



Supplementary Figure 1. Concentration dependence of washout of ATP evoked current (deactivation). Decays in current on removal of ATP were fitted with a single exponent and the time constant plotted against the concentration of ATP. Data are plotted for the human P2X2 receptor and the P2X1-2TM1 and P2X1-2TM2 chimeras. For the P2X2 receptor the decay time-constant showed a steep concentration dependence and reflects limitations in the solution exchange around the oocyte. The decay time-constant is also concentration dependent for the chimeras, however the slope of the change in considerably shallower (~ 3 fold decrease over 100 fold change in ATP compared to almost 20 fold for the P2X2 receptor). This suggests that for the chimeric receptors the slowed deactivation in comparison to the P2X2 receptor is likely to result from an effect of the replacement of the TM regions on channel properties.