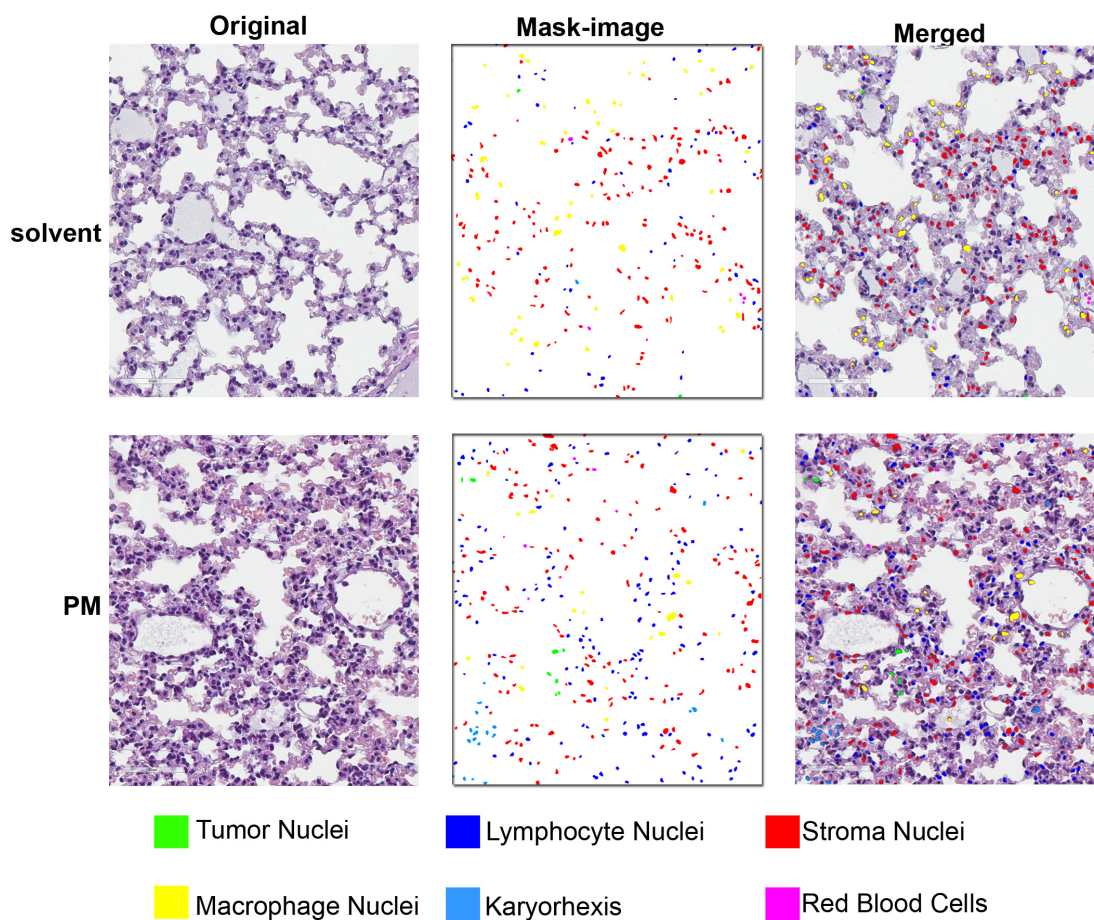
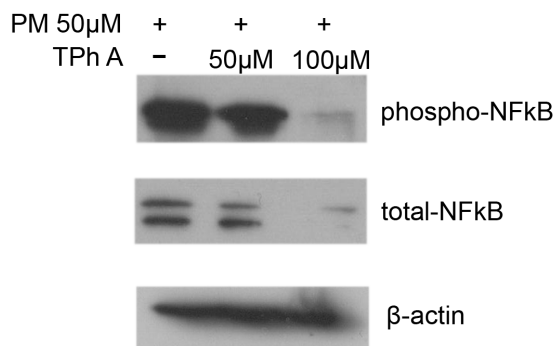


## SUPPLEMENTARY FIGURES



**Supplementary Figure 1. PM induces adverse health events via multi-factorial mechanisms:** Utilized Hematoxylin/Eosin staining of mice lung through Mask-RCNN based pathology image training model combined with deep-learning algorithm, PM-fed groups recruit more lymphocytes (blue) and stroma cell (red) than solvent control.



**Supplementary Figure 2. NF- $\kappa$ B is negatively correlated with TPh A.** Western blot analysis of phosphor-NF $\kappa$ B and total-NF $\kappa$ B in TPh A-PM co-treated HPF models.