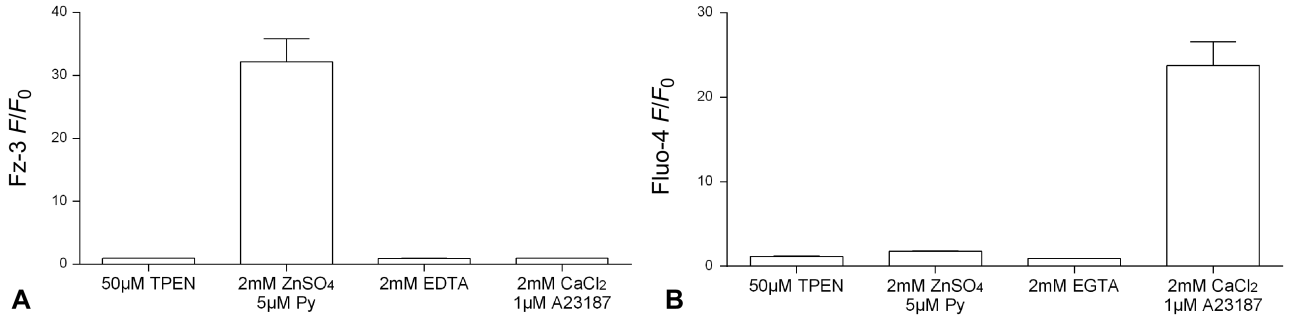
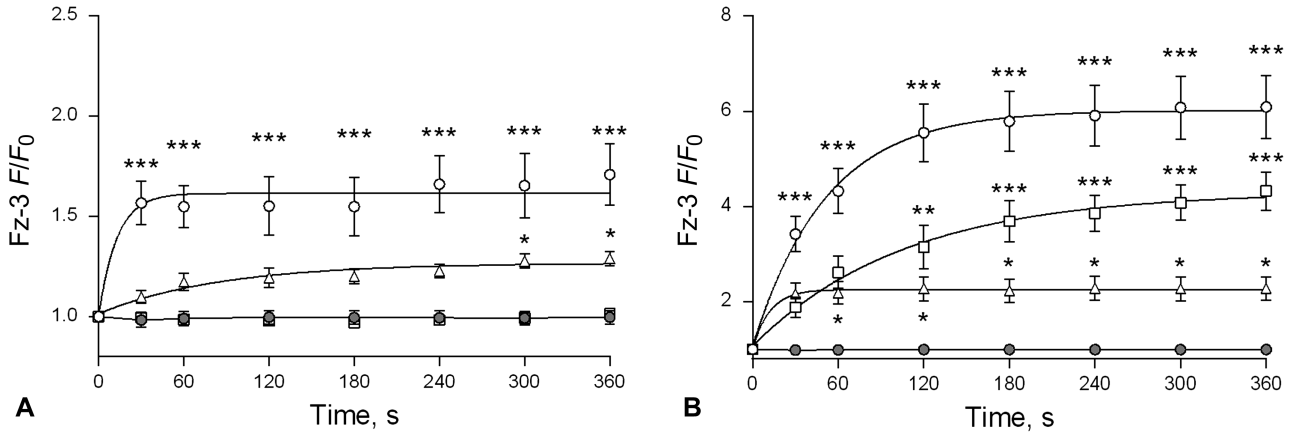



**Supplementary Fig. S1** Calibration of fluorophores. Washed Fz-3 (**A**) or Fluo-4 (**B**) loaded platelet suspensions were treated for 15 minutes with $Zn^{2+}$ or $Ca^{2+}$ ionophores in the presence of 2 mM $CaCl_2$ or $ZnSO_4$, to determine $R_{max}$ values. Fz-3 $R_{min}$ was obtained from platelets pre-treated for 15 minutes with 50 μM TPEN, while $R_{max}$ was obtained following co-incubation with 5 μM pyrithione (Py) with 2 mM $ZnSO_4$ for 15 minutes. Fluo-4 $R_{min}$ was obtained from platelets pre-treated for 15 minutes with 2 mM EGTA in the absence of extracellular $Ca^{2+}$, while $R_{max}$ was obtained following pre-incubation with 1 μM A23187 in the presence of 2 mM $CaCl_2$.




**Supplementary Fig. S2**. Extracellular calcium does not significantly affect agonist- or ionophore-evoked $[Zn^{2+}]_i$ fluctuations. Washed, Fz-3 loaded platelets suspended in Tyrode's buffer supplemented with 2 mM $CaCl_2$ were stimulated with platelet agonists (**A**); CRP-XL (1 μg/mL, ○), U46619 (10 μM, ○), thrombin (1 U/mL) or ionophores (**B**); clioquinol (□, 300 μM), pyrithione, (△, 300 μM), A23187 (○, 300 μM), during which changes in fluorescence were monitored. ● vehicle control (DMSO). Data are mean ± standard error of the mean (SEM) from at least 4 independent experiments. Significance is denoted as $^{***}p < 0.001$, $^{**}p < 0.01$ or $^{*}p < 0.05$.