



**Figure 1 - figure supplement 3.**

### PLCγ activation by the PDGFRβ inhibits TRPM3 activity.

TEVC measurements were performed as described in Materials and Methods, in *Xenopus* oocytes injected with cRNA encoding hTRMP3 and either the wild-type PDGFRβ (A) or the Y1009F-Y1021F mutant (B), which does not activate PLCγ. Currents are plotted at 100 mV (upper trace) and -100 mV (lower trace); the applications of 50 ng/ml PDGF and 50 μM PregS are indicated by the horizontal lines. Note the development of the transient  $\text{Ca}^{2+}$ -activated  $\text{Cl}^-$  current indicating PLC activation in oocytes expressing the wild-type PDGFRβ, and the lack of it in the experiments with the Y1009F-Y1021F mutant. (C) Summary of the inhibition at -100 mV. (D) Summary of the inhibition at 100 mV ( $n=6$  for both groups);  $b/a$  refers to the ratio between the current amplitudes at time points indicated by b and a in panels A and B. Statistical analysis was performed with two sample t-test \* $p=0.02$ , \*\*\* $p=0.0008$