Supplemental Table 1
Plasma and AA-stimulated platelet TxB_2 measurements

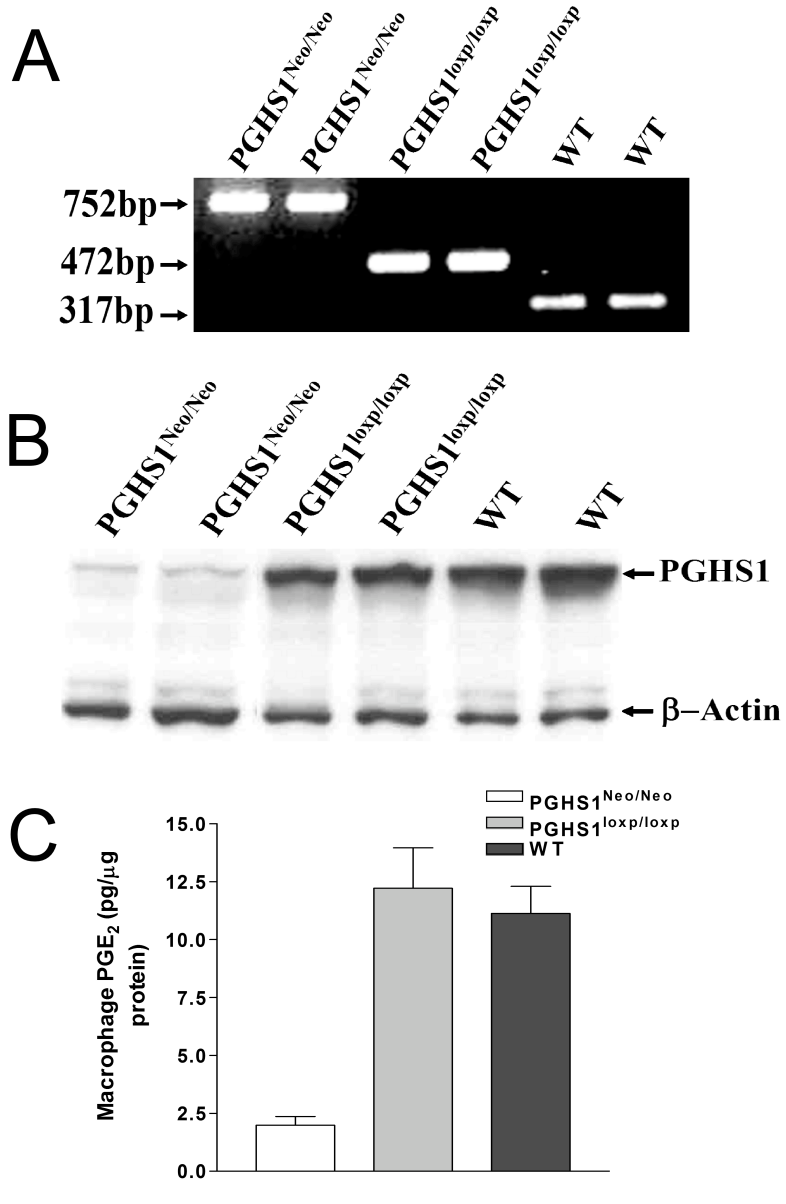
	Thromboxane B_2 (ng/ml)			
	WT	PGHS1$^{Neo/Neo}$	PGHS1 KO	ASA/WT^
Mouse Plasma	8.61 ± 0.05*	0.28 ± 0.01	0.12 ± 0.01	0.33±0.04
[AA]				
0.5 mM	340 ± 9.2*	9.9 ± 1.4	0.5 ± 0.06	ND
1.0 mM	356 ± 2.6*	10.4 ± 0.7	0.7 ± 0.01	ND
2.0 mM	412 ± 3.1*	11.7 ± 1.7	0.7 ± 0.03	ND
3.0 mM	489 ± 3.9*	13.0 ± 1.4	1.4 ± 0.02	ND

The heparinized blood samples were collected from the inferior vena cava. Plasma TxB_2 levels were measured by LC/MS/MS. Washed platelets ($2 \infty 10^8$/ml) were incubated with various concentrations of AA at 37 ^{0}C for 8 min and the induced TxB_2 production from each group was quantified. Values are presented as mean ± SEM, n = 3-4 mice/group. ^, Low dose aspirin was supplied to wild type mice by drinking (30 mg/L) for one week. * $P < 0.0001$ as compared with PGHS1$^{Neo/Neo}$ and PGHS1 KO mice. ND, not determined.

Supplemental Table 2
Selective inhibition of PGHS1 by SC-560 during late pregnancy delays full-time parturition in PGHS1$^{Neo/Neo}$ mice

Treatment	Gestation length (day)	Survival for 24 h (%)
Vehicle/PGHS1$^{Neo/Neo}$	19.2 ± 0.2 (n = 6)	91.4 % (43/47)
SC-560/PGHS1$^{Neo/Neo}$	21.5 ± 0.5 (n = 7)^	53.7 % (29/54)*

SC-560 (50 mg/kg oral gavage) was administered twice a day on gestation days 16 to 19. Gestation length is shown as mean ± SEM. ^, Significantly different from gestation length of mice treated with vehicle, $P < 0.001$. * Significantly different from vehicle treatment, $P < 0.05$.



Supplemental Figure 1 legend

Recovery of PGHS1 expression in EIIa Cre transgenic PGHS1$^{loxP/loxP}$ mice. (A) Genotype analysis of PGHS1$^{loxP/loxP}$ mice. The endogenous PGHS1 allele (WT) produces a 317 bp band. If the Neo gene is excised in vivo, a 472 bp product is amplified that contains one intact loxP site within the intron. (B) Western blot analysis of peritoneal macrophage protein from PGHS1^{loxP} mice. (C) PGE_2 production by peritoneal macrophages from PGHS1$^{loxP/loxP}$ mice. Both PGHS1 protein expression and PGE_2 products from PGHS1$^{loxP/loxP}$ mice were comparable to those from WT mice.