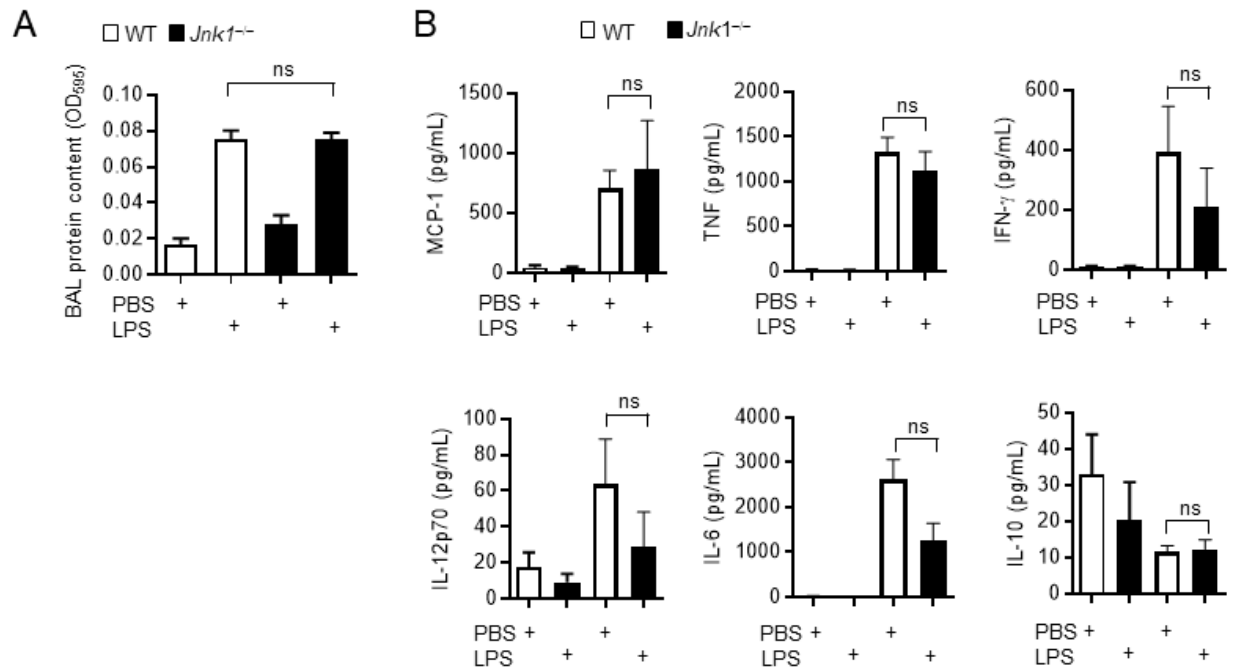
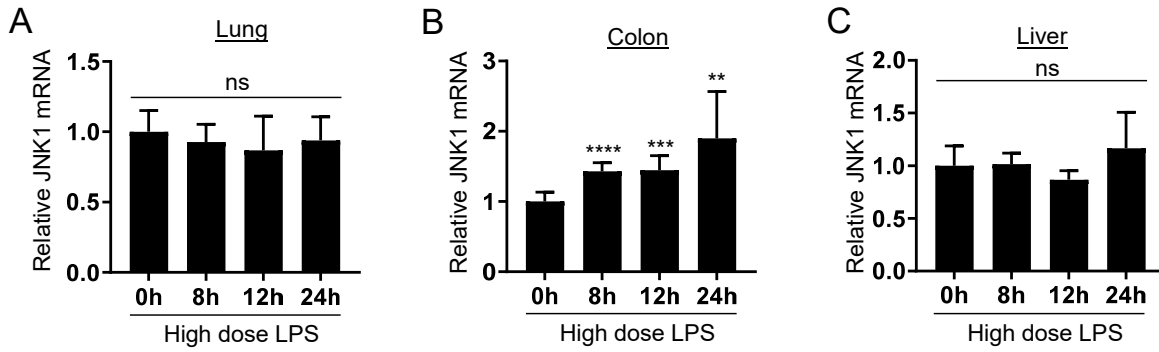


## Supplementary Figure

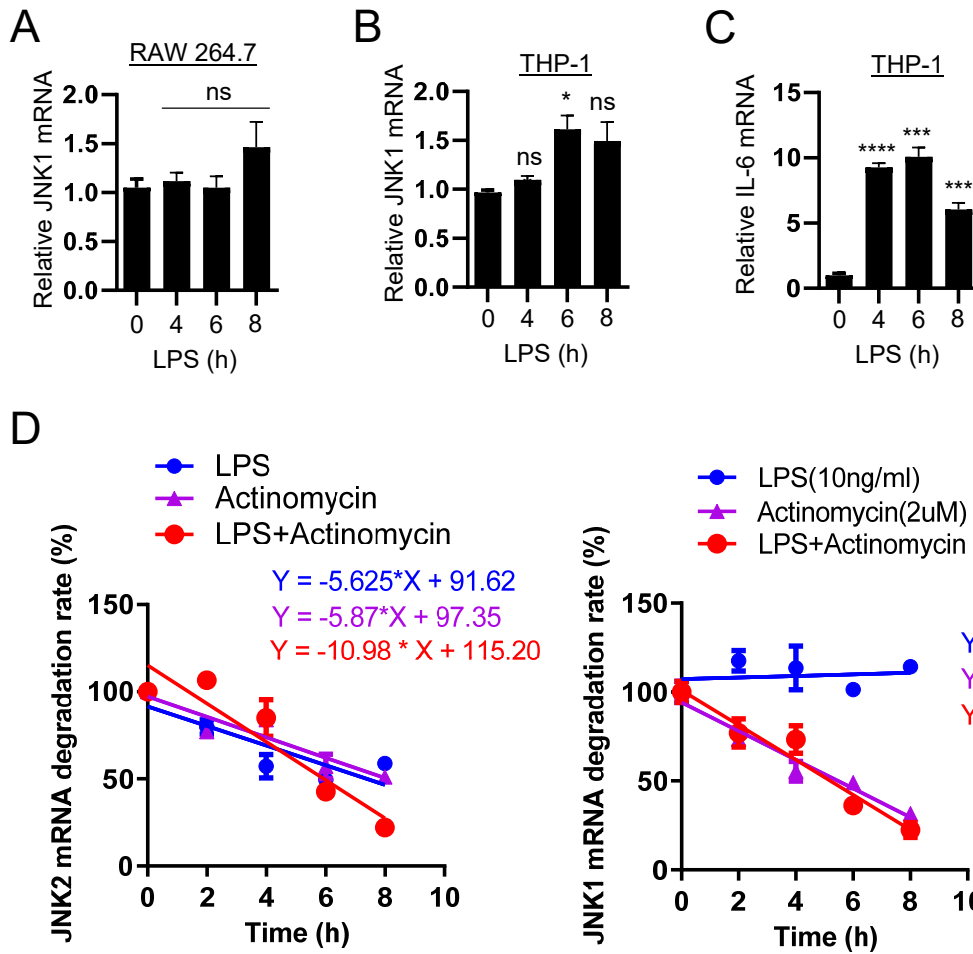


### Supplementary Figure 1. Loss of JNK1 does not affect LPS-induced lung injury. (A,B)

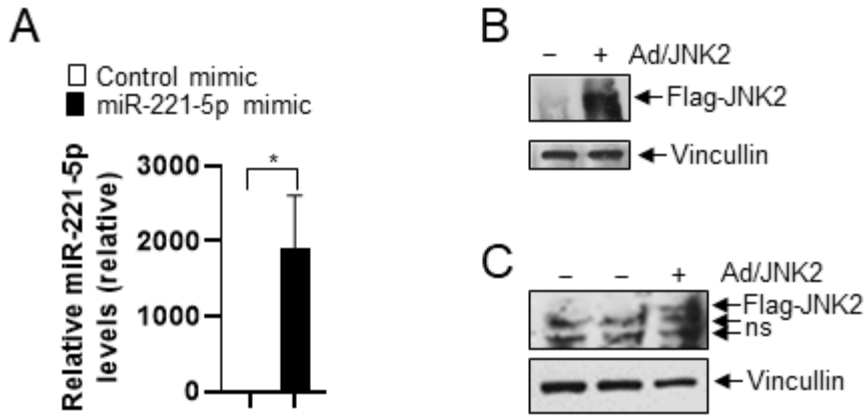
Protein content (A) and production of cytokines (B) in BAL fluid of PBS- or LPS-treated wild-type or JNK1 KO mice. Note, wild-type mice were the same as in Fig. 1. N=3-5. Data are presented as means $\pm$ sem. ns, not significant.



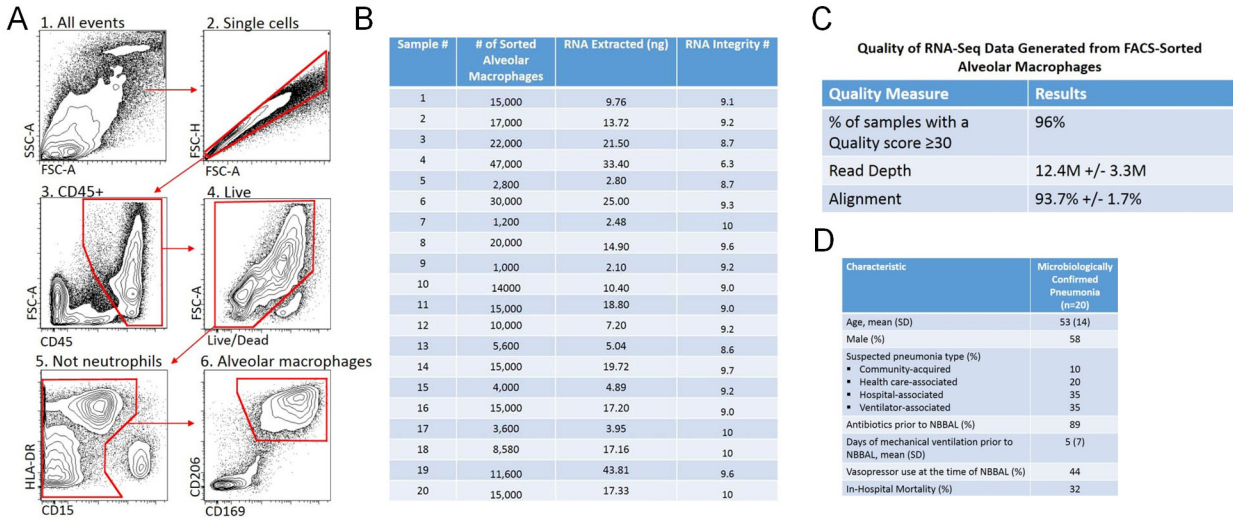
**Supplementary Figure 2. LPS does not cause JNK1 downregulation in mice.** JNK1 mRNA levels in whole tissue homogenates of lung, colon, or liver from wild-type mice treated with high dose LPS. N=4-5. Data are presented as means±sem. \*\*,  $p < 0.01$ ; \*\*\*,  $p < 0.001$ ; \*\*\*\*,  $p < 0.0001$ ; ns, not significant.



**Supplementary Figure 3. LPS does not cause JNK1 downregulation in cells *in vitro* and LPS accelerates JNK2 mRNA degradation.** JNK1 mRNA levels in LPS-treated RAW 264.7 cells (A) or PMA-differentiated THP-1 cells (B), or IL-6 mRNA levels in LPS-treated THP-1 cells (PMA-differentiated). Data are presented as means±sem. \*,  $p < 0.05$ ; \*\*\*,  $p < 0.001$ ; \*\*\*\*,  $p < 0.0001$ ; ns, not significant. (D) JNK2 and JNK1 mRNA degradation rate in LPS-, Actinomycin-, or LPS+Actinomycin-treated RAW 264.7 cells.



**Supplementary Figure 4. miR-221-5p is overexpressed in the lung of mice intratracheally instilled with miR-221-5p mimic, and exogenous JNK2 is overexpressed in the lung of mice infected with Ad/JNK2 or RAW 264.7 cells infected with Ad/JNK2. (A)** miR-221-5p levels in the lung of mice intratracheally instilled with control mimic or miR-221-5p mimic. N=5. \*,  $p < 0.05$ . **(B)** Protein expression of exogenous Flag tagged-JNK2 in the lung of mice infected intratracheally with Ad/JNK2. **(C)** Protein expression of exogenous Flag tagged-JNK2 in RAW 264.7 cells infected with Ad/JNK2.



**Supplementary Figure 5. Gating strategy of AMs, RNA/RNA-seq quality control, and clinical characteristics of patients with pneumonia. (A)** AMs were identified by flow cytometry as  $CD11b^+HLADR^{++}CD206^{++}CD169^+FSC^{high}SSC^{high}$  cells. **(B)** RNA integrity of flow-sorted AMs from BAL fluid of patients with pneumonia. **(C)** RNA-seq quality control (QC) measured by Quality Score, read depth, and alignment. **(D)** Clinical characteristics of study patients. SD, standard deviation.