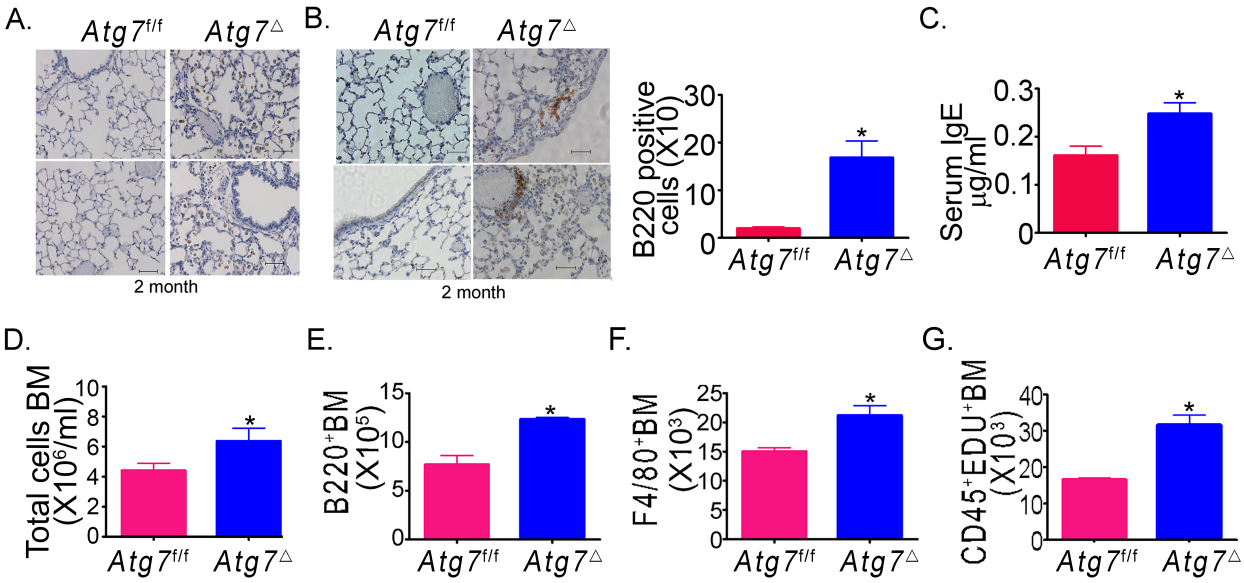

Fig. S1. Lung inflammation and hypercellularity of bone marrow in *Atg7*$^{\Delta}$ mice. Lung tissues from *Atg7*$^{f/f}$ or *Atg7*$^{\Delta}$ mice were immunostained with F4/80 macrophage marker (**A**) or B lymphocyte marker B220 (**B**) IgE serum levels were determined (**C**). Bone marrow (BM) (**D-G**) from *Atg7*$^{\Delta}$ or control *Atg7*$^{f/f}$ mice were analyzed for cell counts. Flow cytometry quantifications of BM cells stained with B220 antibody (**E**), F4/80 antibody (**F**) or incorporating 5-ethynyl-2'-deoxyuridine (EDU) (**G**) are shown. Data are presented as mean ± SEM of 3-10mice/ genotype. *p<0.05. Scale bars, 200 µm (A) and 50 µm (D-E).

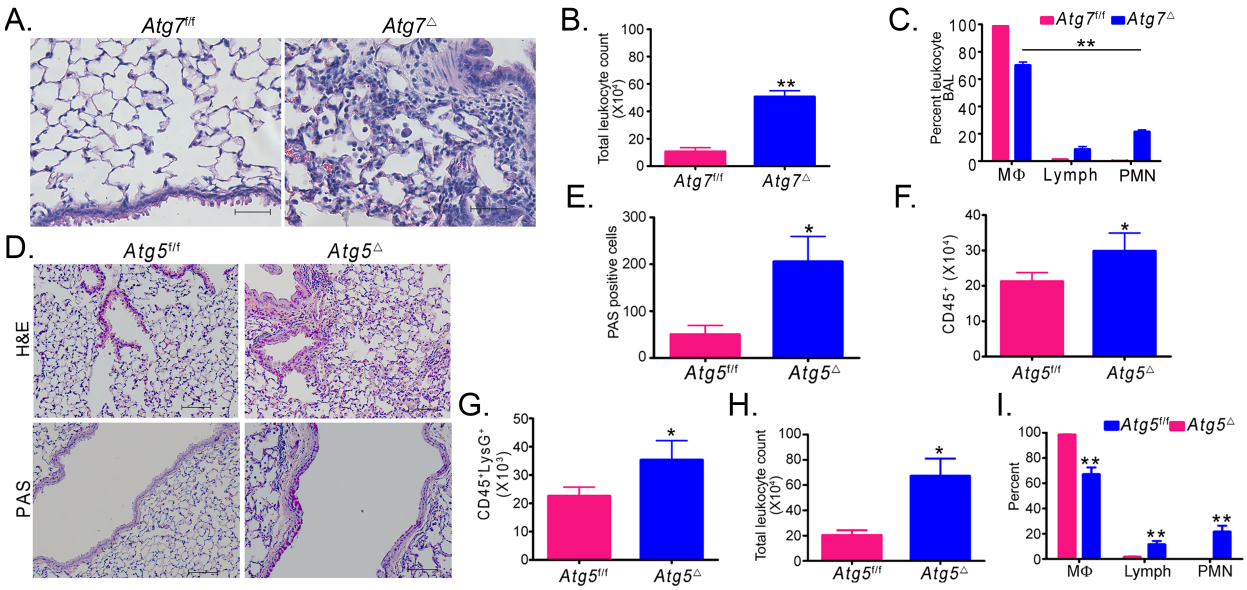

Fig. S2. Lung inflammation in re-derived *Atg7*$^{\Delta}$ and in *Atg5*$^{\Delta}$ mice. Lung tissues from *Atg7*$^{\Delta}$ or control *Atg7*$^{f/f}$ mice were analyzed by H&E staining (**A**). BAL was analyzed for total cell count (**B**) and differential cell count (**C**). (**D-E**) Lung tissues from *Atg5*$^{f/f}$ or *Atg5*$^{\Delta}$ mice were analyzed by H&E staining (upper panels) or PAS (lower panel). Graph represents quantitation of PAS positive cells (**E**). (**F-G**) Flow cytometry analysis of single cell suspensions of the lungs, immunostained with the pan leukocytic marker anti-CD45 (**F**) or anti-Ly6G (**G**). (**H-I**) BAL was analyzed for total cell count (**H**) and differential cell count (**I**). MΦ: macrophages, Lymph: lymphocytes and PMN: polymorphonuclear neutrophils PAS: periodic acid Schiff. Data are mean ± SEM n=5 to 8 mice/ genotype. *p<0.05, **p<0.01. Scale bar, 50 μm (A), 100μm (D).

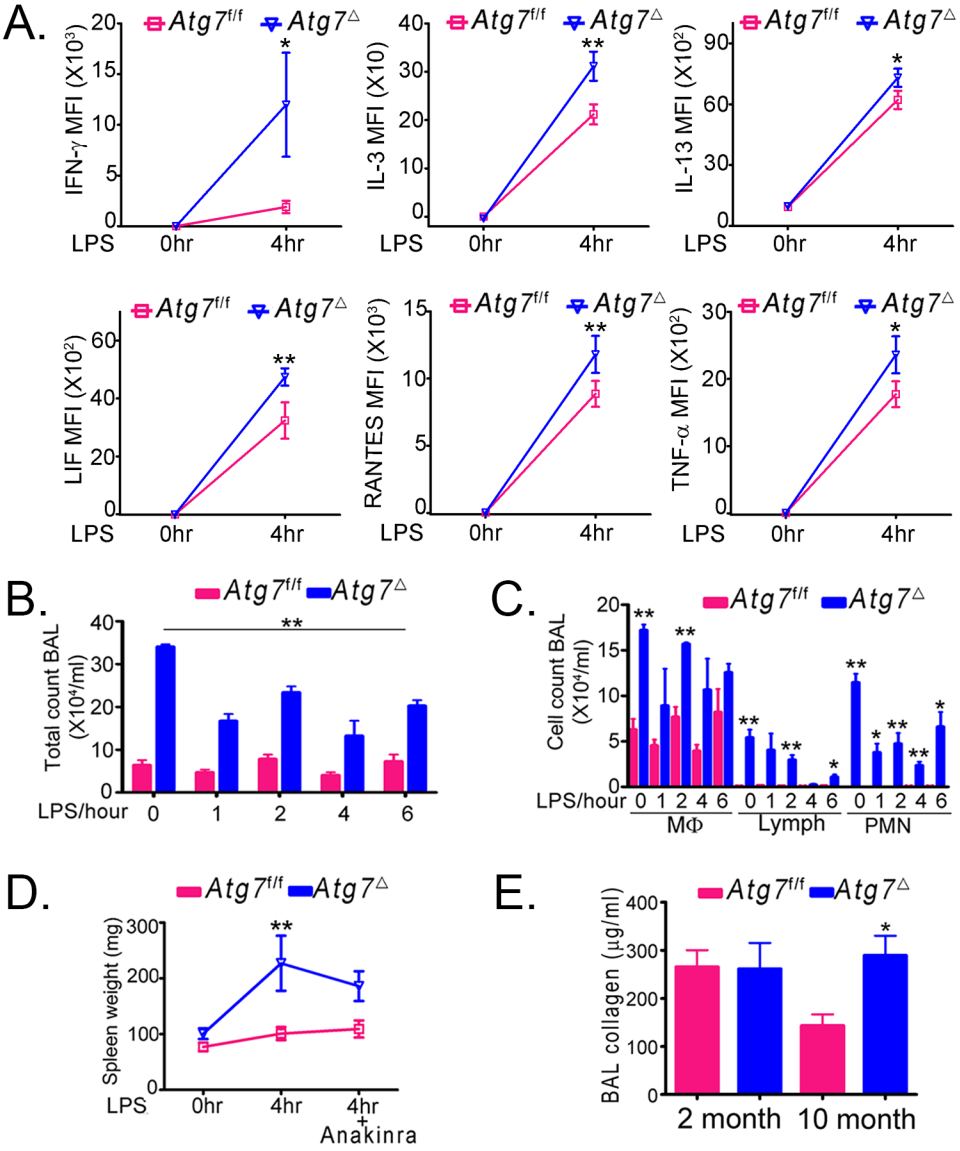

Fig. S3. Systemic and pulmonary susceptibility of *Atg7*$^{\Delta}$ mice to endotoxin. *Atg7*$^{f/f}$ or *Atg7*$^{\Delta}$ mice were injected intraperitoneally with LPS. Four hours after LPS injection, serum was collected and multiplex cytokine assay analysis was performed (**A**). BAL was analyzed at different time points after intraperitoneal LPS injection**.** Quantitative analyses of total leukocyte count (**B**) and differential cell count (**C**) are shown. Mice were treated for 4 hours with LPS with or without Anakinra, sacrificed and their spleens were weighed (**D**). BAL levels of soluble collagen from two and ten month old, naive *Atg7*$^{f/f}$ or *Atg7*$^{\Delta}$ mice were measured (**E**). MΦ: macrophages, Lymph: lymphocytes and PMN: polymorphonuclear neutrophils. Data are mean ± SEM, n= 3-14 mice/genotype. *p<0.05,**p<0.01.

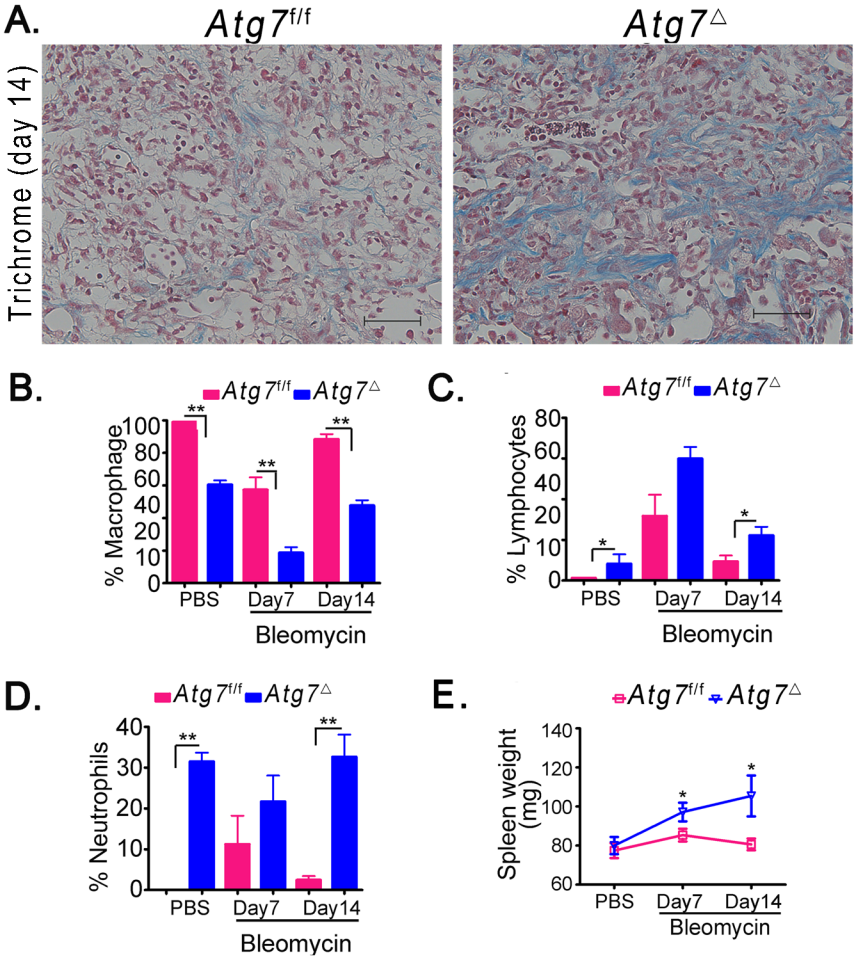

Fig. S4. *Atg7*$^{\Delta}$ mice exhibit increased susceptibility to bleomycin. *Atg7*$^{f/f}$ or *Atg7*$^{\Delta}$ mice were intranasally instilled with PBS or bleomycin for 7 or 14 days. Collagen deposition in lung tissues of 2-6 months old mice was evaluated by trichrome staining (**A**). BAL differential counts of macrophages (**B**) lymphocytes **(C)** and neutrophils (**D**) were determined. Spleen weights were recorded (**E**). Data are shown as mean ± SEM, n=5 to 17 mice/genotype for each time point. *p<0.05,**p<0.01. Scale bar, 50 μm.