



Figure S3. Ectoderm *Wntless* (*Wls*) mutants lose ERK activation in cranial mesenchyme.

(A) Schematic depicting the status of Wnt signaling in the cranial mesenchyme and overlying ectoderm in this mouse model of Wnt signaling deletion. β -catenin remains intact within the cranial mesenchyme. The ectoderm is unable to secrete Wnt ligands or undergo Wnt signaling. Wnt signaling is lost in the mesenchyme. (B) Schematic indicating the plane and orientation of specimen. (C-D') Immunofluorescence of pERK1/2 showing loss of ERK1/2 activation in *Cre^{ect}; Wls^{fl/+}* (control) and *Cre^{ect}; Wls^{fl/fl}* (Ect-*Wls*). n=2 biological replicates. Yellow lines demarcate the brain, white lines border the presumed frontal bone primordia (fbp). White arrows identify pERK signal within the frontal bone primordia, orange arrow points to pERK signal within the vasculature; bv, blood vessel(s)