

**Figure S1.** *Fgfr2c* RNA and FGFR2c protein expression validation.

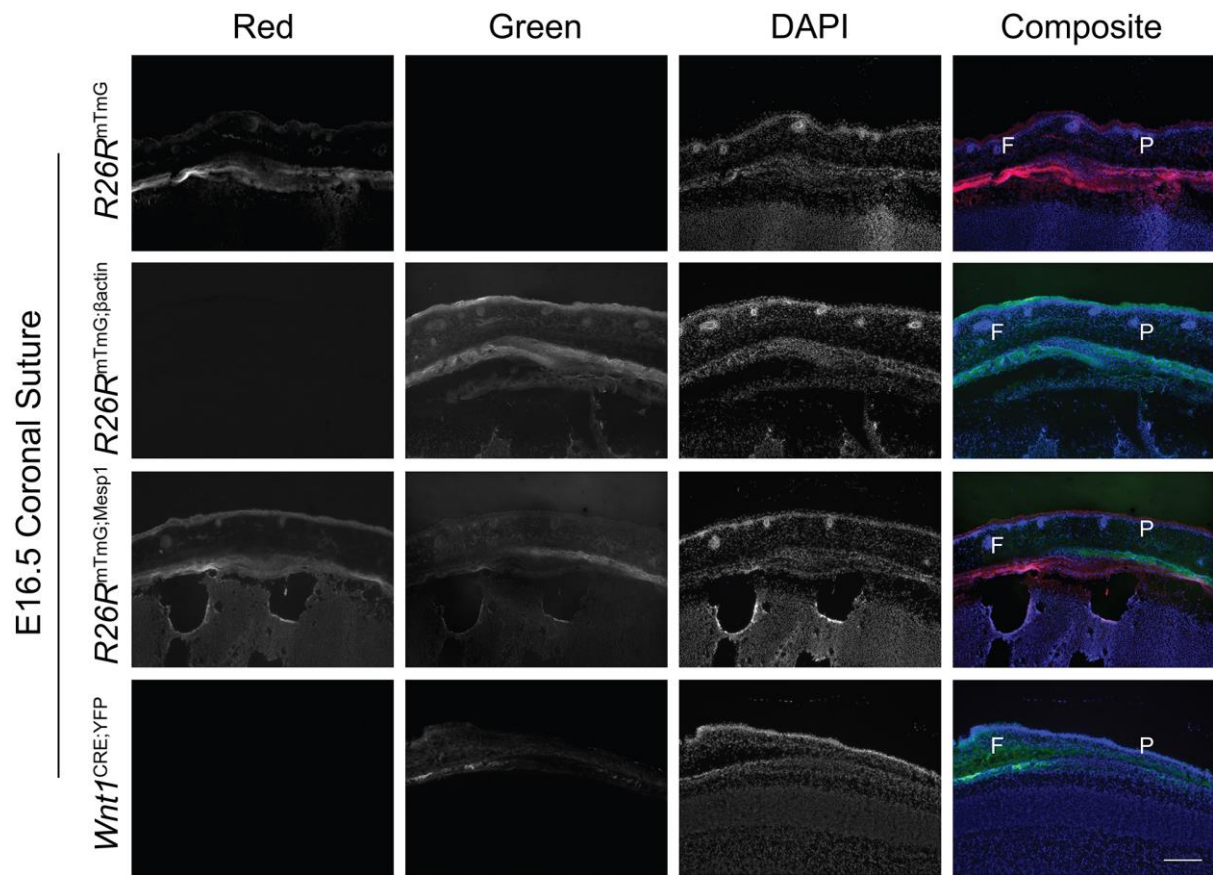
(A) RT-qPCR analysis of *Fgfr2c* expression reveals upregulation of *Fgfr2c* transcripts by approximately 2-fold in R26R<sup>Fgfr2c</sup>;βactin E12.5 embryos. (B) Immunoblot for the V5 epitope shows expression of the transgenic FGFR2cV5 protein in overexpression embryos only.



**Figure S2.** Quantitative analysis of  $R26R^{Fgfr2c;\beta actin}$  limb bones.

(A) Whole mount skeletal stained limbs of control and  $R26R^{Fgfr2c;\beta actin}$  E18.5 embryos show normal morphology.

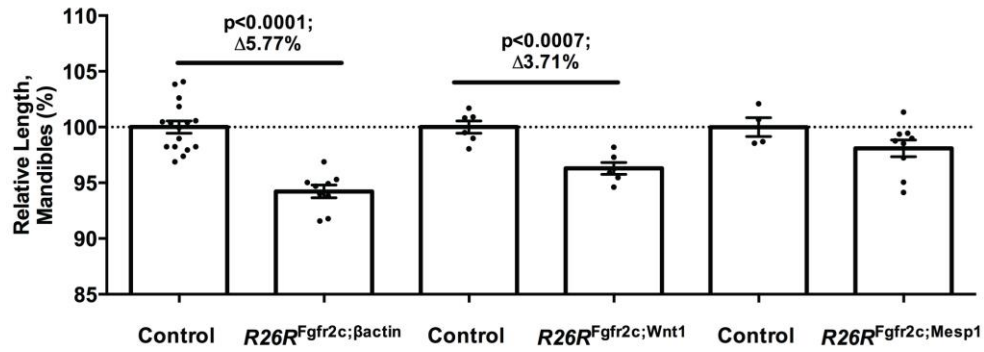
(B) Quantitative analysis shows no statistically significant difference between control and mutant limb size.



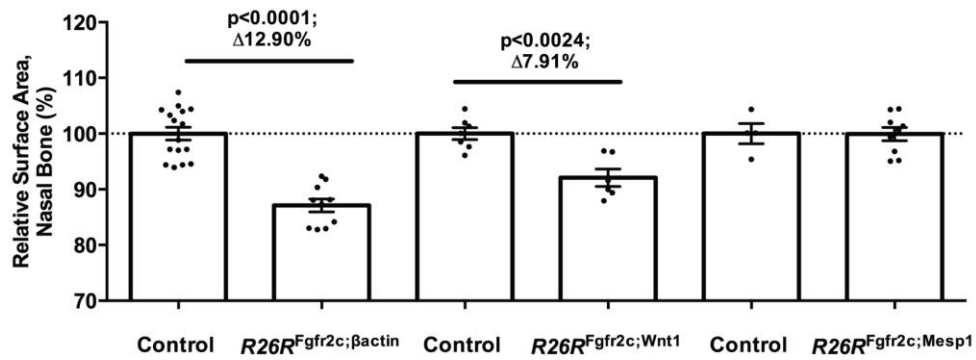
**Figure S3.** Reporter activity of  $\beta actinCRE/+$ ,  $Mesp1CRE/+$  and  $Wnt1CRE/+$ .

eGFP (green) is only expressed in the event of CRE recombination in  $R26RmTmG/+$ , tdTomato (red) is expressed otherwise. Complete recombination is present in  $R26RmTmG/+; \beta actinCRE/+$ . Cells derived from the mesoderm are only present in the parietal bone of  $R26RmTmG/+; Mesp1CRE/+$ . Cells derived from the NCC lineage are only present in the frontal bone of  $Wnt1CRE/+; YFP$  mice. F:frontal bone, P: parietal bone; Scale bar: 200 $\mu$ m.

**A**



**B**



**Figure S4.** Quantitative analysis of neural crest derivatives in the craniofacial skeleton shows a decrease in size of mandible (**A**) and nasal bones (**B**) in *R26R<sup>Fgfr2c</sup>;βactin* and *R26R<sup>Fgfr2c</sup>;Wnt1* E18.5 embryos. Statistics: Student's t-test with Welch's correction.