**Supplementary 1.**

Cells (pBB-PLCβ1b and pBB-ev; 1 x 10⁷) were cultured in a 6-multiwell plate, treated with 250 µM of H₂O₂ or left untreated. After 48 and 72 hours, cells were observed under a bright field light microscope (Axio Observer.A1 microscope, equipped with an AxioCamHR3, Carl Zeiss) and images were acquired using a 32x lens, with the software AxioVision v.4.7.2.0.
Supplementary 2.

Cells (pBB-PLCβ1b and pBB-ev; 1 x 10^7) were treated with 250 μM of H_2O_2 for 1 hour, or left untreated. Cell lysates (80 μg) were separated by 10% SDS-PAGE and immunoblotted with specific antibodies directed against: PKR (1 μg/ml, 2 h), p-PKR (T451) (1:1000, overnight), Akt (1:1000, overnight), p-Akt (S473) (1:1000, overnight), PTEN (1:1000, overnight), p-PTEN (S380/T382/T383) (1:1000, overnight), Erk 1/2 (1:1000, overnight), p-Erk 1/2 (T202/T204) (1:1000, overnight) and GAPDH (1:8000, 1 h).
Supplementary 3.

Cells (pBB-PLCβ1b and pBB-ev; 5 x 10^6 in a 12-multiwell plate) were treated with 20 μM of Perifosin for 1.5 hours, then 250 μM of H_2O_2 were added for 24 hours. Apoptosis was evaluated by staining with Annexin V-7AAD (A), cell viability by cell counting with trypan blue exclusion (B) and cell cycle by propidium iodide staining (C). Graphs are representative for three independent experiments, each conducted in triplicates.
Cells (pBB-PLCβ1b and pBB-ev; 1 x 10^7 in a 6-multiwell plate) were treated with 20 μM of PD98059 for 1.5 hours, then 250 μM of H_2O_2 were added for 24 hours. A) Cell viability was evaluated by cell counting with trypan blue exclusion. T^0 represents the cell viability without treatments. The graph is representative for three independent experiments, each conducted in triplicates. B) Cell lysates (80 μg) were separated by 10% SDS-PAGE and immunoblotted with specific antibodies directed against: Erk 1/2 (1:1000, overnight), p-Erk 1/2 (T202/T204) (1:1000, overnight) and GAPDH (1:8000, 1 h).