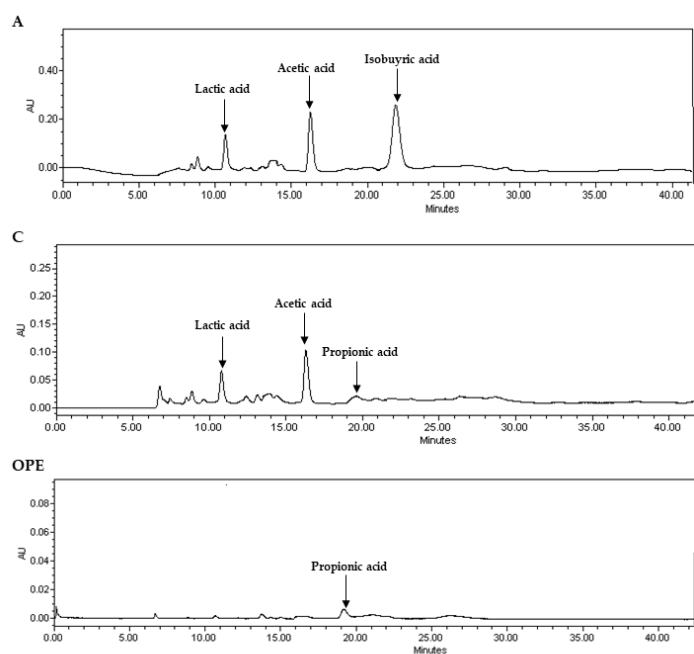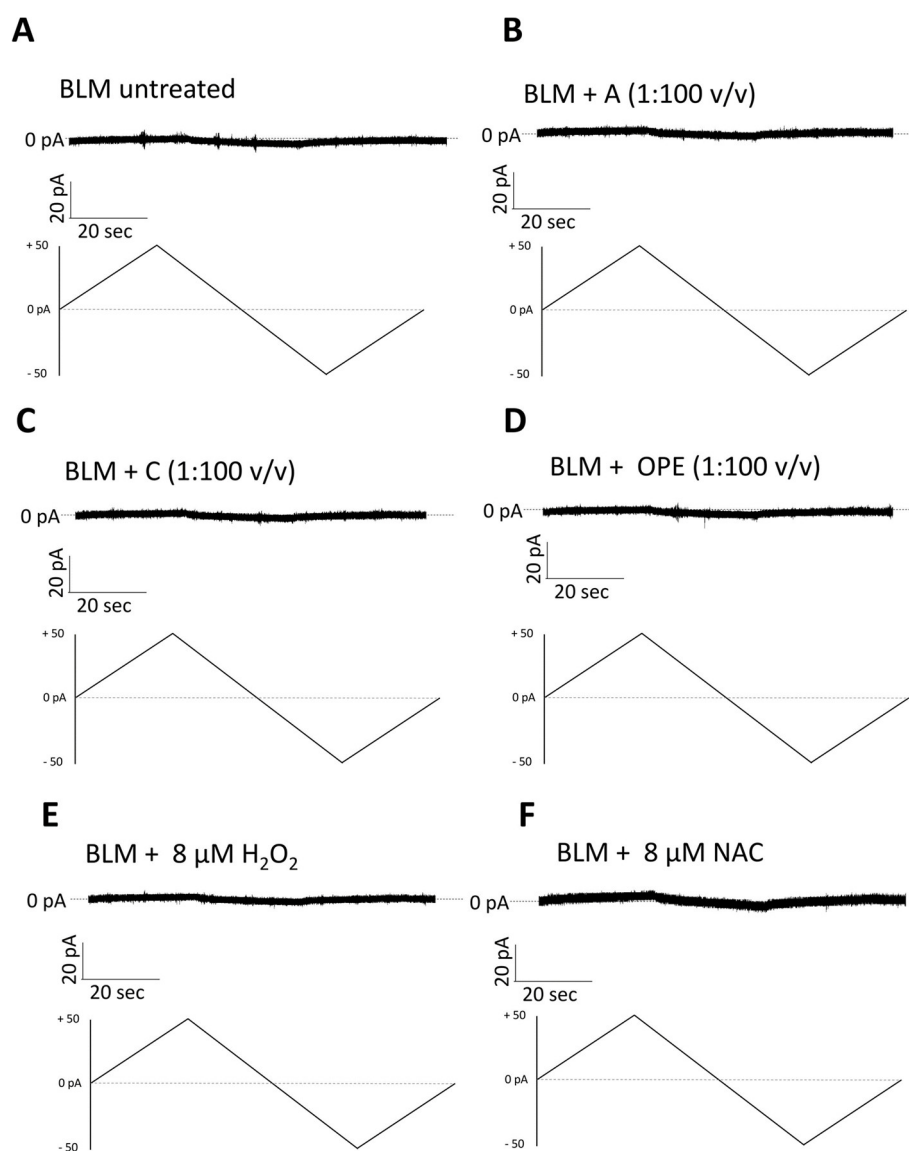**Figure S1**. HPLC Chromatogram of phenols of A, C and OPE sample detected at 280 nm.

Figure S2. HPLC Chromatogram of organic acids of A, C and OPE sample detected at 210 nm.

A

BLM untreated

B

BLM + A (1:100 v/v)

C

BLM + C (1:100 v/v)

D

BLM + OPE (1:100 v/v)

E

BLM + 8 µM H_2O_2

F

BLM + 8 µM NAC

Figure S3. Evaluation of the effect of tested samples, hydrogen peroxide and N-acetyl cysteine (NAC) on membrane stability by triangular voltage ramps. Samples A (B), C (C) and OPE (D), H_2O_2 (E) and NAC (F) were added to both sides of a DiphPC bilayer at a final concentration of 1:100 (v/v) and 8 µM, respectively, to exclude any interferent effect with the lipid membrane. In each experiment, the stability of the current signal was monitored upon application of a voltage ramp of ± 50 mV in 1 M KCl and compared to the signal of the bilayer membrane without any addition (A).
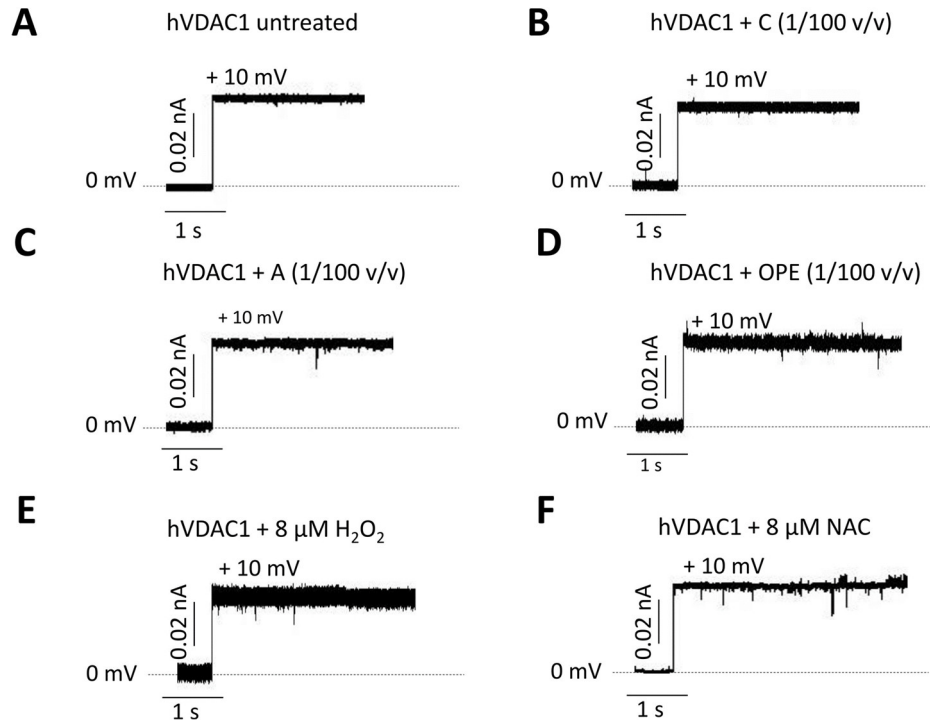
Figure S4. Single channel recordings of hVDAC1 in presence of tested samples, hydrogen peroxide and N-acetyl cysteine (NAC). Representative current traces registered upon no addition (A) or addition of samples A (B), C (C), and OPE (D), H2O2 (E) and NAC (F) to both sides of a DiphPC bilayer containing hVDAC1 at a final concentration of 1:100 (v/v) and 8 μM respectively. Current measurements were performed in symmetrical 1 M KCl at + 10 mV applied.