Pathology Score:
0  Normal
1  Alveolar or ductal hyperplasia
2  1-3 tumors nodules
3  Many tumor nodules
4  Solid tumor in at least one lobe
5  Solid tumor, no normal lung
Fig. S1. Pathology scoring chart.

Images of H&E stained histological sections from *Sftpc-rtTA, Tre-Fgf9-Ires-eGfp* mice, either not induced or induced with doxycycline, showing a range of histopathology and corresponding pathology score. (0) normal lung; (1) Alveolar ductal hyperplasia; (2) 1-3 tumors nodules in at least one lobe; (3) ≥4 tumor nodules in at least one lobe; (4) solid tumor in at least one lobe; (5) solid tumor, no normal lung. Magnifications ranging from 2.5x to 20x are shown. Scale bars: x2.5, 400µm; x5, 200µm; x10, 100µm; x20, 50µm.
Fig. S2. Changes in lung histopathology after two days of FGF9 induction.

(Top) Lung histology from a Sftpc-rtTA, Tre-Fgf9-Ires-eGfp mouse without FGF9 induction (no Dox). (Bottom) Lung histology from a Sftpc-rtTA, Tre-Fgf9-Ires-eGfp mouse after two days of induction with doxycycline chow (+ Dox 2 days). Scale bar: 10X, 50µm; 20X, 25µm.
**Immuno Score**

0  No inflammation
1-L  Diffuse lymphocyte infiltration, no nodules
2-L  Peribronchiolar lymphocyte clusters, <4 clusters/lobe, >10 cells per cluster
3-L  Peribronchiolar lymphocyte clusters, ≥4 clusters/lobe, >10 cells per cluster
1-M  Diffuse macrophage infiltration
2-M  Dense macrophage infiltration
Fig. S3. Immunology scoring chart.

Images of H&E stained histological sections from Sftpc-rtTA, Tre-Fgf9-Ires-eGfp mice, either not induced or induced with doxycycline, showing a range of inflammatory infiltrates. (0) normal lung, no inflammation; (1-L) diffuse lymphocyte infiltration, no nodules; (2-L) peribrochiolar lymphocyte clusters, <4 clusters/lobe, >10 cells per cluster; (3-L) peribrochiolar lymphocyte clusters, ≥4 clusters/lobe, >10 cells per cluster; (1-M) diffuse macrophage infiltration; (2-M) dense macrophage infiltration. Scale bars: X2.5, 200µm; X5, 100µm; X10, 50µm; X20, 25µm.
Fig. S4. Reduced macrophage infiltration following treatment with D11 antibody.

Immunostaining with the pan-hematopoietic antibody, CD45, identified large multinucleated macrophages in tumors tissue from Dox-exposed Sftpc-rtTA, Tre-Fgf9-Ires-eGfp mice (upper right). Sftpc-rtTA, Tre-Fgf9-Ires-eGfp mice not exposed to DOX (upper left) or exposed to Dox and treated with D11 antibody showed normal patterns of hematopoietic cells in distal alveolar tissue (lower left) and normal CD45+ lymphoid nodules adjacent to proximal airways (lower right).

Scale bar: 20 µm.