



Fig. S13 Noise analysis for ztz240 activation on KCNQ2. **a** Current activated by bath solution ($I_{\text{max_Bath}}$) for control. The maximum open probability (P_{o_max}) is estimated to be $26.7 \pm 5\%$ ($n = 5$). **b** Current activated by ztz240 at $10 \mu\text{M}$ (saturating concentration) ($I_{\text{max_ztz240}}$). The P_{o_max} is estimated to be $55.8 \pm 12.1\%$ ($n = 5$). **c** Histogram indicates that ztz240 had no effect on unitary conductances, calculated from the slope of **(a)** and **(b)**. **d** Histogram shows an increased P_{o_max} activated by ztz240. $P_{o_max} = I_{\text{max}}/I_{\text{estimate}}$. Error bars represent mean \pm SEM ($n=5$).