

**Supplementary Figure 1:** P2X7 receptor is expressed in circulating monocytes and alveolar macrophages. Panel A shows the purity analysis of enriched Ly6G-CD11b+ monocytes from mice peripheral blood before (left) and after (right) flow cytometry-based cell sorting. Panel B shows the immunofluorescent staining of P2X7 receptor on circulating monocytes. Panel C shows the immunofluorescent staining of P2X7 receptor on alveolar macrophages from mice BALF. CD: cluster of differentiation; DAPI: 4,6-diamidino-2-phenylindole; FITC: fluorescein isothiocyanate; P2X7R: P2 type 7 purinergic receptors.



**Supplementary Figure 2:** The semi-quantitative inflammation scores according to H&E staining and the differential cell counting of BALF on day 7. BLM: Bleomycin; NS: Normal saline; APY: Apyrase. \*P<0.05; \*\*P<0.01 (*n* = 5 for each group).



**Supplementary Figure 3:** The semi-quantitative fibrosis index according to Masson’s trichrome staining on day 21. BLM: Bleomycin; NS: Normal saline; APY: Apyrase. \**P*<0.05; \*\**P*<0.01 (*n* = 5 for each group).