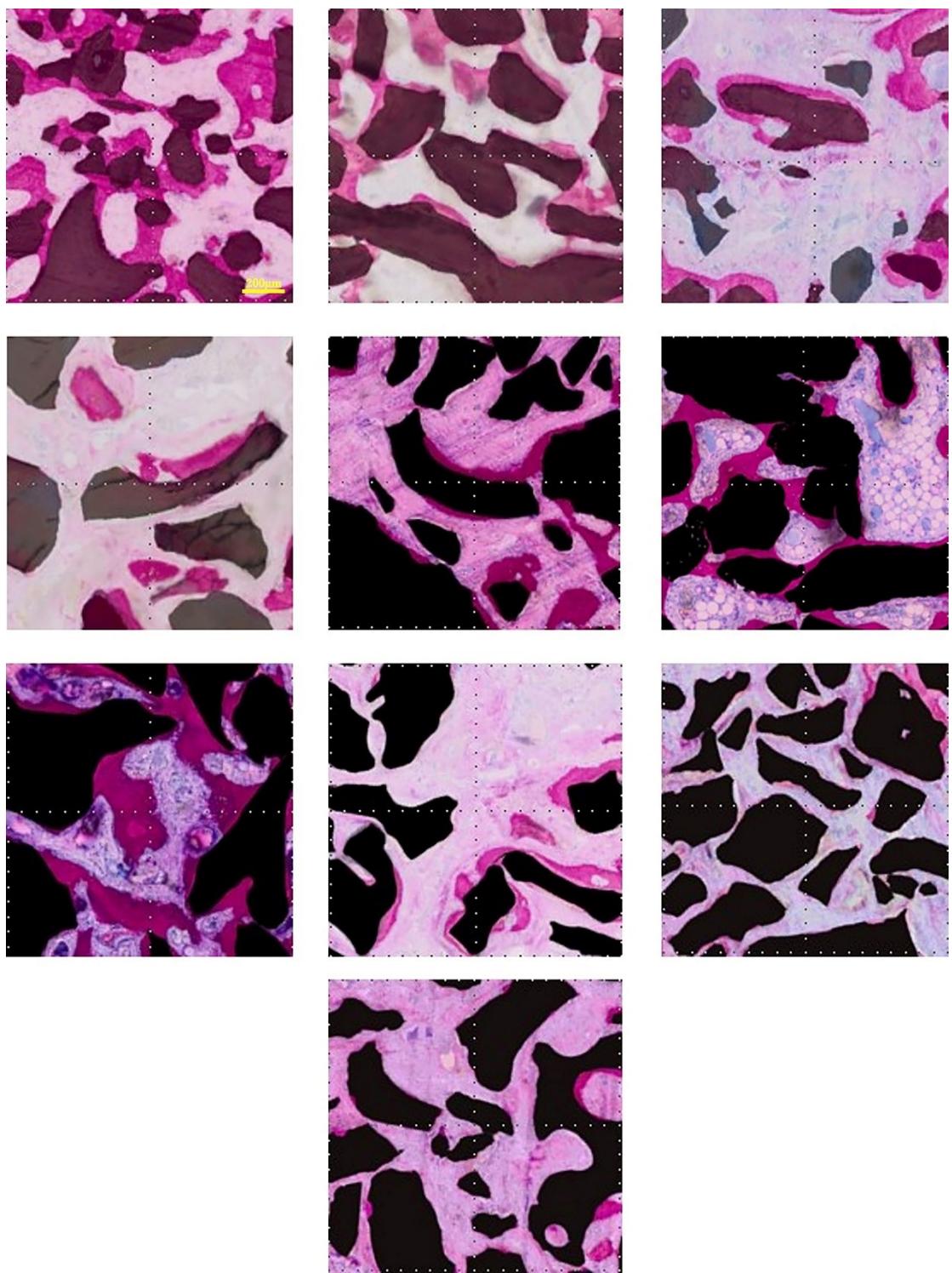


Figure S12. Overview of center of implants in DBBM section staining

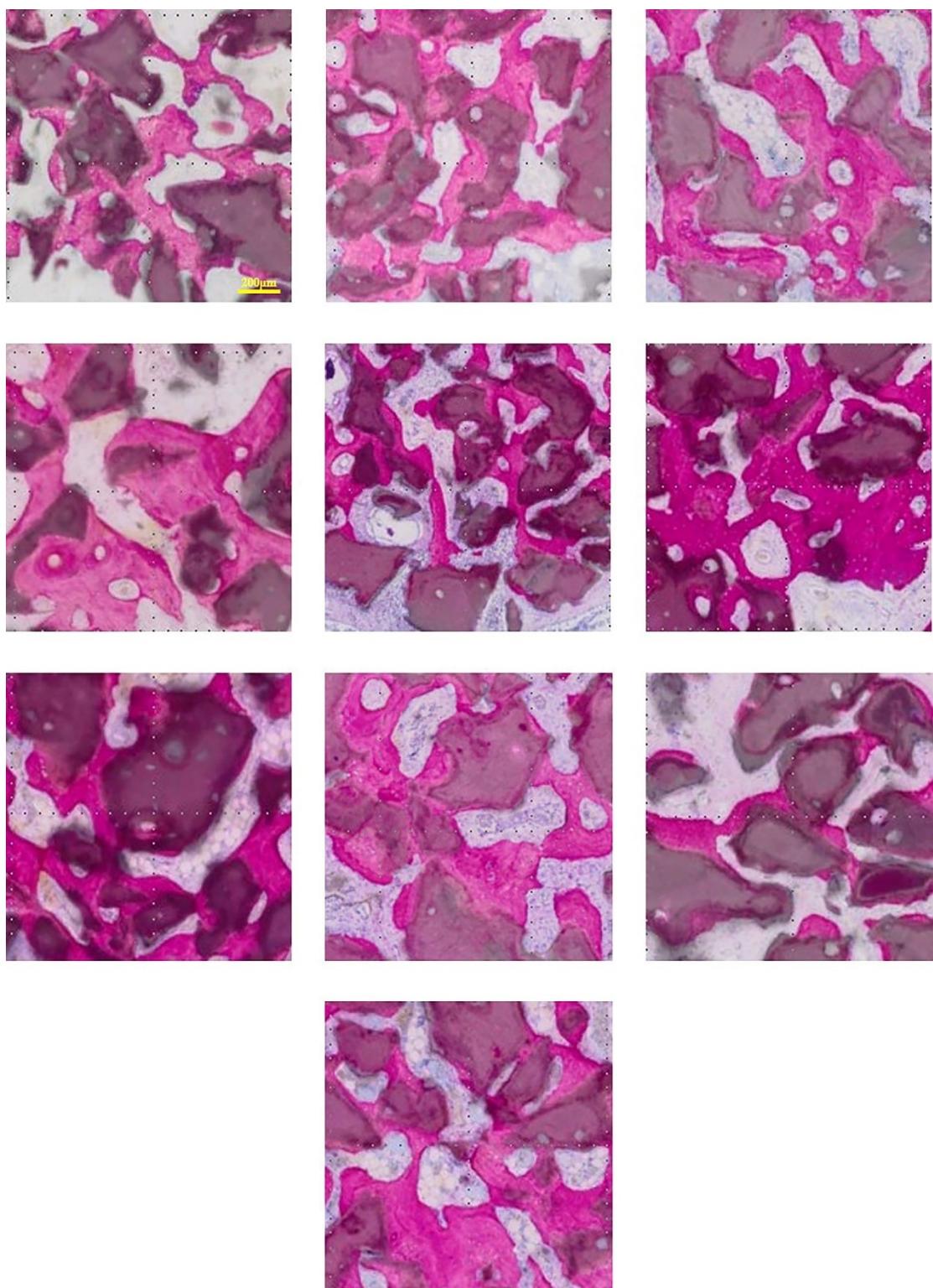


Figure S13. Overview of close to sinus membrane in BCP section staining.

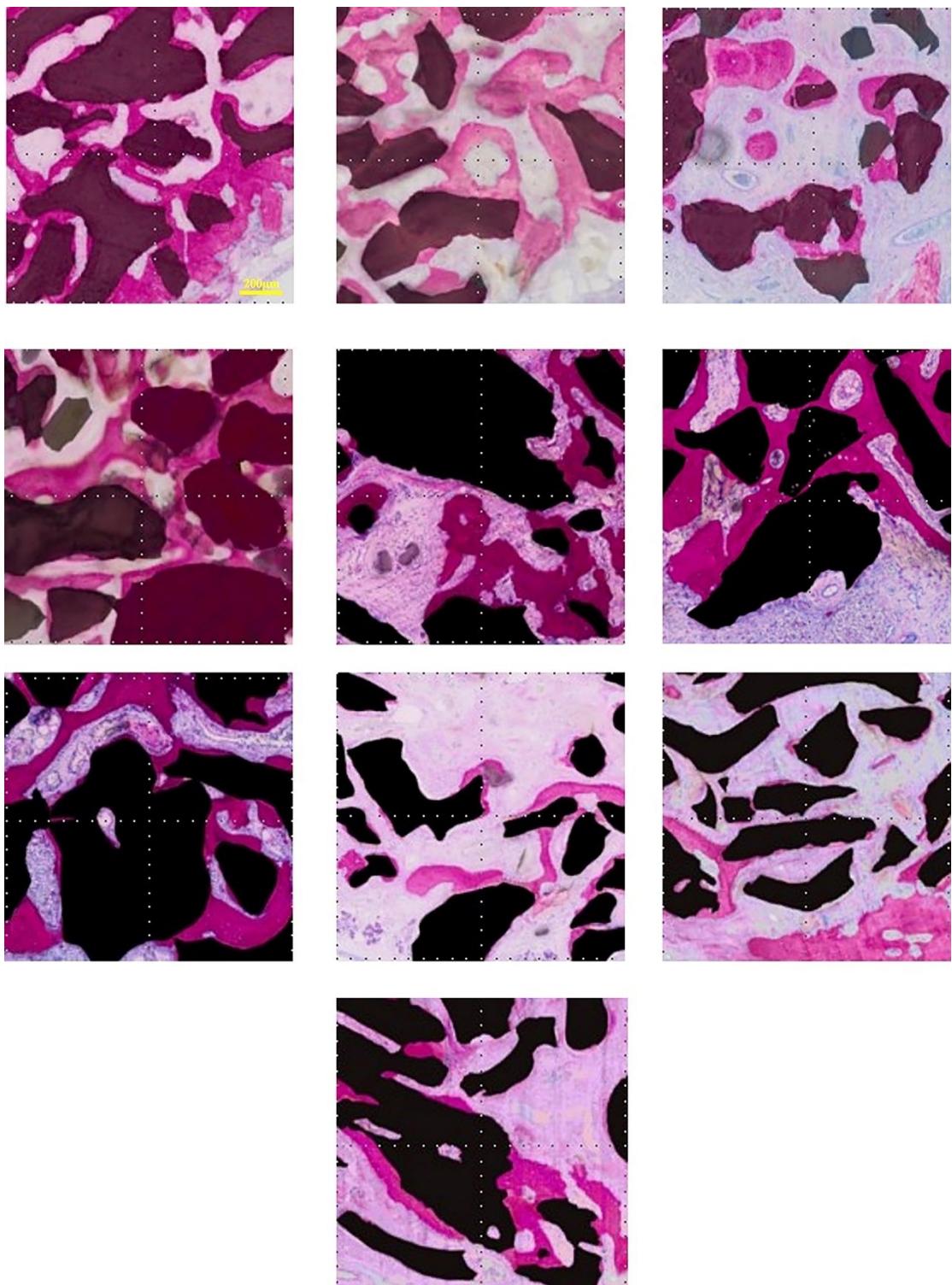


Figure S14. Overview of membrane area in DBBM section staining.

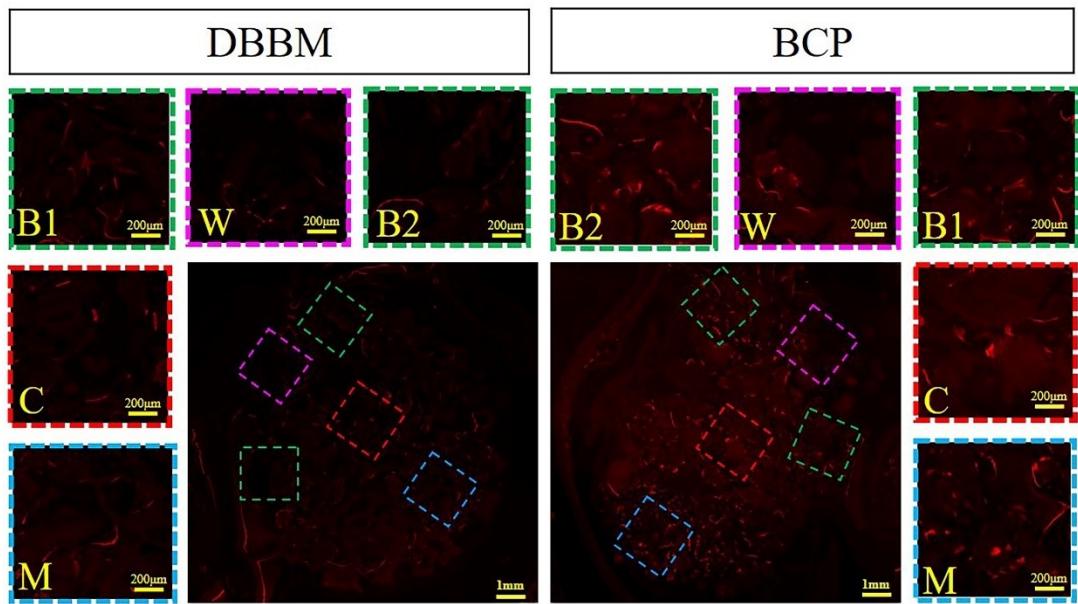
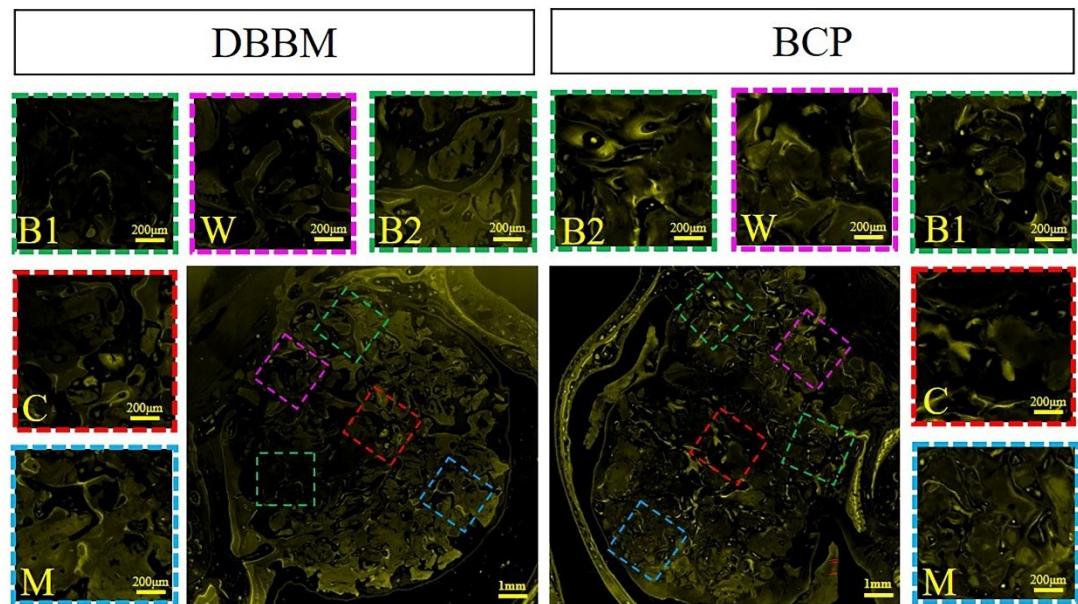
a**b**

Figure S15. Histology of fluorochrome labels by separated regions. (a) Fluorescent labeling (red) of osteogenesis in BCP and DBBM. (b) fluorescent labeling (yellow) of osteogenesis in BCP and DBBM.

Table S1. Primer pairs used in the qPCR

		Primer sequences (5'-3')
<i>Ctsk</i>	Forward	AGCAGAACGGAGGCATTGACTC
	Reverse	CCCTCTGCATTTAGCTGCCTTG
<i>Trap</i>	Forward	GCGACCATTGTTAGCCACATACG
	Reverse	CGTTGATGTCGCACAGAGGGAT
<i>Mmp9</i>	Forward	GCTGACTACGATAAGGACGGCA
	Reverse	TAGTGGTGCAGGCAGAGTAGGA
<i>Runx2</i>	Forward	CCTGAACCTGCACCAAGTCCT
	Reverse	TCATCTGGCTCAGATAGGAGGG
<i>Colla1</i>	Forward	CCTCAGGGTATTGCTGGACAAC
	Reverse	CAGAAGGACCTGTTGCCAGG
<i>Bsp</i>	Forward	AATGGAGACGGCGATAGTTCCG
	Reverse	GGAAAGTGTGGAGTTCTCTGCC
<i>Alp</i>	Forward	CCAGAAAGACACCTGACTGTGG
	Reverse	TCTTGTCCGTGTCGCTCACCAT
<i>C3</i>	Forward	CGCAACGAACAGGTGGAGATCA
	Reverse	TGGAAGTAGCGATTCTGGCG
<i>Sphk1</i>	Forward	GCTTCTGTGAACCACTATGCTGG
	Reverse	ACTGAGCACAGAATAGAGCCGC
<i>Bmp-2</i>	Forward	AGAGACCCAAGTTCCCAGAAGC
	Reverse	TCTCCTCAGCACACTGTGCAGT
<i>Pdgf-bb</i>	Forward	AATGCTGAGCGACCACTCCATC
	Reverse	TCGGGTCATGTTCAAGTCCAGC
<i>Gapdh</i>	Forward	CATCACTGCCACCCAGAAGACTG
	Reverse	ATGCCAGTGAGCTCCGTTCAAG