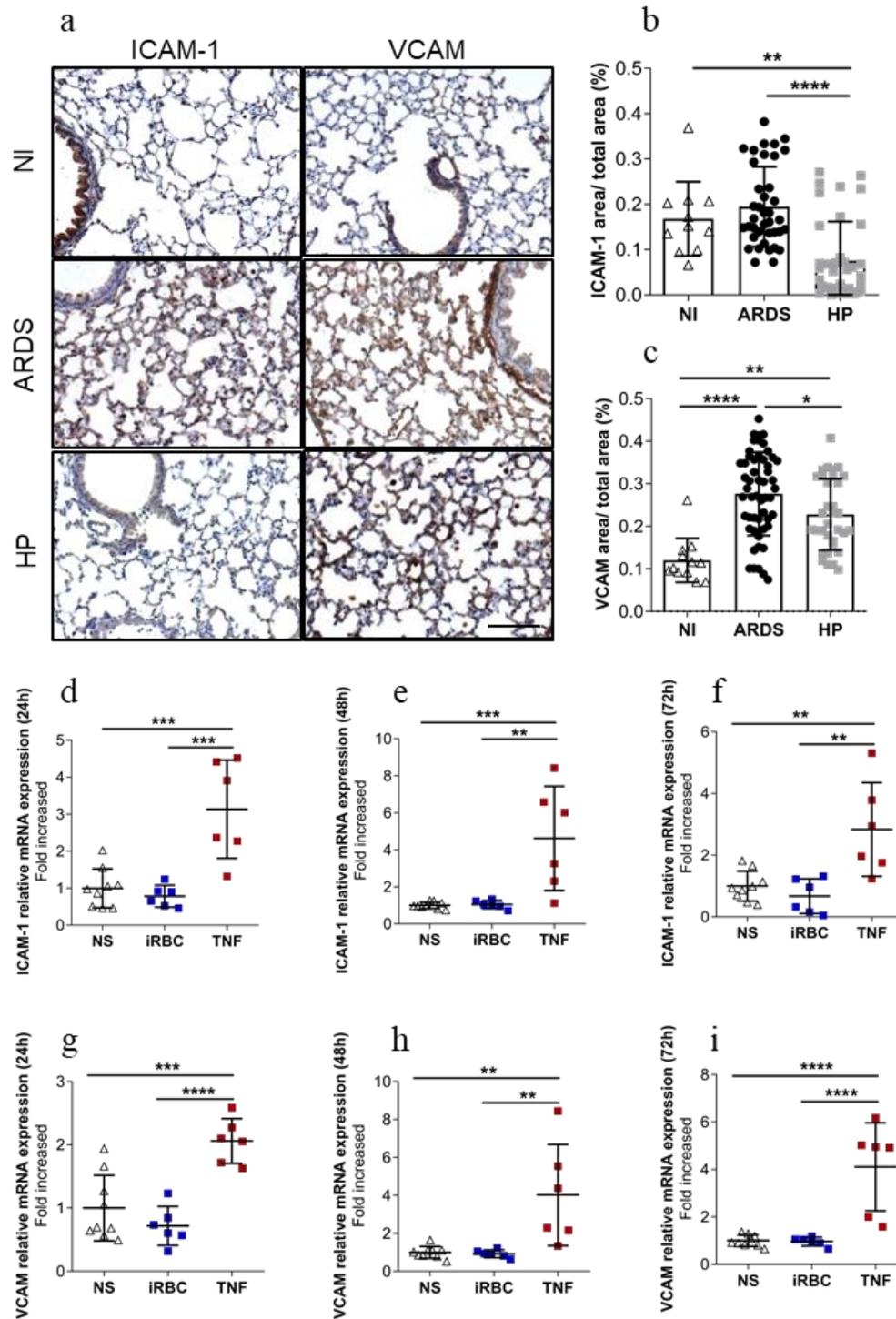


820

821 **Supplementary Figure 1: Primary microvascular lung endothelial cell**  
 822 **characterization.** PMLECs were stained by immunofluorescence with lectin from *Ulex*  
 823 *europaeus* and anti-vWF, CD31, ACE, CD62E, eNOS and VE-cadherin antibodies.  
 824 Nuclei stained with Hoechst stain (blue). PMLECs: primary culture of microvascular  
 825 lung endothelial cells from DBA/2 mice. (scale bar: 50 µm).

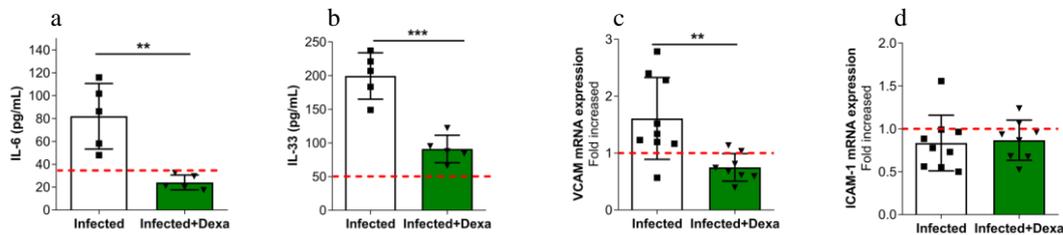


826

827 **Supplementary Figure 2: ARDS-developing mice show more ICAM-1 and VCAM**  
 828 **expression in the lungs than HP-developing or noninfected mice.** (a-c) DBA/2 mice  
 829 infected with *Plasmodium berghei* ANKA and lung tissues were analyzed on the 7<sup>th</sup> day  
 830 post-infection. (a) Representative immunohistochemistry images for ICAM-1 and  
 831 VCAM in the lungs of NI, ARDS-developing and HP-developing mice (scale bar: 100  
 832  $\mu$ m). (b) Quantification of (b) ICAM-1 and (c) VCAM areas stained by  
 833 immunohistochemistry. (d-i) Primary microvascular lung endothelial cells from  
 834 uninfected DBA/2 mice (PMLECs) were stimulated with *Plasmodium berghei* ANKA-  
 835 infected red blood cells (iRBCs) or with recombinant TNF and analyzed for (d-f)

836 ICAM-1 mRNA and (g-i) VCAM mRNA by qRT-PCR. Bars represent the average  $\pm$   
 837 SD. (b-i) One-way ANOVA from two grouped experiments. (\* $p < 0.05$ ; \*\*  $p < 0.01$ ; \*\*\*  
 838  $p < 0.001$ ). ARDS: acute respiratory distress syndrome; HP: hyperparasitemia; NI: non-  
 839 infected mice; NS: non-stimulated cells.

840



841

842 **Supplementary Figure 3: Dexamethasone reduced inflammation and VCAM**  
 843 **expression but did not decrease ICAM-1 expression in *P. berghei*-infected mice.**  
 844 *Plasmodium berghei* ANKA-infected DBA/2 mice were treated with dexamethasone  
 845 and compared to infected-untreated mice. Serum and lung tissues were analyzed on the  
 846 7<sup>th</sup> day post-infection. Serum levels of (a) IL-6 and (b) IL-33 analyzed by ELISA.  
 847 mRNA expression from lung tissues was evaluated for (c) VCAM and (d) ICAM-1 by  
 848 qRT-PCR. Bars represent the average  $\pm$  SD (\*\*  $p < 0.01$ ; \*\*\*  $p < 0.001$ ). (a-b) Unpaired t  
 849 test representative of two independent experiments; (c-d) Mann-Whitney test from two  
 850 grouped experiments. Infected+Dexa: *P. berghei* ANKA-infected mice and treated with  
 851 dexamethasone. Red dashed lines: noninfected mice.

852