Supplementary information

ELK3 expressed in lymphatic endothelial cells promotes breast cancer progression and metastasis through exosomal miRNAs

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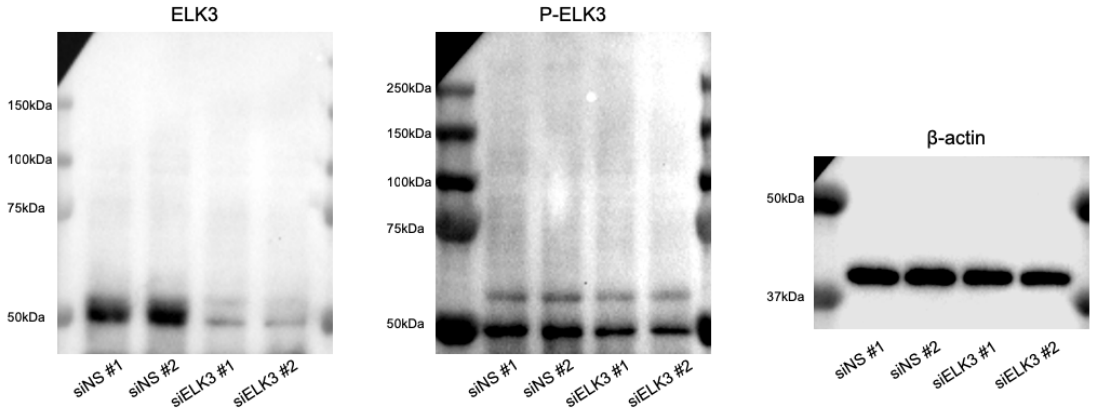

Figure S1. Knockdown of ELK3 expression. Western blot analysis of phospho-ELK3, ELK3 and β-actin in MDA-MB-231 cells expressing non-specific control siRNA (siNS) or ELK3 siRNA (siELK3).

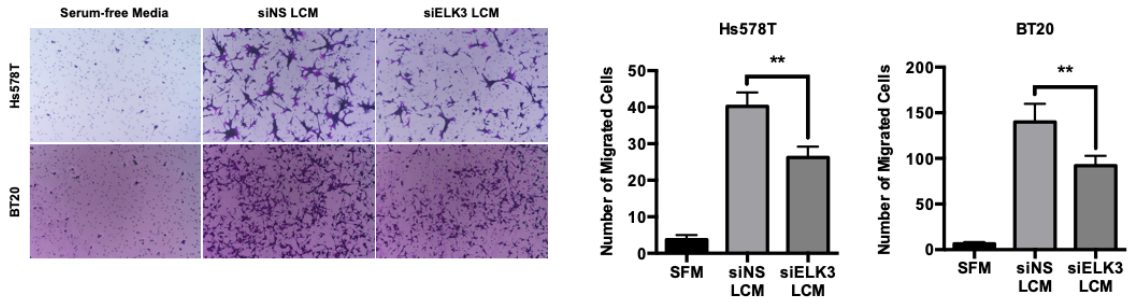

Figure S2. The effect of siNS or siELK3 LCM on the migration of Hs578T or BT20 cells was analyzed by a transwell assay. Hs578T or BT20 cells educated in the indicated LCM were cultured in a transwell chamber for 24 h. The migrated cells were stained with crystal violet (Left) and quantified (Right).

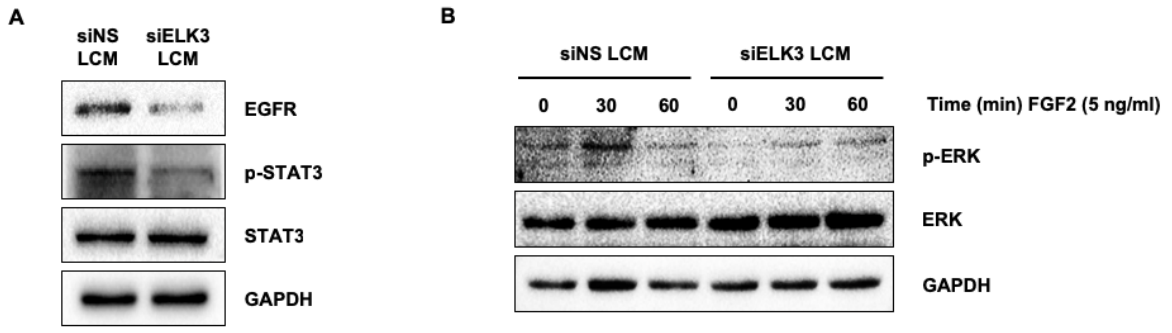

Figure S3. The effect of ELK3 suppressed LCM on the ERK1/2 or stat3 signaling pathway of MDA-MB-231.

(A) The expression of EGFR and phospho-Stat3 of MDA-MB231 that was cultured in siNS or siELK3 LCM for 24 h on was analyzed by immunoblot analysis. (B) The activation of ERK signaling pathway was analyzed by immunoblot analysis of MDA-MB-231 cells that were cultured in the siNS or siELK3 for 24 h and then stimulated with FGF2 (5 ng/ml) for indicated times.

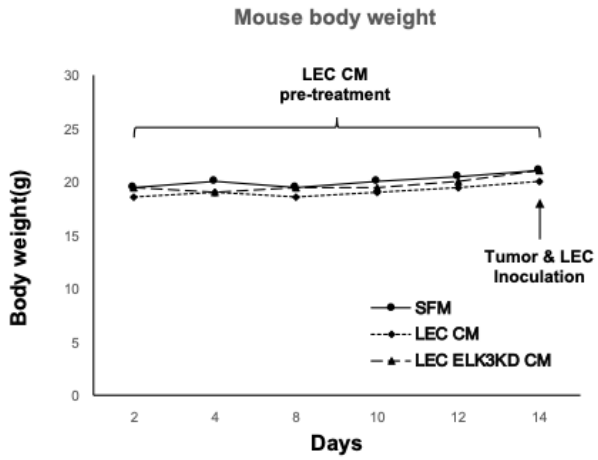

Figure S4. Body weight of mice that were pretreated with LCM harvested from siNS- or siELK3-transfected LECs or SFM subcutaneously for 2 weeks, as described in the Material and Methods.

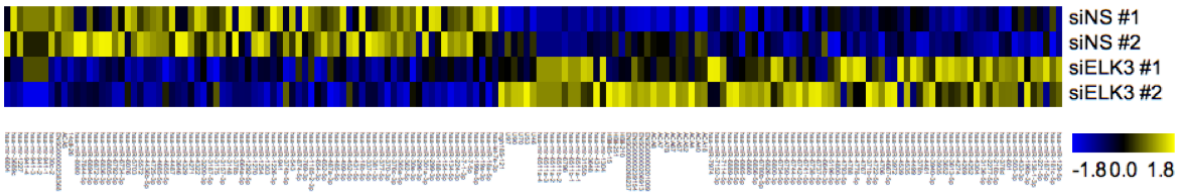

Figure S5. miRNA microarray analysis of siNS or siELK3 transfected LECs. A heatmap was generated from standardized Z-score with expression of each gene. Among the differentially expressed miRNAs, 167 miRNAs (normalized fold change > 1.5 or < 0.67) were represented. Yellow indicates upregulation; blue, downregulation.