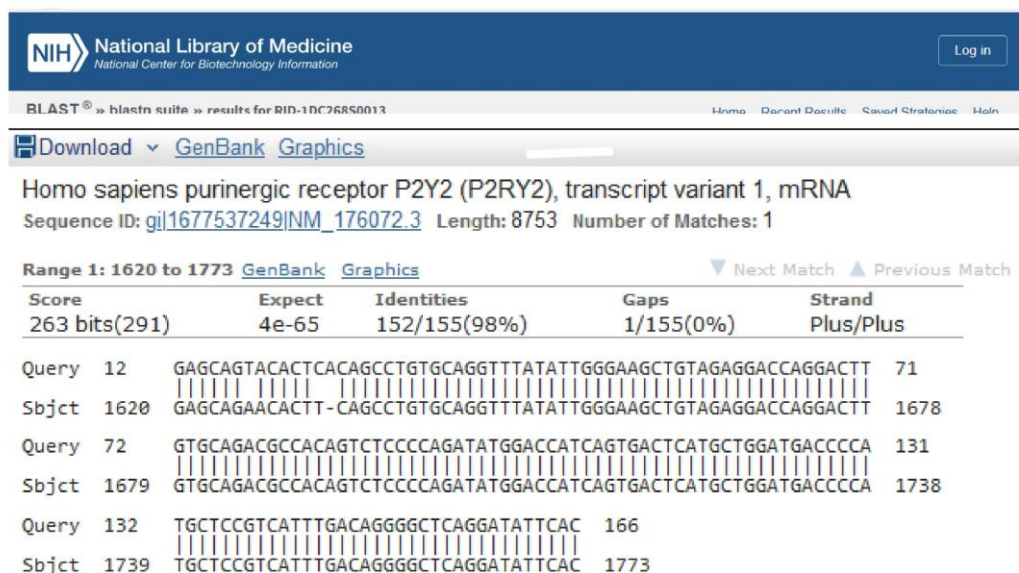
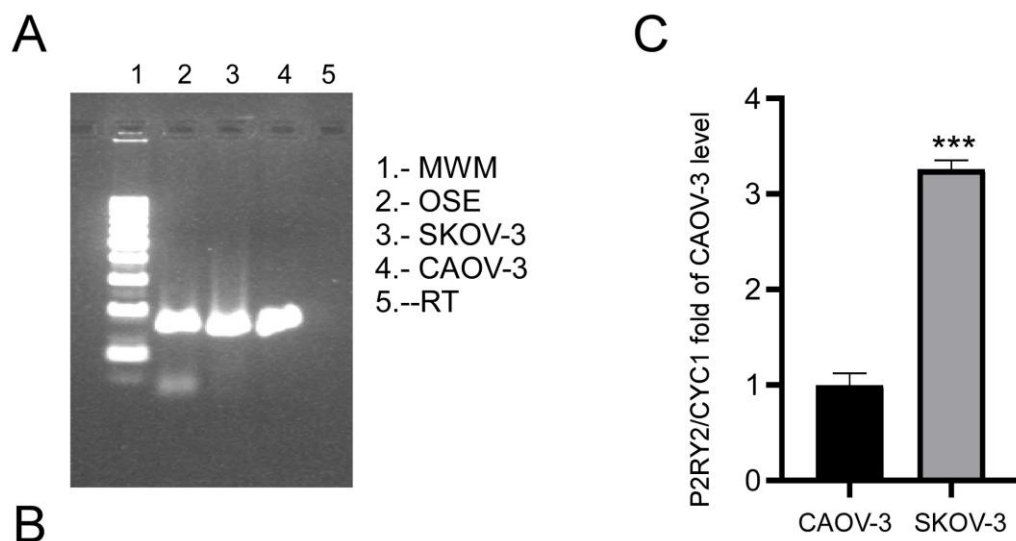
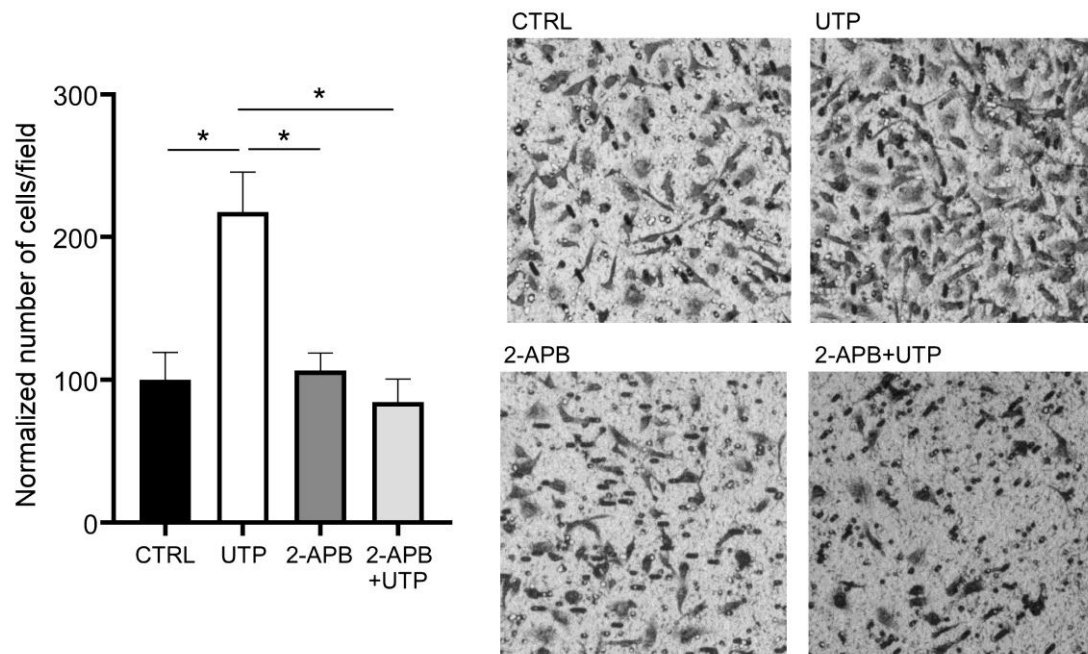


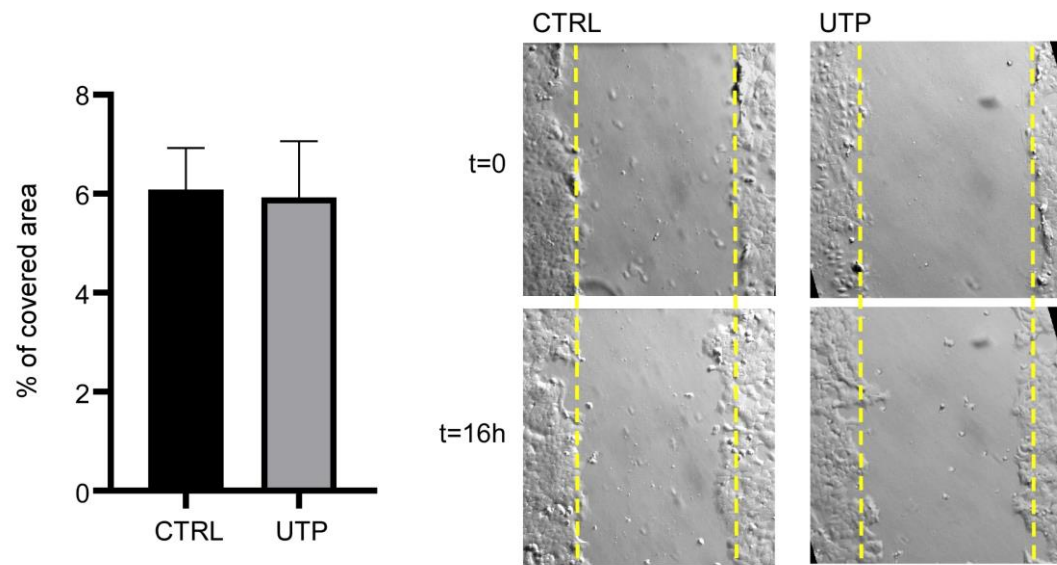
## Supplementary figures



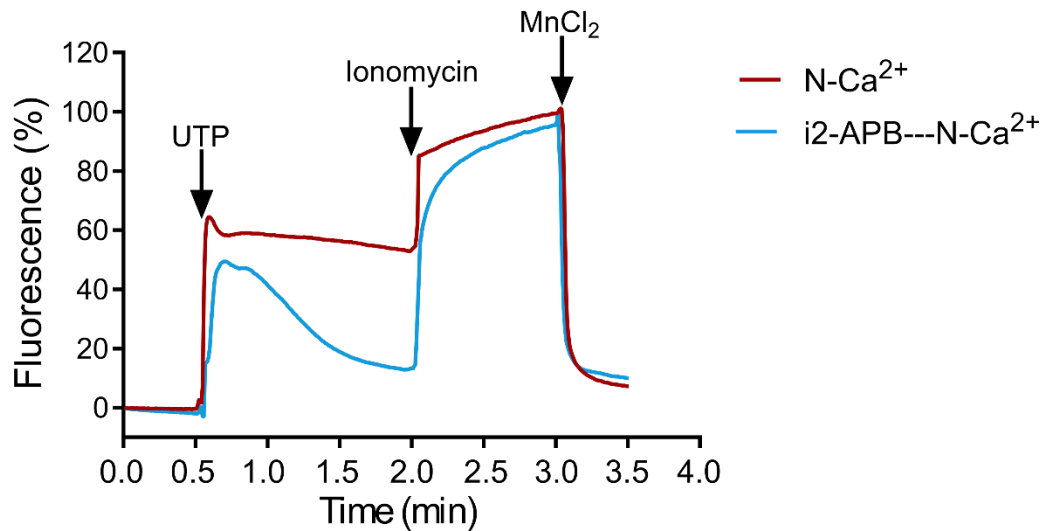
**Figure S1.** A) PCR amplification of P2RY2 transcript with specific oligonucleotides from hOSE, SKOV-3 and CAOV-3 cDNAs. B) Analysis of amplicon sequence obtained in A, in BLAST platform. C) Relative abundance of *P2RY2* transcript in CAOV-3 and SKOV-3 cell lines evaluated by quantitative PCR. \*\*\* $p < 0.001$  Student's t-test,  $N = 7$ .



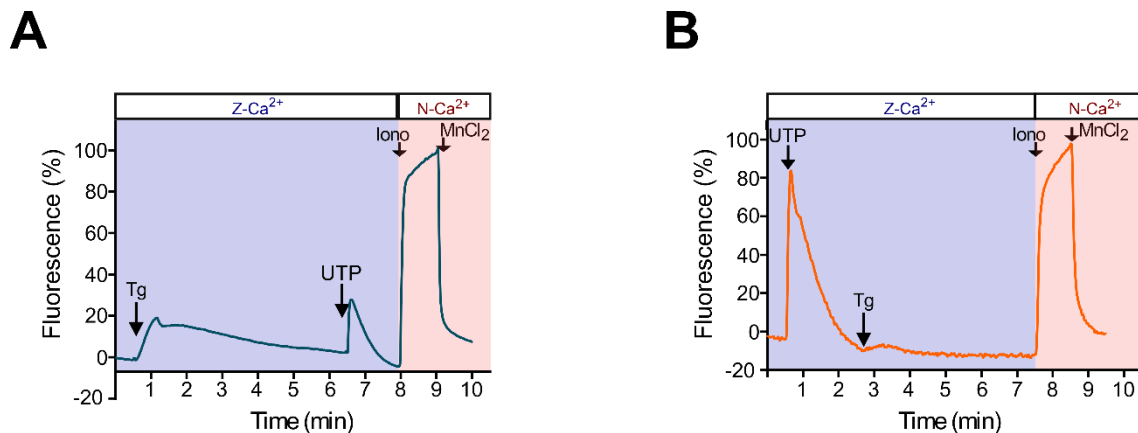
**Figure S2.** Inhibition of SOCE with 2-APB blocks UTP-induced cell migration of metastatic ovarian carcinoma SKOV-3 cells. In a Boyden's chamber assay, SKOV-3 cells were treated with 10  $\mu$ M UTP with or without preincubation with 1  $\mu$ M 2-APB by 16h, as described in Methods. Graph shows the mean  $\pm$  s.e.m. of the number of cells/field for each pharmacological treatment. Pictures show representative fields of each condition. Data were collected by counting 6 fields each from 3 independent experiments. \* $p > 0.05$  Student's-t test.



**Figure S3.** Cell migration of non-metastatic CAOV-3 cells is not modified by UTP. CAOV-3 cells were treated with 10  $\mu$ M UTP by 16 h and cell migration was evaluated by scratch assay as described in Methods. Graph shows the mean  $\pm$  s.e.m. of the covered area. Pictures are representative images of each experimental condition. Data were obtained by 5 areas each from 3 independent experiments and were analyzed by Student's-t test but not significant differences were observed.



**Figure S4.** The  $\text{Ca}^{2+}$  influx produced by UTP in metastatic SKOV-3 cells is due to SOCE activation. Representative  $\text{Ca}^{2+}$  fluorescence (Fluo-4) traces from SKOV-3 cells obtained in  $\text{N-Ca}^{2+}$  plus 2-APB. Cells were stimulated with  $10 \mu\text{M}$  UTP in  $\text{N-Ca}^{2+}$  extracellular solution, in presence or absence of 2-APB  $50 \mu\text{M}$ ; at the end of the protocol, ionomycin ( $10 \mu\text{M}$ ) and  $\text{MnCl}_2$  ( $5 \text{ mM}$ ) were sequentially applied to determine the maximum and minimum levels of intracellular  $\text{Ca}^{2+}$ , respectively. At least 100 cells were analyzed per experiment,  $n=3$ .



**Figure S5.** UTP is a potent inducer of intracellular  $\text{Ca}^{2+}$  reservoir depletion in SKOV-3 cells. Representative  $\text{Ca}^{2+}$  recordings performed in cultures of SKOV-3 cells loaded with Fluo-4 AM. Thapsigargin (Tg)  $1 \mu\text{M}$  (A) or UTP  $10 \mu\text{M}$  (B) was added in  $\text{Z-Ca}^{2+}$  extracellular solution at 30 s; then when the  $\text{Ca}^{2+}$  returned to basal levels, UTP  $10 \mu\text{M}$  (A) or (Tg)  $1 \mu\text{M}$  was added; at the end of the protocol extracellular  $\text{Ca}^{2+}$  was restored by addition of  $\text{N-Ca}^{2+}$  solution, and ionomycin ( $10 \mu\text{M}$ ) and  $\text{MnCl}_2$  ( $5 \text{ mM}$ ) were sequentially applied to determine the maximum and minimum levels of intracellular  $\text{Ca}^{2+}$ . At least 100 cells were analyzed per experiment,  $n=3$ .