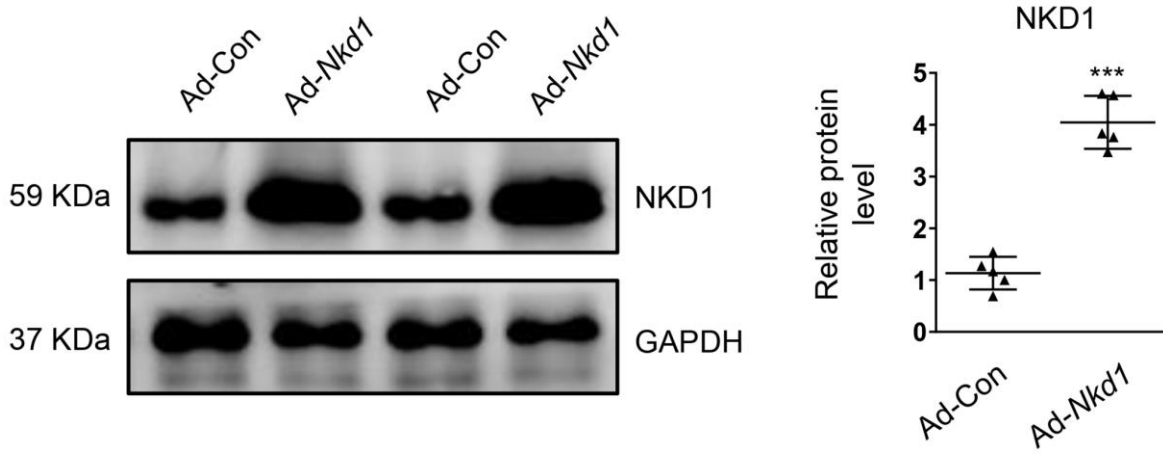
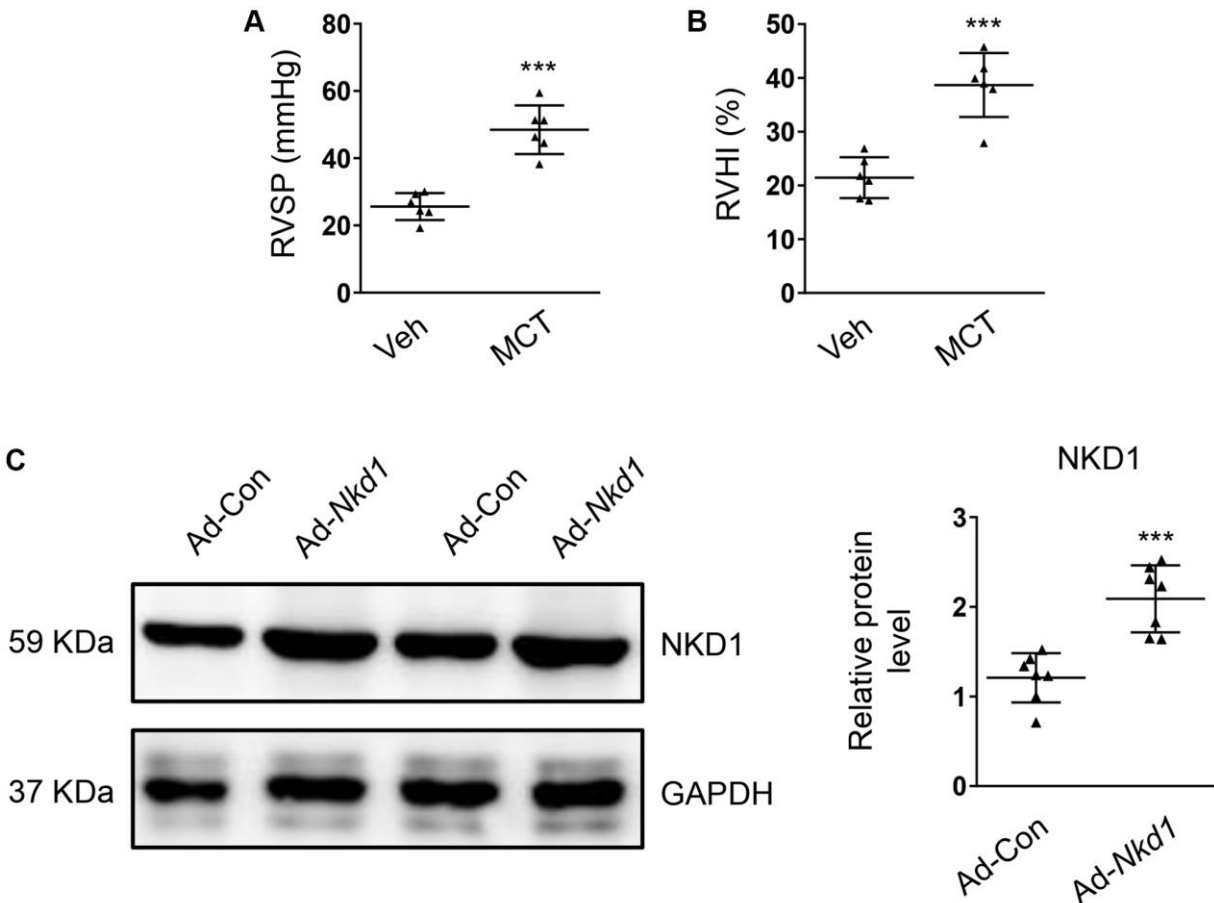


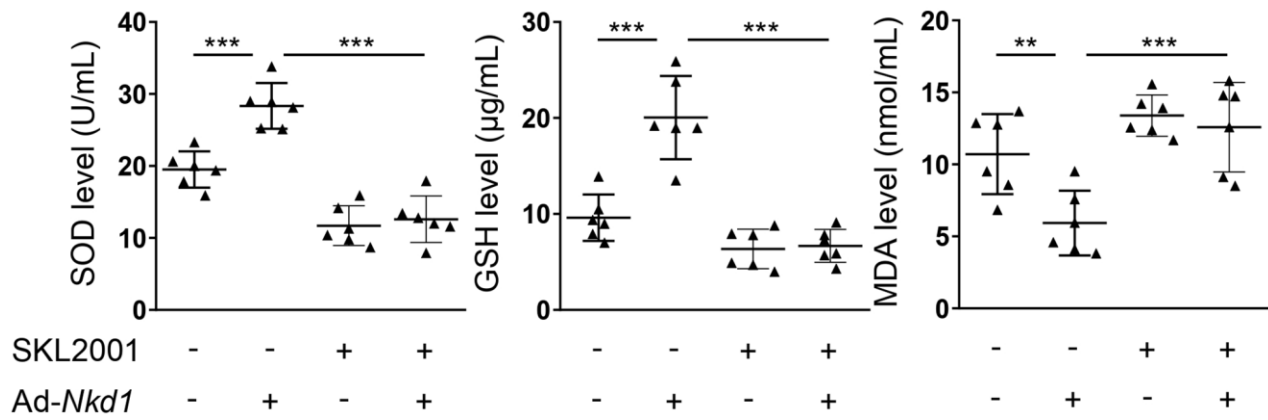
**SUPPLEMENTARY FIGURES**



**Supplementary Figure 1. Ad-Nkd1 transfection increases NKD1 expression in PASCs.** PASCs were transfected with Ad-Con or Ad-Nkd1. The relative protein expression of NKD1 was assessed by western blotting (*post hoc* for LSD test;  $n = 5$  samples). Data were shown as mean  $\pm$  S.D. \*\*\* $P < 0.001$  denoted statistical comparison between the two marked groups.



**Supplementary Figure 2. Validation of MCT-induced mouse PAH model establishment and Ad-Nkd1 transfection efficiency.** RVSP (A) and RVHI (B) of MCT-treated mice were measured (*post hoc* for LSD test;  $n = 6$  samples). (C) Mice were transfected with Ad-Con or Ad-Nkd1. The relative protein expression of NKD1 was assessed by western blotting (*post hoc* for LSD test;  $n = 7$  samples). Data were shown as mean  $\pm$  S.D. \*\*\* $P < 0.001$  denoted statistical comparison between the two marked groups.



**Supplementary Figure 3. NKD1 suppresses oxidative stress in PAs of MCT-treated mice via reducing  $\beta$ -catenin expression.** The levels of SOD, GSH, and MDA in PAs from different groups were analyzed by ELISA (*post hoc* for LSD test;  $n = 6$  samples). Data were shown as mean  $\pm$  S.D.  $**P < 0.01$  and  $***P < 0.001$  denoted statistical comparison between the two marked groups, respectively.