

SUPPLEMENTAL DATA

Video Legend

Video 1. **Syndecan-1 restrains migration speed.** Injured B2b^{shRNA.scr} and B2b^{shRNA.hSdc1} cells were observed by time-lapse TIRF microscopy using a Nikon TiE inverted widefield fluorescence microscope. Each time point was acquired every 20 minutes for 10 hours. Scale bar = 20 μ m. Time = hr:min.

Video 2. **The transmembrane domain slows migration of lung epithelial cells.** Migration of injured B2b^{shRNA.scr} cells transduced with eGFP, B2b^{shRNA.hSdc1} cells transduced with eGFP, and B2b^{shRNA.hSdc1} cells co-transduced with eGFP and mutant mouse syndecan-1 cDNA was observed using a Nikon TiE inverted widefield fluorescence microscope. Each time point was acquired every 20 minutes for 10 hours. Scale bar = 20 μ m. Time = hr:min.

Supplemental Figures

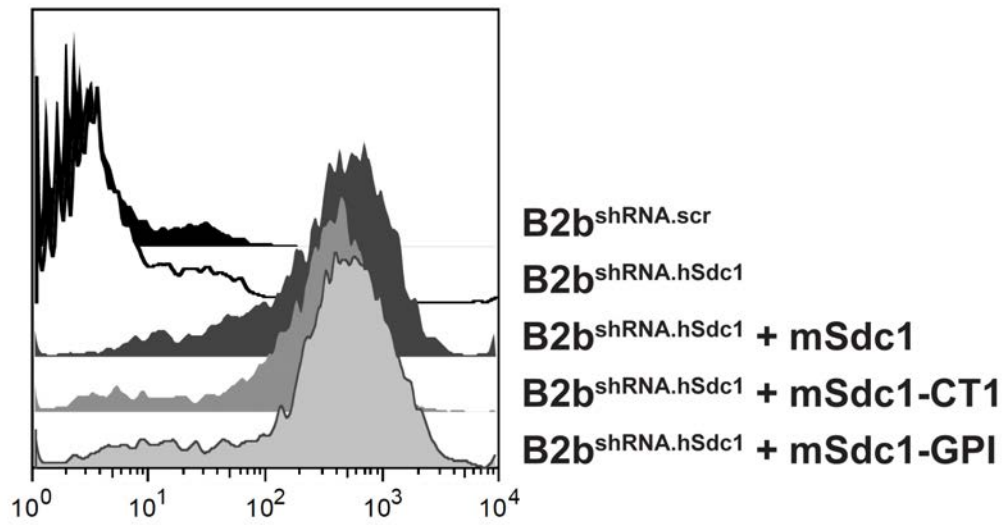


Figure S1. **Expression levels of mouse syndecan-1 in B2b^{shRNA.hSdc1} cells.** B2b^{shRNA.hSdc1} cells expressing full-length or mutant mSdc1 were immunostained for flow cytometry with a PE-conjugated anti-mouse syndecan-1 antibody (clone 281.2). Because the 281.2 antibody does not cross-react with human syndecan-1, B2b^{shRNA.scr} and B2b^{shRNA.hSdc1} cells were used as negative controls.

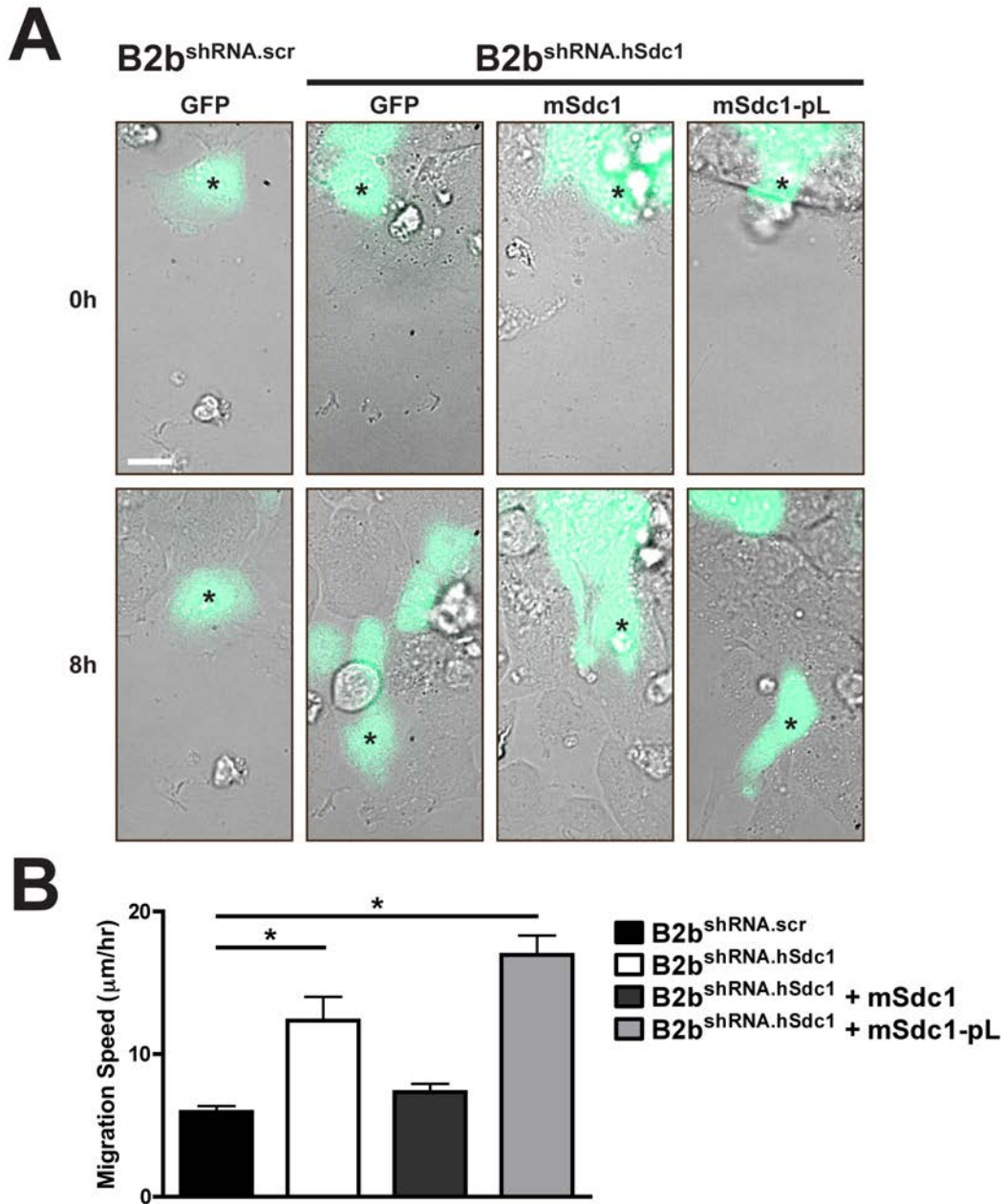


Figure S2. **Poly-leucine substitution of the transmembrane domain does not slow cell migration.**
A. B2b^{shRNA.scr} and B2b^{shRNA.hSdc1} cells transduced as labeled were injured, and migration of eGFP cells was observed. The black asterisk identifies the same cell at 0h and 8h after injury. Scale bar = 20 µm.
B. Migration speed of all conditions. Control conditions expressed only eGFP and were compared to conditions co-expressing both mouse syndecan-1 and eGFP. **p* < 0.01.