Supplementary Information

Human EAG channels are directly modulated by PIP$_2$ as revealed by electrophysiological and optical interference investigations

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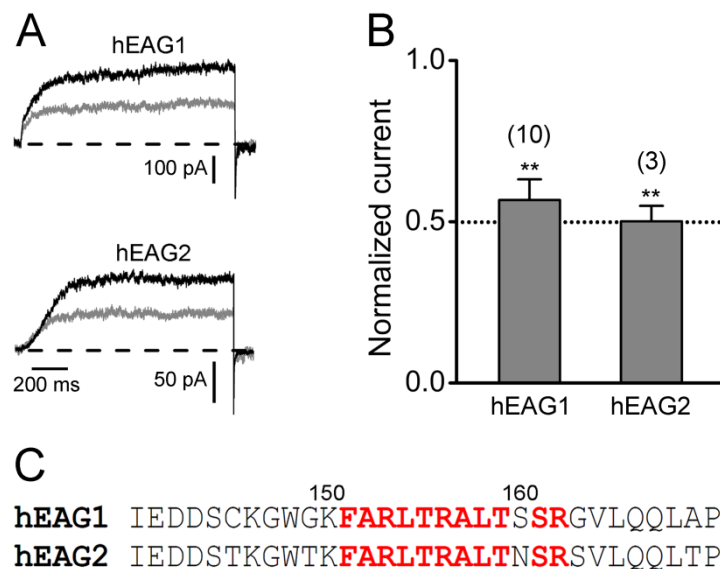
Figure S1: Both hEAG2 and hEAG1 channels are inhibited by PIP2. (A) Representative current traces of hEAG1 and hEAG2 channels before and 30 s

following application of 3 µM PIP2. The currents were elicited by pulses to 40 mV from a holding potential of –80 mV. (**B**) Normalized hEAG1 channel peak current before and after PIP2 (3 µM) application. $P < 0.01$ compared to the control level before PIP2 applications (Statistical significances were evaluated by one-way ANOVA with Student-Newman-Keuls's multiple comparisons test). (**C**) Sequence alignment of the N termini of hEAG1 and hEAG2 channels using ClustalW (http://www.ebi.ac.uk/Tools/msa/clustalw2/). The residues shown in red indicate the conserved residues that are key determinants of PIP2 inhibition on hEAG1 channels as shown in Figure 6.