



Supplementary Materials

Effects of tenascin C on the integrity of extracellular matrix and skin aging

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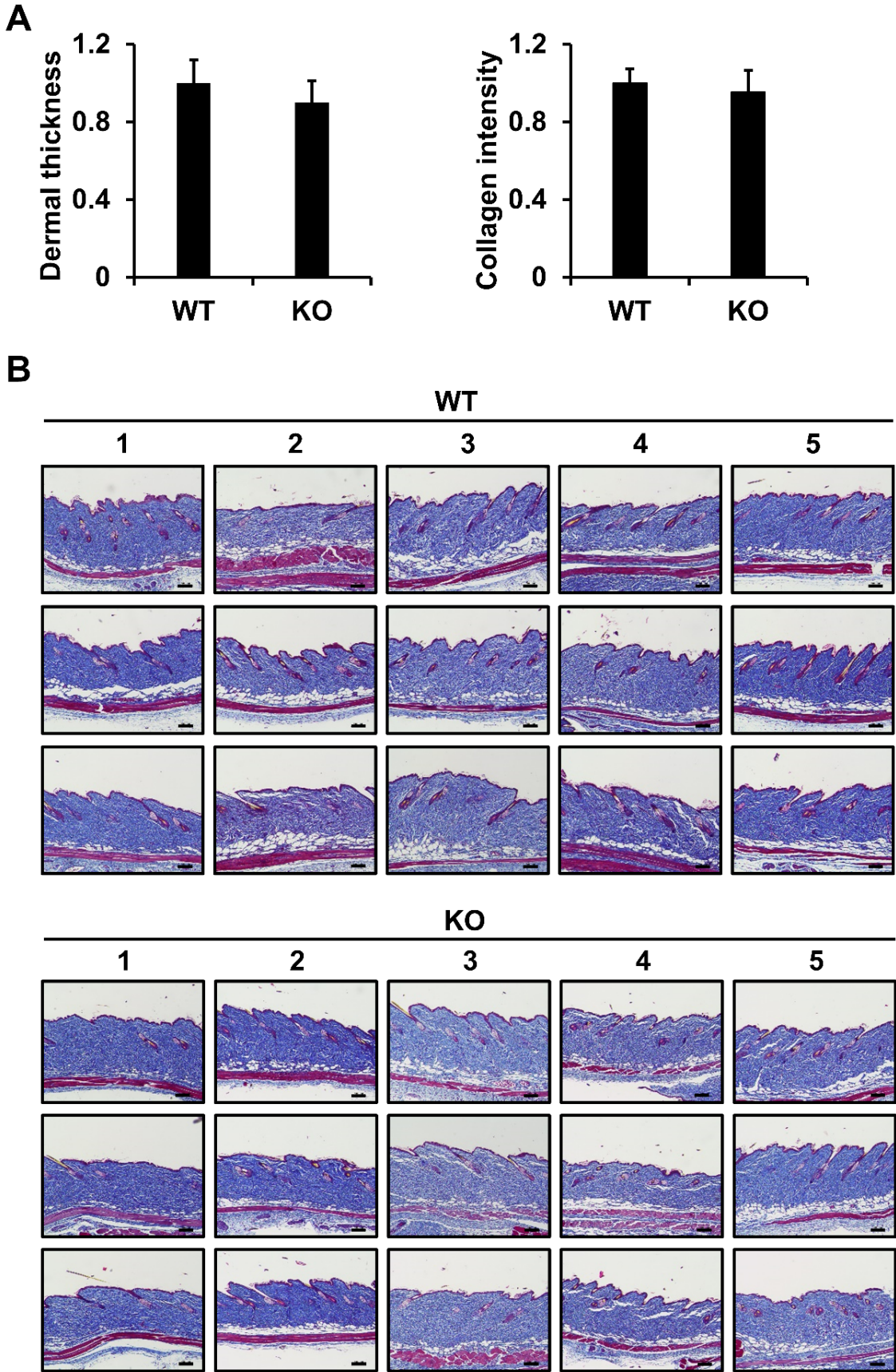
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Supplementary Table S1. Primer sequences used for reverse transcription-polymerase chain reaction of mouse *Tnc* and human *COL1A1*, *COL1A2*, *MMP1*, *TGF-β1*, *TGF-β2*, *TGF-β3*, and *GAPDH* mRNAs.

Gene Name	Nucleotide Sequence	Nucleotide Position	Annealing Temp. (°C)	GenBank #
m <i>Tnc</i>	5'-ACTGTCATCGTGTCAACCTGATGG-3'	6289-6312	52.5	NM_011607
	5'-TCCAGATTTTCGGAAGTTGCTGG-3'	6430-6409		
h <i>COL1A1</i>	5'-ACAGCGTCACTGTTCGATGGCTG-3'	4341-4372	55	NM_000088
	5'-GGAGGGAGTTTACAGGAAGCAGACAG-3'	4522-4497		
h <i>COL1A2</i>	5'-GAGGGCAACAGCAGGTTCACTTACAC-3'	4044-4069	55	NM_000089
	5'-GTCAGCACCACCGATGTCCAA AG-3'	4196-4174		
h <i>MMP1</i>	5'-GTACTGATATAATTTAGTTC -3'	1656-1675	45	NM_002421
	5'-GTTATCCCTTGCCTATCTAG -3'	1908-1889		
h <i>TGF-β1</i>	5'-ACACGCAGTACAGCAAGGTCCTGG- 3'	1876-1899	67	NM_000660
	5'-GGAGCGCACGATCATGTTGGAC-3'	2036-2015		
h <i>TGF-β2</i>	5'-GCAGAAGAGGTATCCTCATGCTGGG-3'	4481-4505	67	NM_003238
	5'-CAAACAACCTTCACTTTGGATTCCCG- 3'	4642-4618		
h <i>TGF-β3</i>	5'-TACAACACTCTGAACCCTGAAGCATC-3'	2195-2220	62	NM_003239
	5'-CAAGACTTCACCACCATGTTGGAG-3'	2328-2305		
h <i>GAPDH</i>	5'-ACTGCTTAGCACCCCTGGCCA-3'	488-508	55	BC023632
	5'-TTGGCAGTGGGGACACGGAAG-3'	740-720		

h: human, and m: mouse

Supplementary Figure S1



Supplementary Figure 1. Analysis of dermal thickness and collagen intensity in skin tissues of *Tnc* knockout and wild-type mice. Formalin-fixed and paraffin-embedded sections of skin tissues from *Tnc* knockout (KO) and wild-type (WT) C57BL6 mice (6 weeks old) were deparaffinized and stained with Masson's trichrome [1]. Dermal thickness [2] and collagen intensity [3] in the dermis were measured as the width or staining intensity at five locations in each tissue section using Image J software (National Institutes of Health, Bethesda, MD, USA). Five mice from each group and three separate blocks of skin tissues from each mouse were evaluated. (A) Graphs showing relative dermal thickness and collagen intensity in five *Tnc* KO mice compared with WT mice. (B) Three blocks of skin tissues from five *Tnc* KO or WT mice, each stained with Masson's trichrome are shown. Bar = 100 μ m.

Supplementary References

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2. Terao, M.; Tani, M.; Itoi, S.; Yoshimura, T.; Hamasaki, T.; Murota, H.; Katayama, I. 11beta-hydroxysteroid dehydrogenase 1 specific inhibitor increased dermal collagen content and promotes fibroblast proliferation. *PLoS One* **2014**, *9*, e93051.
3. Chen, Y.; Yu, Q.; Xu, C. B. A convenient method for quantifying collagen fibers in atherosclerotic lesions by ImageJ software. *Int. J. Clin. Exp. Med.* **2017**, *10*, 14904-14910.