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Supplemental Material to:

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Cholesterol regulates HERG K+ channel activation by increasing phospholipase C β1 expression

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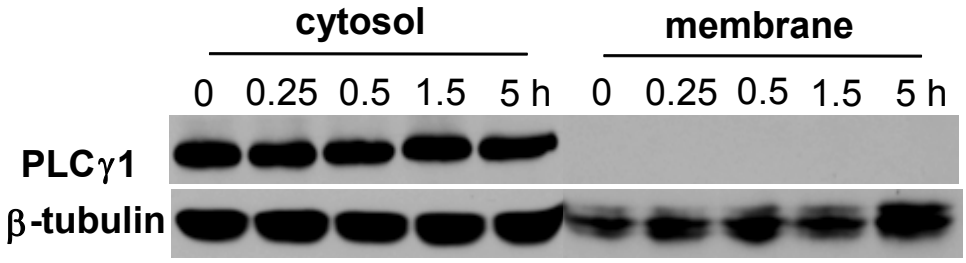
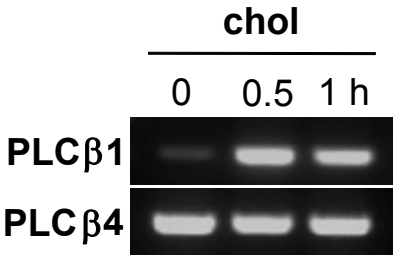
Supplemental Fig. 1



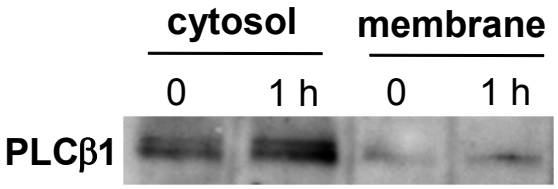
Supplemental Figure 1: The mild cholesterol enrichment did not alter the expression level of PLCγ1. HERG-transfected HEK293 cells were incubated with 25 μM MβCD-cholesterol for 0.25, 0.5, 1.5, and 5 h. Membrane and cytosol fractions were obtained as described in Materials and Methods, and monoclonal mouse antibody against PLCγ1 was used. Similar results were obtained from 3 different experiments. PLCγ1 expression was not changed by cholesterol in cytosol fraction. PLCγ1 expression was not observed in membrane fraction.

Supplemental Fig. 2



Supplemental Figure 2: The mild cholesterol enrichment increased the expression of PLCβ1 mRNA in HERG-transfected HEK293 cells. HERG-transfected HEK293 cells were incubated with 25 μM MβCD-cholesterol for 0.5 and 1 h, which was followed by isolating RNA as described in Materials and Methods. The expressions of both PLCβ1 and PLCβ4 mRNA were analyzed by RT-PCR. Similar results were obtained from 3 different experiments. The expression of PLCβ1 mRNA, but not that of PLCβ4 mRNA, was increased by cholesterol.

Supplemental Fig. 3



Supplemental Figure 3: The mild cholesterol enrichment increased PLCβ1 expressions from myocytes. Adult mouse ventricular myocytes was isolated as described previously (Ref. 21). Cells were incubated with 25 μM MβCD-cholesterol for 1 h, and membrane and cytosol fractions were obtained as described in Materials and Methods. PLCβ1 expression was increased by cholesterol from both cytosol and membrane fractions. Similar results were obtained from 3 different experiments.