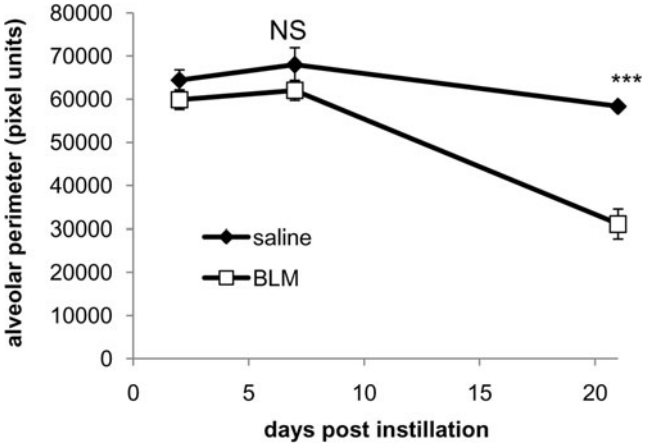
Supplementary Data

Lung Morphometry Analysis

The right lung was fixed by intratracheal instillation of 4% paraformaldehyde and embedded in paraffin. Sections (3 μm) were stained with hematoxylin and eosin, and images were acquired on Zeiss Axiocam microscope with 20× objective. To measure the remodeling of lungs, the following image analysis was performed with Metamorph/MetaXpress software (Molecular Devices).

The first step in image analysis was the isolation of alveolar area where processing should be applied. This area was selected manually by specifying a polygon and used for subsequent analysis. The resulting image was processed to combine red, green, and blue planes into one intensity plane by addition of individual planes. The obtained image was subject to the operations of morphological invert followed by morphological dilate with diameter of 10 pixels. The obtained image was processed with Metamorph module for detecting tube formation with following parameters: approximate min width 2, approximate max width 200, and intensity above local background 500. The resulting image was binarized to take into account all detections where black corresponds to air and white corresponds to tissue. The resulting image was processed with Integrated Morphometry Analysis tool where perimeter parameter was measured. The reported value is, thus, alveolar perimeter corresponding to the frontier between lung tissue and air. The unit for parameter is pixels.

Quantification of alveolar perimeter was performed on 20 images per mouse, three mice per group out of three independent experiments.



SUPPLEMENTARY FIG. S1 Bleomycin (BLM) treatment decreases alveolar perimeter at day 21. Mice receiving intratracheal saline or BLM were sacrificed at day 21. The alveolar perimeter at day 21 is expressed as pixel units in each lung section ($n = 3$ mice for each group): $p = $ NS (not significant), $^{***}p < 0.001$ saline *versus* BLM.