

**Supplemental Figure 1:** Peripheral platelet counts measured immediately after rpA (A, B) or LPS (C, D) challenge in TP hIL4R $\alpha$ /GPIb $\alpha$ -tg mice (dep) and TP hIL4R $\alpha$ /GPIb $\alpha$ -tg mice transfused with the indicated platelet preparations



Supplemental Figure 2: In vitro activation of platelets lacking functional ITAM receptors. Two-color flow cytometric analysis of resting or activated WT, JAQ1-treated WT,  $Clec2^{-/-}$  or JAQ1-treated  $Clec2^{-/-}$  platelets. Diluted washed platelets were stimulated with the indicated agonists, stained for activated  $\alpha$ II $\beta$ 3 and cell surface P-selectin and analyzed by flow cytometry. JAQ1 = blocking antibody to GPVI.



Supplemental Figure 3. Depletion of circulating hIL4R $\alpha$ /GPIb $\alpha$ -tg but not wild-type platelets by antibodies against hIL4R. hIL4R $\alpha$ /GPIb $\alpha$ -tg mice were transfused with 8 x 10<sup>8</sup> WT platelets followed by injection of an antibody against hIL4R (2.5 $\mu$ g/g body weight). Whole blood was isolated from mice immediately before (left panel) and after (middle panel) platelet transfusion, as well as one hour after injection of anti-hIL4R antibodies (right panel). Blood platelets were stained for surface expression of GPIb $\alpha$  and GPIX and immediately analyzed by flow cytometry. Note the selective depletion of GPIb $\alpha$ -negative (hIL4R $\alpha$ /GPIb $\alpha$ -tg) platelets after injection of an antibody against hIL4.