**Supplemental figure 1: Isotype-controls of adhesion molecule antibodies expression by immunofluorescence.** Matching IgG-controls of the antibodies marking CD29, CD31, and CD54 were used. Images are representatives of four experiments with similar results (original magnification, x63).

**Supplemental figure 2: Gating process.** Typical dot blots in the forward / sideward scatter of cells in the blood, lung and bronchoalveolar lavage (BAL) are shown (**A**). The gating process in the lung tissue with differentiation of leukocytes (CD45<sup>+</sup>) and the following further distribution in PMNs adherent to the endothelium ( $7/4^+$  and Gr-1<sup>+</sup> cells), and PMNs in the interstitium of the lung ( $7/4^+$  and Gr-1<sup>-</sup>) (**B**). The gating process of one adhesion molecule on PMNs in the BAL is demonstrated (**C**). PMNs were gated in the dot plot and first identified as CD45<sup>+</sup>. This CD45<sup>+</sup> population was further gated as GR-1<sup>+</sup> and  $7/4^+$ . The identified PMN cloud was further evaluated on the expression of the distinct adhesion molecule with PE- staining.

**Supplemental figure 3: Schematic presentation of the in vitro transmigration assay.** In the lower chamber is the stimulant fMLP (n-formylmethionyl-leucyl-phenylalanine), which attracts human PMNs to migrate through the pulmonary epithelial monolayer (H441 cells).

**Supplemental figure 4: Mean fluorescence intensity (MFI).** Each peak of the histogram resembles one PMN population. The more fluorescent antibody is bound on the PMN surface, the higher the MFI.

CD 29



## CD 31



CD 54



Δ

Β

blood BAL lung SSC-A SSC-A SSC-A 4.71 32,79 17,40 ò ò Ó FSC-A FSC-A FSC-A







