

Expanded View Figures

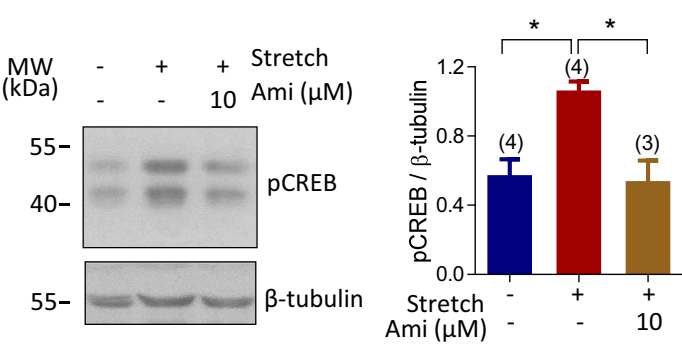


Figure EV1. Stretch induces ENaC-dependent CREB activation in human endometrial epithelial cells. Western blotting with quantification for pCREB in ISK cells with (+) or without (–) stretch (30 min, 15% elongation), in the absence (–) or presence (+) of Ami (10 μ M). Data are shown as mean $\pm$ SEM. *n* is indicated in each column. **P* < 0.05, one-way ANOVA with Tukey's multiple comparisons test. Exact *P*-values are listed in Appendix Table S1.

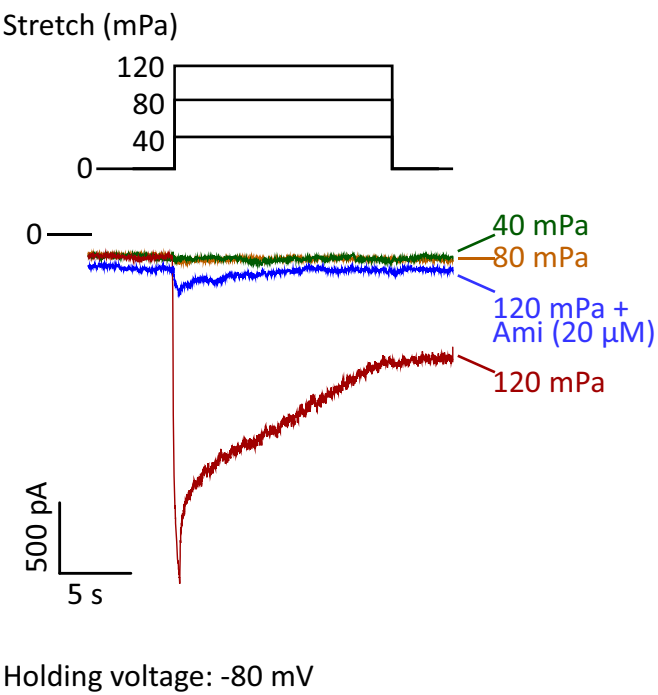


Figure EV2. Mechano-activation of ENaC in human endometrial epithelial cells. Whole-cell patch-clamp recording of human endometrial epithelial cells at holding voltage of –80 mV when stretches (40–120 mPa) were applied before and after addition of amiloride (Ami, 20 μ M).

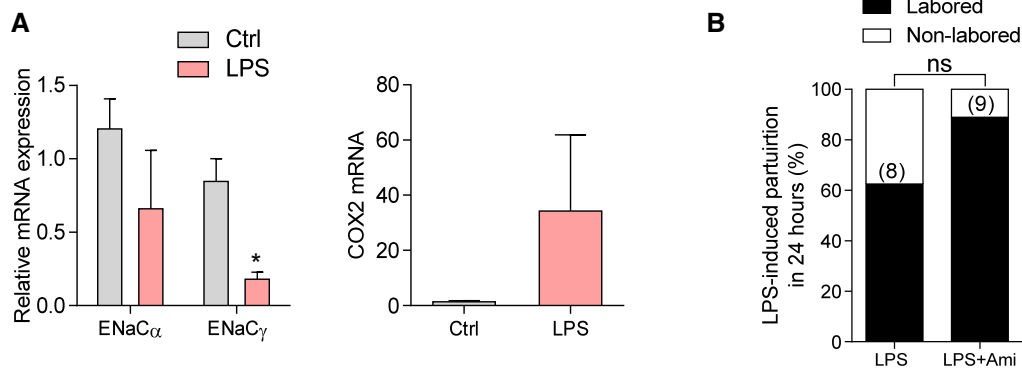


Figure EV3. Effect of amiloride on LPS-induced preterm labor in mice.

A qPCR analysis of ENaC α , γ and COX-2 in LPS (100 μ g per mouse, i.p.)-treated mice. Data are shown as mean $\pm$ SEM. $n = 3$, * $P < 0.05$, two-tailed unpaired Student's t -test.

B Effect of amiloride (Ami, 10 mg/kg body weight, i.p. every 8 h) on LPS-induced preterm labor in mice. Amiloride was injected right before and every 7–8 h after LPS injection cumulatively till the birth of the first pup. Data are percentages of mice labored within 24 h after LPS injection. n is shown in each column. ns, not significant, chi-square test.

Data information: Exact P -values are listed in Appendix Table S1.

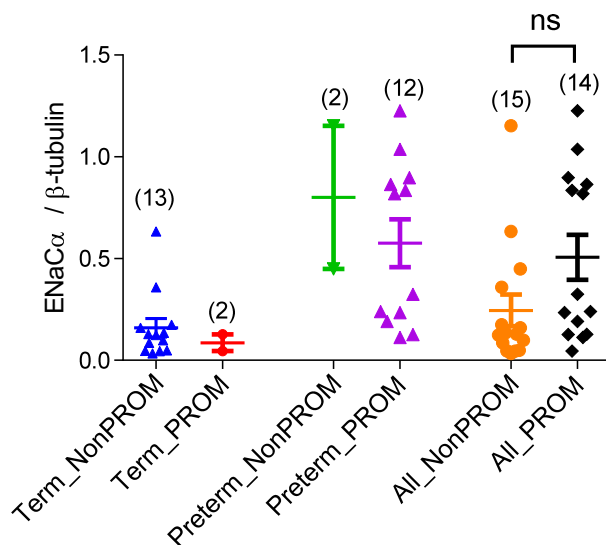


Figure EV4. ENaC expression in women with premature rupture of membrane (PROM).

Quantification of Western blotting for ENaC α (Fig 5) in placental tissues from women labored at term or preterm with or without PROM. Data are shown as mean $\pm$ SEM. n is indicated for each group. ns: $P > 0.05$, Mann–Whitney test. Exact P -values are listed in Appendix Table S1.

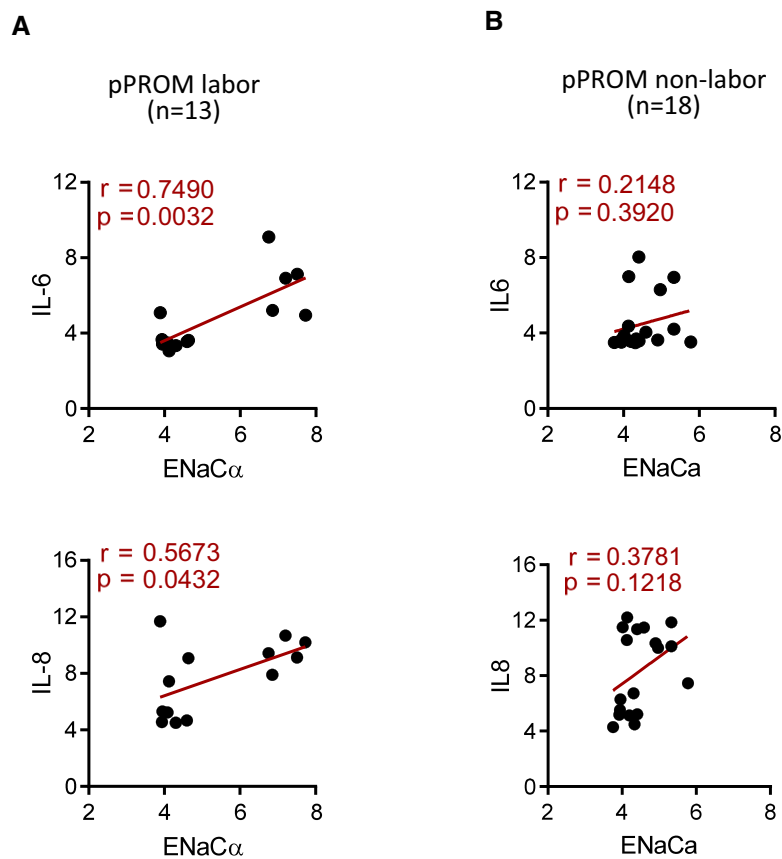


Figure EV5. ENaC is correlated with pro-inflammatory cytokines in women at labor.

A, B Gene expression correlation analysis between ENaC α and IL-6 and IL-8 in human maternal–fetus blood/tissue with preterm premature rupture of membrane (pPROM) labored (A, $n = 13$) or non-labored (B, $n = 18$). The microarray data were retrieved from a human database (Data ref. Baldwin, 2015). n is indicated for each group. Pearson correlation test and values of r and P are shown for each analysis.