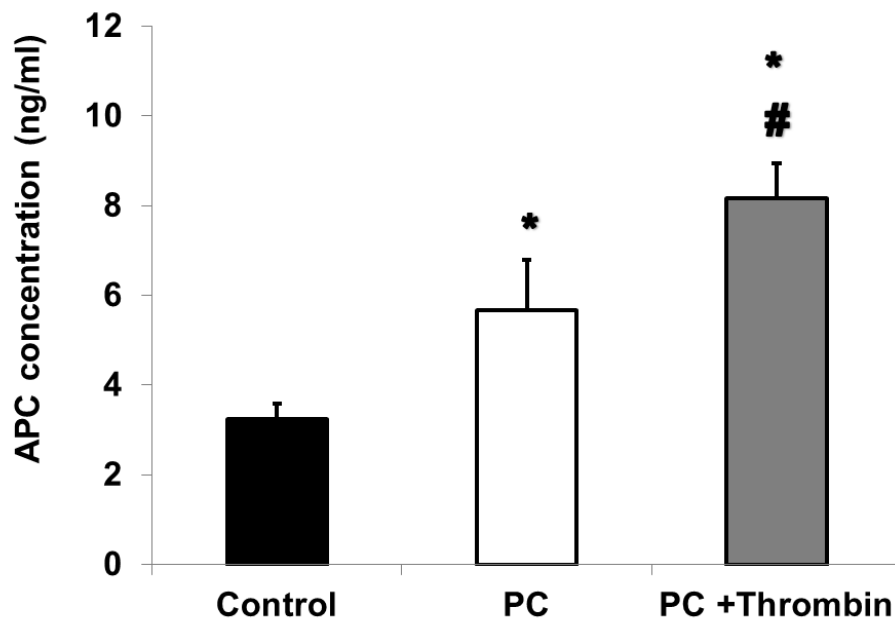
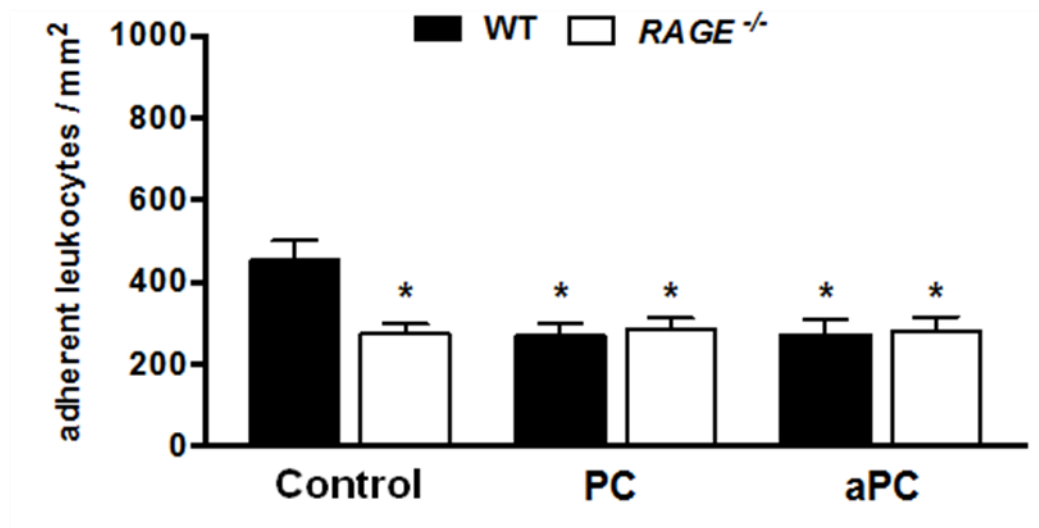


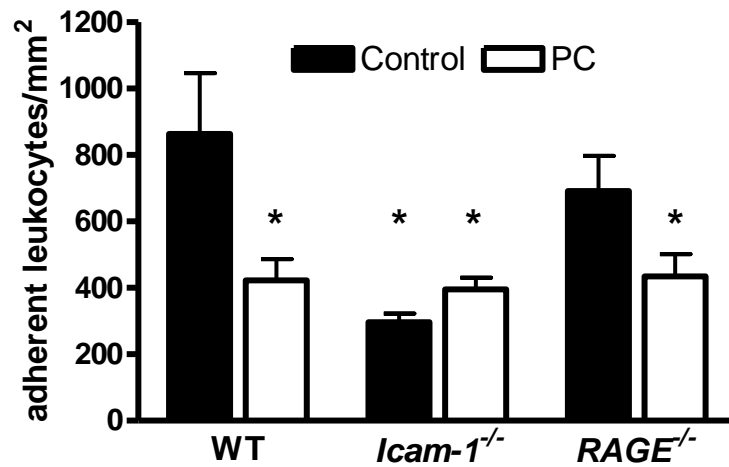
## Supplemental Material



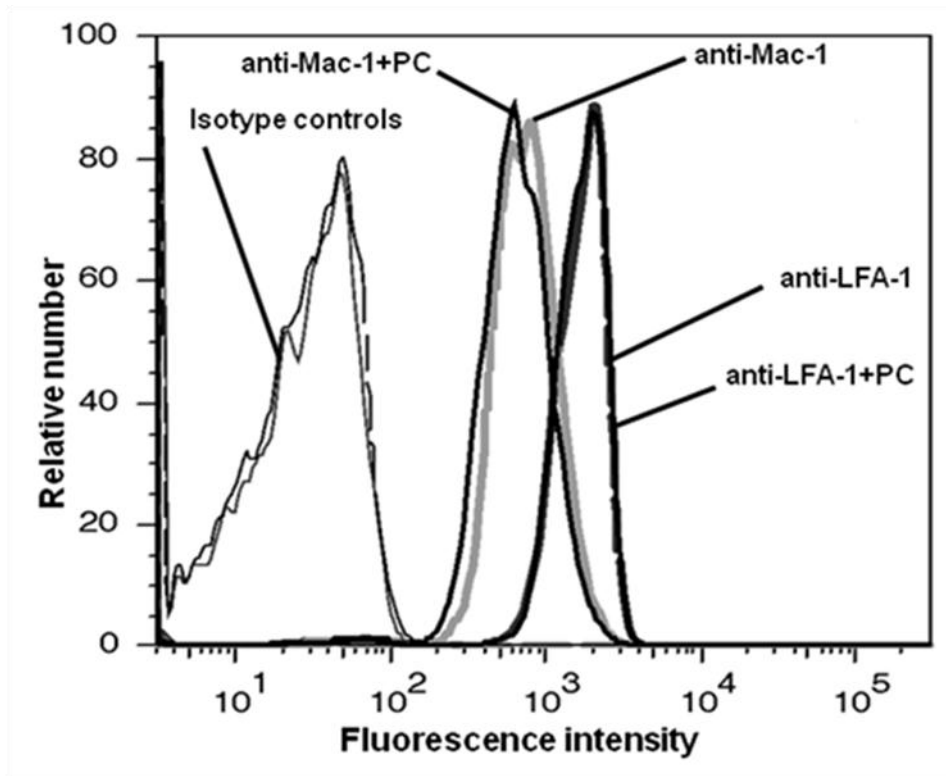
**Supplemental Figure 1. *In vivo* activation of PC.**  $\text{TNF}\alpha$ -stimulated WT mice were treated with 100 U/kg PC for 30 min and compared to control mice. In some experiments, additionally administered human  $\alpha$ -thrombin enhanced PC activation and served as positive control (PC + Thrombin). All values are presented as mean  $\pm$  SEM from at least three mice per group. Significant differences ( $P < 0.05$ ) to control mice in are indicated by the asterisks and between PC & Thrombin and PC treated mice by the pound key.



**Supplemental Figure 2. Comparison of PC and aPC-induced effects on leukocyte adhesion in wild-type (WT) and *RAGE*<sup>-/-</sup> mice.** Leukocyte adhesion (number of adherent cells per mm<sup>2</sup> of surface area) in cremaster muscle venules of wild-type (WT) control mice and *RAGE*<sup>-/-</sup> mice treated with PC (100 U/kg, 3 hours) or aPC (24µg/kg/h, 3 hours) during trauma-induced inflammation. All values are presented as mean ± SEM from three or more mice per group. Significant differences (P < 0.05) to WT control mice are indicated by the asterisks.



**Supplemental Figure 3. Effect of PC on CXCL1-induced leukocyte adhesion in wild-type (WT), *RAGE*<sup>-/-</sup> - and *Icam-1*<sup>-/-</sup> mice.** Leukocyte adhesion (number of adherent cells per mm<sup>2</sup> of surface area) in cremaster muscle venules after systemic administration of 600 ng CXCL1 (KC) of wild-type (WT) control mice, *RAGE*<sup>-/-</sup> mice and *Icam-1*<sup>-/-</sup> mice treated with and without PC (100 U/kg, 3 hours) during trauma-induced inflammation. All values are presented as mean ± SEM from three or more mice per group. Significant differences (P < 0.05) to WT control mice are indicated by the asterisks.



**Supplemental Figure 4: Effect of PC on expression of LFA-1 and Mac-1 on neutrophils.** Surface expression of LFA-1 and Mac-1 on bone marrow-derived neutrophils with or without PC pre-incubation (5 U per  $10^6$  leukocytes/ml, 3 h at 37°C) was compared to respective isotype controls. Representative histograms are shown from 3 separate experiments.

**Supplemental Table 1: Hemodynamic parameters during intravital microscopic experiments**

	<u>Mice</u>	<u>Venules</u>	<u>Diameter</u>	<u>Centerline Velocity</u>	<u>Wall Shear Rate</u>	<u>Systemic Leukocyte Counts</u>
	N	n	( $\mu\text{m}$ )	( $\mu\text{m/s}$ )	( $\text{s}^{-1}$ )	(/ $\mu\text{l}$ )
<u>Trauma-induced inflammation Genotype/Treatment (3 hours 100 U/kg PC)</u>						
WT	10	20	$30 \pm 1$	$2500 \pm 100$	$1900 \pm 100$	$7300 \pm 300$
WT PC	10	20	$31 \pm 1$	$2700 \pm 100$	$2200 \pm 100$	$6200 \pm 400$
<i>Icam-1</i> <sup>-/-</sup>	11	25	$30 \pm 1$	$2300 \pm 100$	$2000 \pm 100$	$8000 \pm 1000$
<i>Icam-1</i> <sup>-/-</sup> PC	13	32	$31 \pm 1$	$2300 \pm 100$	$1800 \pm 100$	$9500 \pm 500$
<i>RAGE</i> <sup>-/-</sup>	12	30	$30 \pm 1$	$2500 \pm 100$	$2100 \pm 100$	$7000 \pm 700$
<i>RAGE</i> <sup>-/-</sup> PC	11	25	$29 \pm 1$	$2400 \pm 100$	$2000 \pm 100$	$7400 \pm 900$
			n.s.	n.s.	n.s.	n.s.
<u>TNF<math>\alpha</math>-induced inflammation Genotype/Treatment (3 hours 100 U/kg PC) pre and post fMLP</u>						
WT	10	58	$29 \pm 1$	$2000 \pm 100$	$1900 \pm 100$	$4100 \pm 500$
WT PC	11	60	$28 \pm 1$	$2100 \pm 100$	$1700 \pm 100$	$3900 \pm 200$
<i>Icam-1</i> <sup>-/-</sup>	7	40	$31 \pm 1$	$1900 \pm 100$	$1700 \pm 100$	$4400 \pm 500$
<i>Icam-1</i> <sup>-/-</sup> PC	11	44	$31 \pm 1$	$2000 \pm 50$	$1800 \pm 100$	$4200 \pm 300$
<i>RAGE</i> <sup>-/-</sup>	11	49	$29 \pm 1$	$2200 \pm 100$	$2000 \pm 100$	$3600 \pm 200$
<i>RAGE</i> <sup>-/-</sup> PC	12	62	$29 \pm 1$	$2200 \pm 100$	$1900 \pm 100$	$3800 \pm 200$
			n.s.	n.s.	n.s.	n.s.

Vessel diameter, centerline velocity and wall shear rate of surgically prepared cremaster muscle venules (Trauma) and tumor necrosis factor $\alpha$  (TNF $\alpha$ )-stimulated (pre and post fMLP-superfusion) cremaster muscle venules of wild-type (WT), *Icam1*<sup>-/-</sup> - and *RAGE*<sup>-/-</sup> mice with and without PC are presented as mean  $\pm$  SEM.

n.s., not significant.