

Article

Recovery of Altered Diabetic Myofibroblast Heterogeneity and Gene Expression Associated with CD301b⁺ Macrophages

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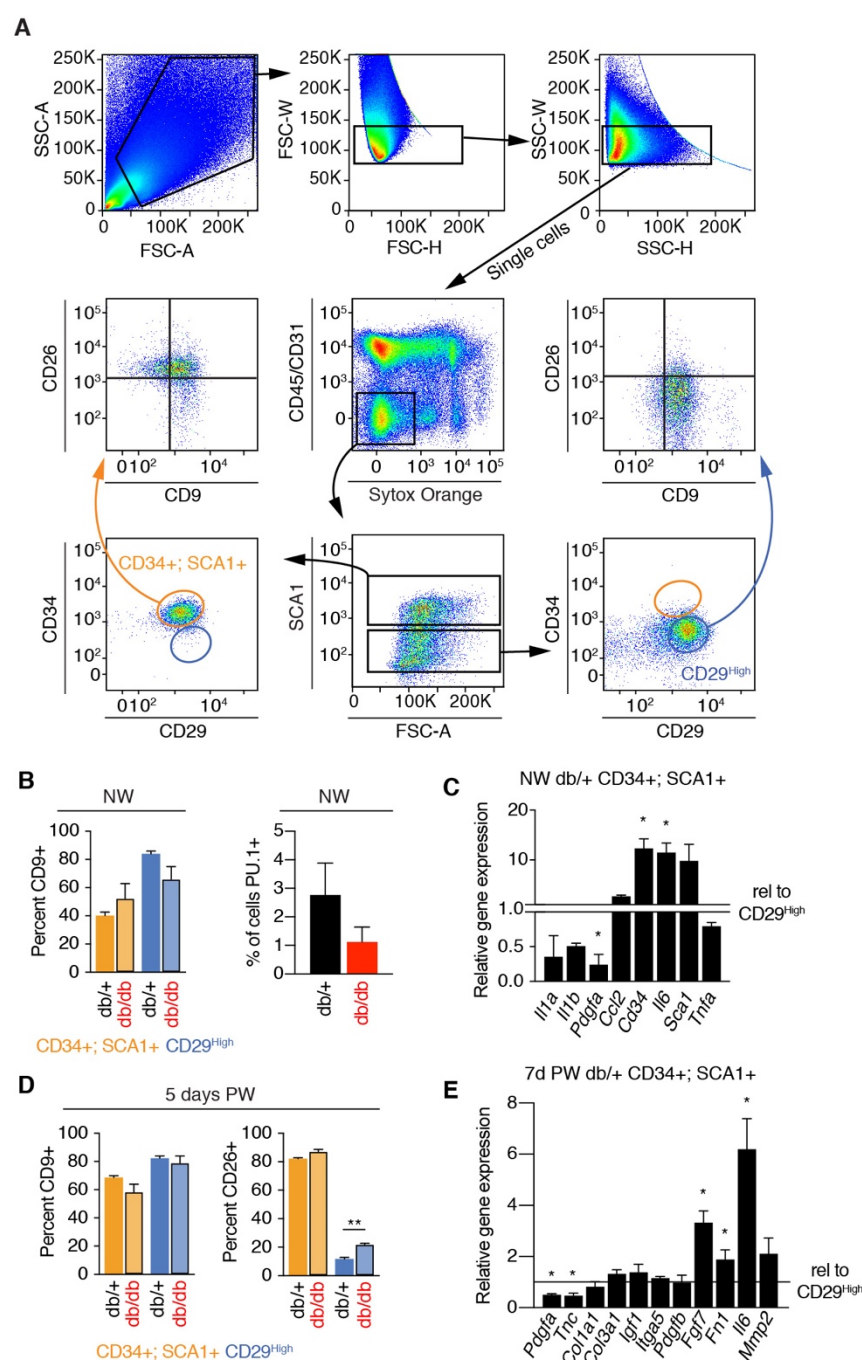


Figure S1. Characteristics of mesenchymal cell subsets in diabetic mouse skin and wound beds. **(A)** Gating strategy to define mesenchymal cell populations in mouse skin and wound beds. **(B)** Quantification of CD9⁺ from flow cytometry analyzed CD34⁺; SCA1⁺ and CD29^{High} cells and quantification of PU.1⁺ cells in immunostained tissue sections from non-wounded (NW) db/+ and db/db mouse skin. **(C)** Quantitative RT-PCR analysis of genes that characterize CD34⁺; SCA1⁺ and CD29^{High} mesenchymal cell subsets in uninjured skin. Results show the expression levels in CD34⁺; SCA1⁺ cells relative to CD29^{High} mesenchymal cells. **(D)** Flow cytometry quantification of CD9⁺ and CD26⁺ colocalization in myofibroblast subsets from db/+ and db/db mouse skin wounds isolated 5-days post-wounding (PW). **(E)** Quantitative RT-PCR analysis of genes that characterize CD34⁺; SCA1⁺ and CD29^{High} myofibroblast subsets. Cell populations were isolated from wound beds 7-days PW. Results show the expression levels in CD34⁺; SCA1⁺ myofibroblasts relative to CD29^{High} myofibroblasts. $n = 3-5$ for each condition. Error bars indicate mean \pm SEM. * $p < 0.05$.

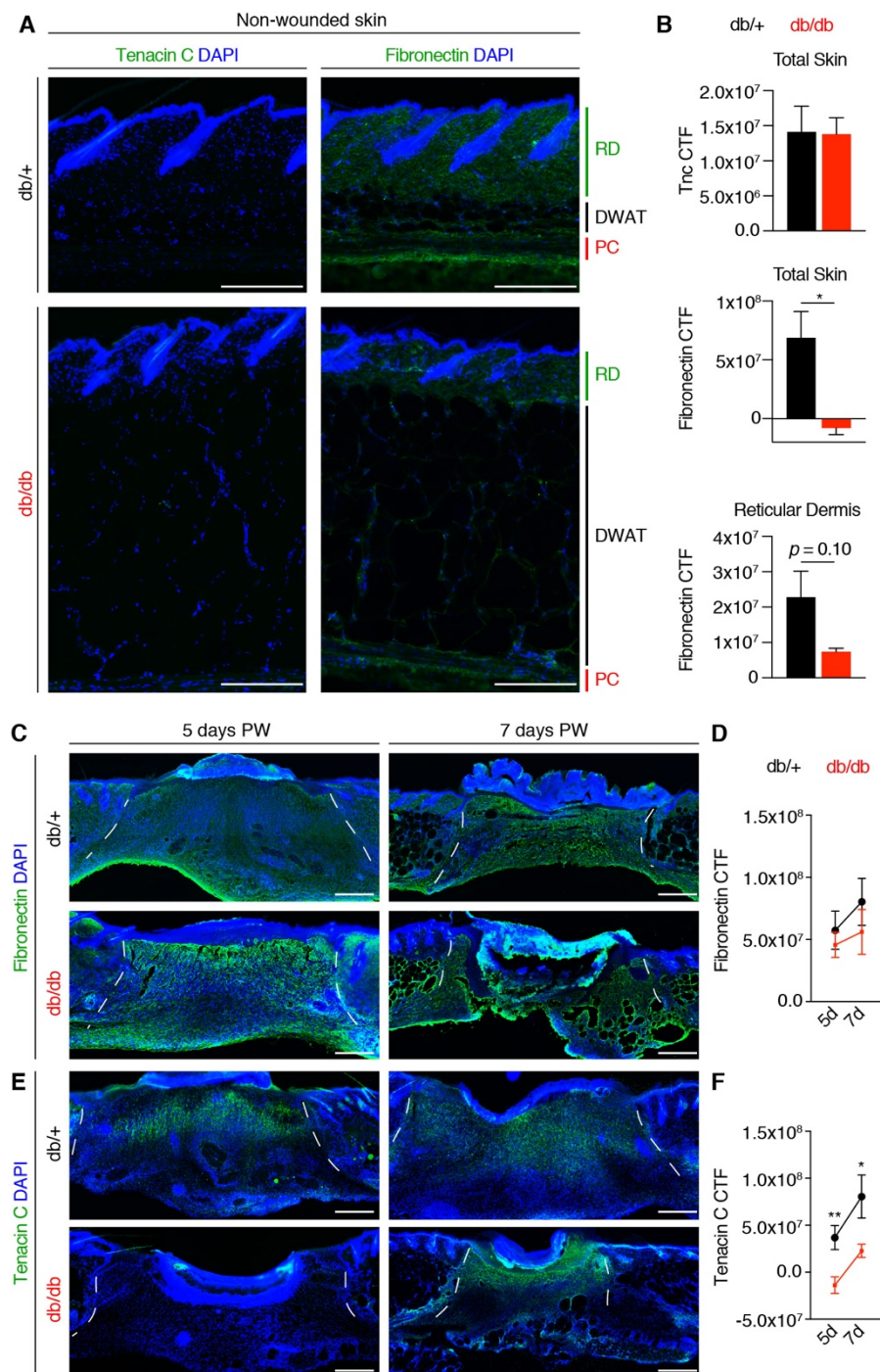


Figure S2. ECM composition is altered in diabetic mouse skin and wound beds. **(A)** Sections from db/+ and db/db mouse skin were immunostained for tenascin C and fibronectin. **(B)** Quantification of relative fluorescent intensity of tenascin C and fibronectin in uninjured skin. **(C–D)** Images from tissue sections were immunostained for fibronectin **(C)** and the relative intensity of the signal was quantified **(D)** in wound beds 5- and 7-days post-wounding (PW). **(E–F)** Images from tissue sections were immunostained for tenascin C **(E)** and the relative intensity of the signal was quantified **(F)** in wound beds 5- and 7-days post-wounding (PW). White dashed lines delineate wound edges. Scale bars, 250 μ m. $n = 3$ –6 for each condition. Error bars indicate mean \pm SEM. * $p < 0.05$, ** $p < 0.01$. CTF, corrected total fluorescence.