Supplementary Materials

The ERK MAPK pathway is essential for skeletal development and homeostasis

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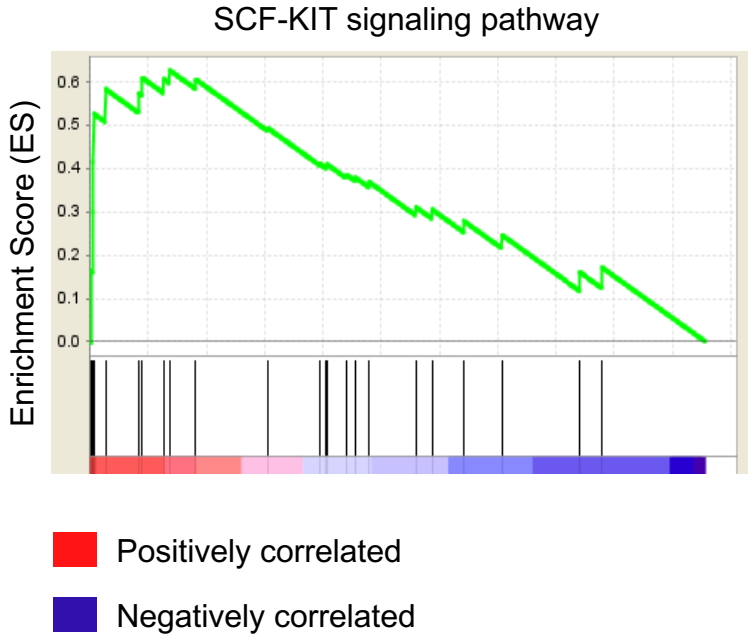
Supplementary Table S1: Primer sequences used for RT-PCR.

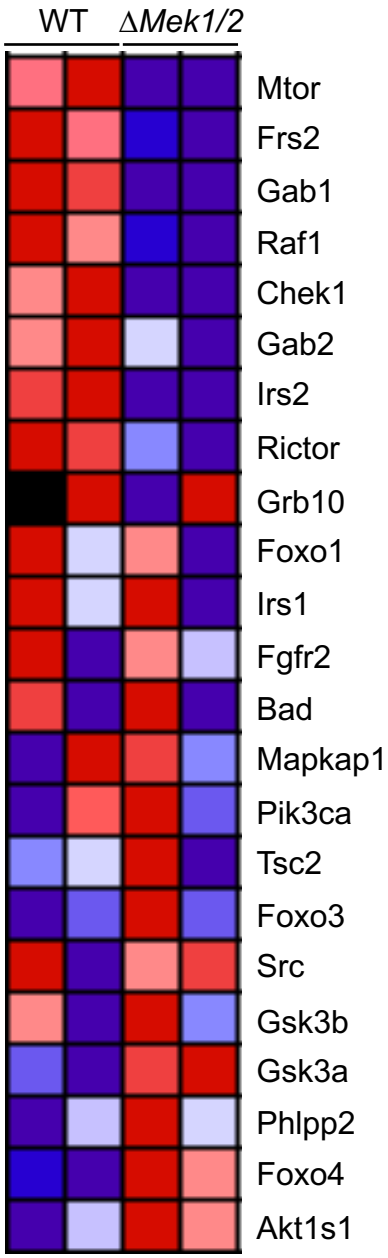
Gene	Forward	Reverse
Mouse *Alpl*	CACAATATCAAGGATATCGACGTGA	ACATCAGTTCTGTTCTTCGGGTACA
Mouse *Ibsp*	CAGGGAGGCAGTGACTCTTC	AGTGTGGAAAGTGTGGCGTT
Mouse *Sp7*	ATGGCGTCCTCTCTGCTTGA	GAAGGGTGGGTAGTCATTTG
Mouse *Bglap2*	GCAGCACAGGTCCTAAATAG	GGGCAATAAGGTAGTGAACAG
Mouse *Col1a1*	ACTGTCCCAACCCCCAAAG	ACGTATTCTTCCGGGCAGAA
Mouse *Hprt*	CTGGTGAAAAGGACCTCTCGAAG	CCAGTTTCACTAATGACACAAACG

Supplementary Table S2: Post Translational Modification (PTM) scan results in WT and Δ*Mek1/2* COBs

Supplementary Figure S1. Enrichment of SCF-KIT signaling pathway in WT and Δ*Mek1/2* COBs.

Enrichment plots (left) and signature gene sets (right) in WT and *Mek1/2*-deficient (Δ*Mek1/2*) COBs culture. GSEA analysis displays enrichment of genes involved with SCF-KIT signaling pathway.





Supplementary Figure S1