

Supplemental Figure: Intracellular application of antibodies to K_{2P} channels inhibits the functions of the channels. HEK293 cells were transfected with cDNAs for TASK-1 (**A**), TASK-3 (**B**), TWIK-1 (**C**), TRESK (**D**), TREK-1 (**E**) and TREK-2 (**F**). Whole-cell recordings with pipettes containing corresponding antibodies were performed on the transfected cells. The recording electrodes were tip-filled with normal K^+ -gluconate-containing intracellular solution and back-filled with this solution containing corresponding antibodies (40 $\mu\text{g/ml}$). Holding currents at -55 mV were recorded after the formation of whole-cell configuration. Intracellular dialysis of individual antibodies to the HEK293 cells expressing the corresponding channels induced the development of an inward holding current (n=5-7 cells for each group, $p < 0.005$, two-way ANOVA) compared with control (application of irrelevant antibodies, anti-TREK-2 in **A**, **B**, **C**, **D**, **E** and anti-TREK-1 in **F**).

Supplemental Figure

