Figure S1. Low molecular weight heparin (LMWH) potentiates platelet activation via αIIbβ3

Similar to that observed for unfractionated heparin, LMWH (A) augments ADP-induced aggregation in solution, (B) initiates signaling via the Akt pathway and (C) supports platelet spreading in an αIIbβ3-dependent manner.

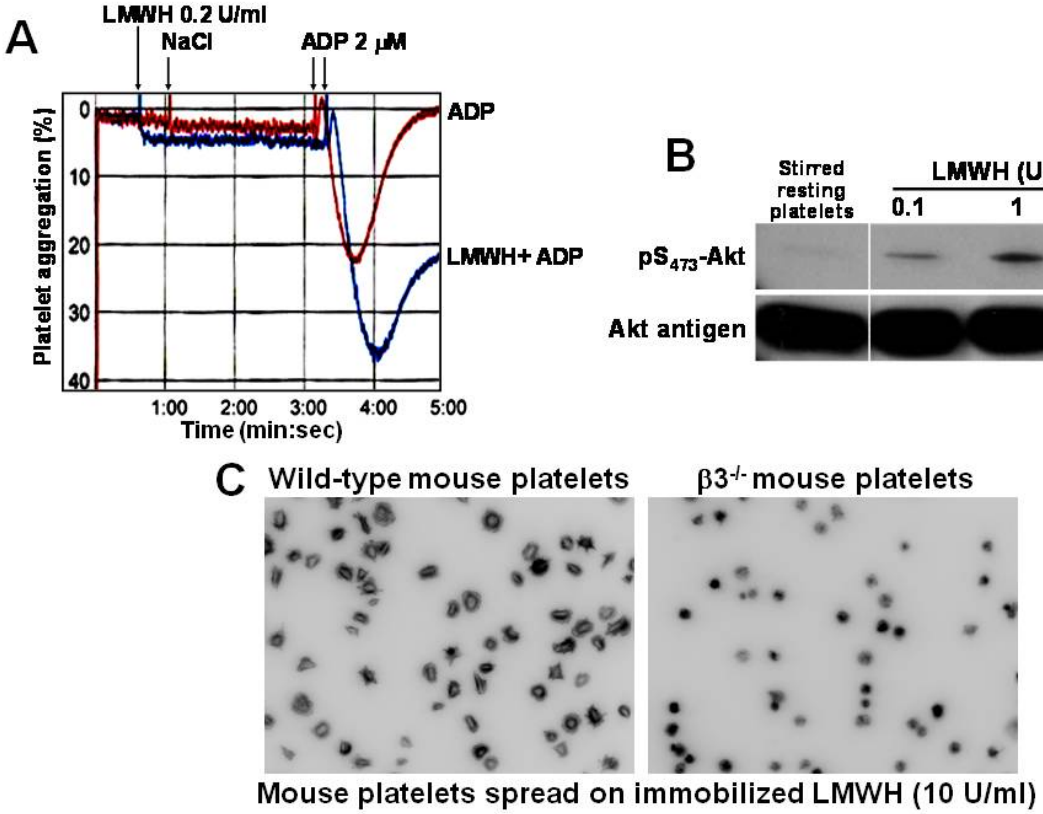

Figure S2. Fondaparinux (Arixtra™) potentiates platelet activation via αIIbβ3
Similar to that observed for unfractionated heparin, fondaparinux (A) augments ADP-induced aggregation in solution, (B) initiates signaling via the Akt pathway and (C) supports platelet spreading in an αIIbβ3-dependent manner that can be inhibited with the fiban eptifibatide.

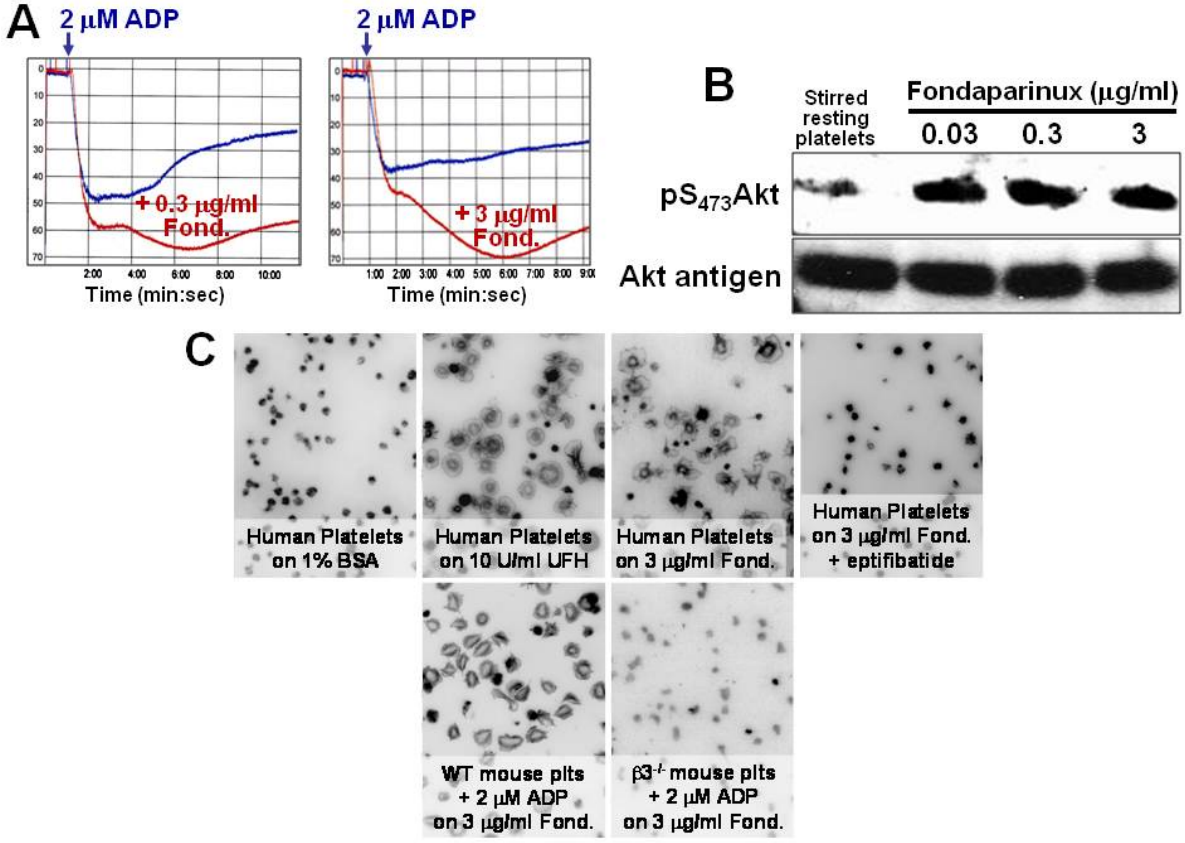

Figure S3. Dose-dependent Akt activation by unfractionated heparin
Washed human platelets (2.5×10^8/ml) were placed in an aggregometer cuvette at 37^oC in the absence or presence of different doses heparin (0.1, 1, and 1 unit/ml) for 2 min, lysed in SDS sample buffer, and subjected to immunoblot analysis using the indicated antibodies. Note that heparin even at 0.1 U/ml can cause Akt phosphorylation in platelets.

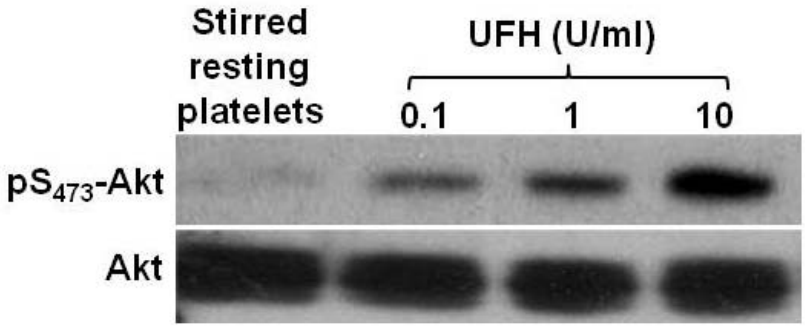

Figure S4. αIIbβ3 receptor angagonists inhibit phosphorylation of Akt induced by platelet adhesion to immobilized heparin

Washed human platelets were incubated with Eptifibatide (6.6 µg/ml), abciximab (10 µg/ml), or fab fragment of normal mouse Ig G (nFab, 10 µg/ml) for 5 mins before being exposed to heparin (10 U/ml)-coated plates. Platelets bound to immobilized heparin for 45 minutes, or those non-adherent to BSA, were subjected to SDS-PAGE/immunoblot analysis using the indicated antibodies. Note that pretreatment of platelets with αIIbβ3 antagonists, either eptifibatide or abciximab completely blocked immobilized heparin-induced Akt phosphorylation.