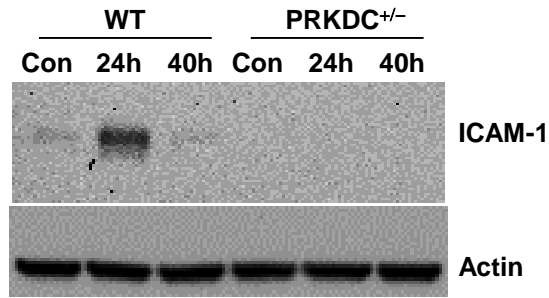
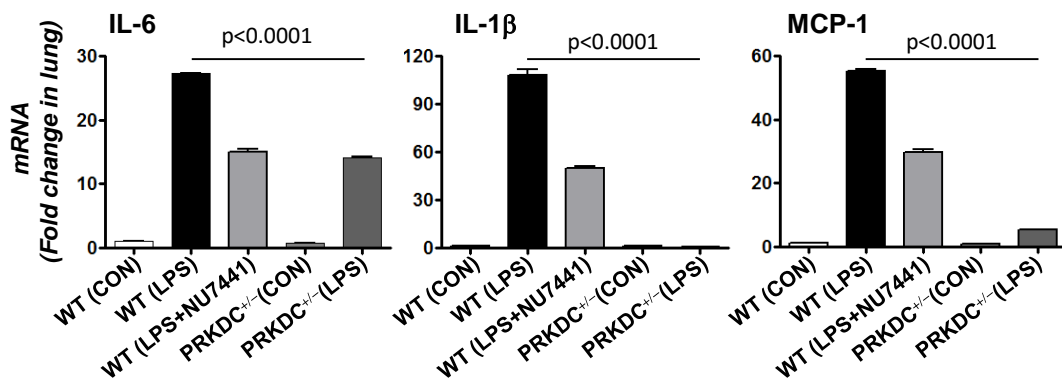


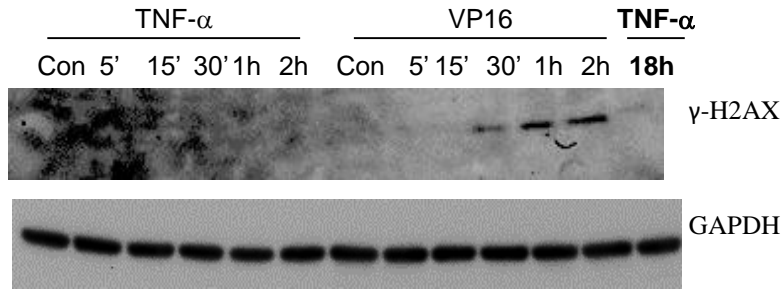
# Supplementary data



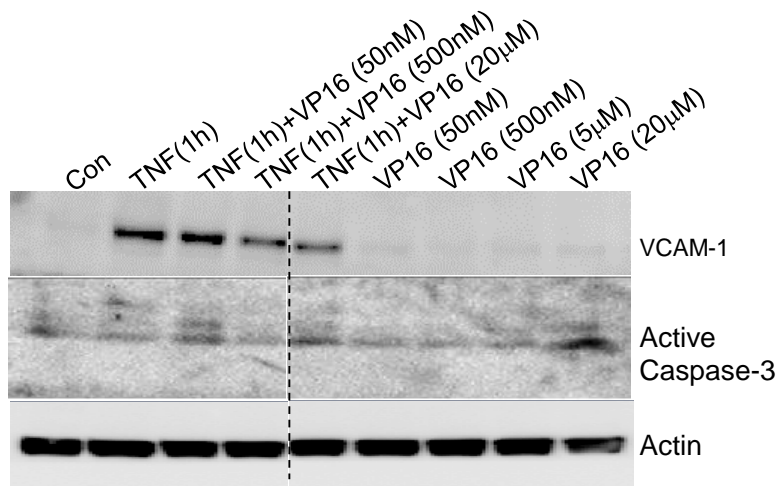
**Fig. S1.** *The absence of ICAM-1 expression in TNF- $\alpha$ -induced PRKDC<sup>+/-</sup> cells is not simply delayed as the effect is still visible even after 40 h of treatment with the cytokine.* Cells were treated with TNF- $\alpha$  for 24 or 40 h. Cell extracts were assessed for ICAM-1 by immunoblot analysis with antibodies to ICAM-1 or Actin.



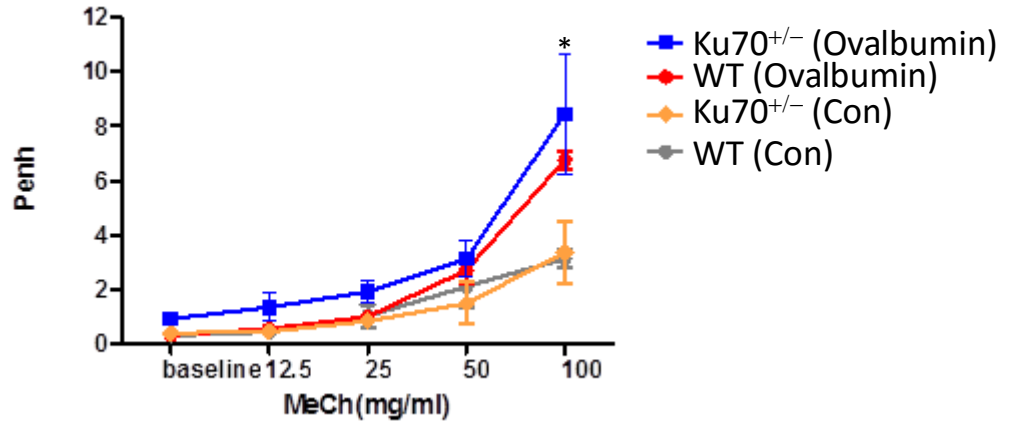
**Fig. S2.** *PRKDC heterozygosity or treatment with NU7441 reduced expression of IL-6, IL-1 $\beta$ , and MCP-1 but not IL-10.* The absence of ICAM-1 expression in TNF- $\alpha$ -induced PRKDC<sup>+/-</sup> cells is not simply delayed as the effect is still visible even after 40 h of treatment with the cytokine. Cells were treated with TNF- $\alpha$  for 24 or 40 h. Cell extracts were assessed for ICAM-1 by immunoblot analysis with antibodies to ICAM-1 or Actin.



**Fig. S3.** *Treatment with TNF- $\alpha$  does not induce DNA damage response even after 18 h of treatment in endothelial cells.* Cells were treated with TNF- $\alpha$  or VP-16 for the indicated times. Cell extracts were prepared and subjected to immunoblot analysis with antibodies to  $\gamma$ H2AX or GAPDH .



**Fig. S4.** *Treatment with TNF- $\alpha$  does not induce DNA damage response even after 18 h of treatment in endothelial cells.* Cells were treated with TNF- $\alpha$  or VP-16 for the indicated times. Cell extracts were prepared and subjected to immunoblot analysis with antibodies to  $\gamma$ H2AX or GAPDH .



**Fig. S5. *Ku70* heterozygosity does not protect against airway hyperresponsiveness in response to ovalbumin in a mouse model of asthma.** Mice were sensitized and challenged followed by assessment of airway hyperresponsiveness through a measurement of enhanced pause (Penh) using whole body plethysmography essentially as described (Ghoniim, Pyakurel et al. 2015). Penh was recorded 24 h after a single ovalbumin challenge upon exposure to the indicated concentrations of aerosolized methacholine (MeCh). Results are plotted as maximal fold increase of Penh relative to baseline and expressed as mean  $\pm$  SEM where n=6 mice per group. \*, difference from control mice,  $p < 0.05$ .