Tie2-dependent VHL knockdown promotes airway microvascular regeneration and attenuates invasive growth of *Aspergillus fumigatus*

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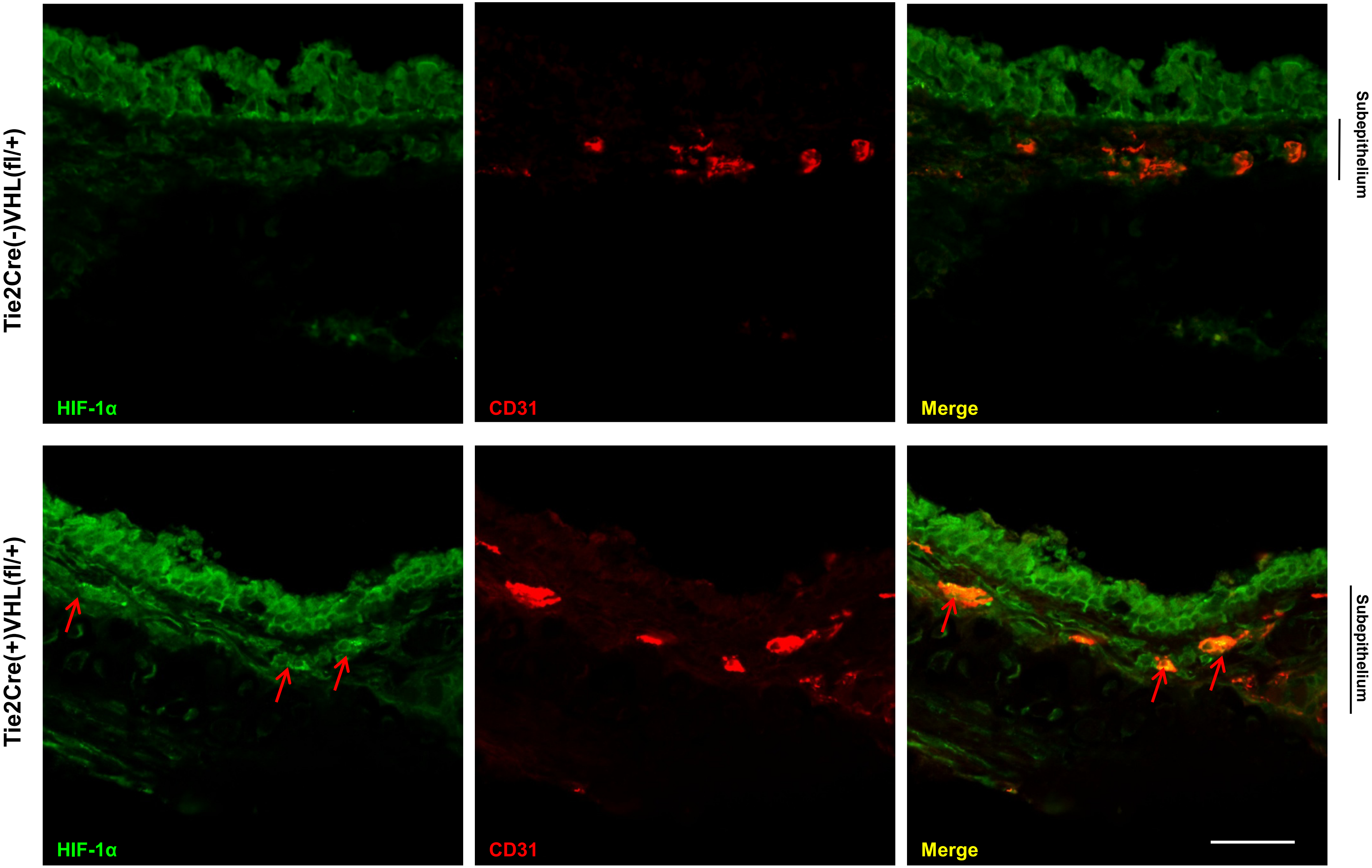
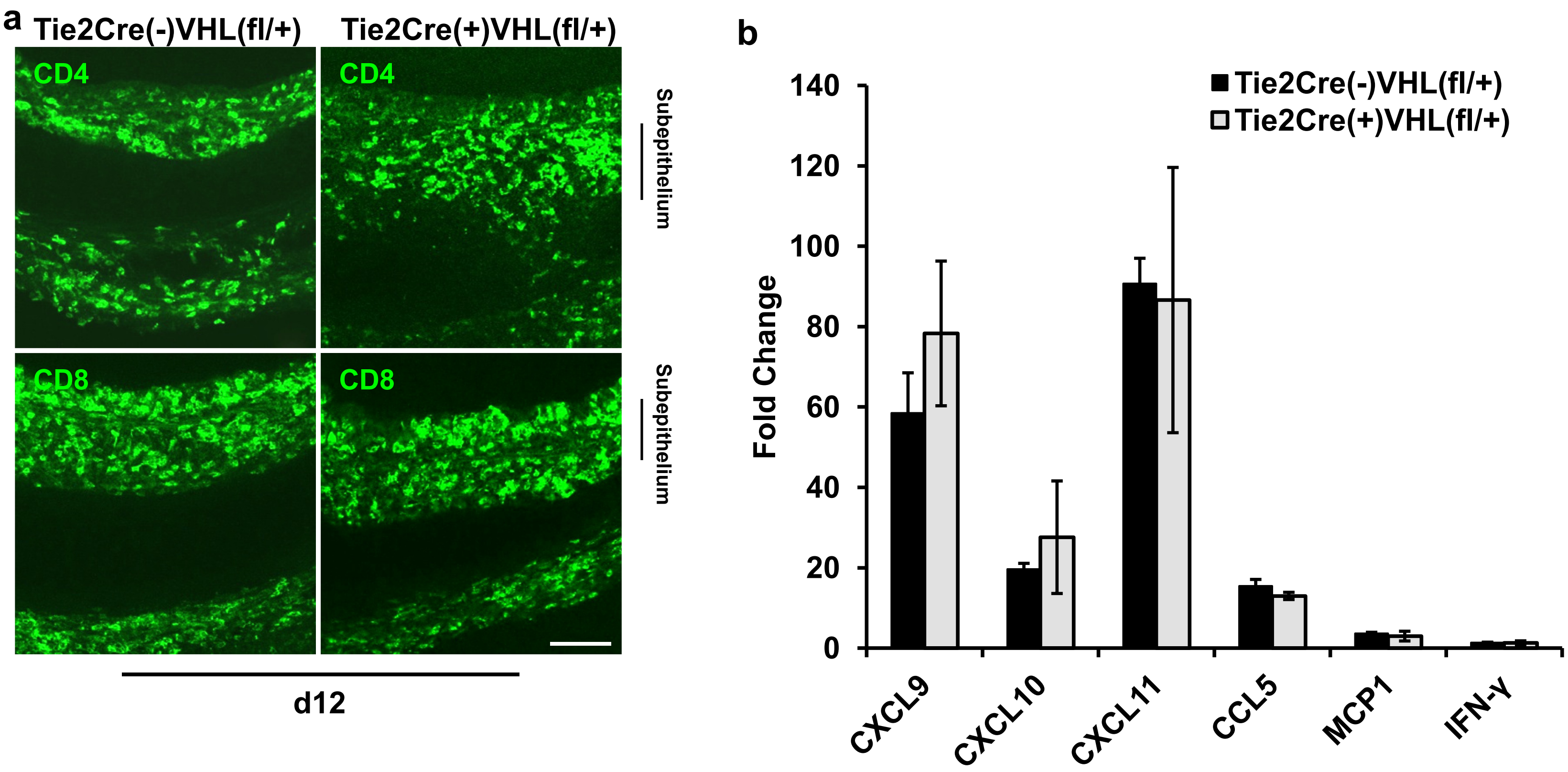
Supplementary Fig. 1



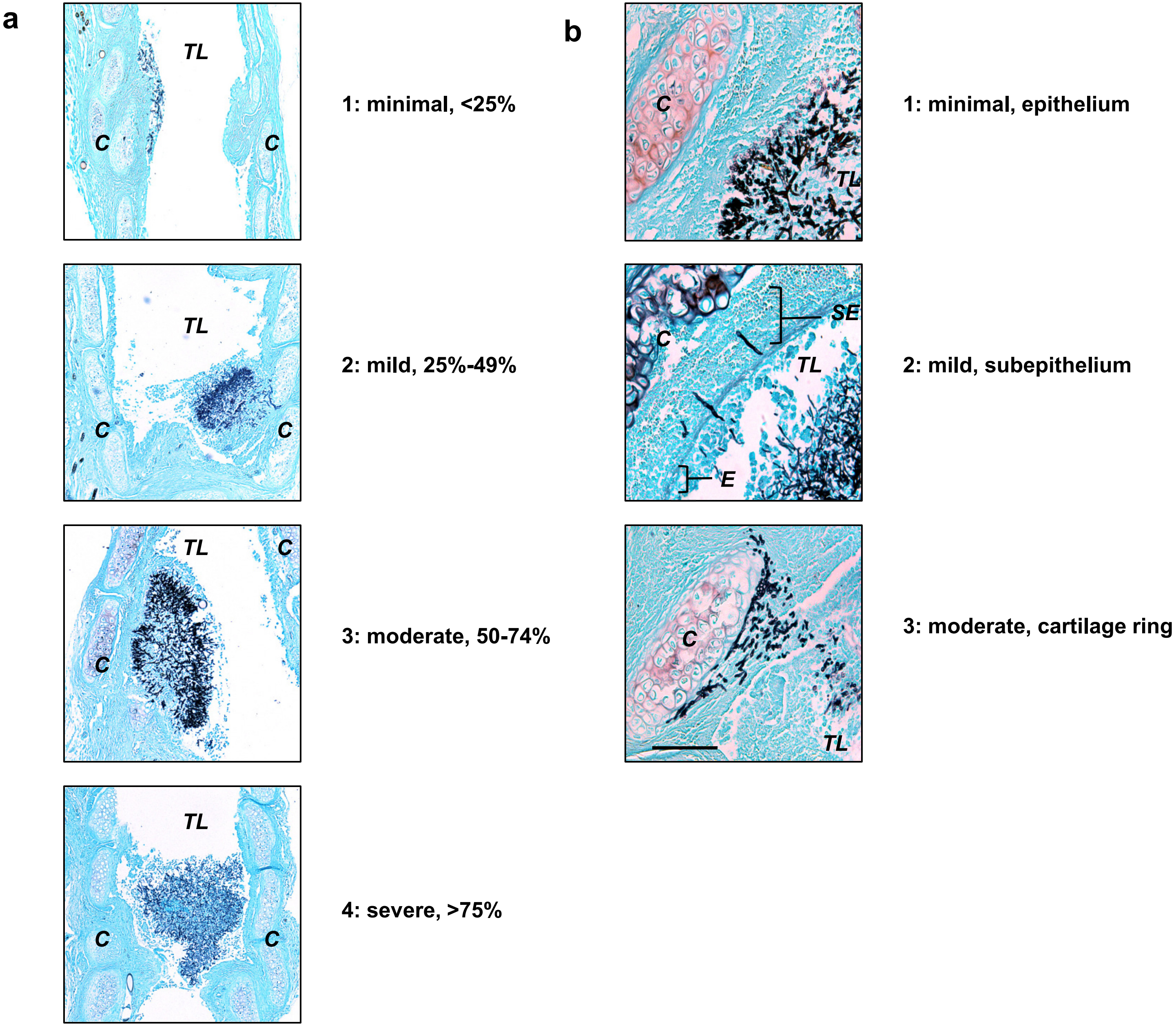
Supplementary Fig. 1 Increased HIF-1α expression in ECs of VHL-haplodeficient trachea. Immunofluorescence staining shows HIF1α protein expression in ECs from VHL-haplodeficient mice. Red arrows denote HIF-1α-positive cells. Scale Bar: 20μM.

Supplementary Fig. 2



Supplementary Fig. 2 Comparable infiltration of immune cells and expression of common inflammatory cytokines in tracheas transplanted into both control and VHL haplodeficiency recipients. **a** CD4 and CD8 staining are similar in tracheas transplanted into both control and VHL-haplodeficient recipients at day 12. **b** mRNA expression levels of common inflammatory cytokines are similar in both control and VHL-haplodeficient groups at day 12. Scale bar: 20μM. (**a**). Data are shown as means ± SEM.

Supplementary Fig. 3



Supplementary Fig. 3 Semiquantitative scale histopathological definitions. **a** Degree of fungal infection was determined using a semiquantitative scoring system as follows: 0, no fungal elements, 1 (minimal), fungal hyphae in less than 25% of the luminal area, 2 (mild) hyphae. Scale Bar: 20μM.

Supplementary Table 1. Sequences of primers for qRT-PCR analysis

Gene	Forward Primer	Reverse Primer
CXCL9	CACCAGCCGAGGCACGATCC	TGCAATTGGGGCTTGGGGCA
CXCL10	TCTCGCAAGGACGGTCCGCT	CGTGGGCAGGATAGGCTCGC
CXCL11	GCCATAGCCCTGGCTGCGAT	CATCCCGGGGCCGATGCAAA
CCL5	CATCCTCACTGCAGCCGCCC	AGCGCGAGGGAGAGGTAGGC
MCP-1	GAAGGCCAGCCCAGCACCAG	GTGGATGCTCCAGCCGGCAA
IFN-γ	CACAGGTCCAGCGCCAAGCA	CCCACCCCGAATCAGCAGCG
HIF-1α	GCTCATCAGTTGCCACTTCCCC	CGGCATCCAGAAGTTTTCTCACACG
SDF-1	GAGAGCCACATCGCCAGAG	TTTCGGGTCAATGCACACTTG
ANGPT1	CTACCAACAACAACAGCATCC	CTCCCTTTAGCAAAACACCTTC
ANGPT2	CTGTGCGGAAATCTTCAAGTC	TGCCATCTTCTCGGTGTT
VEGF	GGCTGCTGTAACGATGAAG	CTCTCTATGTGCTGGCTTTG
PLGF	GGATGTGCTCTGTGAATGC	CCTCTGAGTGGCTGGTTAC
Tie2	GTGTAGTGGACCAGAAGG	CTTGAGAGCAGAGGCATC
VEGFR2	GCGGGCTCCTGACTACAC	CCAAATGCTCCACCAACTCTG
CXCR4	AGCATGACGGACAAGTACC	GATGATATGGACAGCCTTACAC
18S	GAATCGAACCCTGATTCCCCGTC	CGGCGACGACCCATTCGAAC