Supplementary Figure 1.

Quantification of protein expression levels between experimental conditions.

Expression constructs were co-transfected as described in the Materials and Methods keeping the total amount of DNA constant. The levels of expressed proteins for which function was being examined experimentally were determined by western blotting, with band density quantified using ImageJ (NIH). Relative expression levels were analyzed by determining the ratio of p75-CTF (A; anti-intracellular p75^NTR, Promega), GIRK2 (C; anti-GIRK 2, Alomone) and PH-PLCδ-EYFP (E, anti-GFP) to α-tubulin. Ratios were made for each co-transfection combination from 3 experimental replica blots (B, D, F) and analyzed by ANOVA or student’s-test. No significant difference was found for any co-transfection condition.

Supplementary Figure 2

Immunostaining of endogenous GIRK1 subunits. (upper panels) Fluorescence (column 2) and relief contrast (column 1) photomicrographs of 4% paraformaldehyde-fixed GIRK1-transfected Cos 7 cells (row 1), PC12 cells (row 2) and DRG neurons (row 3) immunostained with anti-GIRK1 antibody (Chemicon) and Alexa goat α rabbit secondary antibody (Molecular Probes). Methanol-fixed DRG neuron immunostained for GIRK1 (row 4). Fluorescence (column 3) and relief contrast (column 4) photomicrographs of GIRK1-transfected Cos 7 cells (row 1), PC12 cells (row 2) and DRG neurons (row 3) immunostained with the anti-GIRK1 antibody preabsorbed with GIRK1 antigen Alexa goat anti-rabbit secondary antibody. (lower panels) Fluorescence (columns 2 and 3) and relief contrast (columns 1 and 4) photomicrographs of 4% paraformaldehyde-fixed GIRK1-transfected Cos 7 cells (top), PC12 cells (bottom, right) and DRG neurons (bottom left) immunostained with only the Alexa goat anti-rabbit secondary antibody (Molecular Probes). Camera
exposure times were kept constant for comparison of fluorescence between different conditions within cell types. Scale bar = 10 µm. GIRK1 expression in DRG neuron cultures was also demonstrated by western blotting and Affymetrix gene microarray analysis.

**Supplementary Figure 3**

*Immunostaining of endogenous GIRK2 subunits.* (**upper panels**) Fluorescence (column 2) and relief contrast (column 1) photomicrographs of 4% paraformaldehyde-fixed GIRK2-transfected Cos 7 cells (row 1), PC12 cells (row 2) and DRG neurons (row 3) immunostained with anti-GIRK2 antibody (Chemicon) and Alexa goat anti-rabbit secondary antibody (Molecular Probes). Fluorescence (column 3) and relief contrast (column 4) photomicrographs of GIRK1 transfected Cos 7 cells (row 1), PC12 cells (row 2) and DRG neurons (row 3) immunostained with the anti-GIRK1 antibody preabsorbed with GIRK2 antigen. (**lower panels**) Fluorescence (columns 2 and 3) and relief contrast (columns 1 and 4) photomicrographs of 4% paraformaldehyde-fixed GIRK1-transfected Cos 7 cells (top), PC12 cells (bottom, right) and DRG neurons (bottom left) immunostained with only the Alexa goat anti-rabbit secondary antibody (Molecular Probes). Camera exposure times were kept constant for comparison of fluorescence between different conditions within cell types. Scale bar = 10 µm. GIRK2 expression in PC12 cells and DRG neuron cultures was also demonstrated by western blotting and Affymetrix gene microarray analysis.