

**Supplemental Fig. 1.** Effects of PAF and SHP2 inhibitors PHPS1 and BMC4550 on eosinophil apoptosis. Rat eosinophils were incubated with normal saline (NS) or the indicated concentrations of PAF, PHPS1 or RMC4550 for 4 hrs, and then subjected to apoptosis assay by flow cytometry.



**Supplemental Fig. 2.** Effects of *SHP2* deletion in myeloid cells on SHP2 expression of peritoneal eosinophils, the number and classification of circulating leukocytes, the number of circulating eosinophils, the levels of BALF ECP, and the levels of Lung CCL11 and CCL24. (**A**) The induced peritoneal eosinophils from mice with the indicated genotypes were subjected to western blotting assays. (**B**) The counting and classification of circulating leukocytes were performed in the adult intact mice with the indicated genotypes. (**C-F**) The adult mice with the indicated genotypes were subjected to counting the circulating eosinophils (C), preparation of lungs for ECP, CCL11, and CCL24 determination and protein quantification (D-F). Each n=6. <sup>++</sup>*p*<0.01 versus *SHP2*<sup>f/f</sup> mice challenged with OVA.



**Supplemental Fig. 3.** Effects of overexpression of *dnRhoA* on ROCK2 inactivation, *SHP2* deletionresultant number and classification of circulating leukocytes, number of circulating eosinophil, and lung ECP, CCL11 and CCL24 levels. (**A**) The induced peritoneal eosinophils from mice with the indicated genotypes were subjected to western blotting assays. (**B**) The counting and classification of circulating leukocytes were performed in the adult intact mice with the indicated genotypes. (**C-F**) The adult mice with the indicated genotypes were sensitized and subsequently challenged with OVA, 24 hrs after the last OVA challenge, mice were subjected to counting the circulating eosinophils (B) and preparation of lungs for ECP, CCL11, and CCL24 determination and protein quantification. Each n=6. <sup>++</sup>*p*<0.01 versus *dnRhoA*<sup>+/-</sup>;*SHP2*<sup>f/+</sup> mice challenged with NS; \**p*<0.05 versus *dnRhoA*<sup>+/-</sup>;*SHP2*<sup>f/+</sup> mice challenged with OVA; <sup>†</sup>*p*<0.05, <sup>‡</sup>*p*<0.01 versus *LysM-Cre;SHP2*<sup>f/+</sup> mice challenged with OVA.



**Supplemental Fig. 4**. Effects of overexpression of *caRhoA* on ROCK2 activation, *SHP2* deletion-resultant number and classification of circulating leukocytes, number of circulating eosinophil, and lung ECP, CCL11 and CCL24 levels. (**A**) The induced peritoneal eosinophils from mice with the indicated genotypes were subjected to western blotting assays. (**B**) The counting and classification of circulating leukocytes were performed in the adult intact mice with the indicated genotypes. (**C-F**) The adult mice with the indicated genotypes were subjected to counting the circulating eosinophils (B) and preparation of lungs for ECP, CCL11, and CCL24 determination and protein quantification. Each n=6. <sup>++</sup>p<0.01 versus *caRhoA*<sup>+/-</sup>;*SHP2*<sup>f/f</sup> mice challenged with OVA; <sup>‡</sup>p<0.01 versus *LysM-Cre;SHP2*<sup>f/f</sup> mice challenged with OVA.