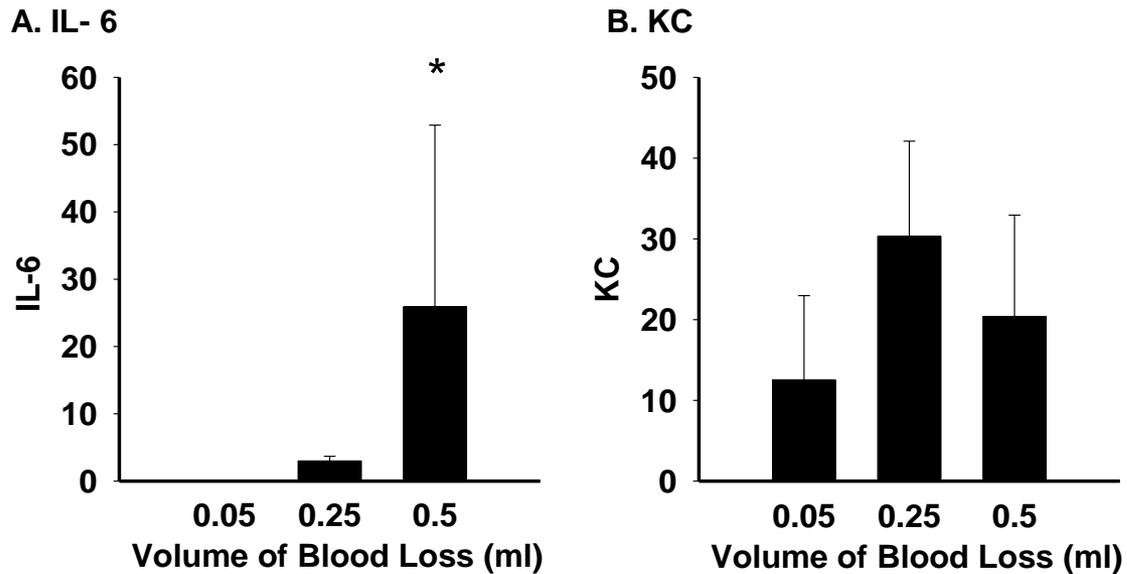
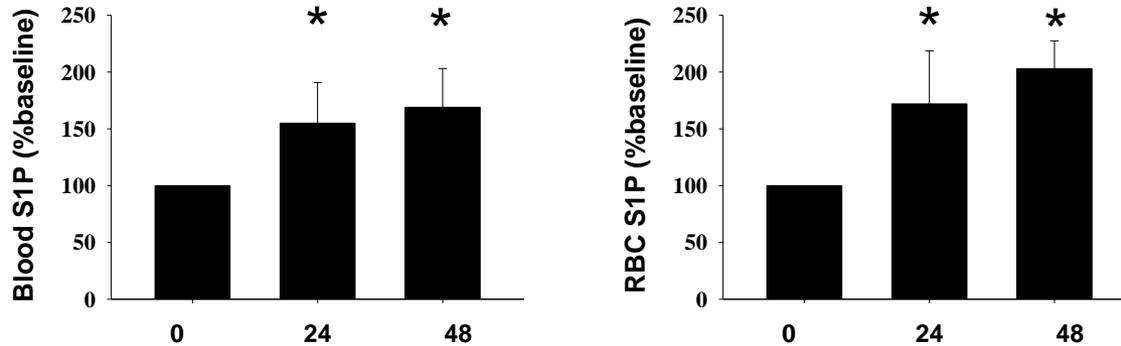


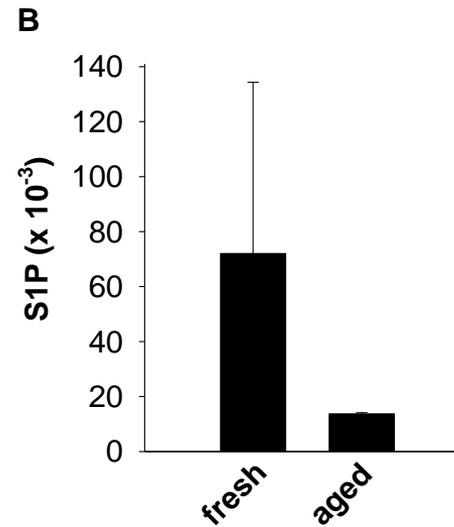
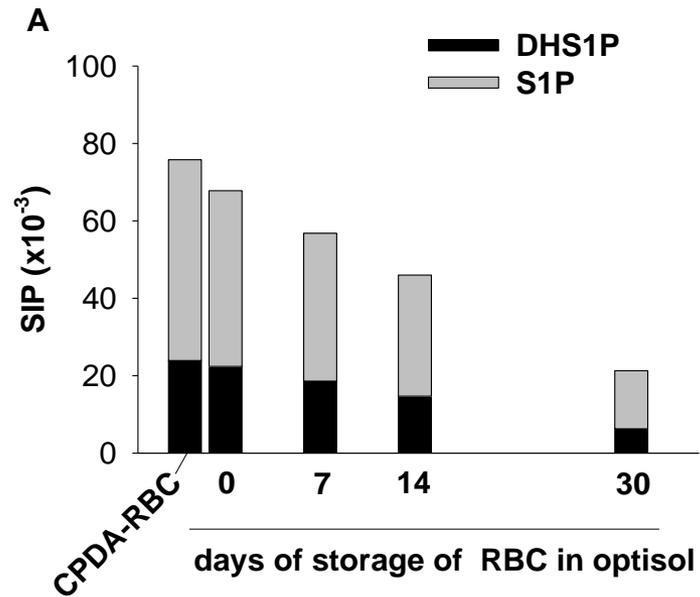
**Supplemental Figure 1. Effect of acute blood loss on plasma levels of inflammatory markers.** Plasma inflammatory markers were measured at the indicated times (0, 24, 48 hours) after major blood loss (0.02 ml/gm). Results are displayed as mean  $\pm$  SD.



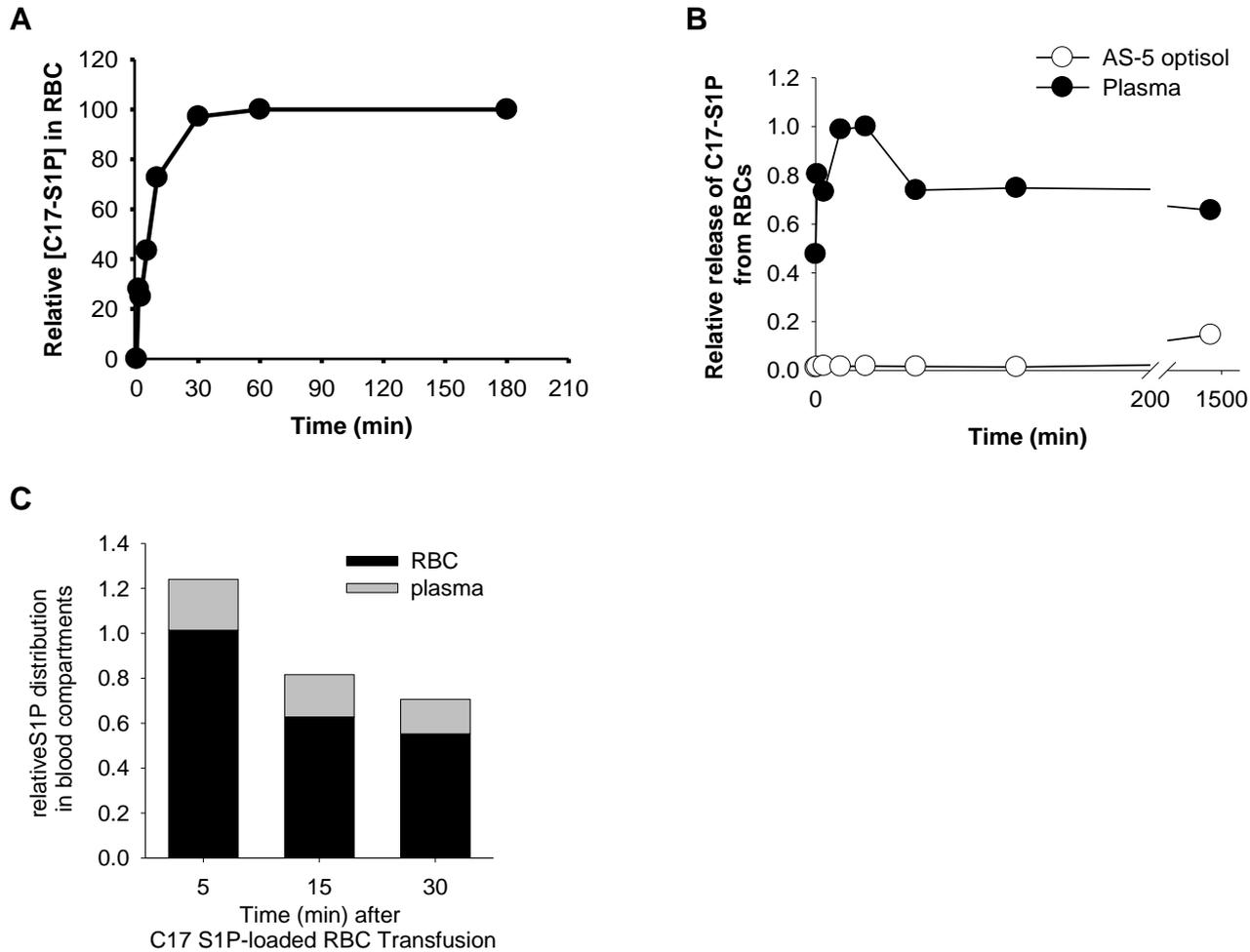
**Supplemental Figure 2. Effect of volume of blood loss on plasma levels of IL-6 and KC.** Indicated volumes of blood was collected from animals and inflammatory cytokines IL-6 (A) and KC (B) were measured at 48 hours. The increase in IL-6 was dependent on the volume of blood collected \* $P < 0.05$ , whereas the association of KC levels with volume of blood loss was not statistically significant ( $P = 0.15$ ). Results are displayed as mean  $\pm$  SD.



**Supplemental Figure 3. Effect of volume of blood loss on S1P levels of inflammatory markers.** Blood and RBC S1P levels were measured at the indicated times (0, 24, 48 hours) after major blood loss (0.02 ml/gm). Results are displayed as mean  $\pm$  SD.. \*P<0.05 by one-way ANOVA.



**Supplemental Figure 4. Decline in S1P and dihydroS1P (DHS1P) content of murine RBCs during storage.** A. RBCs were isolated in CPDA and stored in optisol. Aliquots (50  $\mu$ l) were removed at the indicated times to measure S1P and DHS1P content (reported in pmoles). B. S1P levels (mean  $\pm$  SD) in murine RBCs before and after storage for 30 days.



**Supplemental Figure 5. RBC S1P dynamics in vitro and in vivo.** A. RBCs accumulate exogenously supplied C17-S1P and can be loaded with C17-S1P within 30 min. B. Release of C17-S1P from loaded murine RBCs incubated in vitro with plasma (closed circles) or optisol (open circles). C. Following transfusion of loaded RBCs, C17-S1P is released from RBCs into plasma